



Amazon Sagemaker API Reference

# Amazon SageMaker



# Amazon SageMaker: Amazon Sagemaker API Reference

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# Welcome

## Amazon SageMaker Service

Provides APIs for creating and managing SageMaker resources.

Other Resources:

- [SageMaker Developer Guide](#)
- [Amazon Augmented AI Runtime API Reference](#)

## Amazon SageMaker Runtime

The Amazon SageMaker runtime API.

## Amazon Sagemaker Edge Manager

SageMaker Edge Manager dataplane service for communicating with active agents.

## Amazon SageMaker Feature Store Runtime

Contains all data plane API operations and data types for the Amazon SageMaker Feature Store. Use this API to put, delete, and retrieve (get) features from a feature store.

Use the following operations to configure your OnlineStore and OfflineStore features, and to create and manage feature groups:

- [CreateFeatureGroup](#)
- [DeleteFeatureGroup](#)
- [DescribeFeatureGroup](#)
- [ListFeatureGroups](#)

## Amazon SageMaker geospatial capabilities

Provides APIs for creating and managing SageMaker geospatial resources.

# Amazon SageMaker Metrics Service

Contains all data plane API operations and data types for Amazon SageMaker Metrics. Use these APIs to put and retrieve (get) features related to your training run.

- [BatchPutMetrics](#)

# Actions

The following actions are supported by Amazon SageMaker Service:

- [AddAssociation](#)
- [AddTags](#)
- [AssociateTrialComponent](#)
- [BatchDescribeModelPackage](#)
- [CreateAction](#)
- [CreateAlgorithm](#)
- [CreateApp](#)
- [CreateAppImageConfig](#)
- [CreateArtifact](#)
- [CreateAutoMLJob](#)
- [CreateAutoMLJobV2](#)
- [CreateCluster](#)
- [CreateCodeRepository](#)
- [CreateCompilationJob](#)
- [CreateContext](#)
- [CreateDataQualityJobDefinition](#)
- [CreateDeviceFleet](#)
- [CreateDomain](#)
- [CreateEdgeDeploymentPlan](#)
- [CreateEdgeDeploymentStage](#)
- [CreateEdgePackagingJob](#)
- [CreateEndpoint](#)
- [CreateEndpointConfig](#)
- [CreateExperiment](#)
- [CreateFeatureGroup](#)
- [CreateFlowDefinition](#)
- [CreateHub](#)



- [CreateHubContentReference](#)
- [CreateHumanTaskUi](#)
- [CreateHyperParameterTuningJob](#)
- [CreateImage](#)
- [CreateImageVersion](#)
- [CreateInferenceComponent](#)
- [CreateInferenceExperiment](#)
- [CreateInferenceRecommendationsJob](#)
- [CreateLabelingJob](#)
- [CreateMlflowTrackingServer](#)
- [CreateModel](#)
- [CreateModelBiasJobDefinition](#)
- [CreateModelCard](#)
- [CreateModelCardExportJob](#)
- [CreateModelExplainabilityJobDefinition](#)
- [CreateModelPackage](#)
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- [CreateModelQualityJobDefinition](#)
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- [CreatePresignedNotebookInstanceUrl](#)
- [CreateProcessingJob](#)
- [CreateProject](#)
- [CreateSpace](#)
- [CreateStudioLifecycleConfig](#)
- [CreateTrainingJob](#)

- [CreateTransformJob](#)
- [CreateTrial](#)
- [CreateTrialComponent](#)
- [CreateUserProfile](#)
- [CreateWorkforce](#)
- [CreateWorkteam](#)
- [DeleteAction](#)
- [DeleteAlgorithm](#)
- [DeleteApp](#)
- [DeleteAppImageConfig](#)
- [DeleteArtifact](#)
- [DeleteAssociation](#)
- [DeleteCluster](#)
- [DeleteCodeRepository](#)
- [DeleteCompilationJob](#)
- [DeleteContext](#)
- [DeleteDataQualityJobDefinition](#)
- [DeleteDeviceFleet](#)
- [DeleteDomain](#)
- [DeleteEdgeDeploymentPlan](#)
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- [DeleteHub](#)
- [DeleteHubContent](#)
- [DeleteHubContentReference](#)
- [DeleteHumanTaskUi](#)

- [DeleteHyperParameterTuningJob](#)
- [DeleteImage](#)
- [DeleteImageVersion](#)
- [DeleteInferenceComponent](#)
- [DeleteInferenceExperiment](#)
- [DeleteMlflowTrackingServer](#)
- [DeleteModel](#)
- [DeleteModelBiasJobDefinition](#)
- [DeleteModelCard](#)
- [DeleteModelExplainabilityJobDefinition](#)
- [DeleteModelPackage](#)
- [DeleteModelPackageGroup](#)
- [DeleteModelPackageGroupPolicy](#)
- [DeleteModelQualityJobDefinition](#)
- [DeleteMonitoringSchedule](#)
- [DeleteNotebookInstance](#)
- [DeleteNotebookInstanceLifecycleConfig](#)
- [DeletePipeline](#)
- [DeleteProject](#)
- [DeleteSpace](#)
- [DeleteStudioLifecycleConfig](#)
- [DeleteTags](#)
- [DeleteTrial](#)
- [DeleteTrialComponent](#)
- [DeleteUserProfile](#)
- [DeleteWorkforce](#)
- [DeleteWorkteam](#)
- [DeregisterDevices](#)
- [DescribeAction](#)
- [DescribeAlgorithm](#)

- [DescribeApp](#)
- [DescribeAppImageConfig](#)
- [DescribeArtifact](#)
- [DescribeAutoMLJob](#)
- [DescribeAutoMLJobV2](#)
- [DescribeCluster](#)
- [DescribeClusterNode](#)
- [DescribeCodeRepository](#)
- [DescribeCompilationJob](#)
- [DescribeContext](#)
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- [DescribeTrainingJob](#)
- [DescribeTransformJob](#)
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- [DescribeWorkforce](#)
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- [DisableSagemakerServicecatalogPortfolio](#)
- [DisassociateTrialComponent](#)
- [EnableSagemakerServicecatalogPortfolio](#)
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- [ListTrialComponents](#)
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- [ListWorkforces](#)
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- [QueryLineage](#)
- [RegisterDevices](#)
- [RenderUiTemplate](#)



- [RetryPipelineExecution](#)
- [Search](#)
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- [SendPipelineExecutionStepSuccess](#)
- [StartEdgeDeploymentStage](#)
- [StartInferenceExperiment](#)
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- [UpdateInferenceExperiment](#)
- [UpdateMlflowTrackingServer](#)
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- [UpdatePipeline](#)
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- [UpdateSpace](#)
- [UpdateTrainingJob](#)
- [UpdateTrial](#)
- [UpdateTrialComponent](#)

- [UpdateUserProfile](#)
- [UpdateWorkforce](#)
- [UpdateWorkteam](#)

The following actions are supported by Amazon SageMaker Runtime:

- [InvokeEndpoint](#)
- [InvokeEndpointAsync](#)
- [InvokeEndpointWithResponseStream](#)

The following actions are supported by Amazon Sagemaker Edge Manager:

- [GetDeployments](#)
- [GetDeviceRegistration](#)
- [SendHeartbeat](#)

The following actions are supported by Amazon SageMaker Feature Store Runtime:

- [BatchGetRecord](#)
- [DeleteRecord](#)
- [GetRecord](#)
- [PutRecord](#)

The following actions are supported by Amazon SageMaker geospatial capabilities:

- [DeleteEarthObservationJob](#)
- [DeleteVectorEnrichmentJob](#)
- [ExportEarthObservationJob](#)
- [ExportVectorEnrichmentJob](#)
- [GetEarthObservationJob](#)
- [GetRasterDataCollection](#)
- [GetTile](#)
- [GetVectorEnrichmentJob](#)

- [ListEarthObservationJobs](#)
- [ListRasterDataCollections](#)
- [ListTagsForResource](#)
- [ListVectorEnrichmentJobs](#)
- [SearchRasterDataCollection](#)
- [StartEarthObservationJob](#)
- [StartVectorEnrichmentJob](#)
- [StopEarthObservationJob](#)
- [StopVectorEnrichmentJob](#)
- [TagResource](#)
- [UntagResource](#)

The following actions are supported by Amazon SageMaker Metrics Service:

- [BatchPutMetrics](#)

## Amazon SageMaker Service

The following actions are supported by Amazon SageMaker Service:

- [AddAssociation](#)
- [AddTags](#)
- [AssociateTrialComponent](#)
- [BatchDescribeModelPackage](#)
- [CreateAction](#)
- [CreateAlgorithm](#)
- [CreateApp](#)
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- [CreateAutoMLJob](#)
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- [DeleteContext](#)
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- [DeleteDomain](#)
- [DeleteEdgeDeploymentPlan](#)
- [DeleteEdgeDeploymentStage](#)
- [DeleteEndpoint](#)
- [DeleteEndpointConfig](#)
- [DeleteExperiment](#)
- [DeleteFeatureGroup](#)
- [DeleteFlowDefinition](#)
- [DeleteHub](#)
- [DeleteHubContent](#)
- [DeleteHubContentReference](#)
- [DeleteHumanTaskUi](#)
- [DeleteHyperParameterTuningJob](#)
- [DeleteImage](#)
- [DeleteImageVersion](#)
- [DeleteInferenceComponent](#)
- [DeleteInferenceExperiment](#)
- [DeleteMlflowTrackingServer](#)
- [DeleteModel](#)
- [DeleteModelBiasJobDefinition](#)
- [DeleteModelCard](#)
- [DeleteModelExplainabilityJobDefinition](#)
- [DeleteModelPackage](#)
- [DeleteModelPackageGroup](#)
- [DeleteModelPackageGroupPolicy](#)
- [DeleteModelQualityJobDefinition](#)
- [DeleteMonitoringSchedule](#)

- [DeleteNotebookInstance](#)
- [DeleteNotebookInstanceLifecycleConfig](#)
- [DeletePipeline](#)
- [DeleteProject](#)
- [DeleteSpace](#)
- [DeleteStudioLifecycleConfig](#)
- [DeleteTags](#)
- [DeleteTrial](#)
- [DeleteTrialComponent](#)
- [DeleteUserProfile](#)
- [DeleteWorkforce](#)
- [DeleteWorkteam](#)
- [DeregisterDevices](#)
- [DescribeAction](#)
- [DescribeAlgorithm](#)
- [DescribeApp](#)
- [DescribeAppImageConfig](#)
- [DescribeArtifact](#)
- [DescribeAutoMLJob](#)
- [DescribeAutoMLJobV2](#)
- [DescribeCluster](#)
- [DescribeClusterNode](#)
- [DescribeCodeRepository](#)
- [DescribeCompilationJob](#)
- [DescribeContext](#)
- [DescribeDataQualityJobDefinition](#)
- [DescribeDevice](#)
- [DescribeDeviceFleet](#)
- [DescribeDomain](#)
- [DescribeEdgeDeploymentPlan](#)



- [DescribeEdgePackagingJob](#)
- [DescribeEndpoint](#)
- [DescribeEndpointConfig](#)
- [DescribeExperiment](#)
- [DescribeFeatureGroup](#)
- [DescribeFeatureMetadata](#)
- [DescribeFlowDefinition](#)
- [DescribeHub](#)
- [DescribeHubContent](#)
- [DescribeHumanTaskUi](#)
- [DescribeHyperParameterTuningJob](#)
- [DescribeImage](#)
- [DescribeImageVersion](#)
- [DescribeInferenceComponent](#)
- [DescribeInferenceExperiment](#)
- [DescribeInferenceRecommendationsJob](#)
- [DescribeLabelingJob](#)
- [DescribeLineageGroup](#)
- [DescribeMlflowTrackingServer](#)
- [DescribeModel](#)
- [DescribeModelBiasJobDefinition](#)
- [DescribeModelCard](#)
- [DescribeModelCardExportJob](#)
- [DescribeModelExplainabilityJobDefinition](#)
- [DescribeModelPackage](#)
- [DescribeModelPackageGroup](#)
- [DescribeModelQualityJobDefinition](#)
- [DescribeMonitoringSchedule](#)
- [DescribeNotebookInstance](#)
- [DescribeNotebookInstanceLifecycleConfig](#)

- [DescribePipeline](#)
- [DescribePipelineDefinitionForExecution](#)
- [DescribePipelineExecution](#)
- [DescribeProcessingJob](#)
- [DescribeProject](#)
- [DescribeSpace](#)
- [DescribeStudioLifecycleConfig](#)
- [DescribeSubscribedWorkteam](#)
- [DescribeTrainingJob](#)
- [DescribeTransformJob](#)
- [DescribeTrial](#)
- [DescribeTrialComponent](#)
- [DescribeUserProfile](#)
- [DescribeWorkforce](#)
- [DescribeWorkteam](#)
- [DisableSagemakerServicecatalogPortfolio](#)
- [DisassociateTrialComponent](#)
- [EnableSagemakerServicecatalogPortfolio](#)
- [GetDeviceFleetReport](#)
- [GetLineageGroupPolicy](#)
- [GetModelPackageGroupPolicy](#)
- [GetSagemakerServicecatalogPortfolioStatus](#)
- [GetScalingConfigurationRecommendation](#)
- [GetSearchSuggestions](#)
- [ImportHubContent](#)
- [ListActions](#)
- [ListAlgorithms](#)
- [ListAliases](#)
- [ListAppImageConfigs](#)
- [ListApps](#)

- [ListArtifacts](#)
- [ListAssociations](#)
- [ListAutoMLJobs](#)
- [ListCandidatesForAutoMLJob](#)
- [ListClusterNodes](#)
- [ListClusters](#)
- [ListCodeRepositories](#)
- [ListCompilationJobs](#)
- [ListContexts](#)
- [ListDataQualityJobDefinitions](#)
- [ListDeviceFleets](#)
- [ListDevices](#)
- [ListDomains](#)
- [ListEdgeDeploymentPlans](#)
- [ListEdgePackagingJobs](#)
- [ListEndpointConfigs](#)
- [ListEndpoints](#)
- [ListExperiments](#)
- [ListFeatureGroups](#)
- [ListFlowDefinitions](#)
- [ListHubContents](#)
- [ListHubContentVersions](#)
- [ListHubs](#)
- [ListHumanTaskUis](#)
- [ListHyperParameterTuningJobs](#)
- [ListImages](#)
- [ListImageVersions](#)
- [ListInferenceComponents](#)
- [ListInferenceExperiments](#)
- [ListInferenceRecommendationsJobs](#)

- [ListInferenceRecommendationsJobSteps](#)
- [ListLabelingJobs](#)
- [ListLabelingJobsForWorkteam](#)
- [ListLineageGroups](#)
- [ListMlflowTrackingServers](#)
- [ListModelBiasJobDefinitions](#)
- [ListModelCardExportJobs](#)
- [ListModelCards](#)
- [ListModelCardVersions](#)
- [ListModelExplainabilityJobDefinitions](#)
- [ListModelMetadata](#)
- [ListModelPackageGroups](#)
- [ListModelPackages](#)
- [ListModelQualityJobDefinitions](#)
- [ListModel](#)
- [ListMonitoringAlertHistory](#)
- [ListMonitoringAlerts](#)
- [ListMonitoringExecutions](#)
- [ListMonitoringSchedules](#)
- [ListNotebookInstanceLifecycleConfigs](#)
- [ListNotebookInstances](#)
- [ListPipelineExecutions](#)
- [ListPipelineExecutionSteps](#)
- [ListPipelineParametersForExecution](#)
- [ListPipelines](#)
- [ListProcessingJobs](#)
- [ListProjects](#)
- [ListResourceCatalogs](#)
- [ListSpaces](#)
- [ListStageDevices](#)

- [ListStudioLifecycleConfigs](#)
- [ListSubscribedWorkteams](#)
- [ListTags](#)
- [ListTrainingJobs](#)
- [ListTrainingJobsForHyperParameterTuningJob](#)
- [ListTransformJobs](#)
- [ListTrialComponents](#)
- [ListTrials](#)
- [ListUserProfiles](#)
- [ListWorkforces](#)
- [ListWorkteams](#)
- [PutModelPackageGroupPolicy](#)
- [QueryLineage](#)
- [RegisterDevices](#)
- [RenderUiTemplate](#)
- [RetryPipelineExecution](#)
- [Search](#)
- [SendPipelineExecutionStepFailure](#)
- [SendPipelineExecutionStepSuccess](#)
- [StartEdgeDeploymentStage](#)
- [StartInferenceExperiment](#)
- [StartMlflowTrackingServer](#)
- [StartMonitoringSchedule](#)
- [StartNotebookInstance](#)
- [StartPipelineExecution](#)
- [StopAutoMLJob](#)
- [StopCompilationJob](#)
- [StopEdgeDeploymentStage](#)
- [StopEdgePackagingJob](#)
- [StopHyperParameterTuningJob](#)

- [StopInferenceExperiment](#)
- [StopInferenceRecommendationsJob](#)
- [StopLabelingJob](#)
- [StopMlflowTrackingServer](#)
- [StopMonitoringSchedule](#)
- [StopNotebookInstance](#)
- [StopPipelineExecution](#)
- [StopProcessingJob](#)
- [StopTrainingJob](#)
- [StopTransformJob](#)
- [UpdateAction](#)
- [UpdateAppImageConfig](#)
- [UpdateArtifact](#)
- [UpdateCluster](#)
- [UpdateClusterSoftware](#)
- [UpdateCodeRepository](#)
- [UpdateContext](#)
- [UpdateDeviceFleet](#)
- [UpdateDevices](#)
- [UpdateDomain](#)
- [UpdateEndpoint](#)
- [UpdateEndpointWeightsAndCapacities](#)
- [UpdateExperiment](#)
- [UpdateFeatureGroup](#)
- [UpdateFeatureMetadata](#)
- [UpdateHub](#)
- [UpdateImage](#)
- [UpdateImageVersion](#)
- [UpdateInferenceComponent](#)
- [UpdateInferenceComponentRuntimeConfig](#)

- [UpdateInferenceExperiment](#)
- [UpdateMlflowTrackingServer](#)
- [UpdateModelCard](#)
- [UpdateModelPackage](#)
- [UpdateMonitoringAlert](#)
- [UpdateMonitoringSchedule](#)
- [UpdateNotebookInstance](#)
- [UpdateNotebookInstanceLifecycleConfig](#)
- [UpdatePipeline](#)
- [UpdatePipelineExecution](#)
- [UpdateProject](#)
- [UpdateSpace](#)
- [UpdateTrainingJob](#)
- [UpdateTrial](#)
- [UpdateTrialComponent](#)
- [UpdateUserProfile](#)
- [UpdateWorkforce](#)
- [UpdateWorkteam](#)

# AddAssociation

Service: Amazon SageMaker Service

Creates an *association* between the source and the destination. A source can be associated with multiple destinations, and a destination can be associated with multiple sources. An association is a lineage tracking entity. For more information, see [Amazon SageMaker ML Lineage Tracking](#).

## Request Syntax

```
{
  "AssociationType": "string",
  "DestinationArn": "string",
  "SourceArn": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AssociationType

The type of association. The following are suggested uses for each type. Amazon SageMaker places no restrictions on their use.

- **ContributedTo** - The source contributed to the destination or had a part in enabling the destination. For example, the training data contributed to the training job.
- **AssociatedWith** - The source is connected to the destination. For example, an approval workflow is associated with a model deployment.
- **DerivedFrom** - The destination is a modification of the source. For example, a digest output of a channel input for a processing job is derived from the original inputs.
- **Produced** - The source generated the destination. For example, a training job produced a model artifact.

Type: String

Valid Values: ContributedTo | AssociatedWith | DerivedFrom | Produced | SameAs



Required: No

### DestinationArn

The Amazon Resource Name (ARN) of the destination.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

Required: Yes

### SourceArn

The ARN of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

Required: Yes

## Response Syntax

```
{
  "DestinationArn": "string",
  "SourceArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### DestinationArn

The Amazon Resource Name (ARN) of the destination.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

### SourceArn

The ARN of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# AddTags

Service: Amazon SageMaker Service

Adds or overwrites one or more tags for the specified SageMaker resource. You can add tags to notebook instances, training jobs, hyperparameter tuning jobs, batch transform jobs, models, labeling jobs, work teams, endpoint configurations, and endpoints.

Each tag consists of a key and an optional value. Tag keys must be unique per resource. For more information about tags, see [For more information, see AWS Tagging Strategies](#).

## Note

Tags that you add to a hyperparameter tuning job by calling this API are also added to any training jobs that the hyperparameter tuning job launches after you call this API, but not to training jobs that the hyperparameter tuning job launched before you called this API. To make sure that the tags associated with a hyperparameter tuning job are also added to all training jobs that the hyperparameter tuning job launches, add the tags when you first create the tuning job by specifying them in the Tags parameter of [CreateHyperParameterTuningJob](#)

## Note

Tags that you add to a SageMaker Domain or User Profile by calling this API are also added to any Apps that the Domain or User Profile launches after you call this API, but not to Apps that the Domain or User Profile launched before you called this API. To make sure that the tags associated with a Domain or User Profile are also added to all Apps that the Domain or User Profile launches, add the tags when you first create the Domain or User Profile by specifying them in the Tags parameter of [CreateDomain](#) or [CreateUserProfile](#).

## Request Syntax

```
{
  "ResourceArn": "string",
  "Tags": [
    {
      "Key": "string",
```

```
    "Value": "string"  
  }  
]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [ResourceArn](#)

The Amazon Resource Name (ARN) of the resource that you want to tag.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z-]*:sagemaker:[a-z0-9-]*:[0-9]{12}:.+`

Required: Yes

### [Tags](#)

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: Yes

## Response Syntax

```
{  
  "Tags": [  
    {  
      "Key": "string",  
      "Value": "string"  
    }  
  ]  
}
```

```
]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Tags

A list of tags associated with the SageMaker resource.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# AssociateTrialComponent

Service: Amazon SageMaker Service

Associates a trial component with a trial. A trial component can be associated with multiple trials. To disassociate a trial component from a trial, call the [DisassociateTrialComponent](#) API.

## Request Syntax

```
{
  "TrialComponentName": "string",
  "TrialName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### TrialComponentName

The name of the component to associated with the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

### TrialName

The name of the trial to associate with.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{  
  "TrialArn": "string",  
  "TrialComponentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### TrialArn

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial/.*`

### TrialComponentArn

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial-component/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.



HTTP Status Code: 400

## **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# BatchDescribeModelPackage

Service: Amazon SageMaker Service

This action batch describes a list of versioned model packages

## Request Syntax

```
{
  "ModelPackageArnList": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ModelPackageArnList

The list of Amazon Resource Name (ARN) of the model package groups.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:model-package/[\S]{1,2048}$`

Required: Yes

## Response Syntax

```
{
  "BatchDescribeModelPackageErrorMap": {
    "string" : {
      "ErrorCode": "string",
      "ErrorResponse": "string"
    }
  },
  "ModelPackageSummaries": {
```

```

"string" : {
  "CreationTime": number,
  "InferenceSpecification": {
    "Containers": [
      {
        "AdditionalS3DataSource": {
          "CompressionType": "string",
          "S3DataType": "string",
          "S3Uri": "string"
        },
        "ContainerHostname": "string",
        "Environment": {
          "string" : "string"
        },
        "Framework": "string",
        "FrameworkVersion": "string",
        "Image": "string",
        "ImageDigest": "string",
        "ModelDataSource": {
          "S3DataSource": {
            "CompressionType": "string",
            "HubAccessConfig": {
              "HubContentArn": "string"
            },
            "ModelAccessConfig": {
              "AcceptEula": boolean
            },
            "S3DataType": "string",
            "S3Uri": "string"
          }
        },
        "ModelDataUrl": "string",
        "ModelInput": {
          "DataInputConfig": "string"
        },
        "NearestModelName": "string",
        "ProductId": "string"
      }
    ],
    "SupportedContentTypes": [ "string" ],
    "SupportedRealtimeInferenceInstanceTypes": [ "string" ],
    "SupportedResponseMIMETypes": [ "string" ],
    "SupportedTransformInstanceTypes": [ "string" ]
  },

```

```

    "ModelApprovalStatus": "string",
    "ModelPackageArn": "string",
    "ModelPackageDescription": "string",
    "ModelPackageGroupName": "string",
    "ModelPackageStatus": "string",
    "ModelPackageVersion": number
  }
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### BatchDescribeModelPackageErrorMap

A map of the resource and BatchDescribeModelPackageError objects reporting the error associated with describing the model package.

Type: String to [BatchDescribeModelPackageError](#) object map

Key Length Constraints: Minimum length of 1. Maximum length of 2048.

Key Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-]{9,16}:[0-9]{12}:model-package/[\S]{1,2048}$`

### ModelPackageSummaries

The summaries for the model package versions

Type: String to [BatchDescribeModelPackageSummary](#) object map

Key Length Constraints: Minimum length of 1. Maximum length of 2048.

Key Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-]{9,16}:[0-9]{12}:model-package/[\S]{1,2048}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateAction

Service: Amazon SageMaker Service

Creates an *action*. An action is a lineage tracking entity that represents an action or activity. For example, a model deployment or an HPO job. Generally, an action involves at least one input or output artifact. For more information, see [Amazon SageMaker ML Lineage Tracking](#).

## Request Syntax

```
{
  "ActionName": "string",
  "ActionType": "string",
  "Description": "string",
  "MetadataProperties": {
    "CommitId": "string",
    "GeneratedBy": "string",
    "ProjectId": "string",
    "Repository": "string"
  },
  "Properties": {
    "string" : "string"
  },
  "Source": {
    "SourceId": "string",
    "SourceType": "string",
    "SourceUri": "string"
  },
  "Status": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## ActionName

The name of the action. Must be unique to your account in an AWS Region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## ActionType

The action type.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

## Description

The description of the action.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: `.*`

Required: No

## MetadataProperties

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties](#) object

Required: No

## Properties

A list of properties to add to the action.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 2500.

Key Pattern: . \*

Value Length Constraints: Maximum length of 2500.

Value Pattern: . \*

Required: No

### Source

The source type, ID, and URI.

Type: [ActionSource](#) object

Required: Yes

### Status

The status of the action.

Type: String

Valid Values: Unknown | InProgress | Completed | Failed | Stopping | Stopped

Required: No

### Tags

A list of tags to apply to the action.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
  "ActionArn": "string"
```



```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ActionArn

The Amazon Resource Name (ARN) of the action.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:action/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateAlgorithm

Service: Amazon SageMaker Service

Create a machine learning algorithm that you can use in SageMaker and list in the AWS Marketplace.

## Request Syntax

```
{
  "AlgorithmDescription": "string",
  "AlgorithmName": "string",
  "CertifyForMarketplace": boolean,
  "InferenceSpecification": {
    "Containers": [
      {
        "AdditionalS3DataSource": {
          "CompressionType": "string",
          "S3DataType": "string",
          "S3Uri": "string"
        },
        "ContainerHostname": "string",
        "Environment": {
          "string": "string"
        },
        "Framework": "string",
        "FrameworkVersion": "string",
        "Image": "string",
        "ImageDigest": "string",
        "ModelDataSource": {
          "S3DataSource": {
            "CompressionType": "string",
            "HubAccessConfig": {
              "HubContentArn": "string"
            },
            "ModelAccessConfig": {
              "AcceptEula": boolean
            },
            "S3DataType": "string",
            "S3Uri": "string"
          }
        }
      },
      {
        "ModelDataUrl": "string",
        "ModelInput": {
```

```

        "DataInputConfig": "string"
    },
    "NearestModelName": "string",
    "ProductId": "string"
}
],
"SupportedContentTypes": [ "string" ],
"SupportedRealtimeInferenceInstanceTypes": [ "string" ],
"SupportedResponseMIMETypes": [ "string" ],
"SupportedTransformInstanceTypes": [ "string" ]
},
"Tags": [
{
    "Key": "string",
    "Value": "string"
}
],
"TrainingSpecification": {
    "AdditionalS3DataSource": {
        "CompressionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
    },
    "MetricDefinitions": [
    {
        "Name": "string",
        "Regex": "string"
    }
    ],
    "SupportedHyperParameters": [
    {
        "DefaultValue": "string",
        "Description": "string",
        "IsRequired": boolean,
        "IsTunable": boolean,
        "Name": "string",
        "Range": {
            "CategoricalParameterRangeSpecification": {
                "Values": [ "string" ]
            },
            "ContinuousParameterRangeSpecification": {
                "MaxValue": "string",
                "MinValue": "string"
            }
        }
    }
    ],

```

```

    "IntegerParameterRangeSpecification": {
      "MaxValue": "string",
      "MinValue": "string"
    }
  },
  "Type": "string"
}
],
"SupportedTrainingInstanceTypes": [ "string" ],
"SupportedTuningJobObjectiveMetrics": [
  {
    "MetricName": "string",
    "Type": "string"
  }
],
"SupportsDistributedTraining": boolean,
"TrainingChannels": [
  {
    "Description": "string",
    "IsRequired": boolean,
    "Name": "string",
    "SupportedCompressionTypes": [ "string" ],
    "SupportedContentTypes": [ "string" ],
    "SupportedInputModes": [ "string" ]
  }
],
"TrainingImage": "string",
"TrainingImageDigest": "string"
},
"ValidationSpecification": {
  "ValidationProfiles": [
    {
      "ProfileName": "string",
      "TrainingJobDefinition": {
        "HyperParameters": {
          "string" : "string"
        },
        "InputDataConfig": [
          {
            "ChannelName": "string",
            "CompressionType": "string",
            "ContentType": "string",
            "DataSource": {
              "FileSystemDataSource": {

```

```

        "DirectoryPath": "string",
        "FileSystemAccessMode": "string",
        "FileSystemId": "string",
        "FileSystemType": "string"
    },
    "S3DataSource": {
        "AttributeNames": [ "string" ],
        "InstanceGroupNames": [ "string" ],
        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
    }
},
"InputMode": "string",
"RecordWrapperType": "string",
"ShuffleConfig": {
    "Seed": number
}
}
],
"OutputDataConfig": {
    "CompressionType": "string",
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
        {
            "InstanceCount": number,
            "InstanceGroupName": "string",
            "InstanceType": "string"
        }
    ],
    "InstanceType": "string",
    "KeepAlivePeriodInSeconds": number,
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
},
"StoppingCondition": {
    "MaxPendingTimeInSeconds": number,
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
},

```

```

    "TrainingInputMode": "string"
  },
  "TransformJobDefinition": {
    "BatchStrategy": "string",
    "Environment": {
      "string" : "string"
    },
    "MaxConcurrentTransforms": number,
    "MaxPayloadInMB": number,
    "TransformInput": {
      "CompressionType": "string",
      "ContentType": "string",
      "DataSource": {
        "S3DataSource": {
          "S3DataType": "string",
          "S3Uri": "string"
        }
      },
      "SplitType": "string"
    },
    "TransformOutput": {
      "Accept": "string",
      "AssembleWith": "string",
      "KmsKeyId": "string",
      "S3OutputPath": "string"
    },
    "TransformResources": {
      "InstanceCount": number,
      "InstanceType": "string",
      "VolumeKmsKeyId": "string"
    }
  }
},
"ValidationRole": "string"
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## AlgorithmDescription

A description of the algorithm.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

## AlgorithmName

The name of the algorithm.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## CertifyForMarketplace

Whether to certify the algorithm so that it can be listed in AWS Marketplace.

Type: Boolean

Required: No

## InferenceSpecification

Specifies details about inference jobs that the algorithm runs, including the following:

- The Amazon ECR paths of containers that contain the inference code and model artifacts.
- The instance types that the algorithm supports for transform jobs and real-time endpoints used for inference.
- The input and output content formats that the algorithm supports for inference.

Type: [InferenceSpecification](#) object



Required: No

## Tags

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## TrainingSpecification

Specifies details about training jobs run by this algorithm, including the following:

- The Amazon ECR path of the container and the version digest of the algorithm.
- The hyperparameters that the algorithm supports.
- The instance types that the algorithm supports for training.
- Whether the algorithm supports distributed training.
- The metrics that the algorithm emits to Amazon CloudWatch.
- Which metrics that the algorithm emits can be used as the objective metric for hyperparameter tuning jobs.
- The input channels that the algorithm supports for training data. For example, an algorithm might support `train`, `validation`, and `test` channels.

Type: [TrainingSpecification](#) object

Required: Yes

## ValidationSpecification

Specifies configurations for one or more training jobs and that SageMaker runs to test the algorithm's training code and, optionally, one or more batch transform jobs that SageMaker runs to test the algorithm's inference code.

Type: [AlgorithmValidationSpecification](#) object

Required: No

## Response Syntax

```
{  
  "AlgorithmArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AlgorithmArn](#)

The Amazon Resource Name (ARN) of the new algorithm.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:algorithm/[\S]{1,2048}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateApp

Service: Amazon SageMaker Service

Creates a running app for the specified UserProfile. This operation is automatically invoked by Amazon SageMaker upon access to the associated Domain, and when new kernel configurations are selected by the user. A user may have multiple Apps active simultaneously.

## Request Syntax

```
{
  "AppName": "string",
  "AppType": "string",
  "DomainId": "string",
  "ResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "SpaceName": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "UserProfileName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AppName

The name of the app.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### AppType

The type of app.

Type: String

Valid Values: `JupyterServer` | `KernelGateway` | `DetailedProfiler` | `TensorBoard` | `CodeEditor` | `JupyterLab` | `RStudioServerPro` | `RSessionGateway` | `Canvas`

Required: Yes

### DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-(-*[a-z0-9]){1,61}`

Required: Yes

### ResourceSpec

The instance type and the Amazon Resource Name (ARN) of the SageMaker image created on the instance.

#### **Note**

The value of `InstanceType` passed as part of the `ResourceSpec` in the `CreateApp` call overrides the value passed as part of the `ResourceSpec` configured for the user profile or the domain. If `InstanceType` is not specified in any of those three `ResourceSpec` values for a `KernelGateway` app, the `CreateApp` call fails with a request validation error.

Type: [ResourceSpec](#) object

Required: No

## SpaceName

The name of the space. If this value is not set, then `UserProfileName` must be set.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## Tags

Each tag consists of a key and an optional value. Tag keys must be unique per resource.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## UserProfileName

The user profile name. If this value is not set, then `SpaceName` must be set.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## Response Syntax

```
{
  "AppArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AppArn

The Amazon Resource Name (ARN) of the app.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:app/.*`

### **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

#### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

#### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# CreateAppImageConfig

Service: Amazon SageMaker Service

Creates a configuration for running a SageMaker image as a KernelGateway app. The configuration specifies the Amazon Elastic File System storage volume on the image, and a list of the kernels in the image.

## Request Syntax

```
{
  "AppImageConfigName": "string",
  "CodeEditorAppImageConfig": {
    "ContainerConfig": {
      "ContainerArguments": [ "string " ],
      "ContainerEntrypoint": [ "string " ],
      "ContainerEnvironmentVariables": {
        "string" : "string"
      }
    }
  },
  "FileSystemConfig": {
    "DefaultGid": number,
    "DefaultUid": number,
    "MountPath": "string"
  }
},
  "JupyterLabAppImageConfig": {
    "ContainerConfig": {
      "ContainerArguments": [ "string " ],
      "ContainerEntrypoint": [ "string " ],
      "ContainerEnvironmentVariables": {
        "string" : "string"
      }
    }
  },
  "FileSystemConfig": {
    "DefaultGid": number,
    "DefaultUid": number,
    "MountPath": "string"
  }
},
  "KernelGatewayImageConfig": {
    "FileSystemConfig": {
      "DefaultGid": number,
      "DefaultUid": number,

```

```
    "MountPath": "string"
  },
  "KernelSpecs": [
    {
      "DisplayName": "string",
      "Name": "string"
    }
  ]
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [AppImageConfigName](#)

The name of the AppImageConfig. Must be unique to your account.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### [CodeEditorAppImageConfig](#)

The CodeEditorAppImageConfig. You can only specify one image kernel in the AppImageConfig API. This kernel is shown to users before the image starts. After the image runs, all kernels are visible in Code Editor.

Type: [CodeEditorAppImageConfig](#) object

Required: No

## JupyterLabAppImageConfig

The `JupyterLabAppImageConfig`. You can only specify one image kernel in the `AppImageConfig` API. This kernel is shown to users before the image starts. After the image runs, all kernels are visible in JupyterLab.

Type: [JupyterLabAppImageConfig](#) object

Required: No

## KernelGatewayImageConfig

The `KernelGatewayImageConfig`. You can only specify one image kernel in the `AppImageConfig` API. This kernel will be shown to users before the image starts. Once the image runs, all kernels are visible in JupyterLab.

Type: [KernelGatewayImageConfig](#) object

Required: No

## Tags

A list of tags to apply to the `AppImageConfig`.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "AppImageConfigArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## AppImageConfigArn

The ARN of the AppImageConfig.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:app-image-config/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateArtifact

Service: Amazon SageMaker Service

Creates an *artifact*. An artifact is a lineage tracking entity that represents a URI addressable object or data. Some examples are the S3 URI of a dataset and the ECR registry path of an image. For more information, see [Amazon SageMaker ML Lineage Tracking](#).

## Request Syntax

```
{
  "ArtifactName": "string",
  "ArtifactType": "string",
  "MetadataProperties": {
    "CommitId": "string",
    "GeneratedBy": "string",
    "ProjectId": "string",
    "Repository": "string"
  },
  "Properties": {
    "string" : "string"
  },
  "Source": {
    "SourceTypes": [
      {
        "SourceIdType": "string",
        "Value": "string"
      }
    ],
    "SourceUri": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ArtifactName

The name of the artifact. Must be unique to your account in an AWS Region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### ArtifactType

The artifact type.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

### MetadataProperties

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties](#) object

Required: No

### Properties

A list of properties to add to the artifact.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 2500.

Key Pattern: `.*`

Value Length Constraints: Maximum length of 4096.

Value Pattern: . \*

Required: No

### Source

The ID, ID type, and URI of the source.

Type: [ArtifactSource](#) object

Required: Yes

### Tags

A list of tags to apply to the artifact.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "ArtifactArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ArtifactArn

The Amazon Resource Name (ARN) of the artifact.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:artifact/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# CreateAutoMLJob

Service: Amazon SageMaker Service

Creates an Autopilot job also referred to as Autopilot experiment or AutoML job.

## Note

We recommend using the new versions [CreateAutoMLJobV2](#) and [DescribeAutoMLJobV2](#), which offer backward compatibility.

CreateAutoMLJobV2 can manage tabular problem types identical to those of its previous version CreateAutoMLJob, as well as time-series forecasting, non-tabular problem types such as image or text classification, and text generation (LLMs fine-tuning).

Find guidelines about how to migrate a CreateAutoMLJob to CreateAutoMLJobV2 in [Migrate a CreateAutoMLJob to CreateAutoMLJobV2](#).

You can find the best-performing model after you run an AutoML job by calling [DescribeAutoMLJobV2](#) (recommended) or [DescribeAutoMLJob](#).

## Request Syntax

```
{
  "AutoMLJobConfig": {
    "CandidateGenerationConfig": {
      "AlgorithmsConfig": [
        {
          "AutoMLAlgorithms": [ "string" ]
        }
      ],
      "FeatureSpecificationS3Uri": "string"
    },
    "CompletionCriteria": {
      "MaxAutoMLJobRuntimeInSeconds": number,
      "MaxCandidates": number,
      "MaxRuntimePerTrainingJobInSeconds": number
    },
    "DataSplitConfig": {
      "ValidationFraction": number
    },
    "Mode": "string",
    "SecurityConfig": {
```

```

    "EnableInterContainerTrafficEncryption": boolean,
    "VolumeKmsKeyId": "string",
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"AutoMLJobName": "string",
"AutoMLJobObjective": {
    "MetricName": "string"
},
"GenerateCandidateDefinitionsOnly": boolean,
"InputDataConfig": [
    {
        "ChannelType": "string",
        "CompressionType": "string",
        "ContentType": "string",
        "DataSource": {
            "S3DataSource": {
                "S3DataType": "string",
                "S3Uri": "string"
            }
        },
        "SampleWeightAttributeName": "string",
        "TargetAttributeName": "string"
    }
],
"ModelDeployConfig": {
    "AutoGenerateEndpointName": boolean,
    "EndpointName": "string"
},
"OutputDataConfig": {
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"ProblemType": "string",
"RoleArn": "string",
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
]

```

```
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [AutoMLJobConfig](#)

A collection of settings used to configure an AutoML job.

Type: [AutoMLJobConfig](#) object

Required: No

### [AutoMLJobName](#)

Identifies an Autopilot job. The name must be unique to your account and is case insensitive.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

### [AutoMLJobObjective](#)

Specifies a metric to minimize or maximize as the objective of a job. If not specified, the default objective metric depends on the problem type. See [AutoMLJobObjective](#) for the default values.

Type: [AutoMLJobObjective](#) object

Required: No

### [GenerateCandidateDefinitionsOnly](#)

Generates possible candidates without training the models. A candidate is a combination of data preprocessors, algorithms, and algorithm parameter settings.

Type: Boolean

Required: No

## InputDataConfig

An array of channel objects that describes the input data and its location. Each channel is a named input source. Similar to `InputDataConfig` supported by [HyperParameterTrainingJobDefinition](#). Format(s) supported: CSV, Parquet. A minimum of 500 rows is required for the training dataset. There is not a minimum number of rows required for the validation dataset.

Type: Array of [AutoMLChannel](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Required: Yes

## ModelDeployConfig

Specifies how to generate the endpoint name for an automatic one-click Autopilot model deployment.

Type: [ModelDeployConfig](#) object

Required: No

## OutputDataConfig

Provides information about encryption and the Amazon S3 output path needed to store artifacts from an AutoML job. Format(s) supported: CSV.

Type: [AutoMLOutputDataConfig](#) object

Required: Yes

## ProblemType

Defines the type of supervised learning problem available for the candidates. For more information, see [SageMaker Autopilot problem types](#).

Type: String

Valid Values: `BinaryClassification` | `MulticlassClassification` | `Regression`

Required: No

## RoleArn

The ARN of the role that is used to access the data.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: Yes

## Tags

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#). Tag keys must be unique per resource.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "AutoMLJobArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AutoMLJobArn](#)

The unique ARN assigned to the AutoML job when it is created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-*:sagemaker:[a-z0-9\-*:]{12}:automl-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateAutoMLJobV2

Service: Amazon SageMaker Service

Creates an Autopilot job also referred to as Autopilot experiment or AutoML job V2.

## Note

[CreateAutoMLJobV2](#) and [DescribeAutoMLJobV2](#) are new versions of [CreateAutoMLJob](#) and [DescribeAutoMLJob](#) which offer backward compatibility.

CreateAutoMLJobV2 can manage tabular problem types identical to those of its previous version CreateAutoMLJob, as well as time-series forecasting, non-tabular problem types such as image or text classification, and text generation (LLMs fine-tuning).

Find guidelines about how to migrate a CreateAutoMLJob to CreateAutoMLJobV2 in [Migrate a CreateAutoMLJob to CreateAutoMLJobV2](#).

For the list of available problem types supported by CreateAutoMLJobV2, see [AutoMLProblemTypeConfig](#).

You can find the best-performing model after you run an AutoML job V2 by calling [DescribeAutoMLJobV2](#).

## Request Syntax

```
{
  "AutoMLJobInputDataConfig": [
    {
      "ChannelType": "string",
      "CompressionType": "string",
      "ContentType": "string",
      "DataSource": {
        "S3DataSource": {
          "S3DataType": "string",
          "S3Uri": "string"
        }
      }
    }
  ],
  "AutoMLJobName": "string",
  "AutoMLJobObjective": {
```

```

    "MetricName": "string"
  },
  "AutoMLProblemTypeConfig": { ... },
  "DataSplitConfig": {
    "ValidationFraction": number
  },
  "ModelDeployConfig": {
    "AutoGenerateEndpointName": boolean,
    "EndpointName": "string"
  },
  "OutputDataConfig": {
    "KmsKeyId": "string",
    "S3OutputPath": "string"
  },
  "RoleArn": "string",
  "SecurityConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "VolumeKmsKeyId": "string",
    "VpcConfig": {
      "SecurityGroupIds": [ "string" ],
      "Subnets": [ "string" ]
    }
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [AutoMLJobInputDataConfig](#)

An array of channel objects describing the input data and their location. Each channel is a named input source. Similar to the [InputDataConfig](#) attribute in the CreateAutoMLJob input parameters. The supported formats depend on the problem type:

- For tabular problem types: S3Prefix, ManifestFile.



- For image classification: `S3Prefix`, `ManifestFile`, `AugmentedManifestFile`.
- For text classification: `S3Prefix`.
- For time-series forecasting: `S3Prefix`.
- For text generation (LLMs fine-tuning): `S3Prefix`.

Type: Array of [AutoMLJobChannel](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Required: Yes

### [AutoMLJobName](#)

Identifies an Autopilot job. The name must be unique to your account and is case insensitive.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

### [AutoMLJobObjective](#)

Specifies a metric to minimize or maximize as the objective of a job. If not specified, the default objective metric depends on the problem type. For the list of default values per problem type, see [AutoMLJobObjective](#).

#### Note

- For tabular problem types: You must either provide both the `AutoMLJobObjective` and indicate the type of supervised learning problem in `AutoMLProblemTypeConfig` (`TabularJobConfig.ProblemType`), or none at all.
- For text generation problem types (LLMs fine-tuning): Fine-tuning language models in Autopilot does not require setting the `AutoMLJobObjective` field. Autopilot fine-tunes LLMs without requiring multiple candidates to be trained and evaluated. Instead, using your dataset, Autopilot directly fine-tunes your target model to enhance a default objective metric, the cross-entropy loss. After fine-tuning a language model, you can evaluate the quality of its generated text using different

metrics. For a list of the available metrics, see [Metrics for fine-tuning LLMs in Autopilot](#).

Type: [AutoMLJobObjective](#) object

Required: No

### [AutoMLProblemTypeConfig](#)

Defines the configuration settings of one of the supported problem types.

Type: [AutoMLProblemTypeConfig](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

### [DataSplitConfig](#)

This structure specifies how to split the data into train and validation datasets.

The validation and training datasets must contain the same headers. For jobs created by calling `CreateAutoMLJob`, the validation dataset must be less than 2 GB in size.

#### **Note**

This attribute must not be set for the time-series forecasting problem type, as Autopilot automatically splits the input dataset into training and validation sets.

Type: [AutoMLDataSplitConfig](#) object

Required: No

### [ModelDeployConfig](#)

Specifies how to generate the endpoint name for an automatic one-click Autopilot model deployment.

Type: [ModelDeployConfig](#) object

Required: No

## OutputDataConfig

Provides information about encryption and the Amazon S3 output path needed to store artifacts from an AutoML job.

Type: [AutoMLOutputDataConfig](#) object

Required: Yes

## RoleArn

The ARN of the role that is used to access the data.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\ ]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\ ]+$`

Required: Yes

## SecurityConfig

The security configuration for traffic encryption or Amazon VPC settings.

Type: [AutoMLSecurityConfig](#) object

Required: No

## Tags

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, such as by purpose, owner, or environment. For more information, see [Tagging AWSResources](#). Tag keys must be unique per resource.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
```

```
"AutoMLJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AutoMLJobArn

The unique ARN assigned to the AutoMLJob when it is created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:automl-job/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateCluster

Service: Amazon SageMaker Service

Creates a SageMaker HyperPod cluster. SageMaker HyperPod is a capability of SageMaker for creating and managing persistent clusters for developing large machine learning models, such as large language models (LLMs) and diffusion models. To learn more, see [Amazon SageMaker HyperPod](#) in the *Amazon SageMaker Developer Guide*.

## Request Syntax

```
{
  "ClusterName": "string",
  "InstanceGroups": [
    {
      "ExecutionRole": "string",
      "InstanceCount": number,
      "InstanceGroupName": "string",
      "InstanceStorageConfigs": [
        { ... }
      ],
      "InstanceType": "string",
      "LifecycleConfig": {
        "OnCreate": "string",
        "SourceS3Uri": "string"
      },
      "ThreadsPerCore": number
    }
  ],
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ClusterName

The name for the new SageMaker HyperPod cluster.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: Yes

### InstanceGroups

The instance groups to be created in the SageMaker HyperPod cluster.

Type: Array of [ClusterInstanceGroupSpecification](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: Yes

### Tags

Custom tags for managing the SageMaker HyperPod cluster as an AWS resource. You can add tags to your cluster in the same way you add them in other AWS services that support tagging. To learn more about tagging AWS resources in general, see [Tagging AWS Resources User Guide](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### VpcConfig

Specifies an Amazon Virtual Private Cloud (VPC) that your SageMaker jobs, hosted models, and compute resources have access to. You can control access to and from your resources by configuring a VPC. For more information, see [Give SageMaker Access to Resources in your Amazon VPC](#).

Type: [VpcConfig](#) object

Required: No

## Response Syntax

```
{  
  "ClusterArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ClusterArn](#)

The Amazon Resource Name (ARN) of the cluster.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:cluster/[a-z0-9]{12}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.



HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateCodeRepository

Service: Amazon SageMaker Service

Creates a Git repository as a resource in your SageMaker account. You can associate the repository with notebook instances so that you can use Git source control for the notebooks you create. The Git repository is a resource in your SageMaker account, so it can be associated with more than one notebook instance, and it persists independently from the lifecycle of any notebook instances it is associated with.

The repository can be hosted either in [AWS CodeCommit](#) or in any other Git repository.

## Request Syntax

```
{
  "CodeRepositoryName": "string",
  "GitConfig": {
    "Branch": "string",
    "RepositoryUrl": "string",
    "SecretArn": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CodeRepositoryName

The name of the Git repository. The name must have 1 to 63 characters. Valid characters are a-z, A-Z, 0-9, and - (hyphen).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### GitConfig

Specifies details about the repository, including the URL where the repository is located, the default branch, and credentials to use to access the repository.

Type: [GitConfig](#) object

Required: Yes

### Tags

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "CodeRepositoryArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CodeRepositoryArn

The Amazon Resource Name (ARN) of the new repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:code-repository/[\S]{1,2048}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateCompilationJob

Service: Amazon SageMaker Service

Starts a model compilation job. After the model has been compiled, Amazon SageMaker saves the resulting model artifacts to an Amazon Simple Storage Service (Amazon S3) bucket that you specify.

If you choose to host your model using Amazon SageMaker hosting services, you can use the resulting model artifacts as part of the model. You can also use the artifacts with AWS IoT Greengrass. In that case, deploy them as an ML resource.

In the request body, you provide the following:

- A name for the compilation job
- Information about the input model artifacts
- The output location for the compiled model and the device (target) that the model runs on
- The Amazon Resource Name (ARN) of the IAM role that Amazon SageMaker assumes to perform the model compilation job.

You can also provide a Tag to track the model compilation job's resource use and costs. The response body contains the `CompilationJobArn` for the compiled job.

To stop a model compilation job, use [StopCompilationJob](#). To get information about a particular model compilation job, use [DescribeCompilationJob](#). To get information about multiple model compilation jobs, use [ListCompilationJobs](#).

### Request Syntax

```
{
  "CompilationJobName": "string",
  "InputConfig": {
    "DataInputConfig": "string",
    "Framework": "string",
    "FrameworkVersion": "string",
    "S3Uri": "string"
  },
  "ModelPackageVersionArn": "string",
  "OutputConfig": {
    "CompilerOptions": "string",
```

```

    "KmsKeyId": "string",
    "S3OutputLocation": "string",
    "TargetDevice": "string",
    "TargetPlatform": {
      "Accelerator": "string",
      "Arch": "string",
      "Os": "string"
    }
  },
  "RoleArn": "string",
  "StoppingCondition": {
    "MaxPendingTimeInSeconds": number,
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  }
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CompilationJobName

A name for the model compilation job. The name must be unique within the AWS Region and within your AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### InputConfig

Provides information about the location of input model artifacts, the name and shape of the expected data inputs, and the framework in which the model was trained.

Type: [InputConfig](#) object

Required: No

### ModelPackageVersionArn

The Amazon Resource Name (ARN) of a versioned model package. Provide either a `ModelPackageVersionArn` or an `InputConfig` object in the request syntax. The presence of both objects in the `CreateCompilationJob` request will return an exception.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:model-package/[\S]{1,2048}$`

Required: No

### OutputConfig

Provides information about the output location for the compiled model and the target device the model runs on.

Type: [OutputConfig](#) object

Required: Yes

### RoleArn

The Amazon Resource Name (ARN) of an IAM role that enables Amazon SageMaker to perform tasks on your behalf.

During model compilation, Amazon SageMaker needs your permission to:

- Read input data from an S3 bucket
- Write model artifacts to an S3 bucket

- Write logs to Amazon CloudWatch Logs
- Publish metrics to Amazon CloudWatch

You grant permissions for all of these tasks to an IAM role. To pass this role to Amazon SageMaker, the caller of this API must have the `iam:PassRole` permission. For more information, see [Amazon SageMaker Roles](#).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: Yes

### StoppingCondition

Specifies a limit to how long a model compilation job can run. When the job reaches the time limit, Amazon SageMaker ends the compilation job. Use this API to cap model training costs.

Type: [StoppingCondition](#) object

Required: Yes

### Tags

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### VpcConfig

A [VpcConfig](#) object that specifies the VPC that you want your compilation job to connect to. Control access to your models by configuring the VPC. For more information, see [Protect Compilation Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [NeoVpcConfig](#) object



Required: No

## Response Syntax

```
{
  "CompilationJobArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CompilationJobArn

If the action is successful, the service sends back an HTTP 200 response. Amazon SageMaker returns the following data in JSON format:

- **CompilationJobArn**: The Amazon Resource Name (ARN) of the compiled job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*:]*:sagemaker:[a-z0-9\-*:]*:[0-9]{12}:compilation-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateContext

Service: Amazon SageMaker Service

Creates a *context*. A context is a lineage tracking entity that represents a logical grouping of other tracking or experiment entities. Some examples are an endpoint and a model package. For more information, see [Amazon SageMaker ML Lineage Tracking](#).

## Request Syntax

```
{
  "ContextName": "string",
  "ContextType": "string",
  "Description": "string",
  "Properties": {
    "string" : "string"
  },
  "Source": {
    "SourceId": "string",
    "SourceType": "string",
    "SourceUri": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ContextName

The name of the context. Must be unique to your account in an AWS Region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,119}`

Required: Yes

### ContextType

The context type.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

### Description

The description of the context.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: `.*`

Required: No

### Properties

A list of properties to add to the context.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 2500.

Key Pattern: `.*`

Value Length Constraints: Maximum length of 2500.

Value Pattern: `.*`

Required: No

### Source

The source type, ID, and URI.

Type: [ContextSource](#) object

Required: Yes

## Tags

A list of tags to apply to the context.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "ContextArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ContextArn

The Amazon Resource Name (ARN) of the context.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:context/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateDataQualityJobDefinition

Service: Amazon SageMaker Service

Creates a definition for a job that monitors data quality and drift. For information about model monitor, see [Amazon SageMaker Model Monitor](#).

## Request Syntax

```
{
  "DataQualityAppSpecification": {
    "ContainerArguments": [ "string" ],
    "ContainerEntrypoint": [ "string" ],
    "Environment": {
      "string" : "string"
    },
    "ImageUri": "string",
    "PostAnalyticsProcessorSourceUri": "string",
    "RecordPreprocessorSourceUri": "string"
  },
  "DataQualityBaselineConfig": {
    "BaseliningJobName": "string",
    "ConstraintsResource": {
      "S3Uri": "string"
    },
    "StatisticsResource": {
      "S3Uri": "string"
    }
  },
  "DataQualityJobInput": {
    "BatchTransformInput": {
      "DataCapturedDestinationS3Uri": "string",
      "DatasetFormat": {
        "Csv": {
          "Header": boolean
        },
        "Json": {
          "Line": boolean
        },
        "Parquet": {
        }
      },
      "EndTimeOffset": "string",
      "ExcludeFeaturesAttribute": "string",
```

```

    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  },
  "EndpointInput": {
    "EndpointName": "string",
    "EndTimeOffset": "string",
    "ExcludeFeaturesAttribute": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  }
},
"DataQualityJobOutputConfig": {
  "KmsKeyId": "string",
  "MonitoringOutputs": [
    {
      "S3Output": {
        "LocalPath": "string",
        "S3UploadMode": "string",
        "S3Uri": "string"
      }
    }
  ]
},
"JobDefinitionName": "string",
"JobResources": {
  "ClusterConfig": {
    "InstanceCount": number,
    "InstanceType": "string",
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
  }
},

```



```

"NetworkConfig": {
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableNetworkIsolation": boolean,
  "VpcConfig": {
    "SecurityGroupIds": [ string ],
    "Subnets": [ string ]
  }
},
"RoleArn": string,
"StoppingCondition": {
  "MaxRuntimeInSeconds": number
},
"Tags": [
  {
    "Key": string,
    "Value": string
  }
]
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [DataQualityAppSpecification](#)

Specifies the container that runs the monitoring job.

Type: [DataQualityAppSpecification](#) object

Required: Yes

### [DataQualityBaselineConfig](#)

Configures the constraints and baselines for the monitoring job.

Type: [DataQualityBaselineConfig](#) object

Required: No

### [DataQualityJobInput](#)

A list of inputs for the monitoring job. Currently endpoints are supported as monitoring inputs.

Type: [DataQualityJobInput](#) object

Required: Yes

### [DataQualityJobOutputConfig](#)

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig](#) object

Required: Yes

### [JobDefinitionName](#)

The name for the monitoring job definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### [JobResources](#)

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources](#) object

Required: Yes

### [NetworkConfig](#)

Specifies networking configuration for the monitoring job.

Type: [MonitoringNetworkConfig](#) object

Required: No

### [RoleArn](#)

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: Yes

### StoppingCondition

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition](#) object

Required: No

### Tags

(Optional) An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "JobDefinitionArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobDefinitionArn

The Amazon Resource Name (ARN) of the job definition.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateDeviceFleet

Service: Amazon SageMaker Service

Creates a device fleet.

## Request Syntax

```
{
  "Description": "string",
  "DeviceFleetName": "string",
  "EnableIotRoleAlias": boolean,
  "OutputConfig": {
    "KmsKeyId": "string",
    "PresetDeploymentConfig": "string",
    "PresetDeploymentType": "string",
    "S3OutputLocation": "string"
  },
  "RoleArn": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Description

A description of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 800.

Pattern: `^[-a-zA-Z0-9_.,;:!]*$`

Required: No

## DeviceFleetName

The name of the fleet that the device belongs to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## EnableIotRoleAlias

Whether to create an AWS IoT Role Alias during device fleet creation. The name of the role alias generated will match this pattern: "SageMakerEdge-{DeviceFleetName}".

For example, if your device fleet is called "demo-fleet", the name of the role alias will be "SageMakerEdge-demo-fleet".

Type: Boolean

Required: No

## OutputConfig

The output configuration for storing sample data collected by the fleet.

Type: [EdgeOutputConfig](#) object

Required: Yes

## RoleArn

The Amazon Resource Name (ARN) that has access to AWS Internet of Things (IoT).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam:.*:iam:.*:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: No

## Tags

Creates tags for the specified fleet.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# CreateDomain

Service: Amazon SageMaker Service

Creates a Domain. A domain consists of an associated Amazon Elastic File System volume, a list of authorized users, and a variety of security, application, policy, and Amazon Virtual Private Cloud (VPC) configurations. Users within a domain can share notebook files and other artifacts with each other.

## EFS storage

When a domain is created, an EFS volume is created for use by all of the users within the domain. Each user receives a private home directory within the EFS volume for notebooks, Git repositories, and data files.

SageMaker uses the AWS Key Management Service (AWS KMS) to encrypt the EFS volume attached to the domain with an AWS managed key by default. For more control, you can specify a customer managed key. For more information, see [Protect Data at Rest Using Encryption](#).

## VPC configuration

All traffic between the domain and the Amazon EFS volume is through the specified VPC and subnets. For other traffic, you can specify the `AppNetworkAccessType` parameter. `AppNetworkAccessType` corresponds to the network access type that you choose when you onboard to the domain. The following options are available:

- `PublicInternetOnly` - Non-EFS traffic goes through a VPC managed by Amazon SageMaker, which allows internet access. This is the default value.
- `VpcOnly` - All traffic is through the specified VPC and subnets. Internet access is disabled by default. To allow internet access, you must specify a NAT gateway.

When internet access is disabled, you won't be able to run a Amazon SageMaker Studio notebook or to train or host models unless your VPC has an interface endpoint to the SageMaker API and runtime or a NAT gateway and your security groups allow outbound connections.

### Important

NFS traffic over TCP on port 2049 needs to be allowed in both inbound and outbound rules in order to launch a Amazon SageMaker Studio app successfully.

For more information, see [Connect Amazon SageMaker Studio Notebooks to Resources in a VPC](#).

## Request Syntax

```
{
  "AppNetworkAccessType": "string",
  "AppSecurityGroupManagement": "string",
  "AuthMode": "string",
  "DefaultSpaceSettings": {
    "CustomFileSystemConfigs": [
      { ... }
    ],
    "CustomPosixUserConfig": {
      "Gid": number,
      "Uid": number
    },
    "ExecutionRole": "string",
    "JupyterLabAppSettings": {
      "CodeRepositories": [
        {
          "RepositoryUrl": "string"
        }
      ],
      "CustomImages": [
        {
          "AppImageConfigName": "string",
          "ImageName": "string",
          "ImageVersionNumber": number
        }
      ],
      "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionAlias": "string",
        "SageMakerImageVersionArn": "string"
      },
      "LifecycleConfigArns": [ "string" ]
    },
    "JupyterServerAppSettings": {
      "CodeRepositories": [
        {
          "RepositoryUrl": "string"
        }
      ]
    }
  }
}
```

```

    ],
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
  },
  "KernelGatewayAppSettings": {
    "CustomImages": [
      {
        "AppImageConfigName": "string",
        "ImageName": "string",
        "ImageVersionNumber": number
      }
    ],
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
  },
  "SecurityGroups": [ "string" ],
  "SpaceStorageSettings": {
    "DefaultEbsStorageSettings": {
      "DefaultEbsVolumeSizeInGb": number,
      "MaximumEbsVolumeSizeInGb": number
    }
  }
},
"DefaultUserSettings": {
  "CanvasAppSettings": {
    "DirectDeploySettings": {
      "Status": "string"
    },
    "GenerativeAiSettings": {
      "AmazonBedrockRoleArn": "string"
    },
    "IdentityProviderOAuthSettings": [

```

```

    {
      "DataSourceName": "string",
      "SecretArn": "string",
      "Status": "string"
    }
  ],
  "KendraSettings": {
    "Status": "string"
  },
  "ModelRegisterSettings": {
    "CrossAccountModelRegisterRoleArn": "string",
    "Status": "string"
  },
  "TimeSeriesForecastingSettings": {
    "AmazonForecastRoleArn": "string",
    "Status": "string"
  },
  "WorkspaceSettings": {
    "S3ArtifactPath": "string",
    "S3KmsKeyId": "string"
  }
},
"CodeEditorAppSettings": {
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"CustomFileSystemConfigs": [
  { ... }
],
"CustomPosixUserConfig": {
  "Gid": number,

```

```
    "Uid": number
  },
  "DefaultLandingUri": "string",
  "ExecutionRole": "string",
  "JupyterLabAppSettings": {
    "CodeRepositories": [
      {
        "RepositoryUrl": "string"
      }
    ],
    "CustomImages": [
      {
        "AppImageConfigName": "string",
        "ImageName": "string",
        "ImageVersionNumber": number
      }
    ],
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
  },
  "JupyterServerAppSettings": {
    "CodeRepositories": [
      {
        "RepositoryUrl": "string"
      }
    ],
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
  },
  "KernelGatewayAppSettings": {
    "CustomImages": [
      {
```

```

        "AppImageConfigName": "string",
        "ImageName": "string",
        "ImageVersionNumber": number
    }
],
"DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
},
"LifecycleConfigArns": [ "string" ]
},
"RSessionAppSettings": {
    "CustomImages": [
        {
            "AppImageConfigName": "string",
            "ImageName": "string",
            "ImageVersionNumber": number
        }
    ],
    "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionAlias": "string",
        "SageMakerImageVersionArn": "string"
    }
},
"RStudioServerProAppSettings": {
    "AccessStatus": "string",
    "UserGroup": "string"
},
"SecurityGroups": [ "string" ],
"SharingSettings": {
    "NotebookOutputOption": "string",
    "S3KmsKeyId": "string",
    "S3OutputPath": "string"
},
"SpaceStorageSettings": {
    "DefaultEbsStorageSettings": {
        "DefaultEbsVolumeSizeInGb": number,
        "MaximumEbsVolumeSizeInGb": number
    }
}

```

```

    }
  },
  "StudioWebPortal": "string",
  "StudioWebPortalSettings": {
    "HiddenAppTypes": [ "string" ],
    "HiddenMLTools": [ "string" ]
  },
  "TensorBoardAppSettings": {
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    }
  }
},
"DomainName": "string",
"DomainSettings": {
  "DockerSettings": {
    "EnableDockerAccess": "string",
    "VpcOnlyTrustedAccounts": [ "string" ]
  },
  "ExecutionRoleIdentityConfig": "string",
  "RStudioServerProDomainSettings": {
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    },
    "DomainExecutionRoleArn": "string",
    "RStudioConnectUrl": "string",
    "RStudioPackageManagerUrl": "string"
  },
  "SecurityGroupIds": [ "string" ]
},
"HomeEfsFileSystemKmsKeyId": "string",
"KmsKeyId": "string",
"SubnetIds": [ "string" ],
"Tags": [
  {
    "Key": "string",

```

```
    "Value": "string"  
  }  
],  
"VpcId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AppNetworkAccessType

Specifies the VPC used for non-EFS traffic. The default value is `PublicInternetOnly`.

- `PublicInternetOnly` - Non-EFS traffic is through a VPC managed by Amazon SageMaker, which allows direct internet access
- `VpcOnly` - All traffic is through the specified VPC and subnets

Type: String

Valid Values: `PublicInternetOnly` | `VpcOnly`

Required: No

### AppSecurityGroupManagement

The entity that creates and manages the required security groups for inter-app communication in `VPCOnly` mode. Required when `CreateDomain.AppNetworkAccessType` is `VPCOnly` and `DomainSettings.RStudioServerProDomainSettings.DomainExecutionRoleArn` is provided. If setting up the domain for use with RStudio, this value must be set to `Service`.

Type: String

Valid Values: `Service` | `Customer`

Required: No

### AuthMode

The mode of authentication that members use to access the domain.

Type: String



Valid Values: SSO | IAM

Required: Yes

### DefaultSpaceSettings

The default settings used to create a space.

Type: [DefaultSpaceSettings](#) object

Required: No

### DefaultUserSettings

The default settings to use to create a user profile when UserSettings isn't specified in the call to the CreateUserProfile API.

SecurityGroups is aggregated when specified in both calls. For all other settings in UserSettings, the values specified in CreateUserProfile take precedence over those specified in CreateDomain.

Type: [UserSettings](#) object

Required: Yes

### DomainName

A name for the domain.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### DomainSettings

A collection of Domain settings.

Type: [DomainSettings](#) object

Required: No

## HomeEfsFileSystemKmsKeyId

*This parameter has been deprecated.*

Use KmsKeyId.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## KmsKeyId

SageMaker uses AWS KMS to encrypt EFS and EBS volumes attached to the domain with an AWS managed key by default. For more control, specify a customer managed key.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## SubnetIds

The VPC subnets that the domain uses for communication.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

Required: Yes

## Tags

Tags to associated with the Domain. Each tag consists of a key and an optional value. Tag keys must be unique per resource. Tags are searchable using the Search API.

Tags that you specify for the Domain are also added to all Apps that the Domain launches.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### [VpcId](#)

The ID of the Amazon Virtual Private Cloud (VPC) that the domain uses for communication.

Type: String

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

Required: Yes

## Response Syntax

```
{
  "DomainArn": "string",
  "Url": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [DomainArn](#)

The Amazon Resource Name (ARN) of the created domain.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:domain/.*`

## Url

The URL to the created domain.

Type: String

Length Constraints: Maximum length of 1024.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# CreateEdgeDeploymentPlan

Service: Amazon SageMaker Service

Creates an edge deployment plan, consisting of multiple stages. Each stage may have a different deployment configuration and devices.

## Request Syntax

```
{
  "DeviceFleetName": "string",
  "EdgeDeploymentPlanName": "string",
  "ModelConfigs": [
    {
      "EdgePackagingJobName": "string",
      "ModelHandle": "string"
    }
  ],
  "Stages": [
    {
      "DeploymentConfig": {
        "FailureHandlingPolicy": "string"
      },
      "DeviceSelectionConfig": {
        "DeviceNameContains": "string",
        "DeviceNames": [ "string" ],
        "DeviceSubsetType": "string",
        "Percentage": number
      },
      "StageName": "string"
    }
  ],
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DeviceFleetName

The device fleet used for this edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### EdgeDeploymentPlanName

The name of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelConfigs

List of models associated with the edge deployment plan.

Type: Array of [EdgeDeploymentModelConfig](#) objects

Required: Yes

### Stages

List of stages of the edge deployment plan. The number of stages is limited to 10 per deployment.

Type: Array of [DeploymentStage](#) objects

Required: No

### Tags

List of tags with which to tag the edge deployment plan.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
  "EdgeDeploymentPlanArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [EdgeDeploymentPlanArn](#)

The ARN of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z\-*]:\d{12}:edge-deployment/?[a-zA-Z_0-9+=,.\@-\_/\]+`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateEdgeDeploymentStage

Service: Amazon SageMaker Service

Creates a new stage in an existing edge deployment plan.

## Request Syntax

```
{
  "EdgeDeploymentPlanName": "string",
  "Stages": [
    {
      "DeploymentConfig": {
        "FailureHandlingPolicy": "string"
      },
      "DeviceSelectionConfig": {
        "DeviceNameContains": "string",
        "DeviceNames": [ "string" ],
        "DeviceSubsetType": "string",
        "Percentage": number
      },
      "StageName": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EdgeDeploymentPlanName

The name of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Stages

List of stages to be added to the edge deployment plan.

Type: Array of [DeploymentStage](#) objects

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# CreateEdgePackagingJob

Service: Amazon SageMaker Service

Starts a SageMaker Edge Manager model packaging job. Edge Manager will use the model artifacts from the Amazon Simple Storage Service bucket that you specify. After the model has been packaged, Amazon SageMaker saves the resulting artifacts to an S3 bucket that you specify.

## Request Syntax

```
{
  "CompilationJobName": "string",
  "EdgePackagingJobName": "string",
  "ModelName": "string",
  "ModelVersion": "string",
  "OutputConfig": {
    "KmsKeyId": "string",
    "PresetDeploymentConfig": "string",
    "PresetDeploymentType": "string",
    "S3OutputLocation": "string"
  },
  "ResourceKey": "string",
  "RoleArn": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CompilationJobName

The name of the SageMaker Neo compilation job that will be used to locate model artifacts for packaging.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### EdgePackagingJobName

The name of the edge packaging job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelName

The name of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelVersion

The version of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: `[a-zA-Z0-9\ \_\.]+`

Required: Yes

### OutputConfig

Provides information about the output location for the packaged model.

Type: [EdgeOutputConfig](#) object

Required: Yes

### ResourceKey

The AWS KMS key to use when encrypting the EBS volume the edge packaging job runs on.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

### RoleArn

The Amazon Resource Name (ARN) of an IAM role that enables Amazon SageMaker to download and upload the model, and to contact SageMaker Neo.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: Yes

### Tags

Creates tags for the packaging job.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# CreateEndpoint

Service: Amazon SageMaker Service

Creates an endpoint using the endpoint configuration specified in the request. SageMaker uses the endpoint to provision resources and deploy models. You create the endpoint configuration with the [CreateEndpointConfig](#) API.

Use this API to deploy models using SageMaker hosting services.

## Note

You must not delete an EndpointConfig that is in use by an endpoint that is live or while the UpdateEndpoint or CreateEndpoint operations are being performed on the endpoint. To update an endpoint, you must create a new EndpointConfig.

The endpoint name must be unique within an AWS Region in your AWS account.

When it receives the request, SageMaker creates the endpoint, launches the resources (ML compute instances), and deploys the model(s) on them.

## Note

When you call [CreateEndpoint](#), a load call is made to DynamoDB to verify that your endpoint configuration exists. When you read data from a DynamoDB table supporting [Eventually Consistent Reads](#), the response might not reflect the results of a recently completed write operation. The response might include some stale data. If the dependent entities are not yet in DynamoDB, this causes a validation error. If you repeat your read request after a short time, the response should return the latest data. So retry logic is recommended to handle these possible issues. We also recommend that customers call [DescribeEndpointConfig](#) before calling [CreateEndpoint](#) to minimize the potential impact of a DynamoDB eventually consistent read.

When SageMaker receives the request, it sets the endpoint status to `Creating`. After it creates the endpoint, it sets the status to `InService`. SageMaker can then process incoming requests for inferences. To check the status of an endpoint, use the [DescribeEndpoint](#) API.

If any of the models hosted at this endpoint get model data from an Amazon S3 location, SageMaker uses AWS Security Token Service to download model artifacts from the S3 path you provided. AWS STS is activated in your AWS account by default. If you previously deactivated AWS STS for a region, you need to reactivate AWS STS for that region. For more information, see [Activating and Deactivating AWS STS in an AWS Region](#) in the *AWS Identity and Access Management User Guide*.

### Note

To add the IAM role policies for using this API operation, go to the [IAM console](#), and choose Roles in the left navigation pane. Search the IAM role that you want to grant access to use the [CreateEndpoint](#) and [CreateEndpointConfig](#) API operations, add the following policies to the role.

- Option 1: For a full SageMaker access, search and attach the AmazonSageMakerFullAccess policy.
- Option 2: For granting a limited access to an IAM role, paste the following Action elements manually into the JSON file of the IAM role:

```
"Action": ["sagemaker:CreateEndpoint",
"sagemaker:CreateEndpointConfig"]

"Resource": [

"arn:aws:sagemaker:region:account-id:endpoint/endpointName"

"arn:aws:sagemaker:region:account-id:endpoint-config/
endpointConfigName"

]
```

For more information, see [SageMaker API Permissions: Actions, Permissions, and Resources Reference](#).

## Request Syntax

```
{
  "DeploymentConfig": {
    "AutoRollbackConfiguration": {
```

```
    "Alarms": [
      {
        "AlarmName": "string"
      }
    ],
    "BlueGreenUpdatePolicy": {
      "MaximumExecutionTimeoutInSeconds": number,
      "TerminationWaitInSeconds": number,
      "TrafficRoutingConfiguration": {
        "CanarySize": {
          "Type": "string",
          "Value": number
        },
        "LinearStepSize": {
          "Type": "string",
          "Value": number
        },
        "Type": "string",
        "WaitIntervalInSeconds": number
      }
    },
    "RollingUpdatePolicy": {
      "MaximumBatchSize": {
        "Type": "string",
        "Value": number
      },
      "MaximumExecutionTimeoutInSeconds": number,
      "RollbackMaximumBatchSize": {
        "Type": "string",
        "Value": number
      },
      "WaitIntervalInSeconds": number
    }
  },
  "EndpointConfigName": "string",
  "EndpointName": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
]
```

```
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [DeploymentConfig](#)

The deployment configuration for an endpoint, which contains the desired deployment strategy and rollback configurations.

Type: [DeploymentConfig](#) object

Required: No

### [EndpointConfigName](#)

The name of an endpoint configuration. For more information, see [CreateEndpointConfig](#).

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### [EndpointName](#)

The name of the endpoint. The name must be unique within an AWS Region in your AWS account. The name is case-insensitive in [CreateEndpoint](#), but the case is preserved and must be matched in [InvokeEndpoint](#).

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Tags

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "EndpointArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [EndpointArn](#)

The Amazon Resource Name (ARN) of the endpoint.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:endpoint/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateEndpointConfig

Service: Amazon SageMaker Service

Creates an endpoint configuration that SageMaker hosting services uses to deploy models. In the configuration, you identify one or more models, created using the `CreateModel` API, to deploy and the resources that you want SageMaker to provision. Then you call the [CreateEndpoint](#) API.

### Note

Use this API if you want to use SageMaker hosting services to deploy models into production.

In the request, you define a `ProductionVariant`, for each model that you want to deploy. Each `ProductionVariant` parameter also describes the resources that you want SageMaker to provision. This includes the number and type of ML compute instances to deploy.

If you are hosting multiple models, you also assign a `VariantWeight` to specify how much traffic you want to allocate to each model. For example, suppose that you want to host two models, A and B, and you assign traffic weight 2 for model A and 1 for model B. SageMaker distributes two-thirds of the traffic to Model A, and one-third to model B.

### Note

When you call [CreateEndpoint](#), a load call is made to DynamoDB to verify that your endpoint configuration exists. When you read data from a DynamoDB table supporting [Eventually Consistent Reads](#), the response might not reflect the results of a recently completed write operation. The response might include some stale data. If the dependent entities are not yet in DynamoDB, this causes a validation error. If you repeat your read request after a short time, the response should return the latest data. So retry logic is recommended to handle these possible issues. We also recommend that customers call [DescribeEndpointConfig](#) before calling [CreateEndpoint](#) to minimize the potential impact of a DynamoDB eventually consistent read.

## Request Syntax

```
{
```

```

"AsyncInferenceConfig": {
  "ClientConfig": {
    "MaxConcurrentInvocationsPerInstance": number
  },
  "OutputConfig": {
    "KmsKeyId": "string",
    "NotificationConfig": {
      "ErrorTopic": "string",
      "IncludeInferenceResponseIn": [ "string" ],
      "SuccessTopic": "string"
    },
    "S3FailurePath": "string",
    "S3OutputPath": "string"
  }
},
"DataCaptureConfig": {
  "CaptureContentTypeHeader": {
    "CsvContentTypes": [ "string" ],
    "JsonContentTypes": [ "string" ]
  },
  "CaptureOptions": [
    {
      "CaptureMode": "string"
    }
  ],
  "DestinationS3Uri": "string",
  "EnableCapture": boolean,
  "InitialSamplingPercentage": number,
  "KmsKeyId": "string"
},
"EnableNetworkIsolation": boolean,
"EndpointConfigName": "string",
"ExecutionRoleArn": "string",
"ExplainerConfig": {
  "ClarifyExplainerConfig": {
    "EnableExplanations": "string",
    "InferenceConfig": {
      "ContentTemplate": "string",
      "FeatureHeaders": [ "string" ],
      "FeaturesAttribute": "string",
      "FeatureTypes": [ "string" ],
      "LabelAttribute": "string",
      "LabelHeaders": [ "string" ],
      "LabelIndex": number,

```



```

    "MaxPayloadInMB": number,
    "MaxRecordCount": number,
    "ProbabilityAttribute": "string",
    "ProbabilityIndex": number
  },
  "ShapConfig": {
    "NumberOfSamples": number,
    "Seed": number,
    "ShapBaselineConfig": {
      "MimeType": "string",
      "ShapBaseline": "string",
      "ShapBaselineUri": "string"
    },
    "TextConfig": {
      "Granularity": "string",
      "Language": "string"
    },
    "UseLogit": boolean
  }
}
},
"KmsKeyId": "string",
"ProductionVariants": [
  {
    "AcceleratorType": "string",
    "ContainerStartupHealthCheckTimeoutInSeconds": number,
    "CoreDumpConfig": {
      "DestinationS3Uri": "string",
      "KmsKeyId": "string"
    },
    "EnableSSMAccess": boolean,
    "InferenceAmiVersion": "string",
    "InitialInstanceCount": number,
    "InitialVariantWeight": number,
    "InstanceType": "string",
    "ManagedInstanceScaling": {
      "MaxInstanceCount": number,
      "MinInstanceCount": number,
      "Status": "string"
    },
    "ModelDataDownloadTimeoutInSeconds": number,
    "ModelName": "string",
    "RoutingConfig": {
      "RoutingStrategy": "string"
    }
  }
]

```

```

    },
    "ServerlessConfig": {
      "MaxConcurrency": number,
      "MemorySizeInMB": number,
      "ProvisionedConcurrency": number
    },
    "VariantName": "string",
    "VolumeSizeInGB": number
  }
],
"ShadowProductionVariants": [
  {
    "AcceleratorType": "string",
    "ContainerStartupHealthCheckTimeoutInSeconds": number,
    "CoreDumpConfig": {
      "DestinationS3Uri": "string",
      "KmsKeyId": "string"
    },
    "EnableSSMAccess": boolean,
    "InferenceAmiVersion": "string",
    "InitialInstanceCount": number,
    "InitialVariantWeight": number,
    "InstanceType": "string",
    "ManagedInstanceScaling": {
      "MaxInstanceCount": number,
      "MinInstanceCount": number,
      "Status": "string"
    },
    "ModelDataDownloadTimeoutInSeconds": number,
    "ModelName": "string",
    "RoutingConfig": {
      "RoutingStrategy": "string"
    },
    "ServerlessConfig": {
      "MaxConcurrency": number,
      "MemorySizeInMB": number,
      "ProvisionedConcurrency": number
    },
    "VariantName": "string",
    "VolumeSizeInGB": number
  }
],
"Tags": [
  {

```

```
    "Key": "string",
    "Value": "string"
  }
],
"VpcConfig": {
  "SecurityGroupIds": [ "string" ],
  "Subnets": [ "string" ]
}
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [AsyncInferenceConfig](#)

Specifies configuration for how an endpoint performs asynchronous inference. This is a required field in order for your Endpoint to be invoked using [InvokeEndpointAsync](#).

Type: [AsyncInferenceConfig](#) object

Required: No

### [DataCaptureConfig](#)

Configuration to control how SageMaker captures inference data.

Type: [DataCaptureConfig](#) object

Required: No

### [EnableNetworkIsolation](#)

Sets whether all model containers deployed to the endpoint are isolated. If they are, no inbound or outbound network calls can be made to or from the model containers.

Type: Boolean

Required: No

### [EndpointConfigName](#)

The name of the endpoint configuration. You specify this name in a [CreateEndpoint](#) request.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### ExecutionRoleArn

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform actions on your behalf. For more information, see [SageMaker Roles](#).

#### Note

To be able to pass this role to Amazon SageMaker, the caller of this action must have the `iam:PassRole` permission.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam:~{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: No

### ExplainerConfig

A member of `CreateEndpointConfig` that enables explainers.

Type: [ExplainerConfig](#) object

Required: No

### KmsKeyId


The Amazon Resource Name (ARN) of a AWS Key Management Service key that SageMaker uses to encrypt data on the storage volume attached to the ML compute instance that hosts the endpoint.

The `KmsKeyId` can be any of the following formats:

- Key ID: 1234abcd-12ab-34cd-56ef-1234567890ab

- Key ARN: `arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab`
- Alias name: `alias/ExampleAlias`
- Alias name ARN: `arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias`

The KMS key policy must grant permission to the IAM role that you specify in your `CreateEndpoint`, `UpdateEndpoint` requests. For more information, refer to the AWS Key Management Service section [Using Key Policies in AWS KMS](#)

 **Note**

Certain Nitro-based instances include local storage, dependent on the instance type. Local storage volumes are encrypted using a hardware module on the instance. You can't request a `KmsKeyId` when using an instance type with local storage. If any of the models that you specify in the `ProductionVariants` parameter use nitro-based instances with local storage, do not specify a value for the `KmsKeyId` parameter. If you specify a value for `KmsKeyId` when using any nitro-based instances with local storage, the call to `CreateEndpointConfig` fails.

For a list of instance types that support local instance storage, see [Instance Store Volumes](#).

For more information about local instance storage encryption, see [SSD Instance Store Volumes](#).

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

### ProductionVariants

An array of `ProductionVariant` objects, one for each model that you want to host at this endpoint.

Type: Array of [ProductionVariant](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

### ShadowProductionVariants

An array of `ProductionVariant` objects, one for each model that you want to host at this endpoint in shadow mode with production traffic replicated from the model specified on `ProductionVariants`. If you use this field, you can only specify one variant for `ProductionVariants` and one variant for `ShadowProductionVariants`.

Type: Array of [ProductionVariant](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

### Tags

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### VpcConfig

Specifies an Amazon Virtual Private Cloud (VPC) that your SageMaker jobs, hosted models, and compute resources have access to. You can control access to and from your resources by configuring a VPC. For more information, see [Give SageMaker Access to Resources in your Amazon VPC](#).

Type: [VpcConfig](#) object

Required: No

## Response Syntax

```
{
  "EndpointConfigArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### EndpointConfigArn

The Amazon Resource Name (ARN) of the endpoint configuration.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:endpoint-config/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# CreateExperiment

Service: Amazon SageMaker Service

Creates a SageMaker *experiment*. An experiment is a collection of *trials* that are observed, compared and evaluated as a group. A trial is a set of steps, called *trial components*, that produce a machine learning model.

## Note

In the Studio UI, trials are referred to as *run groups* and trial components are referred to as *runs*.

The goal of an experiment is to determine the components that produce the best model. Multiple trials are performed, each one isolating and measuring the impact of a change to one or more inputs, while keeping the remaining inputs constant.

When you use SageMaker Studio or the SageMaker Python SDK, all experiments, trials, and trial components are automatically tracked, logged, and indexed. When you use the AWS SDK for Python (Boto), you must use the logging APIs provided by the SDK.

You can add tags to experiments, trials, trial components and then use the [Search](#) API to search for the tags.

To add a description to an experiment, specify the optional `Description` parameter. To add a description later, or to change the description, call the [UpdateExperiment](#) API.

To get a list of all your experiments, call the [ListExperiments](#) API. To view an experiment's properties, call the [DescribeExperiment](#) API. To get a list of all the trials associated with an experiment, call the [ListTrials](#) API. To create a trial call the [CreateTrial](#) API.

## Request Syntax

```
{
  "Description": "string",
  "DisplayName": "string",
  "ExperimentName": "string",
  "Tags": [
    {
      "Key": "string",
```

```
    "Value": "string"  
  }  
]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Description

The description of the experiment.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .\*

Required: No

### DisplayName

The name of the experiment as displayed. The name doesn't need to be unique. If you don't specify `DisplayName`, the value in `ExperimentName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### ExperimentName

The name of the experiment. The name must be unique in your AWS account and is not case-sensitive.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Tags

A list of tags to associate with the experiment. You can use [Search](#) API to search on the tags.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "ExperimentArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ExperimentArn

The Amazon Resource Name (ARN) of the experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateFeatureGroup

Service: Amazon SageMaker Service

Create a new FeatureGroup. A FeatureGroup is a group of Features defined in the FeatureStore to describe a Record.

The FeatureGroup defines the schema and features contained in the FeatureGroup. A FeatureGroup definition is composed of a list of Features, a RecordIdentifierFeatureName, an EventTimeFeatureName and configurations for its OnlineStore and OfflineStore. Check [AWS service quotas](#) to see the FeatureGroups quota for your AWS account.

Note that it can take approximately 10-15 minutes to provision an OnlineStore FeatureGroup with the InMemory StorageType.

## Important

You must include at least one of OnlineStoreConfig and OfflineStoreConfig to create a FeatureGroup.

## Request Syntax

```
{
  "Description": "string",
  "EventTimeFeatureName": "string",
  "FeatureDefinitions": [
    {
      "CollectionConfig": { ... },
      "CollectionType": "string",
      "FeatureName": "string",
      "FeatureType": "string"
    }
  ],
  "FeatureGroupName": "string",
  "OfflineStoreConfig": {
    "DataCatalogConfig": {
      "Catalog": "string",
      "Database": "string",
      "TableName": "string"
    }
  }
}
```

```

    },
    "DisableGlueTableCreation": boolean,
    "S3StorageConfig": {
      "KmsKeyId": "string",
      "ResolvedOutputS3Uri": "string",
      "S3Uri": "string"
    },
    "TableFormat": "string"
  },
  "OnlineStoreConfig": {
    "EnableOnlineStore": boolean,
    "SecurityConfig": {
      "KmsKeyId": "string"
    },
    "StorageType": "string",
    "TtlDuration": {
      "Unit": "string",
      "Value": number
    }
  },
  "RecordIdentifierFeatureName": "string",
  "RoleArn": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "ThroughputConfig": {
    "ProvisionedReadCapacityUnits": number,
    "ProvisionedWriteCapacityUnits": number,
    "ThroughputMode": "string"
  }
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Description

A free-form description of a FeatureGroup.

Type: String

Length Constraints: Maximum length of 128.

Required: No

### EventTimeFeatureName

The name of the feature that stores the EventTime of a Record in a FeatureGroup.

An EventTime is a point in time when a new event occurs that corresponds to the creation or update of a Record in a FeatureGroup. All Records in the FeatureGroup must have a corresponding EventTime.

An EventTime can be a String or Fractional.

- **Fractional**: EventTime feature values must be a Unix timestamp in seconds.
- **String**: EventTime feature values must be an ISO-8601 string in the format. The following formats are supported `yyyy-MM-dd'T'HH:mm:ssZ` and `yyyy-MM-dd'T'HH:mm:ss.SSSZ` where `yyyy`, `MM`, and `dd` represent the year, month, and day respectively and `HH`, `mm`, `ss`, and if applicable, `SSS` represent the hour, month, second and milliseconds respectively. `'T'` and `Z` are constants.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,63}`

Required: Yes

### FeatureDefinitions

A list of Feature names and types. Name and Type is compulsory per Feature.

Valid feature FeatureTypes are `Integral`, `Fractional` and `String`.

FeatureNames cannot be any of the following: `is_deleted`, `write_time`, `api_invocation_time`

You can create up to 2,500 FeatureDefinitions per FeatureGroup.

Type: Array of [FeatureDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2500 items.

Required: Yes

### FeatureGroupName

The name of the FeatureGroup. The name must be unique within an AWS Region in an AWS account.

The name:

- Must start with an alphanumeric character.
- Can only include alphanumeric characters, underscores, and hyphens. Spaces are not allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([_-]*[a-zA-Z0-9]){0,63}`

Required: Yes

### OfflineStoreConfig

Use this to configure an `OfflineFeatureStore`. This parameter allows you to specify:

- The Amazon Simple Storage Service (Amazon S3) location of an `OfflineStore`.
- A configuration for an AWS Glue or AWS Hive data catalog.
- An KMS encryption key to encrypt the Amazon S3 location used for `OfflineStore`. If KMS encryption key is not specified, by default we encrypt all data at rest using AWS KMS key. By defining your [bucket-level key](#) for SSE, you can reduce AWS KMS requests costs by up to 99 percent.
- Format for the offline store table. Supported formats are Glue (Default) and [Apache Iceberg](#).

To learn more about this parameter, see [OfflineStoreConfig](#).

Type: [OfflineStoreConfig](#) object

Required: No

### OnlineStoreConfig

You can turn the `OnlineStore` on or off by specifying `True` for the `EnableOnlineStore` flag in `OnlineStoreConfig`.



You can also include an AWS KMS key ID (KMSKeyId) for at-rest encryption of the `OnlineStore`.

The default value is `False`.

Type: [OnlineStoreConfig](#) object

Required: No

### [RecordIdentifierFeatureName](#)

The name of the Feature whose value uniquely identifies a Record defined in the FeatureStore. Only the latest record per identifier value will be stored in the `OnlineStore`. `RecordIdentifierFeatureName` must be one of feature definitions' names.

You use the `RecordIdentifierFeatureName` to access data in a FeatureStore.

This name:

- Must start with an alphanumeric character.
- Can only contains alphanumeric characters, hyphens, underscores. Spaces are not allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,63}`

Required: Yes

### [RoleArn](#)

The Amazon Resource Name (ARN) of the IAM execution role used to persist data into the `OfflineStore` if an `OfflineStoreConfig` is provided.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam:~{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: No

### [Tags](#)

Tags used to identify Features in each FeatureGroup.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### [ThroughputConfig](#)

Used to set feature group throughput configuration. There are two modes: ON\_DEMAND and PROVISIONED. With on-demand mode, you are charged for data reads and writes that your application performs on your feature group. You do not need to specify read and write throughput because Feature Store accommodates your workloads as they ramp up and down. You can switch a feature group to on-demand only once in a 24 hour period. With provisioned throughput mode, you specify the read and write capacity per second that you expect your application to require, and you are billed based on those limits. Exceeding provisioned throughput will result in your requests being throttled.

Note: PROVISIONED throughput mode is supported only for feature groups that are offline-only, or use the [Standard](#) tier online store.

Type: [ThroughputConfig](#) object

Required: No

## Response Syntax

```
{
  "FeatureGroupArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [FeatureGroupArn](#)

The Amazon Resource Name (ARN) of the FeatureGroup. This is a unique identifier for the feature group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:feature-group/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateFlowDefinition

Service: Amazon SageMaker Service

Creates a flow definition.

## Request Syntax

```
{
  "FlowDefinitionName": "string",
  "HumanLoopActivationConfig": {
    "HumanLoopActivationConditionsConfig": {
      "HumanLoopActivationConditions": "string"
    }
  },
  "HumanLoopConfig": {
    "HumanTaskUiArn": "string",
    "PublicWorkforceTaskPrice": {
      "AmountInUsd": {
        "Cents": number,
        "Dollars": number,
        "TenthFractionsOfACent": number
      }
    }
  },
  "TaskAvailabilityLifetimeInSeconds": number,
  "TaskCount": number,
  "TaskDescription": "string",
  "TaskKeywords": [ "string" ],
  "TaskTimeLimitInSeconds": number,
  "TaskTitle": "string",
  "WorkteamArn": "string"
},
"HumanLoopRequestSource": {
  "AwsManagedHumanLoopRequestSource": "string"
},
"OutputConfig": {
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
"RoleArn": "string",
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
]
```

```
    }  
  ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### FlowDefinitionName

The name of your flow definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-z0-9](-*[a-z0-9]){0,62}`

Required: Yes

### HumanLoopActivationConfig

An object containing information about the events that trigger a human workflow.

Type: [HumanLoopActivationConfig](#) object

Required: No

### HumanLoopConfig

An object containing information about the tasks the human reviewers will perform.

Type: [HumanLoopConfig](#) object

Required: No

### HumanLoopRequestSource

Container for configuring the source of human task requests. Use to specify if Amazon Rekognition or Amazon Textract is used as an integration source.

Type: [HumanLoopRequestSource](#) object

Required: No

## OutputConfig

An object containing information about where the human review results will be uploaded.

Type: [FlowDefinitionOutputConfig](#) object

Required: Yes

## RoleArn

The Amazon Resource Name (ARN) of the role needed to call other services on your behalf. For example, `arn:aws:iam::1234567890:role/service-role/AmazonSageMaker-ExecutionRole-20180111T151298`.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: Yes

## Tags

An array of key-value pairs that contain metadata to help you categorize and organize a flow definition. Each tag consists of a key and a value, both of which you define.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "FlowDefinitionArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### FlowDefinitionArn

The Amazon Resource Name (ARN) of the flow definition you create.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]+:[0-9]{12}:flow-definition/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# CreateHub

Service: Amazon SageMaker Service

Create a hub.

## Request Syntax

```
{
  "HubDescription": "string",
  "HubDisplayName": "string",
  "HubName": "string",
  "HubSearchKeywords": [ "string" ],
  "S3StorageConfig": {
    "S3OutputPath": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### HubDescription

A description of the hub.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

Required: Yes

### HubDisplayName

The display name of the hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: No

### HubName

The name of the hub to create.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### HubSearchKeywords

The searchable keywords for the hub.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 255.

Pattern: `^[^A-Z]*$`

Required: No

### S3StorageConfig

The Amazon S3 storage configuration for the hub.

Type: [HubS3StorageConfig](#) object

Required: No

### Tags

Any tags to associate with the hub.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
  "HubArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [HubArn](#)

The Amazon Resource Name (ARN) of the hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateHubContentReference

Service: Amazon SageMaker Service

Create a hub content reference in order to add a model in the JumpStart public hub to a private hub.

## Request Syntax

```
{
  "HubContentName": "string",
  "HubName": "string",
  "MinVersion": "string",
  "SageMakerPublicHubContentArn": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### HubContentName

The name of the hub content to reference.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### HubName

The name of the hub to add the hub content reference to.

Type: String

Pattern: `^(arn:[a-z0-9-\.]{1,63}:sagemaker:\w+(?:-\w+)+:(\d{12}|aws):hub\w)?[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### MinVersion

The minimum version of the hub content to reference.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: `^\d{1,4}.\d{1,4}.\d{1,4}$`

Required: No

### SageMakerPublicHubContentArn

The ARN of the public hub content to reference.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `^arn:[a-z0-9-\.]{1,63}:sagemaker:\w+(?:-\w+)+:aws:hub-content\w[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}\Model\w[a-zA-Z0-9](-*[a-zA-Z0-9]){0,63}$`

Required: Yes

### Tags

Any tags associated with the hub content to reference.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
```

```
"HubArn": "string",  
"HubContentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### HubArn

The ARN of the hub that the hub content reference was added to.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

### HubContentArn

The ARN of the hub content.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# CreateHumanTaskUi

Service: Amazon SageMaker Service

Defines the settings you will use for the human review workflow user interface. Reviewers will see a three-panel interface with an instruction area, the item to review, and an input area.

## Request Syntax

```
{
  "HumanTaskUiName": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "UiTemplate": {
    "Content": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### HumanTaskUiName

The name of the user interface you are creating.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-z0-9](-*[a-z0-9])*`

Required: Yes

### Tags

An array of key-value pairs that contain metadata to help you categorize and organize a human review workflow user interface. Each tag consists of a key and a value, both of which you define.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## [UiTemplate](#)

The Liquid template for the worker user interface.

Type: [UiTemplate](#) object

Required: Yes

## Response Syntax

```
{
  "HumanTaskUiArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [HumanTaskUiArn](#)

The Amazon Resource Name (ARN) of the human review workflow user interface you create.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `arn:aws[a-z\-*:]*:sagemaker:[a-z0-9\-*]+:[0-9]{12}:human-task-ui/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateHyperParameterTuningJob

Service: Amazon SageMaker Service

Starts a hyperparameter tuning job. A hyperparameter tuning job finds the best version of a model by running many training jobs on your dataset using the algorithm you choose and values for hyperparameters within ranges that you specify. It then chooses the hyperparameter values that result in a model that performs the best, as measured by an objective metric that you choose.

A hyperparameter tuning job automatically creates Amazon SageMaker experiments, trials, and trial components for each training job that it runs. You can view these entities in Amazon SageMaker Studio. For more information, see [View Experiments, Trials, and Trial Components](#).

## Important

Do not include any security-sensitive information including account access IDs, secrets or tokens in any hyperparameter field. If the use of security-sensitive credentials are detected, SageMaker will reject your training job request and return an exception error.

## Request Syntax

```
{
  "Autotune": {
    "Mode": "string"
  },
  "HyperParameterTuningJobConfig": {
    "HyperParameterTuningJobObjective": {
      "MetricName": "string",
      "Type": "string"
    },
    "ParameterRanges": {
      "AutoParameters": [
        {
          "Name": "string",
          "ValueHint": "string"
        }
      ],
      "CategoricalParameterRanges": [
        {
          "Name": "string",
          "Values": [ "string" ]
        }
      ]
    }
  }
}
```

```

    }
  ],
  "ContinuousParameterRanges": [
    {
      "MaxValue": "string",
      "MinValue": "string",
      "Name": "string",
      "ScalingType": "string"
    }
  ],
  "IntegerParameterRanges": [
    {
      "MaxValue": "string",
      "MinValue": "string",
      "Name": "string",
      "ScalingType": "string"
    }
  ]
},
"RandomSeed": number,
"ResourceLimits": {
  "MaxNumberOfTrainingJobs": number,
  "MaxParallelTrainingJobs": number,
  "MaxRuntimeInSeconds": number
},
"Strategy": "string",
"StrategyConfig": {
  "HyperbandStrategyConfig": {
    "MaxResource": number,
    "MinResource": number
  }
},
"TrainingJobEarlyStoppingType": "string",
"TuningJobCompletionCriteria": {
  "BestObjectiveNotImproving": {
    "MaxNumberOfTrainingJobsNotImproving": number
  },
  "ConvergenceDetected": {
    "CompleteOnConvergence": "string"
  },
  "TargetObjectiveMetricValue": number
}
},
"HyperParameterTuningJobName": "string",

```

```

"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
],
"TrainingJobDefinition": {
  "AlgorithmSpecification": {
    "AlgorithmName": "string",
    "MetricDefinitions": [
      {
        "Name": "string",
        "Regex": "string"
      }
    ],
    "TrainingImage": "string",
    "TrainingInputMode": "string"
  },
  "CheckpointConfig": {
    "LocalPath": "string",
    "S3Uri": "string"
  },
  "DefinitionName": "string",
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableManagedSpotTraining": boolean,
  "EnableNetworkIsolation": boolean,
  "Environment": {
    "string" : "string"
  },
  "HyperParameterRanges": {
    "AutoParameters": [
      {
        "Name": "string",
        "ValueHint": "string"
      }
    ],
    "CategoricalParameterRanges": [
      {
        "Name": "string",
        "Values": [ "string" ]
      }
    ],
    "ContinuousParameterRanges": [
      {

```

```

        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
    }
],
"IntegerParameterRanges": [
    {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
    }
]
},
"HyperParameterTuningResourceConfig": {
    "AllocationStrategy": "string",
    "InstanceConfigs": [
        {
            "InstanceCount": number,
            "InstanceType": "string",
            "VolumeSizeInGB": number
        }
    ],
    "InstanceCount": number,
    "InstanceType": "string",
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
},
"InputDataConfig": [
    {
        "ChannelName": "string",
        "CompressionType": "string",
        "ContentType": "string",
        "DataSource": {
            "FileSystemDataSource": {
                "DirectoryPath": "string",
                "FileSystemAccessMode": "string",
                "FileSystemId": "string",
                "FileSystemType": "string"
            },
            "S3DataSource": {
                "AttributeNames": [ "string" ],
                "InstanceGroupNames": [ "string" ],

```

```

        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
    }
},
"InputMode": "string",
"RecordWrapperType": "string",
"ShuffleConfig": {
    "Seed": number
}
}
],
"OutputDataConfig": {
    "CompressionType": "string",
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
        {
            "InstanceCount": number,
            "InstanceGroupName": "string",
            "InstanceType": "string"
        }
    ],
    "InstanceType": "string",
    "KeepAlivePeriodInSeconds": number,
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
},
"RetryStrategy": {
    "MaximumRetryAttempts": number
},
"RoleArn": "string",
"StaticHyperParameters": {
    "string" : "string"
},
"StoppingCondition": {
    "MaxPendingTimeInSeconds": number,
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
},
"TuningObjective": {

```



```

    "MetricName": "string",
    "Type": "string"
  },
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  }
},
"TrainingJobDefinitions": [
{
  "AlgorithmSpecification": {
    "AlgorithmName": "string",
    "MetricDefinitions": [
      {
        "Name": "string",
        "Regex": "string"
      }
    ],
    "TrainingImage": "string",
    "TrainingInputMode": "string"
  },
  "CheckpointConfig": {
    "LocalPath": "string",
    "S3Uri": "string"
  },
  "DefinitionName": "string",
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableManagedSpotTraining": boolean,
  "EnableNetworkIsolation": boolean,
  "Environment": {
    "string" : "string"
  },
  "HyperParameterRanges": {
    "AutoParameters": [
      {
        "Name": "string",
        "ValueHint": "string"
      }
    ],
    "CategoricalParameterRanges": [
      {
        "Name": "string",
        "Values": [ "string" ]
      }
    ]
  }
}
]
}

```

```

    ],
    "ContinuousParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
      }
    ],
    "IntegerParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
      }
    ]
  ],
  "HyperParameterTuningResourceConfig": {
    "AllocationStrategy": "string",
    "InstanceConfigs": [
      {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeSizeInGB": number
      }
    ],
    "InstanceCount": number,
    "InstanceType": "string",
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
  },
  "InputDataConfig": [
    {
      "ChannelName": "string",
      "CompressionType": "string",
      "ContentType": "string",
      "DataSource": {
        "FileSystemDataSource": {
          "DirectoryPath": "string",
          "FileSystemAccessMode": "string",
          "FileSystemId": "string",
          "FileSystemType": "string"
        }
      }
    }
  ],

```

```

        "S3DataSource": {
            "AttributeNames": [ "string" ],
            "InstanceGroupNames": [ "string" ],
            "S3DataDistributionType": "string",
            "S3DataType": "string",
            "S3Uri": "string"
        }
    },
    "InputMode": "string",
    "RecordWrapperType": "string",
    "ShuffleConfig": {
        "Seed": number
    }
}
],
"OutputDataConfig": {
    "CompressionType": "string",
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
        {
            "InstanceCount": number,
            "InstanceGroupName": "string",
            "InstanceType": "string"
        }
    ],
    "InstanceType": "string",
    "KeepAlivePeriodInSeconds": number,
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
},
"RetryStrategy": {
    "MaximumRetryAttempts": number
},
"RoleArn": "string",
"StaticHyperParameters": {
    "string" : "string"
},
"StoppingCondition": {
    "MaxPendingTimeInSeconds": number,
    "MaxRuntimeInSeconds": number,

```

```

        "MaxWaitTimeInSeconds": number
    },
    "TuningObjective": {
        "MetricName": "string",
        "Type": "string"
    },
    "VpcConfig": {
        "SecurityGroupIds": [ "string " ],
        "Subnets": [ "string " ]
    }
}
],
"WarmStartConfig": {
    "ParentHyperParameterTuningJobs": [
        {
            "HyperParameterTuningJobName": "string"
        }
    ],
    "WarmStartType": "string"
}
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [Autotune](#)

Configures SageMaker Automatic model tuning (AMT) to automatically find optimal parameters for the following fields:

- [ParameterRanges](#): The names and ranges of parameters that a hyperparameter tuning job can optimize.
- [ResourceLimits](#): The maximum resources that can be used for a training job. These resources include the maximum number of training jobs, the maximum runtime of a tuning job, and the maximum number of training jobs to run at the same time.
- [TrainingJobEarlyStoppingType](#): A flag that specifies whether or not to use early stopping for training jobs launched by a hyperparameter tuning job.
- [RetryStrategy](#): The number of times to retry a training job.

- **Strategy**: Specifies how hyperparameter tuning chooses the combinations of hyperparameter values to use for the training jobs that it launches.
- **ConvergenceDetected**: A flag to indicate that Automatic model tuning (AMT) has detected model convergence.

Type: [Autotune](#) object

Required: No

### [HyperParameterTuningJobConfig](#)

The [HyperParameterTuningJobConfig](#) object that describes the tuning job, including the search strategy, the objective metric used to evaluate training jobs, ranges of parameters to search, and resource limits for the tuning job. For more information, see [How Hyperparameter Tuning Works](#).

Type: [HyperParameterTuningJobConfig](#) object

Required: Yes

### [HyperParameterTuningJobName](#)

The name of the tuning job. This name is the prefix for the names of all training jobs that this tuning job launches. The name must be unique within the same AWS account and AWS Region. The name must have 1 to 32 characters. Valid characters are a-z, A-Z, 0-9, and : + = @ \_ % - (hyphen). The name is not case sensitive.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

### [Tags](#)

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Tags that you specify for the tuning job are also added to all training jobs that the tuning job launches.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### [TrainingJobDefinition](#)

The [HyperParameterTrainingJobDefinition](#) object that describes the training jobs that this tuning job launches, including static hyperparameters, input data configuration, output data configuration, resource configuration, and stopping condition.

Type: [HyperParameterTrainingJobDefinition](#) object

Required: No

### [TrainingJobDefinitions](#)

A list of the [HyperParameterTrainingJobDefinition](#) objects launched for this tuning job.

Type: Array of [HyperParameterTrainingJobDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

### [WarmStartConfig](#)

Specifies the configuration for starting the hyperparameter tuning job using one or more previous tuning jobs as a starting point. The results of previous tuning jobs are used to inform which combinations of hyperparameters to search over in the new tuning job.

All training jobs launched by the new hyperparameter tuning job are evaluated by using the objective metric. If you specify `IDENTICAL_DATA_AND_ALGORITHM` as the `WarmStartType` value for the warm start configuration, the training job that performs the best in the new tuning job is compared to the best training jobs from the parent tuning jobs. From these, the training job that performs the best as measured by the objective metric is returned as the overall best training job.

#### **Note**

All training jobs launched by parent hyperparameter tuning jobs and the new hyperparameter tuning jobs count against the limit of training jobs for the tuning job.

Type: [HyperParameterTuningJobWarmStartConfig](#) object

Required: No

## Response Syntax

```
{  
  "HyperParameterTuningJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [HyperParameterTuningJobArn](#)

The Amazon Resource Name (ARN) of the tuning job. SageMaker assigns an ARN to a hyperparameter tuning job when you create it.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:hyper-parameter-tuning-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# CreateImage

Service: Amazon SageMaker Service

Creates a custom SageMaker image. A SageMaker image is a set of image versions. Each image version represents a container image stored in Amazon ECR. For more information, see [Bring your own SageMaker image](#).

## Request Syntax

```
{
  "Description": "string",
  "DisplayName": "string",
  "ImageName": "string",
  "RoleArn": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Description

The description of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: .\*

Required: No

### DisplayName

The display name of the image. If not provided, ImageName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^\S(.*\S)?$`

Required: No

### ImageName

The name of the image. Must be unique to your account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}$`

Required: Yes

### RoleArn

The ARN of an IAM role that enables Amazon SageMaker to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:iam:.*:role/?[a-zA-Z_0-9+=,.\@-_/]+$`

Required: Yes

### Tags

A list of tags to apply to the image.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
```

```
"ImageArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ImageArn

The ARN of the image.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws(-[\w]+)*:sagemaker:.+:[0-9]{12}:image/[a-z0-9]([-.]?)[a-z0-9]*$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateImageVersion

Service: Amazon SageMaker Service

Creates a version of the SageMaker image specified by ImageName. The version represents the Amazon ECR container image specified by BaseImage.

## Request Syntax

```
{
  "Aliases": [ "string" ],
  "BaseImage": "string",
  "ClientToken": "string",
  "Horovod": boolean,
  "ImageName": "string",
  "JobType": "string",
  "MLFramework": "string",
  "Processor": "string",
  "ProgrammingLang": "string",
  "ReleaseNotes": "string",
  "VendorGuidance": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Aliases

A list of aliases created with the image version.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: (?!^[.-])^([a-zA-Z0-9-\_.]+)\$

Required: No

### BaseImage

The registry path of the container image to use as the starting point for this version. The path is an Amazon ECR URI in the following format:

<acct-id>.dkr.ecr.<region>.amazonaws.com/<repo-name[:tag] or [@digest]>

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .\*

Required: Yes

### ClientToken

A unique ID. If not specified, the AWS CLI and AWS SDKs, such as the SDK for Python (Boto3), add a unique value to the call.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: ^[a-zA-Z0-9-]+\$

Required: Yes

### Horovod

Indicates Horovod compatibility.

Type: Boolean

Required: No

### ImageName

The ImageName of the Image to create a version of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}\$

Required: Yes

### JobType

Indicates SageMaker job type compatibility.

- **TRAINING:** The image version is compatible with SageMaker training jobs.
- **INFERENCE:** The image version is compatible with SageMaker inference jobs.
- **NOTEBOOK\_KERNEL:** The image version is compatible with SageMaker notebook kernels.

Type: String

Valid Values: TRAINING | INFERENCE | NOTEBOOK\_KERNEL

Required: No

### MLFramework

The machine learning framework vended in the image version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z]+ ?\d+\.\d+(\.\d+)?$`

Required: No

### Processor

Indicates CPU or GPU compatibility.

- **CPU:** The image version is compatible with CPU.
- **GPU:** The image version is compatible with GPU.

Type: String

Valid Values: CPU | GPU

Required: No

### ProgrammingLang

The supported programming language and its version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z]+ ?\d+\.\d+(\.\d+)?$`

Required: No

### ReleaseNotes

The maintainer description of the image version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .\*

Required: No

### VendorGuidance

The stability of the image version, specified by the maintainer.

- NOT\_PROVIDED: The maintainers did not provide a status for image version stability.
- STABLE: The image version is stable.
- TO\_BE\_ARCHIVED: The image version is set to be archived. Custom image versions that are set to be archived are automatically archived after three months.
- ARCHIVED: The image version is archived. Archived image versions are not searchable and are no longer actively supported.

Type: String

Valid Values: NOT\_PROVIDED | STABLE | TO\_BE\_ARCHIVED | ARCHIVED

Required: No

## Response Syntax

```
{  
  "ImageVersionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.



## ImageVersionArn

The ARN of the image version.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws(-[\w]+)*:sagemaker:.+:[0-9]{12}:image-version/[a-z0-9]([-.]?[a-z0-9])*/[0-9]+$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateInferenceComponent

Service: Amazon SageMaker Service

Creates an inference component, which is a SageMaker hosting object that you can use to deploy a model to an endpoint. In the inference component settings, you specify the model, the endpoint, and how the model utilizes the resources that the endpoint hosts. You can optimize resource utilization by tailoring how the required CPU cores, accelerators, and memory are allocated. You can deploy multiple inference components to an endpoint, where each inference component contains one model and the resource utilization needs for that individual model. After you deploy an inference component, you can directly invoke the associated model when you use the InvokeEndpoint API action.

## Request Syntax

```
{
  "EndpointName": "string",
  "InferenceComponentName": "string",
  "RuntimeConfig": {
    "CopyCount": number
  },
  "Specification": {
    "ComputeResourceRequirements": {
      "MaxMemoryRequiredInMb": number,
      "MinMemoryRequiredInMb": number,
      "NumberOfAcceleratorDevicesRequired": number,
      "NumberOfCpuCoresRequired": number
    },
    "Container": {
      "ArtifactUrl": "string",
      "Environment": {
        "string" : "string"
      },
      "Image": "string"
    },
    "ModelName": "string",
    "StartupParameters": {
      "ContainerStartupHealthCheckTimeoutInSeconds": number,
      "ModelDataDownloadTimeoutInSeconds": number
    }
  },
  "Tags": [
    {
```

```
    "Key": "string",  
    "Value": "string"  
  }  
],  
"VariantName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EndpointName

The name of an existing endpoint where you host the inference component.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### InferenceComponentName

A unique name to assign to the inference component.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9]*[a-zA-Z0-9] )?$`

Required: Yes

### RuntimeConfig

Runtime settings for a model that is deployed with an inference component.

Type: [InferenceComponentRuntimeConfig](#) object

Required: Yes

## Specification

Details about the resources to deploy with this inference component, including the model, container, and compute resources.

Type: [InferenceComponentSpecification](#) object

Required: Yes

## Tags

A list of key-value pairs associated with the model. For more information, see [Tagging AWS resources](#) in the *AWS General Reference*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## VariantName

The name of an existing production variant where you host the inference component.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{
  "InferenceComponentArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## InferenceComponentArn

The Amazon Resource Name (ARN) of the inference component.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateInferenceExperiment

Service: Amazon SageMaker Service

Creates an inference experiment using the configurations specified in the request.

Use this API to setup and schedule an experiment to compare model variants on a Amazon SageMaker inference endpoint. For more information about inference experiments, see [Shadow tests](#).

Amazon SageMaker begins your experiment at the scheduled time and routes traffic to your endpoint's model variants based on your specified configuration.

While the experiment is in progress or after it has concluded, you can view metrics that compare your model variants. For more information, see [View, monitor, and edit shadow tests](#).

## Request Syntax

```
{
  "DataStorageConfig": {
    "ContentType": {
      "CsvContentTypes": [ "string" ],
      "JsonContentTypes": [ "string" ]
    },
    "Destination": "string",
    "KmsKey": "string"
  },
  "Description": "string",
  "EndpointName": "string",
  "KmsKey": "string",
  "ModelVariants": [
    {
      "InfrastructureConfig": {
        "InfrastructureType": "string",
        "RealTimeInferenceConfig": {
          "InstanceCount": number,
          "InstanceType": "string"
        }
      },
      "ModelName": "string",
      "VariantName": "string"
    }
  ],
}
```

```
"Name": "string",
"RoleArn": "string",
"Schedule": {
  "EndTime": number,
  "StartTime": number
},
"ShadowModeConfig": {
  "ShadowModelVariants": [
    {
      "SamplingPercentage": number,
      "ShadowModelVariantName": "string"
    }
  ],
  "SourceModelVariantName": "string"
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
],
"Type": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [DataStorageConfig](#)

The Amazon S3 location and configuration for storing inference request and response data.

This is an optional parameter that you can use for data capture. For more information, see [Capture data](#).

Type: [InferenceExperimentDataStorageConfig](#) object

Required: No

### [Description](#)

A description for the inference experiment.



Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### EndpointName

The name of the Amazon SageMaker endpoint on which you want to run the inference experiment.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### KmsKey

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance that hosts the endpoint. The KmsKey can be any of the following formats:

- KMS key ID

`"1234abcd-12ab-34cd-56ef-1234567890ab"`

- Amazon Resource Name (ARN) of a KMS key

`"arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"`

- KMS key Alias

`"alias/ExampleAlias"`

- Amazon Resource Name (ARN) of a KMS key Alias

`"arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias"`

If you use a KMS key ID or an alias of your KMS key, the Amazon SageMaker execution role must include permissions to call `kms:Encrypt`. If you don't provide a KMS key ID, Amazon

SageMaker uses the default KMS key for Amazon S3 for your role's account. Amazon SageMaker uses server-side encryption with KMS managed keys for `OutputDataConfig`. If you use a bucket policy with an `s3:PutObject` permission that only allows objects with server-side encryption, set the condition key of `s3:x-amz-server-side-encryption` to `"aws:kms"`. For more information, see [KMS managed Encryption Keys](#) in the *Amazon Simple Storage Service Developer Guide*.

The KMS key policy must grant permission to the IAM role that you specify in your `CreateEndpoint` and `UpdateEndpoint` requests. For more information, see [Using Key Policies in AWS KMS](#) in the *AWS Key Management Service Developer Guide*.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## [ModelVariants](#)

An array of `ModelVariantConfig` objects. There is one for each variant in the inference experiment. Each `ModelVariantConfig` object in the array describes the infrastructure configuration for the corresponding variant.

Type: Array of [ModelVariantConfig](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Required: Yes

## [Name](#)

The name for the inference experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## RoleArn

The ARN of the IAM role that Amazon SageMaker can assume to access model artifacts and container images, and manage Amazon SageMaker Inference endpoints for model deployment.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: Yes

## Schedule

The duration for which you want the inference experiment to run. If you don't specify this field, the experiment automatically starts immediately upon creation and concludes after 7 days.

Type: [InferenceExperimentSchedule](#) object

Required: No

## ShadowModeConfig

The configuration of ShadowMode inference experiment type. Use this field to specify a production variant which takes all the inference requests, and a shadow variant to which Amazon SageMaker replicates a percentage of the inference requests. For the shadow variant also specify the percentage of requests that Amazon SageMaker replicates.

Type: [ShadowModeConfig](#) object

Required: Yes

## Tags

Array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging your AWS Resources](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Type

The type of the inference experiment that you want to run. The following types of experiments are possible:

- **ShadowMode**: You can use this type to validate a shadow variant. For more information, see [Shadow tests](#).

Type: String

Valid Values: ShadowMode

Required: Yes

## Response Syntax

```
{
  "InferenceExperimentArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [InferenceExperimentArn](#)

The ARN for your inference experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:inference-experiment/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateInferenceRecommendationsJob

Service: Amazon SageMaker Service

Starts a recommendation job. You can create either an instance recommendation or load test job.

## Request Syntax

```
{
  "InputConfig": {
    "ContainerConfig": {
      "DataInputConfig": "string",
      "Domain": "string",
      "Framework": "string",
      "FrameworkVersion": "string",
      "NearestModelName": "string",
      "PayloadConfig": {
        "SamplePayloadUrl": "string",
        "SupportedContentTypes": [ "string" ]
      },
      "SupportedEndpointType": "string",
      "SupportedInstanceTypes": [ "string" ],
      "SupportedResponseMIMETypes": [ "string" ],
      "Task": "string"
    },
    "EndpointConfigurations": [
      {
        "EnvironmentParameterRanges": {
          "CategoricalParameterRanges": [
            {
              "Name": "string",
              "Value": [ "string" ]
            }
          ]
        },
        "InferenceSpecificationName": "string",
        "InstanceType": "string",
        "ServerlessConfig": {
          "MaxConcurrency": number,
          "MemorySizeInMB": number,
          "ProvisionedConcurrency": number
        }
      }
    ]
  },
}
```

```
"Endpoints": [
  {
    "EndpointName": "string"
  }
],
"JobDurationInSeconds": number,
"ModelName": "string",
"ModelPackageVersionArn": "string",
"ResourceLimit": {
  "MaxNumberOfTests": number,
  "MaxParallelOfTests": number
},
"TrafficPattern": {
  "Phases": [
    {
      "DurationInSeconds": number,
      "InitialNumberOfUsers": number,
      "SpawnRate": number
    }
  ],
  "Stairs": {
    "DurationInSeconds": number,
    "NumberOfSteps": number,
    "UsersPerStep": number
  },
  "TrafficType": "string"
},
"VolumeKmsKeyId": "string",
"VpcConfig": {
  "SecurityGroupIds": [ "string" ],
  "Subnets": [ "string" ]
}
},
"JobDescription": "string",
"JobName": "string",
"JobType": "string",
"OutputConfig": {
  "CompiledOutputConfig": {
    "S3OutputUri": "string"
  },
  "KmsKeyId": "string"
},
"RoleArn": "string",
"StoppingConditions": {
```

```
"FlatInvocations": "string",
"MaxInvocations": number,
"ModelLatencyThresholds": [
  {
    "Percentile": "string",
    "ValueInMilliseconds": number
  }
],
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
]
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### InputConfig

Provides information about the versioned model package Amazon Resource Name (ARN), the traffic pattern, and endpoint configurations.

Type: [RecommendationJobInputConfig](#) object

Required: Yes

### JobDescription

Description of the recommendation job.

Type: String

Length Constraints: Maximum length of 128.

Required: No

### JobName

A name for the recommendation job. The name must be unique within the AWS Region and within your AWS account. The job name is passed down to the resources created by the



recommendation job. The names of resources (such as the model, endpoint configuration, endpoint, and compilation) that are prefixed with the job name are truncated at 40 characters.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,63}`

Required: Yes

### JobType

Defines the type of recommendation job. Specify `Default` to initiate an instance recommendation and `Advanced` to initiate a load test. If left unspecified, Amazon SageMaker Inference Recommender will run an instance recommendation (DEFAULT) job.

Type: String

Valid Values: `Default` | `Advanced`

Required: Yes

### OutputConfig

Provides information about the output artifacts and the KMS key to use for Amazon S3 server-side encryption.

Type: [RecommendationJobOutputConfig](#) object

Required: No

### RoleArn

The Amazon Resource Name (ARN) of an IAM role that enables Amazon SageMaker to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: Yes

## StoppingConditions

A set of conditions for stopping a recommendation job. If any of the conditions are met, the job is automatically stopped.

Type: [RecommendationJobStoppingConditions](#) object

Required: No

## Tags

The metadata that you apply to AWS resources to help you categorize and organize them. Each tag consists of a key and a value, both of which you define. For more information, see [Tagging AWS Resources](#) in the AWS General Reference.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "JobArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobArn

The Amazon Resource Name (ARN) of the recommendation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:inference-recommendations-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateLabelingJob

Service: Amazon SageMaker Service

Creates a job that uses workers to label the data objects in your input dataset. You can use the labeled data to train machine learning models.

You can select your workforce from one of three providers:

- A private workforce that you create. It can include employees, contractors, and outside experts. Use a private workforce when you want the data to stay within your organization or when a specific set of skills is required.
- One or more vendors that you select from the AWS Marketplace. Vendors provide expertise in specific areas.
- The Amazon Mechanical Turk workforce. This is the largest workforce, but it should only be used for public data or data that has been stripped of any personally identifiable information.

You can also use *automated data labeling* to reduce the number of data objects that need to be labeled by a human. Automated data labeling uses *active learning* to determine if a data object can be labeled by machine or if it needs to be sent to a human worker. For more information, see [Using Automated Data Labeling](#).

The data objects to be labeled are contained in an Amazon S3 bucket. You create a *manifest file* that describes the location of each object. For more information, see [Using Input and Output Data](#).

The output can be used as the manifest file for another labeling job or as training data for your machine learning models.

You can use this operation to create a static labeling job or a streaming labeling job. A static labeling job stops if all data objects in the input manifest file identified in `ManifestS3Uri` have been labeled. A streaming labeling job runs perpetually until it is manually stopped, or remains idle for 10 days. You can send new data objects to an active (`InProgress`) streaming labeling job in real time. To learn how to create a static labeling job, see [Create a Labeling Job \(API\)](#) in the Amazon SageMaker Developer Guide. To learn how to create a streaming labeling job, see [Create a Streaming Labeling Job](#).

## Request Syntax

```
{
  "HumanTaskConfig": {
```

```

    "AnnotationConsolidationConfig": {
      "AnnotationConsolidationLambdaArn": "string"
    },
    "MaxConcurrentTaskCount": number,
    "NumberOfHumanWorkersPerDataObject": number,
    "PreHumanTaskLambdaArn": "string",
    "PublicWorkforceTaskPrice": {
      "AmountInUsd": {
        "Cents": number,
        "Dollars": number,
        "TenthFractionsOfACent": number
      }
    },
    "TaskAvailabilityLifetimeInSeconds": number,
    "TaskDescription": "string",
    "TaskKeywords": [ "string" ],
    "TaskTimeLimitInSeconds": number,
    "TaskTitle": "string",
    "UiConfig": {
      "HumanTaskUiArn": "string",
      "UiTemplateS3Uri": "string"
    },
    "WorkteamArn": "string"
  },
  "InputConfig": {
    "DataAttributes": {
      "ContentClassifiers": [ "string" ]
    },
    "DataSource": {
      "S3DataSource": {
        "ManifestS3Uri": "string"
      },
      "SnsDataSource": {
        "SnsTopicArn": "string"
      }
    }
  },
  "LabelAttributeName": "string",
  "LabelCategoryConfigS3Uri": "string",
  "LabelingJobAlgorithmsConfig": {
    "InitialActiveLearningModelArn": "string",
    "LabelingJobAlgorithmSpecificationArn": "string",
    "LabelingJobResourceConfig": {
      "VolumeKmsKeyId": "string",

```

```

    "VpcConfig": {
      "SecurityGroupIds": [ "string" ],
      "Subnets": [ "string" ]
    }
  },
  "LabelingJobName": "string",
  "OutputConfig": {
    "KmsKeyId": "string",
    "S3OutputPath": "string",
    "SnsTopicArn": "string"
  },
  "RoleArn": "string",
  "StoppingConditions": {
    "MaxHumanLabeledObjectCount": number,
    "MaxPercentageOfInputDatasetLabeled": number
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [HumanTaskConfig](#)

Configures the labeling task and how it is presented to workers; including, but not limited to price, keywords, and batch size (task count).

Type: [HumanTaskConfig](#) object

Required: Yes

### [InputConfig](#)

Input data for the labeling job, such as the Amazon S3 location of the data objects and the location of the manifest file that describes the data objects.

You must specify at least one of the following: `S3DataSource` or `SnsDataSource`.

- Use `SnsDataSource` to specify an SNS input topic for a streaming labeling job. If you do not specify and SNS input topic ARN, Ground Truth will create a one-time labeling job that stops after all data objects in the input manifest file have been labeled.
- Use `S3DataSource` to specify an input manifest file for both streaming and one-time labeling jobs. Adding an `S3DataSource` is optional if you use `SnsDataSource` to create a streaming labeling job.

If you use the Amazon Mechanical Turk workforce, your input data should not include confidential information, personal information or protected health information. Use `ContentClassifiers` to specify that your data is free of personally identifiable information and adult content.

Type: [LabelingJobInputConfig](#) object

Required: Yes

### [LabelAttributeName](#)

The attribute name to use for the label in the output manifest file. This is the key for the key/value pair formed with the label that a worker assigns to the object. The `LabelAttributeName` must meet the following requirements.

- The name can't end with "-metadata".
- If you are using one of the following [built-in task types](#), the attribute name *must* end with "-ref". If the task type you are using is not listed below, the attribute name *must not* end with "-ref".
  - Image semantic segmentation (`SemanticSegmentation`), and adjustment (`AdjustmentSemanticSegmentation`) and verification (`VerificationSemanticSegmentation`) labeling jobs for this task type.
  - Video frame object detection (`VideoObjectDetection`), and adjustment and verification (`AdjustmentVideoObjectDetection`) labeling jobs for this task type.
  - Video frame object tracking (`VideoObjectTracking`), and adjustment and verification (`AdjustmentVideoObjectTracking`) labeling jobs for this task type.
  - 3D point cloud semantic segmentation (`3DPointCloudSemanticSegmentation`), and adjustment and verification (`Adjustment3DPointCloudSemanticSegmentation`) labeling jobs for this task type.

- 3D point cloud object tracking (3DPointCloudObjectTracking), and adjustment and verification (Adjustment3DPointCloudObjectTracking) labeling jobs for this task type.

### Important

If you are creating an adjustment or verification labeling job, you must use a *different* `LabelAttributeName` than the one used in the original labeling job. The original labeling job is the Ground Truth labeling job that produced the labels that you want verified or adjusted. To learn more about adjustment and verification labeling jobs, see [Verify and Adjust Labels](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 127.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,126}`

Required: Yes

### [LabelCategoryConfigS3Uri](#)

The S3 URI of the file, referred to as a *label category configuration file*, that defines the categories used to label the data objects.

For 3D point cloud and video frame task types, you can add label category attributes and frame attributes to your label category configuration file. To learn how, see [Create a Labeling Category Configuration File for 3D Point Cloud Labeling Jobs](#).

For named entity recognition jobs, in addition to "labels", you must provide worker instructions in the label category configuration file using the "instructions" parameter: `"instructions": {"shortInstruction": "<h1>Add header</h1><p>Add Instructions</p>", "fullInstruction": "<p>Add additional instructions.</p>"}`. For details and an example, see [Create a Named Entity Recognition Labeling Job \(API\)](#).

For all other [built-in task types](#) and [custom tasks](#), your label category configuration file must be a JSON file in the following format. Identify the labels you want to use by replacing `label_1`, `label_2`, . . . , `label_n` with your label categories.



```
{
  "document-version": "2018-11-28",
  "labels": [{"label": "label_1"}, {"label": "label_2"}, ... {"label":
  "label_n"}]
}
```

Note the following about the label category configuration file:

- For image classification and text classification (single and multi-label) you must specify at least two label categories. For all other task types, the minimum number of label categories required is one.
- Each label category must be unique, you cannot specify duplicate label categories.
- If you create a 3D point cloud or video frame adjustment or verification labeling job, you must include `auditLabelAttributeName` in the label category configuration. Use this parameter to enter the [LabelAttributeName](#) of the labeling job you want to adjust or verify annotations of.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: No

### [LabelingJobAlgorithmsConfig](#)

Configures the information required to perform automated data labeling.

Type: [LabelingJobAlgorithmsConfig](#) object

Required: No

### [LabelingJobName](#)

The name of the labeling job. This name is used to identify the job in a list of labeling jobs. Labeling job names must be unique within an AWS account and region. `LabelingJobName` is not case sensitive. For example, `Example-job` and `example-job` are considered the same labeling job name by Ground Truth.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### OutputConfig

The location of the output data and the AWS Key Management Service key ID for the key used to encrypt the output data, if any.

Type: [LabelingJobOutputConfig](#) object

Required: Yes

### RoleArn

The Amazon Resource Number (ARN) that Amazon SageMaker assumes to perform tasks on your behalf during data labeling. You must grant this role the necessary permissions so that Amazon SageMaker can successfully complete data labeling.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: Yes

### StoppingConditions

A set of conditions for stopping the labeling job. If any of the conditions are met, the job is automatically stopped. You can use these conditions to control the cost of data labeling.

Type: [LabelingJobStoppingConditions](#) object

Required: No

### Tags

An array of key/value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
  "LabelingJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [LabelingJobArn](#)

The Amazon Resource Name (ARN) of the labeling job. You use this ARN to identify the labeling job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:labeling-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateMlflowTrackingServer

Service: Amazon SageMaker Service

Creates an MLflow Tracking Server using a general purpose Amazon S3 bucket as the artifact store. For more information, see [Create an MLflow Tracking Server](#).

## Request Syntax

```
{
  "ArtifactStoreUri": "string",
  "AutomaticModelRegistration": boolean,
  "MlflowVersion": "string",
  "RoleArn": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "TrackingServerName": "string",
  "TrackingServerSize": "string",
  "WeeklyMaintenanceWindowStart": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [ArtifactStoreUri](#)

The S3 URI for a general purpose bucket to use as the MLflow Tracking Server artifact store.

Type: String

Length Constraints: Maximum length of 1024.

Pattern:  $^(https|s3):\/\/([^\/]+)\/?(.*)\$$

Required: Yes

## AutomaticModelRegistration

Whether to enable or disable automatic registration of new MLflow models to the SageMaker Model Registry. To enable automatic model registration, set this value to `True`. To disable automatic model registration, set this value to `False`. If not specified, `AutomaticModelRegistration` defaults to `False`.

Type: Boolean

Required: No

## MlflowVersion

The version of MLflow that the tracking server uses. To see which MLflow versions are available to use, see [How it works](#).

Type: String

Length Constraints: Maximum length of 16.

Pattern: `^[0-9]*.[0-9]*.[0-9]*`

Required: No

## RoleArn

The Amazon Resource Name (ARN) for an IAM role in your account that the MLflow Tracking Server uses to access the artifact store in Amazon S3. The role should have `AmazonS3FullAccess` permissions. For more information on IAM permissions for tracking server creation, see [Set up IAM permissions for MLflow](#).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: Yes

## Tags

Tags consisting of key-value pairs used to manage metadata for the tracking server.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### TrackingServerName

A unique string identifying the tracking server name. This string is part of the tracking server ARN.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: Yes

### TrackingServerSize

The size of the tracking server you want to create. You can choose between "Small", "Medium", and "Large". The default MLflow Tracking Server configuration size is "Small". You can choose a size depending on the projected use of the tracking server such as the volume of data logged, number of users, and frequency of use.

We recommend using a small tracking server for teams of up to 25 users, a medium tracking server for teams of up to 50 users, and a large tracking server for teams of up to 100 users.

Type: String

Valid Values: Small | Medium | Large

Required: No

### WeeklyMaintenanceWindowStart

The day and time of the week in Coordinated Universal Time (UTC) 24-hour standard time that weekly maintenance updates are scheduled. For example: TUE:03:30.

Type: String

Length Constraints: Maximum length of 9.

Pattern: `(Mon|Tue|Wed|Thu|Fri|Sat|Sun):([01]\d|2[0-3]):([0-5]\d)`

Required: No

## Response Syntax

```
{
  "TrackingServerArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [TrackingServerArn](#)

The ARN of the tracking server.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:mlflow-tracking-server/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)



- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateModel

Service: Amazon SageMaker Service

Creates a model in SageMaker. In the request, you name the model and describe a primary container. For the primary container, you specify the Docker image that contains inference code, artifacts (from prior training), and a custom environment map that the inference code uses when you deploy the model for predictions.

Use this API to create a model if you want to use SageMaker hosting services or run a batch transform job.

To host your model, you create an endpoint configuration with the `CreateEndpointConfig` API, and then create an endpoint with the `CreateEndpoint` API. SageMaker then deploys all of the containers that you defined for the model in the hosting environment.

To run a batch transform using your model, you start a job with the `CreateTransformJob` API. SageMaker uses your model and your dataset to get inferences which are then saved to a specified S3 location.

In the request, you also provide an IAM role that SageMaker can assume to access model artifacts and docker image for deployment on ML compute hosting instances or for batch transform jobs. In addition, you also use the IAM role to manage permissions the inference code needs. For example, if the inference code access any other AWS resources, you grant necessary permissions via this role.

## Request Syntax

```
{
  "Containers": [
    {
      "ContainerHostname": "string",
      "Environment": {
        "string" : "string"
      },
      "Image": "string",
      "ImageConfig": {
        "RepositoryAccessMode": "string",
        "RepositoryAuthConfig": {
          "RepositoryCredentialsProviderArn": "string"
        }
      },
      "InferenceSpecificationName": "string",
```

```

    "Mode": "string",
    "ModelDataSource": {
      "S3DataSource": {
        "CompressionType": "string",
        "HubAccessConfig": {
          "HubContentArn": "string"
        },
        "ModelAccessConfig": {
          "AcceptEula": boolean
        },
        "S3DataType": "string",
        "S3Uri": "string"
      }
    },
    "ModelDataUrl": "string",
    "ModelPackageName": "string",
    "MultiModelConfig": {
      "ModelCacheSetting": "string"
    }
  },
  "EnableNetworkIsolation": boolean,
  "ExecutionRoleArn": "string",
  "InferenceExecutionConfig": {
    "Mode": "string"
  },
  "ModelName": "string",
  "PrimaryContainer": {
    "ContainerHostname": "string",
    "Environment": {
      "string": "string"
    }
  },
  "Image": "string",
  "ImageConfig": {
    "RepositoryAccessMode": "string",
    "RepositoryAuthConfig": {
      "RepositoryCredentialsProviderArn": "string"
    }
  },
  "InferenceSpecificationName": "string",
  "Mode": "string",
  "ModelDataSource": {
    "S3DataSource": {
      "CompressionType": "string",

```

```

    "HubAccessConfig": {
      "HubContentArn": "string"
    },
    "ModelAccessConfig": {
      "AcceptEula": boolean
    },
    "S3DataType": "string",
    "S3Uri": "string"
  }
},
"ModelDataUrl": "string",
"ModelPackageName": "string",
"MultiModelConfig": {
  "ModelCacheSetting": "string"
}
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
],
"VpcConfig": {
  "SecurityGroupIds": [ "string" ],
  "Subnets": [ "string" ]
}
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Containers

Specifies the containers in the inference pipeline.

Type: Array of [ContainerDefinition](#) objects

Array Members: Maximum number of 15 items.

Required: No

## EnableNetworkIsolation

Isolates the model container. No inbound or outbound network calls can be made to or from the model container.

Type: Boolean

Required: No

## ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role that SageMaker can assume to access model artifacts and docker image for deployment on ML compute instances or for batch transform jobs. Deploying on ML compute instances is part of model hosting. For more information, see [SageMaker Roles](#).

### Note

To be able to pass this role to SageMaker, the caller of this API must have the `iam:PassRole` permission.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: No

## InferenceExecutionConfig

Specifies details of how containers in a multi-container endpoint are called.

Type: [InferenceExecutionConfig](#) object

Required: No

## ModelName

The name of the new model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9]*[a-zA-Z0-9] )?`

Required: Yes

### PrimaryContainer

The location of the primary docker image containing inference code, associated artifacts, and custom environment map that the inference code uses when the model is deployed for predictions.

Type: [ContainerDefinition](#) object

Required: No

### Tags

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### VpcConfig

A [VpcConfig](#) object that specifies the VPC that you want your model to connect to. Control access to and from your model container by configuring the VPC. VpcConfig is used in hosting services and in batch transform. For more information, see [Protect Endpoints by Using an Amazon Virtual Private Cloud](#) and [Protect Data in Batch Transform Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [VpcConfig](#) object

Required: No

## Response Syntax

```
{
```

```
"ModelArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ModelArn

The ARN of the model created in SageMaker.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:model/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# CreateModelBiasJobDefinition

Service: Amazon SageMaker Service

Creates the definition for a model bias job.

## Request Syntax

```
{
  "JobDefinitionName": "string",
  "JobResources": {
    "ClusterConfig": {
      "InstanceCount": number,
      "InstanceType": "string",
      "VolumeKmsKeyId": "string",
      "VolumeSizeInGB": number
    }
  },
  "ModelBiasAppSpecification": {
    "ConfigUri": "string",
    "Environment": {
      "string": "string"
    },
    "ImageUri": "string"
  },
  "ModelBiasBaselineConfig": {
    "BaseliningJobName": "string",
    "ConstraintsResource": {
      "S3Uri": "string"
    }
  },
  "ModelBiasJobInput": {
    "BatchTransformInput": {
      "DataCapturedDestinationS3Uri": "string",
      "DatasetFormat": {
        "Csv": {
          "Header": boolean
        },
        "Json": {
          "Line": boolean
        },
        "Parquet": {
        }
      }
    }
  },
}
```

```

    "EndTimeOffset": "string",
    "ExcludeFeaturesAttribute": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  },
  "EndpointInput": {
    "EndpointName": "string",
    "EndTimeOffset": "string",
    "ExcludeFeaturesAttribute": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  },
  "GroundTruthS3Input": {
    "S3Uri": "string"
  }
},
"ModelBiasJobOutputConfig": {
  "KmsKeyId": "string",
  "MonitoringOutputs": [
    {
      "S3Output": {
        "LocalPath": "string",
        "S3UploadMode": "string",
        "S3Uri": "string"
      }
    }
  ]
},
"NetworkConfig": {
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableNetworkIsolation": boolean,
  "VpcConfig": {

```

```
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  },
  "RoleArn": "string",
  "StoppingCondition": {
    "MaxRuntimeInSeconds": number
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobDefinitionName

The name of the bias job definition. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### JobResources

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources](#) object

Required: Yes

### ModelBiasAppSpecification

Configures the model bias job to run a specified Docker container image.

Type: [ModelBiasAppSpecification](#) object

Required: Yes

### [ModelBiasBaselineConfig](#)

The baseline configuration for a model bias job.

Type: [ModelBiasBaselineConfig](#) object

Required: No

### [ModelBiasJobInput](#)

Inputs for the model bias job.

Type: [ModelBiasJobInput](#) object

Required: Yes

### [ModelBiasJobOutputConfig](#)

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig](#) object

Required: Yes

### [NetworkConfig](#)

Networking options for a model bias job.

Type: [MonitoringNetworkConfig](#) object

Required: No

### [RoleArn](#)

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\ ]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@\-\_/\ ]+$`

Required: Yes

### StoppingCondition

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition](#) object

Required: No

### Tags

(Optional) An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "JobDefinitionArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobDefinitionArn

The Amazon Resource Name (ARN) of the model bias job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: . \*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateModelCard

Service: Amazon SageMaker Service

Creates an Amazon SageMaker Model Card.

For information about how to use model cards, see [Amazon SageMaker Model Card](#).

## Request Syntax

```
{
  "Content": "string",
  "ModelCardName": "string",
  "ModelCardStatus": "string",
  "SecurityConfig": {
    "KmsKeyId": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Content

The content of the model card. Content must be in [model card JSON schema](#) and provided as a string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100000.

Pattern: .\*

Required: Yes

## ModelCardName

The unique name of the model card.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## ModelCardStatus

The approval status of the model card within your organization. Different organizations might have different criteria for model card review and approval.

- **Draft:** The model card is a work in progress.
- **PendingReview:** The model card is pending review.
- **Approved:** The model card is approved.
- **Archived:** The model card is archived. No more updates should be made to the model card, but it can still be exported.

Type: String

Valid Values: `Draft | PendingReview | Approved | Archived`

Required: Yes

## SecurityConfig

An optional Key Management Service key to encrypt, decrypt, and re-encrypt model card content for regulated workloads with highly sensitive data.

Type: [ModelCardSecurityConfig](#) object

Required: No

## Tags

Key-value pairs used to manage metadata for model cards.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.



Required: No

## Response Syntax

```
{
  "ModelCardArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ModelCardArn](#)

The Amazon Resource Name (ARN) of the successfully created model card.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateModelCardExportJob

Service: Amazon SageMaker Service

Creates an Amazon SageMaker Model Card export job.

## Request Syntax

```
{
  "ModelCardExportJobName": "string",
  "ModelCardName": "string",
  "ModelCardVersion": number,
  "OutputConfig": {
    "S3OutputPath": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ModelCardExportJobName

The name of the model card export job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelCardName

The name or Amazon Resource Name (ARN) of the model card to export.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `(arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:model-card/.*)?([a-zA-Z0-9](-*[a-zA-Z0-9]){0,62})`

Required: Yes

### ModelCardVersion

The version of the model card to export. If a version is not provided, then the latest version of the model card is exported.

Type: Integer

Required: No

### OutputConfig

The model card output configuration that specifies the Amazon S3 path for exporting.

Type: [ModelCardExportOutputConfig](#) object

Required: Yes

## Response Syntax

```
{  
  "ModelCardExportJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ModelCardExportJobArn

The Amazon Resource Name (ARN) of the model card export job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\-]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}/export-job/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateModelExplainabilityJobDefinition

Service: Amazon SageMaker Service

Creates the definition for a model explainability job.

## Request Syntax

```
{
  "JobDefinitionName": "string",
  "JobResources": {
    "ClusterConfig": {
      "InstanceCount": number,
      "InstanceType": "string",
      "VolumeKmsKeyId": "string",
      "VolumeSizeInGB": number
    }
  },
  "ModelExplainabilityAppSpecification": {
    "ConfigUri": "string",
    "Environment": {
      "string": "string"
    },
    "ImageUri": "string"
  },
  "ModelExplainabilityBaselineConfig": {
    "BaseliningJobName": "string",
    "ConstraintsResource": {
      "S3Uri": "string"
    }
  },
  "ModelExplainabilityJobInput": {
    "BatchTransformInput": {
      "DataCapturedDestinationS3Uri": "string",
      "DatasetFormat": {
        "Csv": {
          "Header": boolean
        },
        "Json": {
          "Line": boolean
        },
        "Parquet": {
        }
      }
    }
  },
}
```

```

    "EndTimeOffset": "string",
    "ExcludeFeaturesAttribute": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  },
  "EndpointInput": {
    "EndpointName": "string",
    "EndTimeOffset": "string",
    "ExcludeFeaturesAttribute": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  }
},
"ModelExplainabilityJobOutputConfig": {
  "KmsKeyId": "string",
  "MonitoringOutputs": [
    {
      "S3Output": {
        "LocalPath": "string",
        "S3UploadMode": "string",
        "S3Uri": "string"
      }
    }
  ]
},
"NetworkConfig": {
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableNetworkIsolation": boolean,
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  }
}

```

```

},
"RoleArn": "string",
"StoppingCondition": {
  "MaxRuntimeInSeconds": number
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
]
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobDefinitionName

The name of the model explainability job definition. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### JobResources

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources](#) object

Required: Yes

### ModelExplainabilityAppSpecification

Configures the model explainability job to run a specified Docker container image.



Type: [ModelExplainabilityAppSpecification](#) object

Required: Yes

### [ModelExplainabilityBaselineConfig](#)

The baseline configuration for a model explainability job.

Type: [ModelExplainabilityBaselineConfig](#) object

Required: No

### [ModelExplainabilityJobInput](#)

Inputs for the model explainability job.

Type: [ModelExplainabilityJobInput](#) object

Required: Yes

### [ModelExplainabilityJobOutputConfig](#)

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig](#) object

Required: Yes

### [NetworkConfig](#)

Networking options for a model explainability job.

Type: [MonitoringNetworkConfig](#) object

Required: No

### [RoleArn](#)

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-_/]+$`

Required: Yes

### StoppingCondition

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition](#) object

Required: No

### Tags

(Optional) An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "JobDefinitionArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobDefinitionArn

The Amazon Resource Name (ARN) of the model explainability job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateModelPackage

Service: Amazon SageMaker Service

Creates a model package that you can use to create SageMaker models or list on AWS Marketplace, or a versioned model that is part of a model group. Buyers can subscribe to model packages listed on AWS Marketplace to create models in SageMaker.

To create a model package by specifying a Docker container that contains your inference code and the Amazon S3 location of your model artifacts, provide values for `InferenceSpecification`. To create a model from an algorithm resource that you created or subscribed to in AWS Marketplace, provide a value for `SourceAlgorithmSpecification`.

## Note

There are two types of model packages:

- Versioned - a model that is part of a model group in the model registry.
- Unversioned - a model package that is not part of a model group.

## Request Syntax

```
{
  "AdditionalInferenceSpecifications": [
    {
      "Containers": [
        {
          "AdditionalS3DataSource": {
            "CompressionType": "string",
            "S3DataType": "string",
            "S3Uri": "string"
          },
          "ContainerHostname": "string",
          "Environment": {
            "string": "string"
          },
          "Framework": "string",
          "FrameworkVersion": "string",
          "Image": "string",
          "ImageDigest": "string",
          "ModelDataSource": {
```

```

        "S3DataSource": {
            "CompressionType": "string",
            "HubAccessConfig": {
                "HubContentArn": "string"
            },
            "ModelAccessConfig": {
                "AcceptEula": boolean
            },
            "S3DataType": "string",
            "S3Uri": "string"
        }
    },
    "ModelDataUrl": "string",
    "ModelInput": {
        "DataInputConfig": "string"
    },
    "NearestModelName": "string",
    "ProductId": "string"
}
],
"Description": "string",
"Name": "string",
"SupportedContentTypes": [ "string" ],
"SupportedRealtimeInferenceInstanceTypes": [ "string" ],
"SupportedResponseMIMETypes": [ "string" ],
"SupportedTransformInstanceTypes": [ "string" ]
}
],
"CertifyForMarketplace": boolean,
"ClientToken": "string",
"CustomerMetadataProperties": {
    "string" : "string"
},
"Domain": "string",
"DriftCheckBaselines": {
    "Bias": {
        "ConfigFile": {
            "ContentDigest": "string",
            "ContentType": "string",
            "S3Uri": "string"
        },
        "PostTrainingConstraints": {
            "ContentDigest": "string",
            "ContentType": "string",

```

```
    "S3Uri": "string"
  },
  "PreTrainingConstraints": {
    "ContentDigest": "string",
    "ContentType": "string",
    "S3Uri": "string"
  }
},
"Explainability": {
  "ConfigFile": {
    "ContentDigest": "string",
    "ContentType": "string",
    "S3Uri": "string"
  },
  "Constraints": {
    "ContentDigest": "string",
    "ContentType": "string",
    "S3Uri": "string"
  }
},
"ModelDataQuality": {
  "Constraints": {
    "ContentDigest": "string",
    "ContentType": "string",
    "S3Uri": "string"
  },
  "Statistics": {
    "ContentDigest": "string",
    "ContentType": "string",
    "S3Uri": "string"
  }
},
"ModelQuality": {
  "Constraints": {
    "ContentDigest": "string",
    "ContentType": "string",
    "S3Uri": "string"
  },
  "Statistics": {
    "ContentDigest": "string",
    "ContentType": "string",
    "S3Uri": "string"
  }
}
```

```

},
  "InferenceSpecification": {
    "Containers": [
      {
        "AdditionalS3DataSource": {
          "CompressionType": "string",
          "S3DataType": "string",
          "S3Uri": "string"
        },
        "ContainerHostname": "string",
        "Environment": {
          "string": "string"
        },
        "Framework": "string",
        "FrameworkVersion": "string",
        "Image": "string",
        "ImageDigest": "string",
        "ModelDataSource": {
          "S3DataSource": {
            "CompressionType": "string",
            "HubAccessConfig": {
              "HubContentArn": "string"
            },
            "ModelAccessConfig": {
              "AcceptEula": boolean
            },
            "S3DataType": "string",
            "S3Uri": "string"
          }
        },
        "ModelDataUrl": "string",
        "ModelInput": {
          "DataInputConfig": "string"
        },
        "NearestModelName": "string",
        "ProductId": "string"
      }
    ],
    "SupportedContentTypes": [ "string" ],
    "SupportedRealtimeInferenceInstanceTypes": [ "string" ],
    "SupportedResponseMIMETypes": [ "string" ],
    "SupportedTransformInstanceTypes": [ "string" ]
  },
  "MetadataProperties": {

```

```
"CommitId": "string",
"GeneratedBy": "string",
"ProjectId": "string",
"Repository": "string"
},
"ModelApprovalStatus": "string",
"ModelCard": {
  "ModelCardContent": "string",
  "ModelCardStatus": "string"
},
"ModelMetrics": {
  "Bias": {
    "PostTrainingReport": {
      "ContentDigest": "string",
      "ContentType": "string",
      "S3Uri": "string"
    },
    "PreTrainingReport": {
      "ContentDigest": "string",
      "ContentType": "string",
      "S3Uri": "string"
    },
    "Report": {
      "ContentDigest": "string",
      "ContentType": "string",
      "S3Uri": "string"
    }
  },
  "Explainability": {
    "Report": {
      "ContentDigest": "string",
      "ContentType": "string",
      "S3Uri": "string"
    }
  },
  "ModelDataQuality": {
    "Constraints": {
      "ContentDigest": "string",
      "ContentType": "string",
      "S3Uri": "string"
    },
    "Statistics": {
      "ContentDigest": "string",
      "ContentType": "string",

```



```

        "S3Uri": "string"
    }
},
"ModelQuality": {
    "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    },
    "Statistics": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
}
},
"ModelPackageDescription": "string",
"ModelPackageGroupName": "string",
"ModelPackageName": "string",
"SamplePayloadUrl": "string",
"SecurityConfig": {
    "KmsKeyId": "string"
},
"SkipModelValidation": "string",
"SourceAlgorithmSpecification": {
    "SourceAlgorithms": [
        {
            "AlgorithmName": "string",
            "ModelDataSource": {
                "S3DataSource": {
                    "CompressionType": "string",
                    "HubAccessConfig": {
                        "HubContentArn": "string"
                    },
                    "ModelAccessConfig": {
                        "AcceptEula": boolean
                    },
                    "S3DataType": "string",
                    "S3Uri": "string"
                }
            },
            "ModelDataUrl": "string"
        }
    ]
}
]

```

```

},
"SourceUri": "string",
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
],
"Task": "string",
"ValidationSpecification": {
  "ValidationProfiles": [
    {
      "ProfileName": "string",
      "TransformJobDefinition": {
        "BatchStrategy": "string",
        "Environment": {
          "string": "string"
        },
        "MaxConcurrentTransforms": number,
        "MaxPayloadInMB": number,
        "TransformInput": {
          "CompressionType": "string",
          "ContentType": "string",
          "DataSource": {
            "S3DataSource": {
              "S3DataType": "string",
              "S3Uri": "string"
            }
          },
          "SplitType": "string"
        },
        "TransformOutput": {
          "Accept": "string",
          "AssembleWith": "string",
          "KmsKeyId": "string",
          "S3OutputPath": "string"
        },
        "TransformResources": {
          "InstanceCount": number,
          "InstanceType": "string",
          "VolumeKmsKeyId": "string"
        }
      }
    }
  ]
}

```

```
    ],  
    "ValidationRole": "string"  
  }  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [AdditionalInferenceSpecifications](#)

An array of additional Inference Specification objects. Each additional Inference Specification specifies artifacts based on this model package that can be used on inference endpoints. Generally used with SageMaker Neo to store the compiled artifacts.

Type: Array of [AdditionalInferenceSpecificationDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 15 items.

Required: No

### [CertifyForMarketplace](#)

Whether to certify the model package for listing on AWS Marketplace.

This parameter is optional for unversioned models, and does not apply to versioned models.

Type: Boolean

Required: No

### [ClientToken](#)

A unique token that guarantees that the call to this API is idempotent.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[a-zA-Z0-9-]+$`

Required: No

## CustomerMetadataProperties

The metadata properties associated with the model package versions.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern:  $^([\p{L}\p{Z}\p{N}_ : \\/=+\-@]*)\{1,128\}$

Value Length Constraints: Minimum length of 1. Maximum length of 256.

Value Pattern:  $^([\p{L}\p{Z}\p{N}_ : \\/=+\-@]*)\{1,256\}$

Required: No

## Domain

The machine learning domain of your model package and its components. Common machine learning domains include computer vision and natural language processing.

Type: String

Required: No

## DriftCheckBaselines

Represents the drift check baselines that can be used when the model monitor is set using the model package. For more information, see the topic on [Drift Detection against Previous Baselines in SageMaker Pipelines](#) in the *Amazon SageMaker Developer Guide*.

Type: [DriftCheckBaselines](#) object

Required: No

## InferenceSpecification

Specifies details about inference jobs that you can run with models based on this model package, including the following information:

- The Amazon ECR paths of containers that contain the inference code and model artifacts.
- The instance types that the model package supports for transform jobs and real-time endpoints used for inference.

- The input and output content formats that the model package supports for inference.

Type: [InferenceSpecification](#) object

Required: No

### [MetadataProperties](#)

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties](#) object

Required: No

### [ModelApprovalStatus](#)

Whether the model is approved for deployment.

This parameter is optional for versioned models, and does not apply to unversioned models.

For versioned models, the value of this parameter must be set to Approved to deploy the model.

Type: String

Valid Values: Approved | Rejected | PendingManualApproval

Required: No

### [ModelCard](#)

The model card associated with the model package. Since `ModelPackageModelCard` is tied to a model package, it is a specific usage of a model card and its schema is simplified compared to the schema of `ModelCard`. The `ModelPackageModelCard` schema does not include `model_package_details`, and `model_overview` is composed of the `model_creator` and `model_artifact` properties. For more information about the model package model card schema, see [Model package model card schema](#). For more information about the model card associated with the model package, see [View the Details of a Model Version](#).

Type: [ModelPackageModelCard](#) object

Required: No

### [ModelMetrics](#)

A structure that contains model metrics reports.

Type: [ModelMetrics](#) object

Required: No

### [ModelPackageDescription](#)

A description of the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

### [ModelPackageGroupName](#)

The name or Amazon Resource Name (ARN) of the model package group that this model version belongs to.

This parameter is required for versioned models, and does not apply to unversioned models.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: `(arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:[a-z\-\]*\/*)?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!--)$`

Required: No

### [ModelPackageName](#)

The name of the model package. The name must have 1 to 63 characters. Valid characters are a-z, A-Z, 0-9, and - (hyphen).

This parameter is required for unversioned models. It is not applicable to versioned models.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

## SamplePayloadUrl

The Amazon Simple Storage Service (Amazon S3) path where the sample payload is stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix). This archive can hold multiple files that are all equally used in the load test. Each file in the archive must satisfy the size constraints of the [InvokeEndpoint](#) call.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: No

## SecurityConfig

The AWS KMS Key ID (KMSKeyId) used for encryption of model package information.

Type: [ModelPackageSecurityConfig](#) object

Required: No

## SkipModelValidation

Indicates if you want to skip model validation.

Type: String

Valid Values: All | None

Required: No

## SourceAlgorithmSpecification

Details about the algorithm that was used to create the model package.

Type: [SourceAlgorithmSpecification](#) object

Required: No

## SourceUri

The URI of the source for the model package. If you want to clone a model package, set it to the model package Amazon Resource Name (ARN). If you want to register a model, set it to the model ARN.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{N}\p{P}]{0,1024}`

Required: No

## Tags

A list of key value pairs associated with the model. For more information, see [Tagging AWS resources](#) in the *AWS General Reference Guide*.

If you supply `ModelPackageGroupName`, your model package belongs to the model group you specify and uses the tags associated with the model group. In this case, you cannot supply a tag argument.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Task

The machine learning task your model package accomplishes. Common machine learning tasks include object detection and image classification. The following tasks are supported by Inference Recommender: "IMAGE\_CLASSIFICATION" | "OBJECT\_DETECTION" | "TEXT\_GENERATION" | "IMAGE\_SEGMENTATION" | "FILL\_MASK" | "CLASSIFICATION" | "REGRESSION" | "OTHER".

Specify "OTHER" if none of the tasks listed fit your use case.

Type: String

Required: No

## ValidationSpecification

Specifies configurations for one or more transform jobs that SageMaker runs to test the model package.

Type: [ModelPackageValidationSpecification](#) object



Required: No

## Response Syntax

```
{
  "ModelPackageArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ModelPackageArn

The Amazon Resource Name (ARN) of the new model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:model-package/[\S]{1,2048}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateModelPackageGroup

Service: Amazon SageMaker Service

Creates a model group. A model group contains a group of model versions.

## Request Syntax

```
{
  "ModelPackageGroupDescription": "string",
  "ModelPackageGroupName": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ModelPackageGroupDescription

A description for the model group.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

### ModelPackageGroupName

The name of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Tags

A list of key value pairs associated with the model group. For more information, see [Tagging AWS resources](#) in the *AWS General Reference Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "ModelPackageGroupArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ModelPackageGroupArn](#)

The Amazon Resource Name (ARN) of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:model-package-group/[\S]{1,2048}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateModelQualityJobDefinition

Service: Amazon SageMaker Service

Creates a definition for a job that monitors model quality and drift. For information about model monitor, see [Amazon SageMaker Model Monitor](#).

## Request Syntax

```
{
  "JobDefinitionName": "string",
  "JobResources": {
    "ClusterConfig": {
      "InstanceCount": number,
      "InstanceType": "string",
      "VolumeKmsKeyId": "string",
      "VolumeSizeInGB": number
    }
  },
  "ModelQualityAppSpecification": {
    "ContainerArguments": [ "string" ],
    "ContainerEntrypoint": [ "string" ],
    "Environment": {
      "string": "string"
    },
    "ImageUri": "string",
    "PostAnalyticsProcessorSourceUri": "string",
    "ProblemType": "string",
    "RecordPreprocessorSourceUri": "string"
  },
  "ModelQualityBaselineConfig": {
    "BaseliningJobName": "string",
    "ConstraintsResource": {
      "S3Uri": "string"
    }
  },
  "ModelQualityJobInput": {
    "BatchTransformInput": {
      "DataCapturedDestinationS3Uri": "string",
      "DatasetFormat": {
        "Csv": {
          "Header": boolean
        },
        "Json": {
```

```

        "Line": boolean
    },
    "Parquet": {
    },
},
"EndTimeOffset": "string",
"ExcludeFeaturesAttribute": "string",
"FeaturesAttribute": "string",
"InferenceAttribute": "string",
"LocalPath": "string",
"ProbabilityAttribute": "string",
"ProbabilityThresholdAttribute": number,
"S3DataDistributionType": "string",
"S3InputMode": "string",
"StartTimeOffset": "string"
},
"EndpointInput": {
    "EndpointName": "string",
    "EndTimeOffset": "string",
    "ExcludeFeaturesAttribute": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
},
"GroundTruthS3Input": {
    "S3Uri": "string"
}
},
"ModelQualityJobOutputConfig": {
    "KmsKeyId": "string",
    "MonitoringOutputs": [
        {
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ]
}
]

```

```

},
"NetworkConfig": {
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableNetworkIsolation": boolean,
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  }
},
"RoleArn": "string",
"StoppingCondition": {
  "MaxRuntimeInSeconds": number
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
]
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobDefinitionName

The name of the monitoring job definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### JobResources

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources](#) object



Required: Yes

### **ModelQualityAppSpecification**

The container that runs the monitoring job.

Type: [ModelQualityAppSpecification](#) object

Required: Yes

### **ModelQualityBaselineConfig**

Specifies the constraints and baselines for the monitoring job.

Type: [ModelQualityBaselineConfig](#) object

Required: No

### **ModelQualityJobInput**

A list of the inputs that are monitored. Currently endpoints are supported.

Type: [ModelQualityJobInput](#) object

Required: Yes

### **ModelQualityJobOutputConfig**

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig](#) object

Required: Yes

### **NetworkConfig**

Specifies the network configuration for the monitoring job.

Type: [MonitoringNetworkConfig](#) object

Required: No

### **RoleArn**

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@\-\_/\]+$`

Required: Yes

### StoppingCondition

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition](#) object

Required: No

### Tags

(Optional) An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "JobDefinitionArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobDefinitionArn

The Amazon Resource Name (ARN) of the model quality monitoring job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateMonitoringSchedule

Service: Amazon SageMaker Service

Creates a schedule that regularly starts Amazon SageMaker Processing Jobs to monitor the data captured for an Amazon SageMaker Endpoint.

## Request Syntax

```
{
  "MonitoringScheduleConfig": {
    "MonitoringJobDefinition": {
      "BaselineConfig": {
        "BaseliningJobName": "string",
        "ConstraintsResource": {
          "S3Uri": "string"
        },
        "StatisticsResource": {
          "S3Uri": "string"
        }
      },
      "Environment": {
        "string" : "string"
      },
      "MonitoringAppSpecification": {
        "ContainerArguments": [ "string" ],
        "ContainerEntrypoint": [ "string" ],
        "ImageUri": "string",
        "PostAnalyticsProcessorSourceUri": "string",
        "RecordPreprocessorSourceUri": "string"
      },
      "MonitoringInputs": [
        {
          "BatchTransformInput": {
            "DataCapturedDestinationS3Uri": "string",
            "DatasetFormat": {
              "Csv": {
                "Header": boolean
              },
              "Json": {
                "Line": boolean
              },
              "Parquet": {
            }
          }
        }
      ]
    }
  }
}
```

```

    },
    "EndTimeOffset": "string",
    "ExcludeFeaturesAttribute": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  },
  "EndpointInput": {
    "EndpointName": "string",
    "EndTimeOffset": "string",
    "ExcludeFeaturesAttribute": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  }
}
],
"MonitoringOutputConfig": {
  "KmsKeyId": "string",
  "MonitoringOutputs": [
    {
      "S3Output": {
        "LocalPath": "string",
        "S3UploadMode": "string",
        "S3Uri": "string"
      }
    }
  ]
},
"MonitoringResources": {
  "ClusterConfig": {
    "InstanceCount": number,
    "InstanceType": "string",
    "VolumeKmsKeyId": "string",

```

```

        "VolumeSizeInGB": number
    }
},
"NetworkConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
}
},
"MonitoringJobDefinitionName": "string",
"MonitoringType": "string",
"ScheduleConfig": {
    "DataAnalysisEndTime": "string",
    "DataAnalysisStartTime": "string",
    "ScheduleExpression": "string"
}
},
"MonitoringScheduleName": "string",
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
]
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [MonitoringScheduleConfig](#)

The configuration object that specifies the monitoring schedule and defines the monitoring job.

Type: [MonitoringScheduleConfig](#) object

Required: Yes

### MonitoringScheduleName

The name of the monitoring schedule. The name must be unique within an AWS Region within an AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### Tags

(Optional) An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "MonitoringScheduleArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### MonitoringScheduleArn

The Amazon Resource Name (ARN) of the monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# CreateNotebookInstance

Service: Amazon SageMaker Service

Creates an SageMaker notebook instance. A notebook instance is a machine learning (ML) compute instance running on a Jupyter notebook.

In a CreateNotebookInstance request, specify the type of ML compute instance that you want to run. SageMaker launches the instance, installs common libraries that you can use to explore datasets for model training, and attaches an ML storage volume to the notebook instance.

SageMaker also provides a set of example notebooks. Each notebook demonstrates how to use SageMaker with a specific algorithm or with a machine learning framework.

After receiving the request, SageMaker does the following:

1. Creates a network interface in the SageMaker VPC.
2. (Option) If you specified SubnetId, SageMaker creates a network interface in your own VPC, which is inferred from the subnet ID that you provide in the input. When creating this network interface, SageMaker attaches the security group that you specified in the request to the network interface that it creates in your VPC.
3. Launches an EC2 instance of the type specified in the request in the SageMaker VPC. If you specified SubnetId of your VPC, SageMaker specifies both network interfaces when launching this instance. This enables inbound traffic from your own VPC to the notebook instance, assuming that the security groups allow it.

After creating the notebook instance, SageMaker returns its Amazon Resource Name (ARN). You can't change the name of a notebook instance after you create it.

After SageMaker creates the notebook instance, you can connect to the Jupyter server and work in Jupyter notebooks. For example, you can write code to explore a dataset that you can use for model training, train a model, host models by creating SageMaker endpoints, and validate hosted models.

For more information, see [How It Works](#).

## Request Syntax

```
{
```

```

"AcceleratorTypes": [ "string" ],
"AdditionalCodeRepositories": [ "string" ],
"DefaultCodeRepository": "string",
"DirectInternetAccess": "string",
"InstanceMetadataServiceConfiguration": {
  "MinimumInstanceMetadataServiceVersion": "string"
},
"InstanceType": "string",
"KmsKeyId": "string",
"LifecycleConfigName": "string",
"NotebookInstanceName": "string",
"PlatformIdentifier": "string",
"RoleArn": "string",
"RootAccess": "string",
"SecurityGroupIds": [ "string" ],
"SubnetId": "string",
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
],
"VolumeSizeInGB": number
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AcceleratorTypes

A list of Elastic Inference (EI) instance types to associate with this notebook instance. Currently, only one instance type can be associated with a notebook instance. For more information, see [Using Elastic Inference in Amazon SageMaker](#).

Type: Array of strings

Valid Values: ml.eia1.medium | ml.eia1.large | ml.eia1.xlarge | ml.eia2.medium | ml.eia2.large | ml.eia2.xlarge

Required: No

## AdditionalCodeRepositories

An array of up to three Git repositories to associate with the notebook instance. These can be either the names of Git repositories stored as resources in your account, or the URL of Git repositories in [AWS CodeCommit](#) or in any other Git repository. These repositories are cloned at the same level as the default repository of your notebook instance. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: Array of strings

Array Members: Maximum number of 3 items.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^https://(?:[^\s/]+)?(?:.*)$|^([a-zA-Z0-9])(-*[a-zA-Z0-9])*`

Required: No

## DefaultCodeRepository

A Git repository to associate with the notebook instance as its default code repository. This can be either the name of a Git repository stored as a resource in your account, or the URL of a Git repository in [AWS CodeCommit](#) or in any other Git repository. When you open a notebook instance, it opens in the directory that contains this repository. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^https://(?:[^\s/]+)?(?:.*)$|^([a-zA-Z0-9])(-*[a-zA-Z0-9])*`

Required: No

## DirectInternetAccess

Sets whether SageMaker provides internet access to the notebook instance. If you set this to `Disabled` this notebook instance is able to access resources only in your VPC, and is not be able to connect to SageMaker training and endpoint services unless you configure a NAT Gateway in your VPC.

For more information, see [Notebook Instances Are Internet-Enabled by Default](#). You can set the value of this parameter to `Disabled` only if you set a value for the `SubnetId` parameter.

Type: String

Valid Values: Enabled | Disabled

Required: No

### InstanceMetadataServiceConfiguration

Information on the IMDS configuration of the notebook instance

Type: [InstanceMetadataServiceConfiguration](#) object

Required: No

### InstanceType

The type of ML compute instance to launch for the notebook instance.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.8xlarge | ml.m5d.12xlarge | ml.m5d.16xlarge | ml.m5d.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.inf1.xlarge | ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge | ml.p4d.24xlarge | ml.p4de.24xlarge | ml.p5.48xlarge | ml.m6i.large | ml.m6i.xlarge | ml.m6i.2xlarge | ml.m6i.4xlarge | ml.m6i.8xlarge |

ml.m6i.12xlarge | ml.m6i.16xlarge | ml.m6i.24xlarge | ml.m6i.32xlarge  
| ml.m7i.large | ml.m7i.xlarge | ml.m7i.2xlarge | ml.m7i.4xlarge |  
ml.m7i.8xlarge | ml.m7i.12xlarge | ml.m7i.16xlarge | ml.m7i.24xlarge  
| ml.m7i.48xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge |  
ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge  
| ml.c6i.24xlarge | ml.c6i.32xlarge | ml.c7i.large | ml.c7i.xlarge  
| ml.c7i.2xlarge | ml.c7i.4xlarge | ml.c7i.8xlarge | ml.c7i.12xlarge  
| ml.c7i.16xlarge | ml.c7i.24xlarge | ml.c7i.48xlarge | ml.r6i.large  
| ml.r6i.xlarge | ml.r6i.2xlarge | ml.r6i.4xlarge | ml.r6i.8xlarge |  
ml.r6i.12xlarge | ml.r6i.16xlarge | ml.r6i.24xlarge | ml.r6i.32xlarge  
| ml.r7i.large | ml.r7i.xlarge | ml.r7i.2xlarge | ml.r7i.4xlarge |  
ml.r7i.8xlarge | ml.r7i.12xlarge | ml.r7i.16xlarge | ml.r7i.24xlarge  
| ml.r7i.48xlarge | ml.m6id.large | ml.m6id.xlarge | ml.m6id.2xlarge |  
ml.m6id.4xlarge | ml.m6id.8xlarge | ml.m6id.12xlarge | ml.m6id.16xlarge  
| ml.m6id.24xlarge | ml.m6id.32xlarge | ml.c6id.large | ml.c6id.xlarge  
| ml.c6id.2xlarge | ml.c6id.4xlarge | ml.c6id.8xlarge | ml.c6id.12xlarge  
| ml.c6id.16xlarge | ml.c6id.24xlarge | ml.c6id.32xlarge |  
ml.r6id.large | ml.r6id.xlarge | ml.r6id.2xlarge | ml.r6id.4xlarge |  
ml.r6id.8xlarge | ml.r6id.12xlarge | ml.r6id.16xlarge | ml.r6id.24xlarge  
| ml.r6id.32xlarge | ml.g6.xlarge | ml.g6.2xlarge | ml.g6.4xlarge |  
ml.g6.8xlarge | ml.g6.12xlarge | ml.g6.16xlarge | ml.g6.24xlarge |  
ml.g6.48xlarge

Required: Yes

### [KmsKeyId](#)

The Amazon Resource Name (ARN) of a AWS Key Management Service key that SageMaker uses to encrypt data on the storage volume attached to your notebook instance. The KMS key you provide must be enabled. For information, see [Enabling and Disabling Keys](#) in the *AWS Key Management Service Developer Guide*.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## LifecycleConfigName

The name of a lifecycle configuration to associate with the notebook instance. For information about lifestyle configurations, see [Step 2.1: \(Optional\) Customize a Notebook Instance](#).

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: No

## NotebookInstanceName

The name of the new notebook instance.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

## PlatformIdentifier

The platform identifier of the notebook instance runtime environment.

Type: String

Length Constraints: Maximum length of 15.

Pattern: `^(notebook-a11-v1|notebook-a12-v1|notebook-a12-v2)$`

Required: No

## RoleArn

When you send any requests to AWS resources from the notebook instance, SageMaker assumes this role to perform tasks on your behalf. You must grant this role necessary permissions so SageMaker can perform these tasks. The policy must allow the SageMaker service principal ([sagemaker.amazonaws.com](https://sagemaker.amazonaws.com)) permissions to assume this role. For more information, see [SageMaker Roles](#).

**Note**

To be able to pass this role to SageMaker, the caller of this API must have the `iam:PassRole` permission.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: Yes

**RootAccess**

Whether root access is enabled or disabled for users of the notebook instance. The default value is Enabled.

**Note**

Lifecycle configurations need root access to be able to set up a notebook instance. Because of this, lifecycle configurations associated with a notebook instance always run with root access even if you disable root access for users.

Type: String

Valid Values: Enabled | Disabled

Required: No

**SecurityGroupIds**

The VPC security group IDs, in the form `sg-xxxxxxx`. The security groups must be for the same VPC as specified in the subnet.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: No

### SubnetId

The ID of the subnet in a VPC to which you would like to have a connectivity from your ML compute instance.

Type: String

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: No

### Tags

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### VolumeSizeInGB

The size, in GB, of the ML storage volume to attach to the notebook instance. The default value is 5 GB.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 16384.

Required: No

## Response Syntax

```
{  
  "NotebookInstanceArn": "string"
```



```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NotebookInstanceArn

The Amazon Resource Name (ARN) of the notebook instance.

Type: String

Length Constraints: Maximum length of 256.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateNotebookInstanceLifecycleConfig

Service: Amazon SageMaker Service

Creates a lifecycle configuration that you can associate with a notebook instance. A *lifecycle configuration* is a collection of shell scripts that run when you create or start a notebook instance.

Each lifecycle configuration script has a limit of 16384 characters.

The value of the \$PATH environment variable that is available to both scripts is /sbin:bin:/usr/sbin:/usr/bin.

View Amazon CloudWatch Logs for notebook instance lifecycle configurations in log group /aws/sagemaker/NotebookInstances in log stream [notebook-instance-name]/[LifecycleConfigHook].

Lifecycle configuration scripts cannot run for longer than 5 minutes. If a script runs for longer than 5 minutes, it fails and the notebook instance is not created or started.

For information about notebook instance lifestyle configurations, see [Step 2.1: \(Optional\) Customize a Notebook Instance](#).

## Request Syntax

```
{
  "NotebookInstanceLifecycleConfigName": "string",
  "OnCreate": [
    {
      "Content": "string"
    }
  ],
  "OnStart": [
    {
      "Content": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## NotebookInstanceLifecycleConfigName

The name of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

## OnCreate

A shell script that runs only once, when you create a notebook instance. The shell script must be a base64-encoded string.

Type: Array of [NotebookInstanceLifecycleHook](#) objects

Array Members: Maximum number of 1 item.

Required: No

## OnStart

A shell script that runs every time you start a notebook instance, including when you create the notebook instance. The shell script must be a base64-encoded string.

Type: Array of [NotebookInstanceLifecycleHook](#) objects

Array Members: Maximum number of 1 item.

Required: No

## Response Syntax

```
{
  "NotebookInstanceLifecycleConfigArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NotebookInstanceLifecycleConfigArn

The Amazon Resource Name (ARN) of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 256.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreatePipeline

Service: Amazon SageMaker Service

Creates a pipeline using a JSON pipeline definition.

## Request Syntax

```
{
  "ClientRequestToken": "string",
  "ParallelismConfiguration": {
    "MaxParallelExecutionSteps": number
  },
  "PipelineDefinition": "string",
  "PipelineDefinitionS3Location": {
    "Bucket": "string",
    "ObjectKey": "string",
    "VersionId": "string"
  },
  "PipelineDescription": "string",
  "PipelineDisplayName": "string",
  "PipelineName": "string",
  "RoleArn": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ClientRequestToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than one time.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: Yes

### ParallelismConfiguration

This is the configuration that controls the parallelism of the pipeline. If specified, it applies to all runs of this pipeline by default.

Type: [ParallelismConfiguration](#) object

Required: No

### PipelineDefinition

The [JSON pipeline definition](#) of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1048576.

Pattern: `.*(?:[ \r\n\t].*)*`

Required: No

### PipelineDefinitionS3Location

The location of the pipeline definition stored in Amazon S3. If specified, SageMaker will retrieve the pipeline definition from this location.

Type: [PipelineDefinitionS3Location](#) object

Required: No

### PipelineDescription

A description of the pipeline.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: `.*`

Required: No

## PipelineDisplayName

The display name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: No

## PipelineName

The name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: Yes

## RoleArn

The Amazon Resource Name (ARN) of the role used by the pipeline to access and create resources.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@\-\_/\]]+$`

Required: Yes

## Tags

A list of tags to apply to the created pipeline.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No



## Response Syntax

```
{  
  "PipelineArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [PipelineArn](#)

The Amazon Resource Name (ARN) of the created pipeline.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:pipeline/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreatePresignedDomainUrl

Service: Amazon SageMaker Service

Creates a URL for a specified UserProfile in a Domain. When accessed in a web browser, the user will be automatically signed in to the domain, and granted access to all of the Apps and files associated with the Domain's Amazon Elastic File System volume. This operation can only be called when the authentication mode equals IAM.

The IAM role or user passed to this API defines the permissions to access the app. Once the presigned URL is created, no additional permission is required to access this URL. IAM authorization policies for this API are also enforced for every HTTP request and WebSocket frame that attempts to connect to the app.

You can restrict access to this API and to the URL that it returns to a list of IP addresses, Amazon VPCs or Amazon VPC Endpoints that you specify. For more information, see [Connect to Amazon SageMaker Studio Through an Interface VPC Endpoint](#).

## Note

The URL that you get from a call to `CreatePresignedDomainUrl` has a default timeout of 5 minutes. You can configure this value using `ExpiresInSeconds`. If you try to use the URL after the timeout limit expires, you are directed to the AWS console sign-in page.

## Request Syntax

```
{
  "DomainId": "string",
  "ExpiresInSeconds": number,
  "LandingUri": "string",
  "SessionExpirationDurationInSeconds": number,
  "SpaceName": "string",
  "UserProfileName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-(-*[a-z0-9]){1,61}`

Required: Yes

## ExpiresInSeconds

The number of seconds until the pre-signed URL expires. This value defaults to 300.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 300.

Required: No

## LandingUri

The landing page that the user is directed to when accessing the presigned URL. Using this value, users can access Studio or Studio Classic, even if it is not the default experience for the domain. The supported values are:

- `studio::relative/path`: Directs users to the relative path in Studio.
- `app:JupyterServer:relative/path`: Directs users to the relative path in the Studio Classic application.
- `app:JupyterLab:relative/path`: Directs users to the relative path in the JupyterLab application.
- `app:RStudioServerPro:relative/path`: Directs users to the relative path in the RStudio application.
- `app:CodeEditor:relative/path`: Directs users to the relative path in the Code Editor, based on Code-OSS, Visual Studio Code - Open Source application.
- `app:Canvas:relative/path`: Directs users to the relative path in the Canvas application.

Type: String

Length Constraints: Maximum length of 1023.

Required: No

### SessionExpirationDurationInSeconds

The session expiration duration in seconds. This value defaults to 43200.

Type: Integer

Valid Range: Minimum value of 1800. Maximum value of 43200.

Required: No

### SpaceName

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### UserProfileName

The name of the UserProfile to sign-in as.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{
  "AuthorizedUrl": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **AuthorizedUrl**

The presigned URL.

Type: String

### **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

#### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreatePresignedMlflowTrackingServerUrl

Service: Amazon SageMaker Service

Returns a presigned URL that you can use to connect to the MLflow UI attached to your tracking server. For more information, see [Launch the MLflow UI using a presigned URL](#).

## Request Syntax

```
{  
  "ExpiresInSeconds": number,  
  "SessionExpirationDurationInSeconds": number,  
  "TrackingServerName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [ExpiresInSeconds](#)

The duration in seconds that your presigned URL is valid. The presigned URL can be used only once.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 300.

Required: No

### [SessionExpirationDurationInSeconds](#)

The duration in seconds that your MLflow UI session is valid.

Type: Integer

Valid Range: Minimum value of 1800. Maximum value of 43200.

Required: No

### [TrackingServerName](#)

The name of the tracking server to connect to your MLflow UI.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: Yes

## Response Syntax

```
{  
  "AuthorizedUrl": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AuthorizedUrl](#)

A presigned URL with an authorization token.

Type: String

Length Constraints: Maximum length of 2048.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreatePresignedNotebookInstanceUrl

Service: Amazon SageMaker Service

Returns a URL that you can use to connect to the Jupyter server from a notebook instance. In the SageMaker console, when you choose Open next to a notebook instance, SageMaker opens a new tab showing the Jupyter server home page from the notebook instance. The console uses this API to get the URL and show the page.

The IAM role or user used to call this API defines the permissions to access the notebook instance. Once the presigned URL is created, no additional permission is required to access this URL. IAM authorization policies for this API are also enforced for every HTTP request and WebSocket frame that attempts to connect to the notebook instance.

You can restrict access to this API and to the URL that it returns to a list of IP addresses that you specify. Use the `NotIpAddress` condition operator and the `aws:SourceIP` condition context key to specify the list of IP addresses that you want to have access to the notebook instance. For more information, see [Limit Access to a Notebook Instance by IP Address](#).

## Note

The URL that you get from a call to [CreatePresignedNotebookInstanceUrl](#) is valid only for 5 minutes. If you try to use the URL after the 5-minute limit expires, you are directed to the AWS console sign-in page.

## Request Syntax

```
{
  "NotebookInstanceName": "string",
  "SessionExpirationDurationInSeconds": number
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## NotebookInstanceName

The name of the notebook instance.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

## SessionExpirationDurationInSeconds

The duration of the session, in seconds. The default is 12 hours.

Type: Integer

Valid Range: Minimum value of 1800. Maximum value of 43200.

Required: No

## Response Syntax

```
{  
  "AuthorizedUrl": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AuthorizedUrl

A JSON object that contains the URL string.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateProcessingJob

Service: Amazon SageMaker Service

Creates a processing job.

## Request Syntax

```
{
  "AppSpecification": {
    "ContainerArguments": [ "string" ],
    "ContainerEntrypoint": [ "string" ],
    "ImageUri": "string"
  },
  "Environment": {
    "string": "string"
  },
  "ExperimentConfig": {
    "ExperimentName": "string",
    "RunName": "string",
    "TrialComponentDisplayName": "string",
    "TrialName": "string"
  },
  "NetworkConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
      "SecurityGroupIds": [ "string" ],
      "Subnets": [ "string" ]
    }
  },
  "ProcessingInputs": [
    {
      "AppManaged": boolean,
      "DatasetDefinition": {
        "AthenaDatasetDefinition": {
          "Catalog": "string",
          "Database": "string",
          "KmsKeyId": "string",
          "OutputCompression": "string",
          "OutputFormat": "string",
          "OutputS3Uri": "string",
          "QueryString": "string",
          "WorkGroup": "string"
        }
      }
    }
  ]
}
```

```

    },
    "DataDistributionType": "string",
    "InputMode": "string",
    "LocalPath": "string",
    "RedshiftDatasetDefinition": {
      "ClusterId": "string",
      "ClusterRoleArn": "string",
      "Database": "string",
      "DbUser": "string",
      "KmsKeyId": "string",
      "OutputCompression": "string",
      "OutputFormat": "string",
      "OutputS3Uri": "string",
      "QueryString": "string"
    }
  },
  "InputName": "string",
  "S3Input": {
    "LocalPath": "string",
    "S3CompressionType": "string",
    "S3DataDistributionType": "string",
    "S3DataType": "string",
    "S3InputMode": "string",
    "S3Uri": "string"
  }
}
],
"ProcessingJobName": "string",
"ProcessingOutputConfig": {
  "KmsKeyId": "string",
  "Outputs": [
    {
      "AppManaged": boolean,
      "FeatureStoreOutput": {
        "FeatureGroupName": "string"
      },
      "OutputName": "string",
      "S3Output": {
        "LocalPath": "string",
        "S3UploadMode": "string",
        "S3Uri": "string"
      }
    }
  ]
}
]

```

```
},
  "ProcessingResources": {
    "ClusterConfig": {
      "InstanceCount": number,
      "InstanceType": "string",
      "VolumeKmsKeyId": "string",
      "VolumeSizeInGB": number
    }
  },
  "RoleArn": "string",
  "StoppingCondition": {
    "MaxRuntimeInSeconds": number
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AppSpecification

Configures the processing job to run a specified Docker container image.

Type: [AppSpecification](#) object

Required: Yes

### Environment

The environment variables to set in the Docker container. Up to 100 key and values entries in the map are supported.

Type: String to string map

Map Entries: Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 256.

Value Pattern: `[\S\s]*`

Required: No

### **ExperimentConfig**

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob](#)
- [CreateTrainingJob](#)
- [CreateTransformJob](#)

Type: [ExperimentConfig](#) object

Required: No

### **NetworkConfig**

Networking options for a processing job, such as whether to allow inbound and outbound network calls to and from processing containers, and the VPC subnets and security groups to use for VPC-enabled processing jobs.

Type: [NetworkConfig](#) object

Required: No

### **ProcessingInputs**

An array of inputs configuring the data to download into the processing container.

Type: Array of [ProcessingInput](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: No

### **ProcessingJobName**

The name of the processing job. The name must be unique within an AWS Region in the AWS account.



Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### ProcessingOutputConfig

Output configuration for the processing job.

Type: [ProcessingOutputConfig](#) object

Required: No

### ProcessingResources

Identifies the resources, ML compute instances, and ML storage volumes to deploy for a processing job. In distributed training, you specify more than one instance.

Type: [ProcessingResources](#) object

Required: Yes

### RoleArn

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: Yes

### StoppingCondition

The time limit for how long the processing job is allowed to run.

Type: [ProcessingStoppingCondition](#) object

Required: No

## Tags

(Optional) An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "ProcessingJobArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ProcessingJobArn](#)

The Amazon Resource Name (ARN) of the processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:processing-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateProject

Service: Amazon SageMaker Service

Creates a machine learning (ML) project that can contain one or more templates that set up an ML pipeline from training to deploying an approved model.

## Request Syntax

```
{
  "ProjectDescription": "string",
  "ProjectName": "string",
  "ServiceCatalogProvisioningDetails": {
    "PathId": "string",
    "ProductId": "string",
    "ProvisioningArtifactId": "string",
    "ProvisioningParameters": [
      {
        "Key": "string",
        "Value": "string"
      }
    ]
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ProjectDescription

A description for the project.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

### ProjectName

The name of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

### ServiceCatalogProvisioningDetails

The product ID and provisioning artifact ID to provision a service catalog. The provisioning artifact ID will default to the latest provisioning artifact ID of the product, if you don't provide the provisioning artifact ID. For more information, see [What is AWS Service Catalog](#).

Type: [ServiceCatalogProvisioningDetails](#) object

Required: Yes

### Tags

An array of key-value pairs that you want to use to organize and track your AWS resource costs. For more information, see [Tagging AWS resources](#) in the *AWS General Reference Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "ProjectArn": "string",
  "ProjectId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ProjectArn

The Amazon Resource Name (ARN) of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:project/[\S]{1,2048}$`

### ProjectId

The ID of the new project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateSpace

Service: Amazon SageMaker Service

Creates a private space or a space used for real time collaboration in a domain.

## Request Syntax

```
{
  "DomainId": "string",
  "OwnershipSettings": {
    "OwnerUserProfileName": "string"
  },
  "SpaceDisplayName": "string",
  "SpaceName": "string",
  "SpaceSettings": {
    "AppType": "string",
    "CodeEditorAppSettings": {
      "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionAlias": "string",
        "SageMakerImageVersionArn": "string"
      }
    }
  },
  "CustomFileSystems": [
    { ... }
  ],
  "JupyterLabAppSettings": {
    "CodeRepositories": [
      {
        "RepositoryUrl": "string"
      }
    ]
  },
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  }
},
  "JupyterServerAppSettings": {
```



```

    "CodeRepositories": [
      {
        "RepositoryUrl": "string"
      }
    ],
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
  },
  "KernelGatewayAppSettings": {
    "CustomImages": [
      {
        "AppImageConfigName": "string",
        "ImageName": "string",
        "ImageVersionNumber": number
      }
    ],
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
  },
  "SpaceStorageSettings": {
    "EbsStorageSettings": {
      "EbsVolumeSizeInGb": number
    }
  }
},
"SpaceSharingSettings": {
  "SharingType": "string"
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
]

```

```
    }  
  ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DomainId

The ID of the associated domain.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-( -*[a-z0-9]){1,61}`

Required: Yes

### OwnershipSettings

A collection of ownership settings.

Type: [OwnershipSettings](#) object

Required: No

### SpaceDisplayName

The name of the space that appears in the SageMaker Studio UI.

Type: String

Length Constraints: Maximum length of 64.

Pattern: `^(?!\\s*$).+`

Required: No

### SpaceName

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### SpaceSettings

A collection of space settings.

Type: [SpaceSettings](#) object

Required: No

### SpaceSharingSettings

A collection of space sharing settings.

Type: [SpaceSharingSettings](#) object

Required: No

### Tags

Tags to associated with the space. Each tag consists of a key and an optional value. Tag keys must be unique for each resource. Tags are searchable using the Search API.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "SpaceArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### SpaceArn

The space's Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:space/.*`

### **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

#### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

#### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateStudioLifecycleConfig

Service: Amazon SageMaker Service

Creates a new Amazon SageMaker Studio Lifecycle Configuration.

## Request Syntax

```
{
  "StudioLifecycleConfigAppType": "string",
  "StudioLifecycleConfigContent": "string",
  "StudioLifecycleConfigName": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [StudioLifecycleConfigAppType](#)

The App type that the Lifecycle Configuration is attached to.

Type: String

Valid Values: JupyterServer | KernelGateway | CodeEditor | JupyterLab

Required: Yes

### [StudioLifecycleConfigContent](#)

The content of your Amazon SageMaker Studio Lifecycle Configuration script. This content must be base64 encoded.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16384.

Pattern: `[\S\s]+`

Required: Yes

### StudioLifecycleConfigName

The name of the Amazon SageMaker Studio Lifecycle Configuration to create.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### Tags

Tags to be associated with the Lifecycle Configuration. Each tag consists of a key and an optional value. Tag keys must be unique per resource. Tags are searchable using the Search API.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "StudioLifecycleConfigArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### StudioLifecycleConfigArn

The ARN of your created Lifecycle Configuration.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:studio-lifecycle-config/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



## CreateTrainingJob

Service: Amazon SageMaker Service

Starts a model training job. After training completes, SageMaker saves the resulting model artifacts to an Amazon S3 location that you specify.

If you choose to host your model using SageMaker hosting services, you can use the resulting model artifacts as part of the model. You can also use the artifacts in a machine learning service other than SageMaker, provided that you know how to use them for inference.

In the request body, you provide the following:

- `AlgorithmSpecification` - Identifies the training algorithm to use.
- `HyperParameters` - Specify these algorithm-specific parameters to enable the estimation of model parameters during training. Hyperparameters can be tuned to optimize this learning process. For a list of hyperparameters for each training algorithm provided by SageMaker, see [Algorithms](#).

### Important

Do not include any security-sensitive information including account access IDs, secrets or tokens in any hyperparameter field. If the use of security-sensitive credentials are detected, SageMaker will reject your training job request and return an exception error.

- `InputDataConfig` - Describes the input required by the training job and the Amazon S3, EFS, or FSx location where it is stored.
- `OutputDataConfig` - Identifies the Amazon S3 bucket where you want SageMaker to save the results of model training.
- `ResourceConfig` - Identifies the resources, ML compute instances, and ML storage volumes to deploy for model training. In distributed training, you specify more than one instance.
- `EnableManagedSpotTraining` - Optimize the cost of training machine learning models by up to 80% by using Amazon EC2 Spot instances. For more information, see [Managed Spot Training](#).
- `RoleArn` - The Amazon Resource Name (ARN) that SageMaker assumes to perform tasks on your behalf during model training. You must grant this role the necessary permissions so that SageMaker can successfully complete model training.

- **StoppingCondition** - To help cap training costs, use `MaxRuntimeInSeconds` to set a time limit for training. Use `MaxWaitTimeInSeconds` to specify how long a managed spot training job has to complete.
- **Environment** - The environment variables to set in the Docker container.
- **RetryStrategy** - The number of times to retry the job when the job fails due to an `InternalServerError`.

For more information about SageMaker, see [How It Works](#).

## Request Syntax

```
{
  "AlgorithmSpecification": {
    "AlgorithmName": "string",
    "ContainerArguments": [ "string" ],
    "ContainerEntrypoint": [ "string" ],
    "EnableSageMakerMetricsTimeSeries": boolean,
    "MetricDefinitions": [
      {
        "Name": "string",
        "Regex": "string"
      }
    ],
    "TrainingImage": "string",
    "TrainingImageConfig": {
      "TrainingRepositoryAccessMode": "string",
      "TrainingRepositoryAuthConfig": {
        "TrainingRepositoryCredentialsProviderArn": "string"
      }
    },
    "TrainingInputMode": "string"
  },
  "CheckpointConfig": {
    "LocalPath": "string",
    "S3Uri": "string"
  },
  "DebugHookConfig": {
    "CollectionConfigurations": [
      {
        "CollectionName": "string",
        "CollectionParameters": {
```

```

        "string" : "string"
    }
}
],
"HookParameters": {
    "string" : "string"
},
"LocalPath": "string",
"S3OutputPath": "string"
},
"DebugRuleConfigurations": [
    {
        "InstanceType": "string",
        "LocalPath": "string",
        "RuleConfigurationName": "string",
        "RuleEvaluatorImage": "string",
        "RuleParameters": {
            "string" : "string"
        },
        "S3OutputPath": "string",
        "VolumeSizeInGB": number
    }
],
"EnableInterContainerTrafficEncryption": boolean,
"EnableManagedSpotTraining": boolean,
"EnableNetworkIsolation": boolean,
"Environment": {
    "string" : "string"
},
"ExperimentConfig": {
    "ExperimentName": "string",
    "RunName": "string",
    "TrialComponentDisplayName": "string",
    "TrialName": "string"
},
"HyperParameters": {
    "string" : "string"
},
"InfraCheckConfig": {
    "EnableInfraCheck": boolean
},
"InputDataConfig": [
    {
        "ChannelName": "string",

```

```

    "CompressionType": "string",
    "ContentType": "string",
    "DataSource": {
      "FileSystemDataSource": {
        "DirectoryPath": "string",
        "FileSystemAccessMode": "string",
        "FileSystemId": "string",
        "FileSystemType": "string"
      },
      "S3DataSource": {
        "AttributeNames": [ "string" ],
        "InstanceGroupNames": [ "string" ],
        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
      }
    },
    "InputMode": "string",
    "RecordWrapperType": "string",
    "ShuffleConfig": {
      "Seed": number
    }
  }
],
"OutputDataConfig": {
  "CompressionType": "string",
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
"ProfilerConfig": {
  "DisableProfiler": boolean,
  "ProfilingIntervalInMilliseconds": number,
  "ProfilingParameters": {
    "string" : "string"
  },
  "S3OutputPath": "string"
},
"ProfilerRuleConfigurations": [
  {
    "InstanceType": "string",
    "LocalPath": "string",
    "RuleConfigurationName": "string",
    "RuleEvaluatorImage": "string",
    "RuleParameters": {

```

```

        "string" : "string"
    },
    "S3OutputPath": "string",
    "VolumeSizeInGB": number
}
],
"RemoteDebugConfig": {
    "EnableRemoteDebug": boolean
},
"ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
        {
            "InstanceCount": number,
            "InstanceGroupName": "string",
            "InstanceType": "string"
        }
    ],
    "InstanceType": "string",
    "KeepAlivePeriodInSeconds": number,
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
},
"RetryStrategy": {
    "MaximumRetryAttempts": number
},
"RoleArn": "string",
"SessionChainingConfig": {
    "EnableSessionTagChaining": boolean
},
"StoppingCondition": {
    "MaxPendingTimeInSeconds": number,
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
},
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
],
"TensorBoardOutputConfig": {
    "LocalPath": "string",
    "S3OutputPath": "string"
}

```

```
  },  
  "TrainingJobName": "string",  
  "VpcConfig": {  
    "SecurityGroupIds": [ "string" ],  
    "Subnets": [ "string" ]  
  }  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AlgorithmSpecification

The registry path of the Docker image that contains the training algorithm and algorithm-specific metadata, including the input mode. For more information about algorithms provided by SageMaker, see [Algorithms](#). For information about providing your own algorithms, see [Using Your Own Algorithms with Amazon SageMaker](#).

Type: [AlgorithmSpecification](#) object

Required: Yes

### CheckpointConfig

Contains information about the output location for managed spot training checkpoint data.

Type: [CheckpointConfig](#) object

Required: No

### DebugHookConfig

Configuration information for the Amazon SageMaker Debugger hook parameters, metric and tensor collections, and storage paths. To learn more about how to configure the `DebugHookConfig` parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

Type: [DebugHookConfig](#) object

Required: No

## DebugRuleConfigurations

Configuration information for Amazon SageMaker Debugger rules for debugging output tensors.

Type: Array of [DebugRuleConfiguration](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

## EnableInterContainerTrafficEncryption

To encrypt all communications between ML compute instances in distributed training, choose `True`. Encryption provides greater security for distributed training, but training might take longer. How long it takes depends on the amount of communication between compute instances, especially if you use a deep learning algorithm in distributed training. For more information, see [Protect Communications Between ML Compute Instances in a Distributed Training Job](#).

Type: Boolean

Required: No

## EnableManagedSpotTraining

To train models using managed spot training, choose `True`. Managed spot training provides a fully managed and scalable infrastructure for training machine learning models. This option is useful when training jobs can be interrupted and when there is flexibility when the training job is run.

The complete and intermediate results of jobs are stored in an Amazon S3 bucket, and can be used as a starting point to train models incrementally. Amazon SageMaker provides metrics and logs in CloudWatch. They can be used to see when managed spot training jobs are running, interrupted, resumed, or completed.

Type: Boolean

Required: No

## EnableNetworkIsolation

Isolates the training container. No inbound or outbound network calls can be made, except for calls between peers within a training cluster for distributed training. If you enable network

isolation for training jobs that are configured to use a VPC, SageMaker downloads and uploads customer data and model artifacts through the specified VPC, but the training container does not have network access.

Type: Boolean

Required: No

### Environment

The environment variables to set in the Docker container.

Type: String to string map

Map Entries: Maximum number of 100 items.

Key Length Constraints: Maximum length of 512.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 512.

Value Pattern: `[\S\s]*`

Required: No

### ExperimentConfig

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob](#)
- [CreateTrainingJob](#)
- [CreateTransformJob](#)

Type: [ExperimentConfig](#) object

Required: No

### HyperParameters

Algorithm-specific parameters that influence the quality of the model. You set hyperparameters before you start the learning process. For a list of hyperparameters for each training algorithm provided by SageMaker, see [Algorithms](#).



You can specify a maximum of 100 hyperparameters. Each hyperparameter is a key-value pair. Each key and value is limited to 256 characters, as specified by the `Length Constraint`.

**⚠ Important**

Do not include any security-sensitive information including account access IDs, secrets or tokens in any hyperparameter field. If the use of security-sensitive credentials are detected, SageMaker will reject your training job request and return an exception error.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `. *`

Value Length Constraints: Maximum length of 2500.

Value Pattern: `. *`

Required: No

### [InfraCheckConfig](#)

Contains information about the infrastructure health check configuration for the training job.

Type: [InfraCheckConfig](#) object

Required: No

### [InputDataConfig](#)

An array of `Channel` objects. Each channel is a named input source. `InputDataConfig` describes the input data and its location.

Algorithms can accept input data from one or more channels. For example, an algorithm might have two channels of input data, `training_data` and `validation_data`. The configuration for each channel provides the S3, EFS, or FSx location where the input data is stored. It also provides information about the stored data: the MIME type, compression method, and whether the data is wrapped in RecordIO format.

Depending on the input mode that the algorithm supports, SageMaker either copies input data files from an S3 bucket to a local directory in the Docker container, or makes it available as input streams. For example, if you specify an EFS location, input data files are available as input streams. They do not need to be downloaded.

Your input must be in the same AWS region as your training job.

Type: Array of [Channel](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

### [OutputDataConfig](#)

Specifies the path to the S3 location where you want to store model artifacts. SageMaker creates subfolders for the artifacts.

Type: [OutputDataConfig](#) object

Required: Yes

### [ProfilerConfig](#)

Configuration information for Amazon SageMaker Debugger system monitoring, framework profiling, and storage paths.

Type: [ProfilerConfig](#) object

Required: No

### [ProfilerRuleConfigurations](#)

Configuration information for Amazon SageMaker Debugger rules for profiling system and framework metrics.

Type: Array of [ProfilerRuleConfiguration](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

### [RemoteDebugConfig](#)

Configuration for remote debugging. To learn more about the remote debugging functionality of SageMaker, see [Access a training container through AWS Systems Manager \(SSM\) for remote debugging](#).

Type: [RemoteDebugConfig](#) object

Required: No

### [ResourceConfig](#)

The resources, including the ML compute instances and ML storage volumes, to use for model training.

ML storage volumes store model artifacts and incremental states. Training algorithms might also use ML storage volumes for scratch space. If you want SageMaker to use the ML storage volume to store the training data, choose `File` as the `TrainingInputMode` in the algorithm specification. For distributed training algorithms, specify an instance count greater than 1.

Type: [ResourceConfig](#) object

Required: Yes

### [RetryStrategy](#)

The number of times to retry the job when the job fails due to an `InternalServerError`.

Type: [RetryStrategy](#) object

Required: No

### [RoleArn](#)

The Amazon Resource Name (ARN) of an IAM role that SageMaker can assume to perform tasks on your behalf.

During model training, SageMaker needs your permission to read input data from an S3 bucket, download a Docker image that contains training code, write model artifacts to an S3 bucket, write logs to Amazon CloudWatch Logs, and publish metrics to Amazon CloudWatch. You grant permissions for all of these tasks to an IAM role. For more information, see [SageMaker Roles](#).

#### Note

To be able to pass this role to SageMaker, the caller of this API must have the `iam:PassRole` permission.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: Yes

### SessionChainingConfig

Contains information about attribute-based access control (ABAC) for the training job.

Type: [SessionChainingConfig](#) object

Required: No

### StoppingCondition

Specifies a limit to how long a model training job can run. It also specifies how long a managed Spot training job has to complete. When the job reaches the time limit, SageMaker ends the training job. Use this API to cap model training costs.

To stop a job, SageMaker sends the algorithm the SIGTERM signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts, so the results of training are not lost.

Type: [StoppingCondition](#) object

Required: Yes

### Tags

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### TensorBoardOutputConfig

Configuration of storage locations for the Amazon SageMaker Debugger TensorBoard output data.

Type: [TensorBoardOutputConfig](#) object

Required: No

### [TrainingJobName](#)

The name of the training job. The name must be unique within an AWS Region in an AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### [VpcConfig](#)

A [VpcConfig](#) object that specifies the VPC that you want your training job to connect to. Control access to and from your training container by configuring the VPC. For more information, see [Protect Training Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [VpcConfig](#) object

Required: No

## Response Syntax

```
{
  "TrainingJobArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [TrainingJobArn](#)

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:training-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateTransformJob

Service: Amazon SageMaker Service

Starts a transform job. A transform job uses a trained model to get inferences on a dataset and saves these results to an Amazon S3 location that you specify.

To perform batch transformations, you create a transform job and use the data that you have readily available.

In the request body, you provide the following:

- `TransformJobName` - Identifies the transform job. The name must be unique within an AWS Region in an AWS account.
- `ModelName` - Identifies the model to use. `ModelName` must be the name of an existing Amazon SageMaker model in the same AWS Region and AWS account. For information on creating a model, see [CreateModel](#).
- `TransformInput` - Describes the dataset to be transformed and the Amazon S3 location where it is stored.
- `TransformOutput` - Identifies the Amazon S3 location where you want Amazon SageMaker to save the results from the transform job.
- `TransformResources` - Identifies the ML compute instances for the transform job.

For more information about how batch transformation works, see [Batch Transform](#).

## Request Syntax

```
{
  "BatchStrategy": "string",
  "DataCaptureConfig": {
    "DestinationS3Uri": "string",
    "GenerateInferenceId": boolean,
    "KmsKeyId": "string"
  },
  "DataProcessing": {
    "InputFilter": "string",
    "JoinSource": "string",
    "OutputFilter": "string"
  },
  "Environment": {
```



```
    "string" : "string"
  },
  "ExperimentConfig": {
    "ExperimentName": "string",
    "RunName": "string",
    "TrialComponentDisplayName": "string",
    "TrialName": "string"
  },
  "MaxConcurrentTransforms": number,
  "MaxPayloadInMB": number,
  "ModelClientConfig": {
    "InvocationsMaxRetries": number,
    "InvocationsTimeoutInSeconds": number
  },
  "ModelName": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "TransformInput": {
    "CompressionType": "string",
    "ContentType": "string",
    "DataSource": {
      "S3DataSource": {
        "S3DataType": "string",
        "S3Uri": "string"
      }
    },
    "SplitType": "string"
  },
  "TransformJobName": "string",
  "TransformOutput": {
    "Accept": "string",
    "AssembleWith": "string",
    "KmsKeyId": "string",
    "S3OutputPath": "string"
  },
  "TransformResources": {
    "InstanceCount": number,
    "InstanceType": "string",
    "VolumeKmsKeyId": "string"
  }
}
```

```
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### BatchStrategy

Specifies the number of records to include in a mini-batch for an HTTP inference request. A *record* is a single unit of input data that inference can be made on. For example, a single line in a CSV file is a record.

To enable the batch strategy, you must set the `SplitType` property to `Line`, `RecordIO`, or `TFRecord`.

To use only one record when making an HTTP invocation request to a container, set `BatchStrategy` to `SingleRecord` and `SplitType` to `Line`.

To fit as many records in a mini-batch as can fit within the `MaxPayloadInMB` limit, set `BatchStrategy` to `MultiRecord` and `SplitType` to `Line`.

Type: String

Valid Values: `MultiRecord` | `SingleRecord`

Required: No

### DataCaptureConfig

Configuration to control how SageMaker captures inference data.

Type: [BatchDataCaptureConfig](#) object

Required: No

### DataProcessing

The data structure used to specify the data to be used for inference in a batch transform job and to associate the data that is relevant to the prediction results in the output. The input filter provided allows you to exclude input data that is not needed for inference in a batch transform job. The output filter provided allows you to include input data relevant to interpreting the

predictions in the output from the job. For more information, see [Associate Prediction Results with their Corresponding Input Records](#).

Type: [DataProcessing](#) object

Required: No

## [Environment](#)

The environment variables to set in the Docker container. We support up to 16 key and values entries in the map.

Type: String to string map

Map Entries: Maximum number of 16 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]{0,1023}`

Value Length Constraints: Maximum length of 10240.

Value Pattern: `[\S\s]*`

Required: No

## [ExperimentConfig](#)

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob](#)
- [CreateTrainingJob](#)
- [CreateTransformJob](#)

Type: [ExperimentConfig](#) object

Required: No

## [MaxConcurrentTransforms](#)

The maximum number of parallel requests that can be sent to each instance in a transform job. If `MaxConcurrentTransforms` is set to 0 or left unset, Amazon SageMaker checks the optional `execution-parameters` to determine the settings for your chosen algorithm. If the `execution-parameters` endpoint is not enabled, the default value is 1. For more information on

execution-parameters, see [How Containers Serve Requests](#). For built-in algorithms, you don't need to set a value for `MaxConcurrentTransforms`.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### [MaxPayloadInMB](#)

The maximum allowed size of the payload, in MB. A *payload* is the data portion of a record (without metadata). The value in `MaxPayloadInMB` must be greater than, or equal to, the size of a single record. To estimate the size of a record in MB, divide the size of your dataset by the number of records. To ensure that the records fit within the maximum payload size, we recommend using a slightly larger value. The default value is 6 MB.

The value of `MaxPayloadInMB` cannot be greater than 100 MB. If you specify the `MaxConcurrentTransforms` parameter, the value of  $(\text{MaxConcurrentTransforms} * \text{MaxPayloadInMB})$  also cannot exceed 100 MB.

For cases where the payload might be arbitrarily large and is transmitted using HTTP chunked encoding, set the value to 0. This feature works only in supported algorithms. Currently, Amazon SageMaker built-in algorithms do not support HTTP chunked encoding.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### [ModelClientConfig](#)

Configures the timeout and maximum number of retries for processing a transform job invocation.

Type: [ModelClientConfig](#) object

Required: No

### [ModelName](#)

The name of the model that you want to use for the transform job. `ModelName` must be the name of an existing Amazon SageMaker model within an AWS Region in an AWS account.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\ -a-zA-Z0-9 ] * [a-zA-Z0-9] ) ?`

Required: Yes

## Tags

(Optional) An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## TransformInput

Describes the input source and the way the transform job consumes it.

Type: [TransformInput](#) object

Required: Yes

## TransformJobName

The name of the transform job. The name must be unique within an AWS Region in an AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( - * [a-zA-Z0-9] ) { 0 , 62 }`

Required: Yes

## TransformOutput

Describes the results of the transform job.

Type: [TransformOutput](#) object

Required: Yes

### TransformResources

Describes the resources, including ML instance types and ML instance count, to use for the transform job.

Type: [TransformResources](#) object

Required: Yes

## Response Syntax

```
{  
  "TransformJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### TransformJobArn

The Amazon Resource Name (ARN) of the transform job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:transform-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateTrial

Service: Amazon SageMaker Service

Creates an SageMaker *trial*. A trial is a set of steps called *trial components* that produce a machine learning model. A trial is part of a single SageMaker *experiment*.

When you use SageMaker Studio or the SageMaker Python SDK, all experiments, trials, and trial components are automatically tracked, logged, and indexed. When you use the AWS SDK for Python (Boto), you must use the logging APIs provided by the SDK.

You can add tags to a trial and then use the [Search](#) API to search for the tags.

To get a list of all your trials, call the [ListTrials](#) API. To view a trial's properties, call the [DescribeTrial](#) API. To create a trial component, call the [CreateTrialComponent](#) API.

## Request Syntax

```
{
  "DisplayName": "string",
  "ExperimentName": "string",
  "MetadataProperties": {
    "CommitId": "string",
    "GeneratedBy": "string",
    "ProjectId": "string",
    "Repository": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "TrialName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.



## DisplayName

The name of the trial as displayed. The name doesn't need to be unique. If `DisplayName` isn't specified, `TrialName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

## ExperimentName

The name of the experiment to associate the trial with.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## MetadataProperties

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties](#) object

Required: No

## Tags

A list of tags to associate with the trial. You can use [Search](#) API to search on the tags.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## TrialName

The name of the trial. The name must be unique in your AWS account and is not case-sensitive.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{  
  "TrialArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [TrialArn](#)

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateTrialComponent

Service: Amazon SageMaker Service

Creates a *trial component*, which is a stage of a machine learning *trial*. A trial is composed of one or more trial components. A trial component can be used in multiple trials.

Trial components include pre-processing jobs, training jobs, and batch transform jobs.

When you use SageMaker Studio or the SageMaker Python SDK, all experiments, trials, and trial components are automatically tracked, logged, and indexed. When you use the AWS SDK for Python (Boto), you must use the logging APIs provided by the SDK.

You can add tags to a trial component and then use the [Search](#) API to search for the tags.

## Request Syntax

```
{
  "DisplayName": "string",
  "EndTime": number,
  "InputArtifacts": {
    "string" : {
      "MediaType": "string",
      "Value": "string"
    }
  },
  "MetadataProperties": {
    "CommitId": "string",
    "GeneratedBy": "string",
    "ProjectId": "string",
    "Repository": "string"
  },
  "OutputArtifacts": {
    "string" : {
      "MediaType": "string",
      "Value": "string"
    }
  },
  "Parameters": {
    "string" : {
      "NumberValue": number,
      "StringValue": "string"
    }
  },
}
```

```
"StartTime": number,
>Status": {
  "Message": "string",
  "PrimaryStatus": "string"
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
],
"TrialComponentName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DisplayName

The name of the component as displayed. The name doesn't need to be unique. If `DisplayName` isn't specified, `TrialComponentName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### EndTime

When the component ended.

Type: Timestamp

Required: No

### InputArtifacts

The input artifacts for the component. Examples of input artifacts are datasets, algorithms, hyperparameters, source code, and instance types.

Type: String to [TrialComponentArtifact](#) object map

Map Entries: Maximum number of 60 items.

Key Length Constraints: Maximum length of 128.

Key Pattern: . \*

Required: No

### MetadataProperties

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties](#) object

Required: No

### OutputArtifacts

The output artifacts for the component. Examples of output artifacts are metrics, snapshots, logs, and images.

Type: String to [TrialComponentArtifact](#) object map

Map Entries: Maximum number of 60 items.

Key Length Constraints: Maximum length of 128.

Key Pattern: . \*

Required: No

### Parameters

The hyperparameters for the component.

Type: String to [TrialComponentParameterValue](#) object map

Map Entries: Maximum number of 300 items.

Key Length Constraints: Maximum length of 320.

Key Pattern: . \*

Required: No

### StartTime

When the component started.

Type: Timestamp

Required: No

### Status

The status of the component. States include:

- InProgress
- Completed
- Failed

Type: [TrialComponentStatus](#) object

Required: No

### Tags

A list of tags to associate with the component. You can use [Search](#) API to search on the tags.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### TrialComponentName

The name of the component. The name must be unique in your AWS account and is not case-sensitive.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{  
  "TrialComponentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [TrialComponentArn](#)

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial-component/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)



- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateUserProfile

Service: Amazon SageMaker Service

Creates a user profile. A user profile represents a single user within a domain, and is the main way to reference a "person" for the purposes of sharing, reporting, and other user-oriented features. This entity is created when a user onboards to a domain. If an administrator invites a person by email or imports them from IAM Identity Center, a user profile is automatically created. A user profile is the primary holder of settings for an individual user and has a reference to the user's private Amazon Elastic File System home directory.

## Request Syntax

```
{
  "DomainId": "string",
  "SingleSignOnUserIdentifier": "string",
  "SingleSignOnUserValue": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "UserProfileName": "string",
  "UserSettings": {
    "CanvasAppSettings": {
      "DirectDeploySettings": {
        "Status": "string"
      },
      "GenerativeAiSettings": {
        "AmazonBedrockRoleArn": "string"
      },
      "IdentityProviderOAuthSettings": [
        {
          "DataSourceName": "string",
          "SecretArn": "string",
          "Status": "string"
        }
      ],
      "KendraSettings": {
        "Status": "string"
      },
      "ModelRegisterSettings": {
```

```

    "CrossAccountModelRegisterRoleArn": "string",
    "Status": "string"
  },
  "TimeSeriesForecastingSettings": {
    "AmazonForecastRoleArn": "string",
    "Status": "string"
  },
  "WorkspaceSettings": {
    "S3ArtifactPath": "string",
    "S3KmsKeyId": "string"
  }
},
"CodeEditorAppSettings": {
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"CustomFileSystemConfigs": [
  { ... }
],
"CustomPosixUserConfig": {
  "Gid": number,
  "Uid": number
},
"DefaultLandingUri": "string",
"ExecutionRole": "string",
"JupyterLabAppSettings": {
  "CodeRepositories": [
    {
      "RepositoryUrl": "string"
    }
  ]
},
],

```

```
"CustomImages": [
  {
    "AppImageConfigName": "string",
    "ImageName": "string",
    "ImageVersionNumber": number
  }
],
"DefaultResourceSpec": {
  "InstanceType": "string",
  "LifecycleConfigArn": "string",
  "SageMakerImageArn": "string",
  "SageMakerImageVersionAlias": "string",
  "SageMakerImageVersionArn": "string"
},
"LifecycleConfigArns": [ "string" ]
},
"JupyterServerAppSettings": {
  "CodeRepositories": [
    {
      "RepositoryUrl": "string"
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"KernelGatewayAppSettings": {
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
```

```

    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"RSessionAppSettings": {
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  }
},
"RStudioServerProAppSettings": {
  "AccessStatus": "string",
  "UserGroup": "string"
},
"SecurityGroups": [ "string" ],
"SharingSettings": {
  "NotebookOutputOption": "string",
  "S3KmsKeyId": "string",
  "S3OutputPath": "string"
},
"SpaceStorageSettings": {
  "DefaultEbsStorageSettings": {
    "DefaultEbsVolumeSizeInGb": number,
    "MaximumEbsVolumeSizeInGb": number
  }
},
"StudioWebPortal": "string",
"StudioWebPortalSettings": {
  "HiddenAppTypes": [ "string" ],
  "HiddenMLTools": [ "string" ]
},
"TensorBoardAppSettings": {
  "DefaultResourceSpec": {
    "InstanceType": "string",

```

```
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DomainId

The ID of the associated Domain.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-(-*[a-z0-9]){1,61}`

Required: Yes

### SingleSignInUserIdentifier

A specifier for the type of value specified in SingleSignInUserValue. Currently, the only supported value is "UserName". If the Domain's AuthMode is IAM Identity Center, this field is required. If the Domain's AuthMode is not IAM Identity Center, this field cannot be specified.

Type: String

Pattern: `UserName`

Required: No

### SingleSignInUserValue

The username of the associated AWS Single Sign-On User for this UserProfile. If the Domain's AuthMode is IAM Identity Center, this field is required, and must match a valid username of a

user in your directory. If the Domain's AuthMode is not IAM Identity Center, this field cannot be specified.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### Tags

Each tag consists of a key and an optional value. Tag keys must be unique per resource.

Tags that you specify for the User Profile are also added to all Apps that the User Profile launches.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### UserProfileName

A name for the UserProfile. This value is not case sensitive.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### UserSettings

A collection of settings.

Type: [UserSettings](#) object

Required: No

## Response Syntax

```
{
```

```
"UserProfileArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### UserProfileArn

The user profile Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:user-profile/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)



- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateWorkforce

Service: Amazon SageMaker Service

Use this operation to create a workforce. This operation will return an error if a workforce already exists in the AWS Region that you specify. You can only create one workforce in each AWS Region per AWS account.

If you want to create a new workforce in an AWS Region where a workforce already exists, use the [DeleteWorkforce](#) API operation to delete the existing workforce and then use `CreateWorkforce` to create a new workforce.

To create a private workforce using Amazon Cognito, you must specify a Cognito user pool in `CognitoConfig`. You can also create an Amazon Cognito workforce using the Amazon SageMaker console. For more information, see [Create a Private Workforce \(Amazon Cognito\)](#).

To create a private workforce using your own OIDC Identity Provider (IdP), specify your IdP configuration in `OidcConfig`. Your OIDC IdP must support *groups* because groups are used by Ground Truth and Amazon A2I to create work teams. For more information, see [Create a Private Workforce \(OIDC IdP\)](#).

## Request Syntax

```
{
  "CognitoConfig": {
    "ClientId": "string",
    "UserPool": "string"
  },
  "OidcConfig": {
    "AuthenticationRequestExtraParams": {
      "string" : "string"
    },
    "AuthorizationEndpoint": "string",
    "ClientId": "string",
    "ClientSecret": "string",
    "Issuer": "string",
    "JwksUri": "string",
    "LogoutEndpoint": "string",
    "Scope": "string",
    "TokenEndpoint": "string",
    "UserInfoEndpoint": "string"
  },
}
```

```
"SourceIpConfig": {
  "Cidrs": [ "string" ]
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
],
"WorkforceName": "string",
"WorkforceVpcConfig": {
  "SecurityGroupIds": [ "string" ],
  "Subnets": [ "string" ],
  "VpcId": "string"
}
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CognitoConfig

Use this parameter to configure an Amazon Cognito private workforce. A single Cognito workforce is created using and corresponds to a single [Amazon Cognito user pool](#).

Do not use `OidcConfig` if you specify values for `CognitoConfig`.

Type: [CognitoConfig](#) object

Required: No

### OidcConfig

Use this parameter to configure a private workforce using your own OIDC Identity Provider.

Do not use `CognitoConfig` if you specify values for `OidcConfig`.

Type: [OidcConfig](#) object

Required: No

## SourceIpConfig

A list of IP address ranges ([CIDRs](#)). Used to create an allow list of IP addresses for a private workforce. Workers will only be able to log in to their worker portal from an IP address within this range. By default, a workforce isn't restricted to specific IP addresses.

Type: [SourceIpConfig](#) object

Required: No

## Tags

An array of key-value pairs that contain metadata to help you categorize and organize our workforce. Each tag consists of a key and a value, both of which you define.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## WorkforceName

The name of the private workforce.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([a-zA-Z0-9\-\-]){0,62}$`

Required: Yes

## WorkforceVpcConfig

Use this parameter to configure a workforce using VPC.

Type: [WorkforceVpcConfigRequest](#) object

Required: No

## Response Syntax

```
{
```

```
"WorkforceArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### WorkforceArn

The Amazon Resource Name (ARN) of the workforce.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:workforce/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateWorkteam

Service: Amazon SageMaker Service

Creates a new work team for labeling your data. A work team is defined by one or more Amazon Cognito user pools. You must first create the user pools before you can create a work team.

You cannot create more than 25 work teams in an account and region.

## Request Syntax

```
{
  "Description": "string",
  "MemberDefinitions": [
    {
      "CognitoMemberDefinition": {
        "ClientId": "string",
        "UserGroup": "string",
        "UserPool": "string"
      },
      "OidcMemberDefinition": {
        "Groups": [ "string" ]
      }
    }
  ],
  "NotificationConfiguration": {
    "NotificationTopicArn": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "WorkerAccessConfiguration": {
    "S3Presign": {
      "IamPolicyConstraints": {
        "SourceIp": "string",
        "VpcSourceIp": "string"
      }
    }
  },
  "WorkforceName": "string",
  "WorkteamName": "string"
}
```

```
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Description

A description of the work team.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: . +

Required: Yes

### MemberDefinitions

A list of `MemberDefinition` objects that contains objects that identify the workers that make up the work team.

Workforces can be created using Amazon Cognito or your own OIDC Identity Provider (IdP). For private workforces created using Amazon Cognito use `CognitoMemberDefinition`. For workforces created using your own OIDC identity provider (IdP) use `OidcMemberDefinition`. Do not provide input for both of these parameters in a single request.

For workforces created using Amazon Cognito, private work teams correspond to Amazon Cognito *user groups* within the user pool used to create a workforce. All of the `CognitoMemberDefinition` objects that make up the member definition must have the same `ClientId` and `UserPool` values. To add a Amazon Cognito user group to an existing worker pool, see [Adding groups to a User Pool](#). For more information about user pools, see [Amazon Cognito User Pools](#).

For workforces created using your own OIDC IdP, specify the user groups that you want to include in your private work team in `OidcMemberDefinition` by listing those groups in `Groups`.

Type: Array of [MemberDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

### NotificationConfiguration

Configures notification of workers regarding available or expiring work items.

Type: [NotificationConfiguration](#) object

Required: No

### Tags

An array of key-value pairs.

For more information, see [Resource Tag](#) and [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### WorkerAccessConfiguration

Use this optional parameter to constrain access to an Amazon S3 resource based on the IP address using supported IAM global condition keys. The Amazon S3 resource is accessed in the worker portal using a Amazon S3 presigned URL.

Type: [WorkerAccessConfiguration](#) object

Required: No

### WorkforceName

The name of the workforce.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([a-zA-Z0-9\-\-]){0,62}$`

Required: No



## WorkteamName

The name of the work team. Use this name to identify the work team.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{
  "WorkteamArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## WorkteamArn

The Amazon Resource Name (ARN) of the work team. You can use this ARN to identify the work team.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:workteam/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteAction

Service: Amazon SageMaker Service

Deletes an action.

## Request Syntax

```
{  
  "ActionName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ActionName

The name of the action to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{  
  "ActionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## ActionArn

The Amazon Resource Name (ARN) of the action.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:action/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteAlgorithm

Service: Amazon SageMaker Service

Removes the specified algorithm from your account.

## Request Syntax

```
{  
  "AlgorithmName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AlgorithmName

The name of the algorithm to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteApp

Service: Amazon SageMaker Service

Used to stop and delete an app.

## Request Syntax

```
{
  "AppName": "string",
  "AppType": "string",
  "DomainId": "string",
  "SpaceName": "string",
  "UserProfileName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AppName

The name of the app.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### AppType

The type of app.

Type: String

Valid Values: JupyterServer | KernelGateway | DetailedProfiler | TensorBoard  
| CodeEditor | JupyterLab | RStudioServerPro | RSessionGateway | Canvas

Required: Yes

## DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern:  $\text{^d-(-*[a-z0-9])\{1,61\}}$

Required: Yes

## SpaceName

The name of the space. If this value is not set, then `UserProfileName` must be set.

Type: String

Length Constraints: Maximum length of 63.

Pattern:  $\text{^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}}$

Required: No

## UserProfileName

The user profile name. If this value is not set, then `SpaceName` must be set.

Type: String

Length Constraints: Maximum length of 63.

Pattern:  $\text{^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}}$

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).



## ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteAppImageConfig

Service: Amazon SageMaker Service

Deletes an AppImageConfig.

## Request Syntax

```
{
  "AppImageConfigName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AppImageConfigName

The name of the AppImageConfig to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteArtifact

Service: Amazon SageMaker Service

Deletes an artifact. Either `ArtifactArn` or `Source` must be specified.

## Request Syntax

```
{
  "ArtifactArn": "string",
  "Source": {
    "SourceTypes": [
      {
        "SourceIdType": "string",
        "Value": "string"
      }
    ],
    "SourceUri": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ArtifactArn

The Amazon Resource Name (ARN) of the artifact to delete.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:artifact/.*`

Required: No

### Source

The URI of the source.

Type: [ArtifactSource](#) object

Required: No

## Response Syntax

```
{
  "ArtifactArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ArtifactArn](#)

The Amazon Resource Name (ARN) of the artifact.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:artifact/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteAssociation

Service: Amazon SageMaker Service

Deletes an association.

## Request Syntax

```
{
  "DestinationArn": "string",
  "SourceArn": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DestinationArn

The Amazon Resource Name (ARN) of the destination.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

Required: Yes

### SourceArn

The ARN of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

Required: Yes

## Response Syntax

```
{
  "DestinationArn": "string",
  "SourceArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [DestinationArn](#)

The Amazon Resource Name (ARN) of the destination.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

### [SourceArn](#)

The ARN of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.



## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteCluster

Service: Amazon SageMaker Service

Delete a SageMaker HyperPod cluster.

## Request Syntax

```
{
  "ClusterName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ClusterName

The string name or the Amazon Resource Name (ARN) of the SageMaker HyperPod cluster to delete.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^(arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:cluster/[a-z0-9]{12})|([a-zA-Z0-9](-*[a-zA-Z0-9]){0,62})$`

Required: Yes

## Response Syntax

```
{
  "ClusterArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ClusterArn

The Amazon Resource Name (ARN) of the SageMaker HyperPod cluster to delete.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:cluster/[a-z0-9]{12}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteCodeRepository

Service: Amazon SageMaker Service

Deletes the specified Git repository from your account.

## Request Syntax

```
{  
  "CodeRepositoryName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CodeRepositoryName

The name of the Git repository to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteCompilationJob

Service: Amazon SageMaker Service

Deletes the specified compilation job. This action deletes only the compilation job resource in Amazon SageMaker. It doesn't delete other resources that are related to that job, such as the model artifacts that the job creates, the compilation logs in CloudWatch, the compiled model, or the IAM role.

You can delete a compilation job only if its current status is COMPLETED, FAILED, or STOPPED. If the job status is STARTING or INPROGRESS, stop the job, and then delete it after its status becomes STOPPED.

## Request Syntax

```
{
  "CompilationJobName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CompilationJobName

The name of the compilation job to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DeleteContext

Service: Amazon SageMaker Service

Deletes an context.

## Request Syntax

```
{  
  "ContextName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ContextName

The name of the context to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{  
  "ContextArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## ContextArn

The Amazon Resource Name (ARN) of the context.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:context/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteDataQualityJobDefinition

Service: Amazon SageMaker Service

Deletes a data quality monitoring job definition.

## Request Syntax

```
{
  "JobDefinitionName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobDefinitionName

The name of the data quality monitoring job definition to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteDeviceFleet

Service: Amazon SageMaker Service

Deletes a fleet.

## Request Syntax

```
{  
  "DeviceFleetName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DeviceFleetName

The name of the fleet to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteDomain

Service: Amazon SageMaker Service

Used to delete a domain. If you onboarded with IAM mode, you will need to delete your domain to onboard again using IAM Identity Center. Use with caution. All of the members of the domain will lose access to their EFS volume, including data, notebooks, and other artifacts.

## Request Syntax

```
{
  "DomainId": "string",
  "RetentionPolicy": {
    "HomeEfsFileSystem": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-( -*[a-z0-9]){1,61}`

Required: Yes

### RetentionPolicy

The retention policy for this domain, which specifies whether resources will be retained after the Domain is deleted. By default, all resources are retained (not automatically deleted).

Type: [RetentionPolicy](#) object

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DeleteEdgeDeploymentPlan

Service: Amazon SageMaker Service

Deletes an edge deployment plan if (and only if) all the stages in the plan are inactive or there are no stages in the plan.

## Request Syntax

```
{
  "EdgeDeploymentPlanName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EdgeDeploymentPlanName

The name of the edge deployment plan to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteEdgeDeploymentStage

Service: Amazon SageMaker Service

Delete a stage in an edge deployment plan if (and only if) the stage is inactive.

## Request Syntax

```
{
  "EdgeDeploymentPlanName": "string",
  "StageName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EdgeDeploymentPlanName

The name of the edge deployment plan from which the stage will be deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### StageName

The name of the stage.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteEndpoint

Service: Amazon SageMaker Service

Deletes an endpoint. SageMaker frees up all of the resources that were deployed when the endpoint was created.

SageMaker retires any custom KMS key grants associated with the endpoint, meaning you don't need to use the [RevokeGrant](#) API call.

When you delete your endpoint, SageMaker asynchronously deletes associated endpoint resources such as KMS key grants. You might still see these resources in your account for a few minutes after deleting your endpoint. Do not delete or revoke the permissions for your [ExecutionRoleArn](#) , otherwise SageMaker cannot delete these resources.

## Request Syntax

```
{
  "EndpointName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [EndpointName](#)

The name of the endpoint that you want to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteEndpointConfig

Service: Amazon SageMaker Service

Deletes an endpoint configuration. The DeleteEndpointConfig API deletes only the specified configuration. It does not delete endpoints created using the configuration.

You must not delete an EndpointConfig in use by an endpoint that is live or while the UpdateEndpoint or CreateEndpoint operations are being performed on the endpoint. If you delete the EndpointConfig of an endpoint that is active or being created or updated you may lose visibility into the instance type the endpoint is using. The endpoint must be deleted in order to stop incurring charges.

## Request Syntax

```
{
  "EndpointConfigName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EndpointConfigName

The name of the endpoint configuration that you want to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DeleteExperiment

Service: Amazon SageMaker Service

Deletes an SageMaker experiment. All trials associated with the experiment must be deleted first. Use the [ListTrials](#) API to get a list of the trials associated with the experiment.

## Request Syntax

```
{
  "ExperimentName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [ExperimentName](#)

The name of the experiment to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{
  "ExperimentArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## ExperimentArn

The Amazon Resource Name (ARN) of the experiment that is being deleted.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteFeatureGroup

Service: Amazon SageMaker Service

Delete the FeatureGroup and any data that was written to the OnlineStore of the FeatureGroup. Data cannot be accessed from the OnlineStore immediately after DeleteFeatureGroup is called.

Data written into the OfflineStore will not be deleted. The AWS Glue database and tables that are automatically created for your OfflineStore are not deleted.

Note that it can take approximately 10-15 minutes to delete an OnlineStore FeatureGroup with the InMemory StorageType.

## Request Syntax

```
{
  "FeatureGroupName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### FeatureGroupName

The name of the FeatureGroup you want to delete. The name must be unique within an AWS Region in an AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([_-]*[a-zA-Z0-9]){0,63}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteFlowDefinition

Service: Amazon SageMaker Service

Deletes the specified flow definition.

## Request Syntax

```
{
  "FlowDefinitionName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### FlowDefinitionName

The name of the flow definition you are deleting.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-z0-9](-*[a-z0-9]){0,62}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteHub

Service: Amazon SageMaker Service

Delete a hub.

## Request Syntax

```
{
  "HubName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### HubName

The name of the hub to delete.

Type: String

Pattern: `^(arn:[a-z0-9-\.]\{1,63\}:sagemaker:\w+(?:-\w+)+:(\d{12}|aws):hub\w\)?[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DeleteHubContent

Service: Amazon SageMaker Service

Delete the contents of a hub.

## Request Syntax

```
{
  "HubContentName": "string",
  "HubContentType": "string",
  "HubContentVersion": "string",
  "HubName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### HubContentName

The name of the content that you want to delete from a hub.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### HubContentType

The type of content that you want to delete from a hub.

Type: String

Valid Values: Model | Notebook | ModelReference

Required: Yes

### HubContentVersion

The version of the content that you want to delete from a hub.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: `^\d{1,4}.\d{1,4}.\d{1,4}$`

Required: Yes

### HubName

The name of the hub that you want to delete content in.

Type: String

Pattern: `^(arn:[a-z0-9-\.]\{1,63\}:sagemaker:\w+(?:-\w+)+:(\d{12}|aws):hub\w)?[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteHubContentReference

Service: Amazon SageMaker Service

Delete a hub content reference in order to remove a model from a private hub.

## Request Syntax

```
{
  "HubContentName": "string",
  "HubContentType": "string",
  "HubName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### HubContentName

The name of the hub content to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### HubContentType

The type of hub content reference to delete. The only supported type of hub content reference to delete is `ModelReference`.

Type: String

Valid Values: `Model` | `Notebook` | `ModelReference`

Required: Yes

## HubName

The name of the hub to delete the hub content reference from.

Type: String

Pattern: `^(arn:[a-z0-9-\.]{1,63}:sagemaker:\w+(?:-\w+)+:(\d{12}|aws):hub\w)?[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

# DeleteHumanTaskUi

Service: Amazon SageMaker Service

Use this operation to delete a human task user interface (worker task template).

To see a list of human task user interfaces (work task templates) in your account, use [ListHumanTaskUis](#). When you delete a worker task template, it no longer appears when you call `ListHumanTaskUis`.

## Request Syntax

```
{
  "HumanTaskUiName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [HumanTaskUiName](#)

The name of the human task user interface (work task template) you want to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-z0-9](-*[a-z0-9])*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DeleteHyperParameterTuningJob

Service: Amazon SageMaker Service

Deletes a hyperparameter tuning job. The `DeleteHyperParameterTuningJob` API deletes only the tuning job entry that was created in SageMaker when you called the `CreateHyperParameterTuningJob` API. It does not delete training jobs, artifacts, or the IAM role that you specified when creating the model.

## Request Syntax

```
{  
  "HyperParameterTuningJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### HyperParameterTuningJobName

The name of the hyperparameter tuning job that you want to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteImage

Service: Amazon SageMaker Service

Deletes a SageMaker image and all versions of the image. The container images aren't deleted.

## Request Syntax

```
{
  "ImageName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ImageName

The name of the image to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteImageVersion

Service: Amazon SageMaker Service

Deletes a version of a SageMaker image. The container image the version represents isn't deleted.

## Request Syntax

```
{
  "Alias": "string",
  "ImageName": "string",
  "Version": number
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Alias

The alias of the image to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `(?!^[.-])^([a-zA-Z0-9-_.]+)$`

Required: No

### ImageName

The name of the image to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}$`

Required: Yes

## Version

The version to delete.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteInferenceComponent

Service: Amazon SageMaker Service

Deletes an inference component.

## Request Syntax

```
{  
  "InferenceComponentName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### InferenceComponentName

The name of the inference component to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9]* [a-zA-Z0-9] )?$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteInferenceExperiment

Service: Amazon SageMaker Service

Deletes an inference experiment.

## Note

This operation does not delete your endpoint, variants, or any underlying resources. This operation only deletes the metadata of your experiment.

## Request Syntax

```
{
  "Name": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the inference experiment you want to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{
  "InferenceExperimentArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### InferenceExperimentArn

The ARN of the deleted inference experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:inference-experiment/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteMlflowTrackingServer

Service: Amazon SageMaker Service

Deletes an MLflow Tracking Server. For more information, see [Clean up MLflow resources](#).

## Request Syntax

```
{  
  "TrackingServerName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [TrackingServerName](#)

The name of the the tracking server to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: Yes

## Response Syntax

```
{  
  "TrackingServerArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## TrackingServerArn

A `TrackingServerArn` object, the ARN of the tracking server that is deleted if successfully found.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:mlflow-tracking-server/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteModel

Service: Amazon SageMaker Service

Deletes a model. The `DeleteModel` API deletes only the model entry that was created in SageMaker when you called the `CreateModel` API. It does not delete model artifacts, inference code, or the IAM role that you specified when creating the model.

## Request Syntax

```
{  
  "modelName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### modelName

The name of the model to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9]*[a-zA-Z0-9] )?`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DeleteModelBiasJobDefinition

Service: Amazon SageMaker Service

Deletes an Amazon SageMaker model bias job definition.

## Request Syntax

```
{
  "JobDefinitionName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobDefinitionName

The name of the model bias job definition to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteModelCard

Service: Amazon SageMaker Service

Deletes an Amazon SageMaker Model Card.

## Request Syntax

```
{  
  "ModelCardName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ModelCardName

The name of the model card to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteModelExplainabilityJobDefinition

Service: Amazon SageMaker Service

Deletes an Amazon SageMaker model explainability job definition.

## Request Syntax

```
{
  "JobDefinitionName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobDefinitionName

The name of the model explainability job definition to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteModelPackage

Service: Amazon SageMaker Service

Deletes a model package.

A model package is used to create SageMaker models or list on AWS Marketplace. Buyers can subscribe to model packages listed on AWS Marketplace to create models in SageMaker.

## Request Syntax

```
{
  "ModelPackageName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ModelPackageName

The name or Amazon Resource Name (ARN) of the model package to delete.

When you specify a name, the name must have 1 to 63 characters. Valid characters are a-z, A-Z, 0-9, and - (hyphen).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 176.

Pattern: (arn:aws[a-z\-\*:]\*:sagemaker:[a-z0-9\-\*:]{0-9}{12}:[a-z\-\*\/\*]?)?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!--)(\[0-9]{1,5})?&

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DeleteModelPackageGroup

Service: Amazon SageMaker Service

Deletes the specified model group.

## Request Syntax

```
{
  "ModelPackageGroupName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ModelPackageGroupName

The name of the model group to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: (arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}: [a-z\-\]\*\V)?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!--)\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteModelPackageGroupPolicy

Service: Amazon SageMaker Service

Deletes a model group resource policy.

## Request Syntax

```
{  
  "ModelPackageGroupName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ModelPackageGroupName

The name of the model group for which to delete the policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteModelQualityJobDefinition

Service: Amazon SageMaker Service

Deletes the specified model quality monitoring job definition.

## Request Syntax

```
{
  "JobDefinitionName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobDefinitionName

The name of the model quality monitoring job definition to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteMonitoringSchedule

Service: Amazon SageMaker Service

Deletes a monitoring schedule. Also stops the schedule had not already been stopped. This does not delete the job execution history of the monitoring schedule.

## Request Syntax

```
{  
  "MonitoringScheduleName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MonitoringScheduleName

The name of the monitoring schedule to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DeleteNotebookInstance

Service: Amazon SageMaker Service

Deletes an SageMaker notebook instance. Before you can delete a notebook instance, you must call the StopNotebookInstance API.

## Important

When you delete a notebook instance, you lose all of your data. SageMaker removes the ML compute instance, and deletes the ML storage volume and the network interface associated with the notebook instance.

## Request Syntax

```
{
  "NotebookInstanceName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### NotebookInstanceName

The name of the SageMaker notebook instance to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteNotebookInstanceLifecycleConfig

Service: Amazon SageMaker Service

Deletes a notebook instance lifecycle configuration.

## Request Syntax

```
{  
  "NotebookInstanceLifecycleConfigName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### NotebookInstanceLifecycleConfigName

The name of the lifecycle configuration to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeletePipeline

Service: Amazon SageMaker Service

Deletes a pipeline if there are no running instances of the pipeline. To delete a pipeline, you must stop all running instances of the pipeline using the `StopPipelineExecution` API. When you delete a pipeline, all instances of the pipeline are deleted.

## Request Syntax

```
{
  "ClientRequestToken": "string",
  "PipelineName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ClientRequestToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than one time.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: Yes

### PipelineName

The name of the pipeline to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: Yes

## Response Syntax

```
{
  "PipelineArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [PipelineArn](#)

The Amazon Resource Name (ARN) of the pipeline to delete.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:pipeline/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteProject

Service: Amazon SageMaker Service

Delete the specified project.

## Request Syntax

```
{
  "ProjectName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ProjectName

The name of the project to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.



## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteSpace

Service: Amazon SageMaker Service

Used to delete a space.

## Request Syntax

```
{
  "DomainId": "string",
  "SpaceName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DomainId

The ID of the associated domain.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-(-*[a-z0-9]){1,61}`

Required: Yes

### SpaceName

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteStudioLifecycleConfig

Service: Amazon SageMaker Service

Deletes the Amazon SageMaker Studio Lifecycle Configuration. In order to delete the Lifecycle Configuration, there must be no running apps using the Lifecycle Configuration. You must also remove the Lifecycle Configuration from UserSettings in all Domains and UserProfiles.

## Request Syntax

```
{  
  "StudioLifecycleConfigName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### StudioLifecycleConfigName

The name of the Amazon SageMaker Studio Lifecycle Configuration to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteTags

Service: Amazon SageMaker Service

Deletes the specified tags from an SageMaker resource.

To list a resource's tags, use the `ListTags` API.

## Note

When you call this API to delete tags from a hyperparameter tuning job, the deleted tags are not removed from training jobs that the hyperparameter tuning job launched before you called this API.

## Note

When you call this API to delete tags from a SageMaker Domain or User Profile, the deleted tags are not removed from Apps that the SageMaker Domain or User Profile launched before you called this API.

## Request Syntax

```
{  
  "ResourceArn": "string",  
  "TagKeys": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ResourceArn

The Amazon Resource Name (ARN) of the resource whose tags you want to delete.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z-]*:sagemaker:[a-z0-9-]*:[0-9]{12}:.+`

Required: Yes

### TagKeys

An array or one or more tag keys to delete.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^([\p{L}\p{Z}\p{N}_.: /=\+ \-@]*)$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DeleteTrial

Service: Amazon SageMaker Service

Deletes the specified trial. All trial components that make up the trial must be deleted first. Use the [DescribeTrialComponent](#) API to get the list of trial components.

## Request Syntax

```
{
  "TrialName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### TrialName

The name of the trial to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{
  "TrialArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## TrialArn

The Amazon Resource Name (ARN) of the trial that is being deleted.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteTrialComponent

Service: Amazon SageMaker Service

Deletes the specified trial component. A trial component must be disassociated from all trials before the trial component can be deleted. To disassociate a trial component from a trial, call the [DisassociateTrialComponent](#) API.

## Request Syntax

```
{  
  "TrialComponentName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [TrialComponentName](#)

The name of the component to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{  
  "TrialComponentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **TrialComponentArn**

The Amazon Resource Name (ARN) of the component is being deleted.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial-component/.*`

### **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

#### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteUserProfile

Service: Amazon SageMaker Service

Deletes a user profile. When a user profile is deleted, the user loses access to their EFS volume, including data, notebooks, and other artifacts.

## Request Syntax

```
{  
  "DomainId": "string",  
  "UserProfileName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern:  $^d-(-*[a-z0-9])\{1,61\}$

Required: Yes

### UserProfileName

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern:  $^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteWorkforce

Service: Amazon SageMaker Service

Use this operation to delete a workforce.

If you want to create a new workforce in an AWS Region where a workforce already exists, use this operation to delete the existing workforce and then use [CreateWorkforce](#) to create a new workforce.

## Important

If a private workforce contains one or more work teams, you must use the [DeleteWorkteam](#) operation to delete all work teams before you delete the workforce. If you try to delete a workforce that contains one or more work teams, you will receive a ResourceInUse error.

## Request Syntax

```
{
  "WorkforceName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [WorkforceName](#)

The name of the workforce.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([a-zA-Z0-9\-\-]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DeleteWorkteam

Service: Amazon SageMaker Service

Deletes an existing work team. This operation can't be undone.

## Request Syntax

```
{  
  "WorkteamName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### WorkteamName

The name of the work team to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{  
  "Success": boolean  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## Success

Returns `true` if the work team was successfully deleted; otherwise, returns `false`.

Type: Boolean

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeregisterDevices

Service: Amazon SageMaker Service

Deregisters the specified devices. After you deregister a device, you will need to re-register the devices.

## Request Syntax

```
{
  "DeviceFleetName": "string",
  "DeviceNames": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DeviceFleetName

The name of the fleet the devices belong to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### DeviceNames

The unique IDs of the devices.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeAction

Service: Amazon SageMaker Service

Describes an action.

## Request Syntax

```
{
  "ActionName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ActionName

The name of the action to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: (arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:(experiment|experiment-trial|experiment-trial-component|artifact|action|context)\|)?([a-zA-Z0-9](-\*[a-zA-Z0-9])){0,119}

Required: Yes

## Response Syntax

```
{
  "ActionArn": "string",
  "ActionName": "string",
  "ActionType": "string",
  "CreatedBy": {
    "DomainId": "string",
```

```

    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "CreationTime": number,
  "Description": "string",
  "LastModifiedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "LastModifiedTime": number,
  "LineageGroupArn": "string",
  "MetadataProperties": {
    "CommitId": "string",
    "GeneratedBy": "string",
    "ProjectId": "string",
    "Repository": "string"
  },
  "Properties": {
    "string" : "string"
  },
  "Source": {
    "SourceId": "string",
    "SourceType": "string",
    "SourceUri": "string"
  },
  "Status": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## ActionArn

The Amazon Resource Name (ARN) of the action.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:action/.*`

## ActionName

The name of the action.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `(arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial|experiment-trial-component|artifact|action|context)\/)?([a-zA-Z0-9](-*[a-zA-Z0-9])){0,119}`

## ActionType

The type of the action.

Type: String

Length Constraints: Maximum length of 256.

## CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

## CreationTime

When the action was created.

Type: Timestamp

## Description

The description of the action.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: . \*

### LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

### LastModifiedTime

When the action was last modified.

Type: Timestamp

### LineageGroupArn

The Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:lineage-group/. \*

### MetadataProperties

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties](#) object

### Properties

A list of the action's properties.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 2500.

Key Pattern: . \*



Value Length Constraints: Maximum length of 2500.

Value Pattern: .\*

### Source

The source of the action.

Type: [ActionSource](#) object

### Status

The status of the action.

Type: String

Valid Values: Unknown | InProgress | Completed | Failed | Stopping | Stopped

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeAlgorithm

Service: Amazon SageMaker Service

Returns a description of the specified algorithm that is in your account.

## Request Syntax

```
{
  "AlgorithmName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AlgorithmName

The name of the algorithm to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: (arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:[a-z\-\]\*\V)?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!--)\$

Required: Yes

## Response Syntax

```
{
  "AlgorithmArn": "string",
  "AlgorithmDescription": "string",
  "AlgorithmName": "string",
  "AlgorithmStatus": "string",
  "AlgorithmStatusDetails": {
    "ImageScanStatuses": [
      {
        "FailureReason": "string",
        "Name": "string",
```

```

    "Status": "string"
  }
],
"ValidationStatuses": [
  {
    "FailureReason": "string",
    "Name": "string",
    "Status": "string"
  }
]
},
"CertifyForMarketplace": boolean,
"CreationTime": number,
"InferenceSpecification": {
  "Containers": [
    {
      "AdditionalS3DataSource": {
        "CompressionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
      },
      "ContainerHostname": "string",
      "Environment": {
        "string": "string"
      },
      "Framework": "string",
      "FrameworkVersion": "string",
      "Image": "string",
      "ImageDigest": "string",
      "ModelDataSource": {
        "S3DataSource": {
          "CompressionType": "string",
          "HubAccessConfig": {
            "HubContentArn": "string"
          },
          "ModelAccessConfig": {
            "AcceptEula": boolean
          },
          "S3DataType": "string",
          "S3Uri": "string"
        }
      },
      "ModelDataUrl": "string",
      "ModelInput": {

```

```

        "DataInputConfig": "string"
    },
    "NearestModelName": "string",
    "ProductId": "string"
}
],
"SupportedContentTypes": [ "string" ],
"SupportedRealtimeInferenceInstanceTypes": [ "string" ],
"SupportedResponseMIMETypes": [ "string" ],
"SupportedTransformInstanceTypes": [ "string" ]
},
"ProductId": "string",
"TrainingSpecification": {
    "AdditionalS3DataSource": {
        "CompressionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
    },
    "MetricDefinitions": [
        {
            "Name": "string",
            "Regex": "string"
        }
    ],
    "SupportedHyperParameters": [
        {
            "DefaultValue": "string",
            "Description": "string",
            "IsRequired": boolean,
            "IsTunable": boolean,
            "Name": "string",
            "Range": {
                "CategoricalParameterRangeSpecification": {
                    "Values": [ "string" ]
                },
                "ContinuousParameterRangeSpecification": {
                    "MaxValue": "string",
                    "MinValue": "string"
                },
                "IntegerParameterRangeSpecification": {
                    "MaxValue": "string",
                    "MinValue": "string"
                }
            }
        }
    ]
},

```

```

    "Type": "string"
  }
],
"SupportedTrainingInstanceTypes": [ "string" ],
"SupportedTuningJobObjectiveMetrics": [
  {
    "MetricName": "string",
    "Type": "string"
  }
],
"SupportsDistributedTraining": boolean,
"TrainingChannels": [
  {
    "Description": "string",
    "IsRequired": boolean,
    "Name": "string",
    "SupportedCompressionTypes": [ "string" ],
    "SupportedContentTypes": [ "string" ],
    "SupportedInputModes": [ "string" ]
  }
],
"TrainingImage": "string",
"TrainingImageDigest": "string"
},
"ValidationSpecification": {
  "ValidationProfiles": [
    {
      "ProfileName": "string",
      "TrainingJobDefinition": {
        "HyperParameters": {
          "string" : "string"
        },
        "InputDataConfig": [
          {
            "ChannelName": "string",
            "CompressionType": "string",
            "ContentType": "string",
            "DataSource": {
              "FileSystemDataSource": {
                "DirectoryPath": "string",
                "FileSystemAccessMode": "string",
                "FileSystemId": "string",
                "FileSystemType": "string"
              }
            }
          }
        ]
      }
    }
  ]
}

```

```

        "S3DataSource": {
            "AttributeNames": [ "string" ],
            "InstanceGroupNames": [ "string" ],
            "S3DataDistributionType": "string",
            "S3DataType": "string",
            "S3Uri": "string"
        }
    },
    "InputMode": "string",
    "RecordWrapperType": "string",
    "ShuffleConfig": {
        "Seed": number
    }
}
],
"OutputDataConfig": {
    "CompressionType": "string",
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
        {
            "InstanceCount": number,
            "InstanceGroupName": "string",
            "InstanceType": "string"
        }
    ],
    "InstanceType": "string",
    "KeepAlivePeriodInSeconds": number,
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
},
"StoppingCondition": {
    "MaxPendingTimeInSeconds": number,
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
},
"TrainingInputMode": "string"
},
"TransformJobDefinition": {
    "BatchStrategy": "string",
    "Environment": {

```

```

        "string" : "string"
    },
    "MaxConcurrentTransforms": number,
    "MaxPayloadInMB": number,
    "TransformInput": {
        "CompressionType": "string",
        "ContentType": "string",
        "DataSource": {
            "S3DataSource": {
                "S3DataType": "string",
                "S3Uri": "string"
            }
        },
        "SplitType": "string"
    },
    "TransformOutput": {
        "Accept": "string",
        "AssembleWith": "string",
        "KmsKeyId": "string",
        "S3OutputPath": "string"
    },
    "TransformResources": {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string"
    }
}
],
"ValidationRole": "string"
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AlgorithmArn

The Amazon Resource Name (ARN) of the algorithm.

Type: String



Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9-]{9,16}:[0-9]{12}:algorithm/[\S]{1,2048}$`

### AlgorithmDescription

A brief summary about the algorithm.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

### AlgorithmName

The name of the algorithm being described.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### AlgorithmStatus

The current status of the algorithm.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting

### AlgorithmStatusDetails

Details about the current status of the algorithm.

Type: [AlgorithmStatusDetails](#) object

### CertifyForMarketplace

Whether the algorithm is certified to be listed in AWS Marketplace.

Type: Boolean

### CreationTime

A timestamp specifying when the algorithm was created.

Type: Timestamp

### InferenceSpecification

Details about inference jobs that the algorithm runs.

Type: [InferenceSpecification](#) object

### ProductId

The product identifier of the algorithm.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

### TrainingSpecification

Details about training jobs run by this algorithm.

Type: [TrainingSpecification](#) object

### ValidationSpecification

Details about configurations for one or more training jobs that SageMaker runs to test the algorithm.

Type: [AlgorithmValidationSpecification](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeApp

Service: Amazon SageMaker Service

Describes the app.

## Request Syntax

```
{
  "AppName": "string",
  "AppType": "string",
  "DomainId": "string",
  "SpaceName": "string",
  "UserProfileName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AppName

The name of the app.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### AppType

The type of app.

Type: String

Valid Values: `JupyterServer` | `KernelGateway`

Required: Yes

## DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-( -*[a-z0-9]){1,61}`

Required: Yes

## SpaceName

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( -*[a-zA-Z0-9]){0,62}`

Required: No

## UserProfileName

The user profile name. If this value is not set, then SpaceName must be set.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( -*[a-zA-Z0-9]){0,62}`

Required: No

## Response Syntax

```
{
  "AppArn": "string",
  "AppName": "string",
  "AppType": "string",
  "CreationTime": number,
  "DomainId": "string",
  "FailureReason": "string",
```

```

    "LastHealthCheckTimestamp": number,
    "LastUserActivityTimestamp": number,
    "ResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    },
    "SpaceName": "string",
    "Status": "string",
    "UserProfileName": "string"
  }
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AppArn

The Amazon Resource Name (ARN) of the app.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:app/.*`

### AppName

The name of the app.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

### AppType

The type of app.

Type: String

Valid Values: JupyterServer | KernelGateway

### CreationTime

The creation time of the application.

#### Note

After an application has been shut down for 24 hours, SageMaker deletes all metadata for the application. To be considered an update and retain application metadata, applications must be restarted within 24 hours after the previous application has been shut down. After this time window, creation of an application is considered a new application rather than an update of the previous application.

Type: Timestamp

### DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-(-*[a-z0-9]){1,61}`

### FailureReason

The failure reason.

Type: String

Length Constraints: Maximum length of 1024.

### LastHealthCheckTimestamp

The timestamp of the last health check.

Type: Timestamp

### LastUserActivityTimestamp

The timestamp of the last user's activity. LastUserActivityTimestamp is also updated when SageMaker performs health checks without user activity. As a result, this value is set to the same value as LastHealthCheckTimestamp.

Type: Timestamp

### ResourceSpec

The instance type and the Amazon Resource Name (ARN) of the SageMaker image created on the instance.

Type: [ResourceSpec](#) object

### SpaceName

The name of the space. If this value is not set, then `UserProfileName` must be set.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

### Status

The status.

Type: String

Valid Values: Deleted | Deleting | Failed | InService | Pending

### UserProfileName

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeAppImageConfig

Service: Amazon SageMaker Service

Describes an AppImageConfig.

## Request Syntax

```
{
  "AppImageConfigName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AppImageConfigName

The name of the AppImageConfig to describe.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{
  "AppImageConfigArn": "string",
  "AppImageConfigName": "string",
  "CodeEditorAppImageConfig": {
    "ContainerConfig": {
      "ContainerArguments": [ "string " ],
      "ContainerEntrypoint": [ "string " ],
      "ContainerEnvironmentVariables": {
        "string" : "string"
      }
    }
  }
}
```

```

    }
  },
  "FileSystemConfig": {
    "DefaultGid": number,
    "DefaultUid": number,
    "MountPath": "string"
  }
},
"CreationTime": number,
"JupyterLabAppImageConfig": {
  "ContainerConfig": {
    "ContainerArguments": [ "string" ],
    "ContainerEntrypoint": [ "string" ],
    "ContainerEnvironmentVariables": {
      "string" : "string"
    }
  }
},
"FileSystemConfig": {
  "DefaultGid": number,
  "DefaultUid": number,
  "MountPath": "string"
}
},
"KernelGatewayImageConfig": {
  "FileSystemConfig": {
    "DefaultGid": number,
    "DefaultUid": number,
    "MountPath": "string"
  },
  "KernelSpecs": [
    {
      "DisplayName": "string",
      "Name": "string"
    }
  ]
},
"LastModifiedTime": number
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AppImageConfigArn

The ARN of the AppImageConfig.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:app-image-config/.*`

### AppImageConfigName

The name of the AppImageConfig.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

### CodeEditorAppImageConfig

The configuration of the Code Editor app.

Type: [CodeEditorAppImageConfig](#) object

### CreationTime

When the AppImageConfig was created.

Type: Timestamp

### JupyterLabAppImageConfig

The configuration of the JupyterLab app.

Type: [JupyterLabAppImageConfig](#) object

### KernelGatewayImageConfig

The configuration of a KernelGateway app.

Type: [KernelGatewayImageConfig](#) object

### LastModifiedTime

When the AppImageConfig was last modified.

Type: Timestamp

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeArtifact

Service: Amazon SageMaker Service

Describes an artifact.

## Request Syntax

```
{  
  "ArtifactArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ArtifactArn

The Amazon Resource Name (ARN) of the artifact to describe.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:artifact/.*`

Required: Yes

## Response Syntax

```
{  
  "ArtifactArn": "string",  
  "ArtifactName": "string",  
  "ArtifactType": "string",  
  "CreatedBy": {  
    "DomainId": "string",  
    "IamIdentity": {  
      "Arn": "string",  
      "PrincipalId": "string",  
      "SourceIdentity": "string"  
    },  
  },  
  "UserProfileArn": "string",  
}
```

```

    "UserProfileName": "string"
  },
  "CreationTime": number,
  "LastModifiedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "LastModifiedTime": number,
  "LineageGroupArn": "string",
  "MetadataProperties": {
    "CommitId": "string",
    "GeneratedBy": "string",
    "ProjectId": "string",
    "Repository": "string"
  },
  "Properties": {
    "string" : "string"
  },
  "Source": {
    "SourceTypes": [
      {
        "SourceIdType": "string",
        "Value": "string"
      }
    ],
    "SourceUri": "string"
  }
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ArtifactArn

The Amazon Resource Name (ARN) of the artifact.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:artifact/.*`

### ArtifactName

The name of the artifact.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `(arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial|experiment-trial-component|artifact|action|context)\|)?([a-zA-Z0-9](-*[a-zA-Z0-9])){0,119}`

### ArtifactType

The type of the artifact.

Type: String

Length Constraints: Maximum length of 256.

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

### CreationTime

When the artifact was created.

Type: Timestamp

### LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object



## LastModifiedTime

When the artifact was last modified.

Type: Timestamp

## LineageGroupArn

The Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:lineage-group/.*`

## MetadataProperties

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties](#) object

## Properties

A list of the artifact's properties.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 2500.

Key Pattern: `.*`

Value Length Constraints: Maximum length of 2500.

Value Pattern: `.*`

## Source

The source of the artifact.

Type: [ArtifactSource](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeAutoMLJob

Service: Amazon SageMaker Service

Returns information about an AutoML job created by calling [CreateAutoMLJob](#).

## Note

AutoML jobs created by calling [CreateAutoMLJobV2](#) cannot be described by DescribeAutoMLJob.

## Request Syntax

```
{
  "AutoMLJobName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [AutoMLJobName](#)

Requests information about an AutoML job using its unique name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

## Response Syntax

```
{
  "AutoMLJobArn": "string",
  "AutoMLJobArtifacts": {
    "CandidateDefinitionNotebookLocation": "string",
```

```

    "DataExplorationNotebookLocation": "string"
  },
  "AutoMLJobConfig": {
    "CandidateGenerationConfig": {
      "AlgorithmsConfig": [
        {
          "AutoMLAlgorithms": [ "string " ]
        }
      ],
      "FeatureSpecificationS3Uri": "string"
    },
    "CompletionCriteria": {
      "MaxAutoMLJobRuntimeInSeconds": number,
      "MaxCandidates": number,
      "MaxRuntimePerTrainingJobInSeconds": number
    },
    "DataSplitConfig": {
      "ValidationFraction": number
    },
    "Mode": "string",
    "SecurityConfig": {
      "EnableInterContainerTrafficEncryption": boolean,
      "VolumeKmsKeyId": "string",
      "VpcConfig": {
        "SecurityGroupIds": [ "string " ],
        "Subnets": [ "string " ]
      }
    }
  },
  "AutoMLJobName": "string",
  "AutoMLJobObjective": {
    "MetricName": "string"
  },
  "AutoMLJobSecondaryStatus": "string",
  "AutoMLJobStatus": "string",
  "BestCandidate": {
    "CandidateName": "string",
    "CandidateProperties": {
      "CandidateArtifactLocations": {
        "BacktestResults": "string",
        "Explainability": "string",
        "ModelInsights": "string"
      },
      "CandidateMetrics": [

```

```

    {
      "MetricName": "string",
      "Set": "string",
      "StandardMetricName": "string",
      "Value": number
    }
  ]
},
"CandidateStatus": "string",
"CandidateSteps": [
  {
    "CandidateStepArn": "string",
    "CandidateStepName": "string",
    "CandidateStepType": "string"
  }
],
"CreationTime": number,
"EndTime": number,
"FailureReason": "string",
"FinalAutoMLJobObjectiveMetric": {
  "MetricName": "string",
  "StandardMetricName": "string",
  "Type": "string",
  "Value": number
},
"InferenceContainerDefinitions": {
  "string" : [
    {
      "Environment": {
        "string" : "string"
      },
      "Image": "string",
      "ModelDataUrl": "string"
    }
  ]
},
"InferenceContainers": [
  {
    "Environment": {
      "string" : "string"
    },
    "Image": "string",
    "ModelDataUrl": "string"
  }
]

```

```

    ],
    "LastModifiedTime": number,
    "ObjectiveStatus": "string"
  },
  "CreationTime": number,
  "EndTime": number,
  "FailureReason": "string",
  "GenerateCandidateDefinitionsOnly": boolean,
  "InputDataConfig": [
    {
      "ChannelType": "string",
      "CompressionType": "string",
      "ContentType": "string",
      "DataSource": {
        "S3DataSource": {
          "S3DataType": "string",
          "S3Uri": "string"
        }
      },
      "SampleWeightAttributeName": "string",
      "TargetAttributeName": "string"
    }
  ],
  "LastModifiedTime": number,
  "ModelDeployConfig": {
    "AutoGenerateEndpointName": boolean,
    "EndpointName": "string"
  },
  "ModelDeployResult": {
    "EndpointName": "string"
  },
  "OutputDataConfig": {
    "KmsKeyId": "string",
    "S3OutputPath": "string"
  },
  "PartialFailureReasons": [
    {
      "PartialFailureMessage": "string"
    }
  ],
  "ProblemType": "string",
  "ResolvedAttributes": {
    "AutoMLJobObjective": {
      "MetricName": "string"
    }
  }
}

```

```
    },
    "CompletionCriteria": {
      "MaxAutoMLJobRuntimeInSeconds": number,
      "MaxCandidates": number,
      "MaxRuntimePerTrainingJobInSeconds": number
    },
    "ProblemType": "string"
  },
  "RoleArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AutoMLJobArn](#)

Returns the ARN of the AutoML job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:automl-job/.*`

### [AutoMLJobArtifacts](#)

Returns information on the job's artifacts found in AutoMLJobArtifacts.

Type: [AutoMLJobArtifacts](#) object

### [AutoMLJobConfig](#)

Returns the configuration for the AutoML job.

Type: [AutoMLJobConfig](#) object

### [AutoMLJobName](#)

Returns the name of the AutoML job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

### AutoMLJobObjective

Returns the job's objective.

Type: [AutoMLJobObjective](#) object

### AutoMLJobSecondaryStatus

Returns the secondary status of the AutoML job.

Type: String

Valid Values: Starting | MaxCandidatesReached | Failed | Stopped | MaxAutoMLJobRuntimeReached | Stopping | CandidateDefinitionsGenerated | Completed | ExplainabilityError | DeployingModel | ModelDeploymentError | GeneratingModelInsightsReport | ModelInsightsError | AnalyzingData | FeatureEngineering | ModelTuning | GeneratingExplainabilityReport | TrainingModels | PreTraining

### AutoMLJobStatus

Returns the status of the AutoML job.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

### BestCandidate

The best model candidate selected by SageMaker Autopilot using both the best objective metric and lowest [InferenceLatency](#) for an experiment.

Type: [AutoMLCandidate](#) object

### CreationTime

Returns the creation time of the AutoML job.

Type: Timestamp

### EndTime

Returns the end time of the AutoML job.



Type: Timestamp

### **FailureReason**

Returns the failure reason for an AutoML job, when applicable.

Type: String

Length Constraints: Maximum length of 1024.

### **GenerateCandidateDefinitionsOnly**

Indicates whether the output for an AutoML job generates candidate definitions only.

Type: Boolean

### **InputDataConfig**

Returns the input data configuration for the AutoML job.

Type: Array of [AutoMLChannel](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

### **LastModifiedTime**

Returns the job's last modified time.

Type: Timestamp

### **ModelDeployConfig**

Indicates whether the model was deployed automatically to an endpoint and the name of that endpoint if deployed automatically.

Type: [ModelDeployConfig](#) object

### **ModelDeployResult**

Provides information about endpoint for the model deployment.

Type: [ModelDeployResult](#) object

### **OutputDataConfig**

Returns the job's output data config.

Type: [AutoMLOutputDataConfig](#) object

## PartialFailureReasons

Returns a list of reasons for partial failures within an AutoML job.

Type: Array of [AutoMLPartialFailureReason](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

## ProblemType

Returns the job's problem type.

Type: String

Valid Values: BinaryClassification | MulticlassClassification | Regression

## ResolvedAttributes

Contains ProblemType, AutoMLJobObjective, and CompletionCriteria. If you do not provide these values, they are inferred.

Type: [ResolvedAttributes](#) object

## RoleArn

The ARN of the IAM role that has read permission to the input data location and write permission to the output data location in Amazon S3.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\-]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@\-\_/\]+`

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeAutoMLJobV2

Service: Amazon SageMaker Service

Returns information about an AutoML job created by calling [CreateAutoMLJobV2](#) or [CreateAutoMLJob](#).

### Request Syntax

```
{
  "AutoMLJobName": "string"
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

#### [AutoMLJobName](#)

Requests information about an AutoML job V2 using its unique name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

### Response Syntax

```
{
  "AutoMLJobArn": "string",
  "AutoMLJobArtifacts": {
    "CandidateDefinitionNotebookLocation": "string",
    "DataExplorationNotebookLocation": "string"
  },
  "AutoMLJobInputDataConfig": [
    {
      "ChannelType": "string",
      "CompressionType": "string",

```

```

    "ContentType": "string",
    "DataSource": {
      "S3DataSource": {
        "S3DataType": "string",
        "S3Uri": "string"
      }
    }
  ],
  "AutoMLJobName": "string",
  "AutoMLJobObjective": {
    "MetricName": "string"
  },
  "AutoMLJobSecondaryStatus": "string",
  "AutoMLJobStatus": "string",
  "AutoMLProblemTypeConfig": { ... },
  "AutoMLProblemTypeConfigName": "string",
  "BestCandidate": {
    "CandidateName": "string",
    "CandidateProperties": {
      "CandidateArtifactLocations": {
        "BacktestResults": "string",
        "Explainability": "string",
        "ModelInsights": "string"
      }
    },
    "CandidateMetrics": [
      {
        "MetricName": "string",
        "Set": "string",
        "StandardMetricName": "string",
        "Value": number
      }
    ]
  },
  "CandidateStatus": "string",
  "CandidateSteps": [
    {
      "CandidateStepArn": "string",
      "CandidateStepName": "string",
      "CandidateStepType": "string"
    }
  ],
  "CreationTime": number,
  "EndTime": number,

```

```

    "FailureReason": "string",
    "FinalAutoMLJobObjectiveMetric": {
      "MetricName": "string",
      "StandardMetricName": "string",
      "Type": "string",
      "Value": number
    },
    "InferenceContainerDefinitions": {
      "string" : [
        {
          "Environment": {
            "string" : "string"
          },
          "Image": "string",
          "ModelDataUrl": "string"
        }
      ]
    },
    "InferenceContainers": [
      {
        "Environment": {
          "string" : "string"
        },
        "Image": "string",
        "ModelDataUrl": "string"
      }
    ],
    "LastModifiedTime": number,
    "ObjectiveStatus": "string"
  },
  "CreationTime": number,
  "DataSplitConfig": {
    "ValidationFraction": number
  },
  "EndTime": number,
  "FailureReason": "string",
  "LastModifiedTime": number,
  "ModelDeployConfig": {
    "AutoGenerateEndpointName": boolean,
    "EndpointName": "string"
  },
  "ModelDeployResult": {
    "EndpointName": "string"
  },
},

```

```

"OutputDataConfig": {
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
"PartialFailureReasons": [
  {
    "PartialFailureMessage": "string"
  }
],
"ResolvedAttributes": {
  "AutoMLJobObjective": {
    "MetricName": "string"
  },
  "AutoMLProblemTypeResolvedAttributes": { ... },
  "CompletionCriteria": {
    "MaxAutoMLJobRuntimeInSeconds": number,
    "MaxCandidates": number,
    "MaxRuntimePerTrainingJobInSeconds": number
  }
},
"RoleArn": "string",
"SecurityConfig": {
  "EnableInterContainerTrafficEncryption": boolean,
  "VolumeKmsKeyId": "string",
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  }
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AutoMLJobArn

Returns the Amazon Resource Name (ARN) of the AutoML job V2.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:automl-job/.*`

### AutoMLJobArtifacts

The artifacts that are generated during an AutoML job.

Type: [AutoMLJobArtifacts](#) object

### AutoMLJobInputDataConfig

Returns an array of channel objects describing the input data and their location.

Type: Array of [AutoMLJobChannel](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

### AutoMLJobName

Returns the name of the AutoML job V2.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

### AutoMLJobObjective

Returns the job's objective.

Type: [AutoMLJobObjective](#) object

### AutoMLJobSecondaryStatus

Returns the secondary status of the AutoML job V2.

Type: String

Valid Values: Starting | MaxCandidatesReached | Failed | Stopped | MaxAutoMLJobRuntimeReached | Stopping | CandidateDefinitionsGenerated | Completed | ExplainabilityError | DeployingModel | ModelDeploymentError | GeneratingModelInsightsReport | ModelInsightsError | AnalyzingData | FeatureEngineering | ModelTuning | GeneratingExplainabilityReport | TrainingModels | PreTraining



## AutoMLJobStatus

Returns the status of the AutoML job V2.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

## AutoMLProblemTypeConfig

Returns the configuration settings of the problem type set for the AutoML job V2.

Type: [AutoMLProblemTypeConfig](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

## AutoMLProblemTypeConfigName

Returns the name of the problem type configuration set for the AutoML job V2.

Type: String

Valid Values: ImageClassification | TextClassification |  
TimeSeriesForecasting | Tabular | TextGeneration

## BestCandidate

Information about the candidate produced by an AutoML training job V2, including its status, steps, and other properties.

Type: [AutoMLCandidate](#) object

## CreationTime

Returns the creation time of the AutoML job V2.

Type: Timestamp

## DataSplitConfig

Returns the configuration settings of how the data are split into train and validation datasets.

Type: [AutoMLDataSplitConfig](#) object

## EndTime

Returns the end time of the AutoML job V2.

Type: Timestamp

### **FailureReason**

Returns the reason for the failure of the AutoML job V2, when applicable.

Type: String

Length Constraints: Maximum length of 1024.

### **LastModifiedTime**

Returns the job's last modified time.

Type: Timestamp

### **ModelDeployConfig**

Indicates whether the model was deployed automatically to an endpoint and the name of that endpoint if deployed automatically.

Type: [ModelDeployConfig](#) object

### **ModelDeployResult**

Provides information about endpoint for the model deployment.

Type: [ModelDeployResult](#) object

### **OutputDataConfig**

Returns the job's output data config.

Type: [AutoMLOutputDataConfig](#) object

### **PartialFailureReasons**

Returns a list of reasons for partial failures within an AutoML job V2.

Type: Array of [AutoMLPartialFailureReason](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

### **ResolvedAttributes**

Returns the resolved attributes used by the AutoML job V2.

Type: [AutoMLResolvedAttributes](#) object

## RoleArn

The ARN of the IAM role that has read permission to the input data location and write permission to the output data location in Amazon S3.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

## SecurityConfig

Returns the security configuration for traffic encryption or Amazon VPC settings.

Type: [AutoMLSecurityConfig](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeCluster

Service: Amazon SageMaker Service

Retrieves information of a SageMaker HyperPod cluster.

## Request Syntax

```
{
  "ClusterName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ClusterName

The string name or the Amazon Resource Name (ARN) of the SageMaker HyperPod cluster.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^(arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:cluster/[a-z0-9]{12})|([a-zA-Z0-9](-*[a-zA-Z0-9]){0,62})$`

Required: Yes

## Response Syntax

```
{
  "ClusterArn": "string",
  "ClusterName": "string",
  "ClusterStatus": "string",
  "CreationTime": number,
  "FailureMessage": "string",
  "InstanceGroups": [
    {
      "CurrentCount": number,
```

```

    "ExecutionRole": "string",
    "InstanceGroupName": "string",
    "InstanceStorageConfigs": [
      { ... }
    ],
    "InstanceType": "string",
    "LifecycleConfig": {
      "OnCreate": "string",
      "SourceS3Uri": "string"
    },
    "TargetCount": number,
    "ThreadsPerCore": number
  }
],
"VpcConfig": {
  "SecurityGroupIds": [ "string" ],
  "Subnets": [ "string" ]
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ClusterArn

The Amazon Resource Name (ARN) of the SageMaker HyperPod cluster.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:cluster/[a-z0-9]{12}$`

### ClusterName

The name of the SageMaker HyperPod cluster.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

### ClusterStatus

The status of the SageMaker HyperPod cluster.

Type: String

Valid Values: `Creating` | `Deleting` | `Failed` | `InService` | `RollingBack` | `SystemUpdating` | `Updating`

### CreationTime

The time when the SageMaker Cluster is created.

Type: Timestamp

### FailureMessage

The failure message of the SageMaker HyperPod cluster.

Type: String

### InstanceGroups

The instance groups of the SageMaker HyperPod cluster.

Type: Array of [ClusterInstanceGroupDetails](#) objects

### VpcConfig

Specifies an Amazon Virtual Private Cloud (VPC) that your SageMaker jobs, hosted models, and compute resources have access to. You can control access to and from your resources by configuring a VPC. For more information, see [Give SageMaker Access to Resources in your Amazon VPC](#).

Type: [VpcConfig](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DescribeClusterNode

Service: Amazon SageMaker Service

Retrieves information of a node (also called a *instance* interchangeably) of a SageMaker HyperPod cluster.

## Request Syntax

```
{
  "ClusterName": "string",
  "NodeId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ClusterName

The string name or the Amazon Resource Name (ARN) of the SageMaker HyperPod cluster in which the node is.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^(arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:cluster/[a-z0-9]{12})|([a-zA-Z0-9](-*[a-zA-Z0-9]){0,62})$`

Required: Yes

### NodeId

The ID of the SageMaker HyperPod cluster node.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^i-[a-f0-9]{8}(?:[a-f0-9]{9})?$`

Required: Yes

## Response Syntax

```
{
  "NodeDetails": {
    "InstanceGroupName": "string",
    "InstanceId": "string",
    "InstanceStatus": {
      "Message": "string",
      "Status": "string"
    },
    "InstanceStorageConfigs": [
      { ... }
    ],
    "InstanceType": "string",
    "LaunchTime": number,
    "LifecycleConfig": {
      "OnCreate": "string",
      "SourceS3Uri": "string"
    },
    "Placement": {
      "AvailabilityZone": "string",
      "AvailabilityZoneId": "string"
    },
    "PrivateDnsHostname": "string",
    "PrivatePrimaryIp": "string",
    "ThreadsPerCore": number
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NodeDetails

The details of the SageMaker HyperPod cluster node.

Type: [ClusterNodeDetails](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeCodeRepository

Service: Amazon SageMaker Service

Gets details about the specified Git repository.

## Request Syntax

```
{  
  "CodeRepositoryName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CodeRepositoryName](#)

The name of the Git repository to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{  
  "CodeRepositoryArn": "string",  
  "CodeRepositoryName": "string",  
  "CreationTime": number,  
  "GitConfig": {  
    "Branch": "string",  
    "RepositoryUrl": "string",  
    "SecretArn": "string"  
  },  
  "LastModifiedTime": number  
}
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CodeRepositoryArn

The Amazon Resource Name (ARN) of the Git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:code-repository/[\S]{1,2048}$`

### CodeRepositoryName

The name of the Git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### CreationTime

The date and time that the repository was created.

Type: Timestamp

### GitConfig

Configuration details about the repository, including the URL where the repository is located, the default branch, and the Amazon Resource Name (ARN) of the AWS Secrets Manager secret that contains the credentials used to access the repository.

Type: [GitConfig](#) object

### LastModifiedTime

The date and time that the repository was last changed.

Type: Timestamp

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeCompilationJob

Service: Amazon SageMaker Service

Returns information about a model compilation job.

To create a model compilation job, use [CreateCompilationJob](#). To get information about multiple model compilation jobs, use [ListCompilationJobs](#).

## Request Syntax

```
{  
  "CompilationJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CompilationJobName](#)

The name of the model compilation job that you want information about.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{  
  "CompilationEndTime": number,  
  "CompilationJobArn": "string",  
  "CompilationJobName": "string",  
  "CompilationJobStatus": "string",  
  "CompilationStartTime": number,  
  "CreationTime": number,  
  "DerivedInformation": {
```

```
    "DerivedDataInputConfig": "string"
  },
  "FailureReason": "string",
  "InferenceImage": "string",
  "InputConfig": {
    "DataInputConfig": "string",
    "Framework": "string",
    "FrameworkVersion": "string",
    "S3Uri": "string"
  },
  "LastModifiedTime": number,
  "ModelArtifacts": {
    "S3ModelArtifacts": "string"
  },
  "ModelDigests": {
    "ArtifactDigest": "string"
  },
  "ModelPackageVersionArn": "string",
  "OutputConfig": {
    "CompilerOptions": "string",
    "KmsKeyId": "string",
    "S3OutputLocation": "string",
    "TargetDevice": "string",
    "TargetPlatform": {
      "Accelerator": "string",
      "Arch": "string",
      "Os": "string"
    }
  },
  "RoleArn": "string",
  "StoppingCondition": {
    "MaxPendingTimeInSeconds": number,
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
  },
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  }
}
```



## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CompilationEndTime

The time when the model compilation job on a compilation job instance ended. For a successful or stopped job, this is when the job's model artifacts have finished uploading. For a failed job, this is when Amazon SageMaker detected that the job failed.

Type: Timestamp

### CompilationJobArn

The Amazon Resource Name (ARN) of the model compilation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:compilation-job/.*`

### CompilationJobName

The name of the model compilation job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### CompilationJobStatus

The status of the model compilation job.

Type: String

Valid Values: INPROGRESS | COMPLETED | FAILED | STARTING | STOPPING | STOPPED

### CompilationStartTime

The time when the model compilation job started the `CompilationJob` instances.

You are billed for the time between this timestamp and the timestamp in the `CompilationEndTime` field. In Amazon CloudWatch Logs, the start time might be later than this time. That's because it takes time to download the compilation job, which depends on the size of the compilation job container.

Type: Timestamp

### **CreationTime**

The time that the model compilation job was created.

Type: Timestamp

### **DerivedInformation**

Information that SageMaker Neo automatically derived about the model.

Type: [DerivedInformation](#) object

### **FailureReason**

If a model compilation job failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

### **InferenceImage**

The inference image to use when compiling a model. Specify an image only if the target device is a cloud instance.

Type: String

Length Constraints: Maximum length of 256.

### **InputConfig**

Information about the location in Amazon S3 of the input model artifacts, the name and shape of the expected data inputs, and the framework in which the model was trained.

Type: [InputConfig](#) object

### **LastModifiedTime**

The time that the status of the model compilation job was last modified.

Type: Timestamp

### ModelArtifacts

Information about the location in Amazon S3 that has been configured for storing the model artifacts used in the compilation job.

Type: [ModelArtifacts](#) object

### ModelDigests

Provides a BLAKE2 hash value that identifies the compiled model artifacts in Amazon S3.

Type: [ModelDigests](#) object

### ModelPackageVersionArn

The Amazon Resource Name (ARN) of the versioned model package that was provided to SageMaker Neo when you initiated a compilation job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:model-package/[\S]{1,2048}$`

### OutputConfig

Information about the output location for the compiled model and the target device that the model runs on.

Type: [OutputConfig](#) object

### RoleArn

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker assumes to perform the model compilation job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\!]+$`

## StoppingCondition

Specifies a limit to how long a model compilation job can run. When the job reaches the time limit, Amazon SageMaker ends the compilation job. Use this API to cap model training costs.

Type: [StoppingCondition](#) object

## VpcConfig

A [VpcConfig](#) object that specifies the VPC that you want your compilation job to connect to. Control access to your models by configuring the VPC. For more information, see [Protect Compilation Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [NeoVpcConfig](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

# DescribeContext

Service: Amazon SageMaker Service

Describes a context.

## Request Syntax

```
{  
  "ContextName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ContextName

The name of the context to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: (arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:context\|)?([a-zA-Z0-9]([-\_]\*[a-zA-Z0-9])){0,119}

Required: Yes

## Response Syntax

```
{  
  "ContextArn": "string",  
  "ContextName": "string",  
  "ContextType": "string",  
  "CreatedBy": {  
    "DomainId": "string",  
    "IamIdentity": {  
      "Arn": "string",  
      "PrincipalId": "string",
```

```

    "SourceIdentity": "string"
  },
  "UserProfileArn": "string",
  "UserProfileName": "string"
},
"CreationTime": number,
"Description": "string",
"LastModifiedBy": {
  "DomainId": "string",
  "IamIdentity": {
    "Arn": "string",
    "PrincipalId": "string",
    "SourceIdentity": "string"
  },
  "UserProfileArn": "string",
  "UserProfileName": "string"
},
"LastModifiedTime": number,
"LineageGroupArn": "string",
"Properties": {
  "string" : "string"
},
"Source": {
  "SourceId": "string",
  "SourceType": "string",
  "SourceUri": "string"
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ContextArn

The Amazon Resource Name (ARN) of the context.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:context/.\*

## ContextName

The name of the context.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,119}`

## ContextType

The type of the context.

Type: String

Length Constraints: Maximum length of 256.

## CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

## CreationTime

When the context was created.

Type: Timestamp

## Description

The description of the context.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: `.*`

## LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object



## LastModifiedTime

When the context was last modified.

Type: Timestamp

## LineageGroupArn

The Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:lineage-group/.*`

## Properties

A list of the context's properties.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 2500.

Key Pattern: `.*`

Value Length Constraints: Maximum length of 2500.

Value Pattern: `.*`

## Source

The source of the context.

Type: [ContextSource](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeDataQualityJobDefinition

Service: Amazon SageMaker Service

Gets the details of a data quality monitoring job definition.

## Request Syntax

```
{
  "JobDefinitionName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobDefinitionName

The name of the data quality monitoring job definition to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{
  "CreationTime": number,
  "DataQualityAppSpecification": {
    "ContainerArguments": [ "string" ],
    "ContainerEntrypoint": [ "string" ],
    "Environment": {
      "string": "string"
    },
    "ImageUri": "string",
    "PostAnalyticsProcessorSourceUri": "string",
    "RecordPreprocessorSourceUri": "string"
  },
}
```

```

"DataQualityBaselineConfig": {
  "BaseliningJobName": "string",
  "ConstraintsResource": {
    "S3Uri": "string"
  },
  "StatisticsResource": {
    "S3Uri": "string"
  }
},
"DataQualityJobInput": {
  "BatchTransformInput": {
    "DataCapturedDestinationS3Uri": "string",
    "DatasetFormat": {
      "Csv": {
        "Header": boolean
      },
      "Json": {
        "Line": boolean
      },
      "Parquet": {
      }
    },
    "EndTimeOffset": "string",
    "ExcludeFeaturesAttribute": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  },
  "EndpointInput": {
    "EndpointName": "string",
    "EndTimeOffset": "string",
    "ExcludeFeaturesAttribute": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
  }
}

```

```

    "StartTimeOffset": "string"
  }
},
"DataQualityJobOutputConfig": {
  "KmsKeyId": "string",
  "MonitoringOutputs": [
    {
      "S3Output": {
        "LocalPath": "string",
        "S3UploadMode": "string",
        "S3Uri": "string"
      }
    }
  ]
},
"JobDefinitionArn": "string",
"JobDefinitionName": "string",
"JobResources": {
  "ClusterConfig": {
    "InstanceCount": number,
    "InstanceType": "string",
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
  }
},
"NetworkConfig": {
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableNetworkIsolation": boolean,
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  }
},
"RoleArn": "string",
"StoppingCondition": {
  "MaxRuntimeInSeconds": number
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The time that the data quality monitoring job definition was created.

Type: Timestamp

### DataQualityAppSpecification

Information about the container that runs the data quality monitoring job.

Type: [DataQualityAppSpecification](#) object

### DataQualityBaselineConfig

The constraints and baselines for the data quality monitoring job definition.

Type: [DataQualityBaselineConfig](#) object

### DataQualityJobInput

The list of inputs for the data quality monitoring job. Currently endpoints are supported.

Type: [DataQualityJobInput](#) object

### DataQualityJobOutputConfig

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig](#) object

### JobDefinitionArn

The Amazon Resource Name (ARN) of the data quality monitoring job definition.

Type: String

Length Constraints: Maximum length of 256.

Pattern: . \*

### JobDefinitionName

The name of the data quality monitoring job definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### JobResources

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources](#) object

### NetworkConfig

The networking configuration for the data quality monitoring job.

Type: [MonitoringNetworkConfig](#) object

### RoleArn

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam:~{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

### StoppingCondition

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DescribeDevice

Service: Amazon SageMaker Service

Describes the device.

## Request Syntax

```
{
  "DeviceFleetName": "string",
  "DeviceName": "string",
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DeviceFleetName

The name of the fleet the devices belong to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### DeviceName

The unique ID of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### NextToken

Next token of device description.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## Response Syntax

```
{
  "AgentVersion": "string",
  "Description": "string",
  "DeviceArn": "string",
  "DeviceFleetName": "string",
  "DeviceName": "string",
  "IotThingName": "string",
  "LatestHeartbeat": number,
  "MaxModels": number,
  "Models": [
    {
      "LatestInference": number,
      "LatestSampleTime": number,
      "ModelName": "string",
      "ModelVersion": "string"
    }
  ],
  "NextToken": "string",
  "RegistrationTime": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AgentVersion

Edge Manager agent version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: `[a-zA-Z0-9\_\.]+`

### Description

A description of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: `^[-a-zA-Z0-9_.,;:!] *$`

### DeviceArn

The Amazon Resource Name (ARN) of the device.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\ -]*:[a-z\ -]*:[a-z\ -]*:\d{12}:[a-z\ -]*/?[a-zA-Z_0-9+=,.\@-\_\/]+$`

### DeviceFleetName

The name of the fleet the device belongs to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### DeviceName

The unique identifier of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### IoTThingName

The AWS Internet of Things (IoT) object thing name associated with the device.

Type: String

Length Constraints: Maximum length of 128.

Pattern: [a-zA-Z0-9:\_-]+

### LatestHeartbeat

The last heartbeat received from the device.

Type: Timestamp

### MaxModels

The maximum number of models.

Type: Integer

### Models

Models on the device.

Type: Array of [EdgeModel](#) objects

### NextToken

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### RegistrationTime

The timestamp of the last registration or de-reregistration.

Type: Timestamp

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeDeviceFleet

Service: Amazon SageMaker Service

A description of the fleet the device belongs to.

## Request Syntax

```
{
  "DeviceFleetName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [DeviceFleetName](#)

The name of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{
  "CreationTime": number,
  "Description": "string",
  "DeviceFleetArn": "string",
  "DeviceFleetName": "string",
  "IotRoleAlias": "string",
  "LastModifiedTime": number,
  "OutputConfig": {
    "KmsKeyId": "string",
    "PresetDeploymentConfig": "string",
  }
}
```

```
    "PresetDeploymentType": "string",
    "S3OutputLocation": "string"
  },
  "RoleArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

Timestamp of when the device fleet was created.

Type: Timestamp

### Description

A description of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 800.

Pattern: `^[-a-zA-Z0-9_.,;:! ]*$`

### DeviceFleetArn

The The Amazon Resource Name (ARN) of the fleet.

Type: String

Pattern: `^arn:aws[a-z-]*:iam:.*:iam::\d{12}:device-fleet/?[a-zA-Z0-9+=,.\@-_/]+$`

### DeviceFleetName

The name of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

## IoTRoleAlias

The Amazon Resource Name (ARN) alias created in AWS Internet of Things (IoT).

Type: String

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:rolealias/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

## LastModifiedTime

Timestamp of when the device fleet was last updated.

Type: Timestamp

## OutputConfig

The output configuration for storing sampled data.

Type: [EdgeOutputConfig](#) object

## RoleArn

The Amazon Resource Name (ARN) that has access to AWS Internet of Things (IoT).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeDomain

Service: Amazon SageMaker Service

The description of the domain.

## Request Syntax

```
{  
  "DomainId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-( -*[a-z0-9]){1,61}`

Required: Yes

## Response Syntax

```
{  
  "AppNetworkAccessType": "string",  
  "AppSecurityGroupManagement": "string",  
  "AuthMode": "string",  
  "CreationTime": number,  
  "DefaultSpaceSettings": {  
    "CustomFileSystemConfigs": [  
      { ... }  
    ],  
    "CustomPosixUserConfig": {  
      "Gid": number,  
      "Uid": number  
    }  
  }  
}
```

```

},
"ExecutionRole": "string",
"JupyterLabAppSettings": {
  "CodeRepositories": [
    {
      "RepositoryUrl": "string"
    }
  ],
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"JupyterServerAppSettings": {
  "CodeRepositories": [
    {
      "RepositoryUrl": "string"
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"KernelGatewayAppSettings": {
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",

```

```

        "ImageVersionNumber": number
    }
],
"DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
},
"LifecycleConfigArns": [ "string" ]
},
"SecurityGroups": [ "string" ],
"SpaceStorageSettings": {
    "DefaultEbsStorageSettings": {
        "DefaultEbsVolumeSizeInGb": number,
        "MaximumEbsVolumeSizeInGb": number
    }
}
},
"DefaultUserSettings": {
    "CanvasAppSettings": {
        "DirectDeploySettings": {
            "Status": "string"
        },
        "GenerativeAiSettings": {
            "AmazonBedrockRoleArn": "string"
        },
        "IdentityProviderOauthSettings": [
            {
                "DataSourceName": "string",
                "SecretArn": "string",
                "Status": "string"
            }
        ],
        "KendraSettings": {
            "Status": "string"
        },
        "ModelRegisterSettings": {
            "CrossAccountModelRegisterRoleArn": "string",
            "Status": "string"
        },
        "TimeSeriesForecastingSettings": {
            "AmazonForecastRoleArn": "string",

```

```
    "Status": "string"
  },
  "WorkspaceSettings": {
    "S3ArtifactPath": "string",
    "S3KmsKeyId": "string"
  }
},
"CodeEditorAppSettings": {
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"CustomFileSystemConfigs": [
  { ... }
],
"CustomPosixUserConfig": {
  "Gid": number,
  "Uid": number
},
"DefaultLandingUri": "string",
"ExecutionRole": "string",
"JupyterLabAppSettings": {
  "CodeRepositories": [
    {
      "RepositoryUrl": "string"
    }
  ],
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ]
}
```

```

    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"JupyterServerAppSettings": {
  "CodeRepositories": [
    {
      "RepositoryUrl": "string"
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"KernelGatewayAppSettings": {
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"RSessionAppSettings": {

```

```

    "CustomImages": [
      {
        "AppImageConfigName": "string",
        "ImageName": "string",
        "ImageVersionNumber": number
      }
    ],
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    }
  },
  "RStudioServerProAppSettings": {
    "AccessStatus": "string",
    "UserGroup": "string"
  },
  "SecurityGroups": [ "string" ],
  "SharingSettings": {
    "NotebookOutputOption": "string",
    "S3KmsKeyId": "string",
    "S3OutputPath": "string"
  },
  "SpaceStorageSettings": {
    "DefaultEbsStorageSettings": {
      "DefaultEbsVolumeSizeInGb": number,
      "MaximumEbsVolumeSizeInGb": number
    }
  },
  "StudioWebPortal": "string",
  "StudioWebPortalSettings": {
    "HiddenAppTypes": [ "string" ],
    "HiddenMLTools": [ "string" ]
  },
  "TensorBoardAppSettings": {
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    }
  }
}

```

```

    }
  },
  "DomainArn": "string",
  "DomainId": "string",
  "DomainName": "string",
  "DomainSettings": {
    "DockerSettings": {
      "EnableDockerAccess": "string",
      "VpcOnlyTrustedAccounts": [ "string" ]
    },
    "ExecutionRoleIdentityConfig": "string",
    "RStudioServerProDomainSettings": {
      "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionAlias": "string",
        "SageMakerImageVersionArn": "string"
      },
      "DomainExecutionRoleArn": "string",
      "RStudioConnectUrl": "string",
      "RStudioPackageManagerUrl": "string"
    },
    "SecurityGroupIds": [ "string" ]
  },
  "FailureReason": "string",
  "HomeEfsFileSystemId": "string",
  "HomeEfsFileSystemKmsKeyId": "string",
  "KmsKeyId": "string",
  "LastModifiedTime": number,
  "SecurityGroupIdForDomainBoundary": "string",
  "SingleSignOnApplicationArn": "string",
  "SingleSignOnManagedApplicationInstanceId": "string",
  "Status": "string",
  "SubnetIds": [ "string" ],
  "Url": "string",
  "VpcId": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.



## AppNetworkAccessType

Specifies the VPC used for non-EFS traffic. The default value is `PublicInternetOnly`.

- `PublicInternetOnly` - Non-EFS traffic is through a VPC managed by Amazon SageMaker, which allows direct internet access
- `VpcOnly` - All traffic is through the specified VPC and subnets

Type: String

Valid Values: `PublicInternetOnly` | `VpcOnly`

## AppSecurityGroupManagement

The entity that creates and manages the required security groups for inter-app communication in `VPCOnly` mode. Required when `CreateDomain.AppNetworkAccessType` is `VPCOnly` and `DomainSettings.RStudioServerProDomainSettings.DomainExecutionRoleArn` is provided.

Type: String

Valid Values: `Service` | `Customer`

## AuthMode

The domain's authentication mode.

Type: String

Valid Values: `SSO` | `IAM`

## CreationTime

The creation time.

Type: Timestamp

## DefaultSpaceSettings

The default settings used to create a space.

Type: [DefaultSpaceSettings](#) object

## DefaultUserSettings

Settings which are applied to `UserProfiles` in this domain if settings are not explicitly specified in a given `UserProfile`.

Type: [UserSettings](#) object

### DomainArn

The domain's Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:domain/.*`

### DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-(-*[a-z0-9]){1,61}`

### DomainName

The domain name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

### DomainSettings

A collection of Domain settings.

Type: [DomainSettings](#) object

### FailureReason

The failure reason.

Type: String

Length Constraints: Maximum length of 1024.

### HomeEfsFileSystemId

The ID of the Amazon Elastic File System managed by this Domain.

Type: String

Length Constraints: Maximum length of 32.

### HomeEfsFileSystemKmsKeyId

*This parameter has been deprecated.*

Use KmsKeyId.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_-]*$`

### KmsKeyId

The AWS KMS customer managed key used to encrypt the EFS volume attached to the domain.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_-]*$`

### LastModifiedTime

The last modified time.

Type: Timestamp

### SecurityGroupIDForDomainBoundary

The ID of the security group that authorizes traffic between the RSessionGateway apps and the RStudioServerPro app.

Type: String

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

### SingleSignOnApplicationArn

The ARN of the application managed by SageMaker in IAM Identity Center. This value is only returned for domains created after October 1, 2023.

Type: String

Pattern: `^arn:(aws|aws-us-gov|aws-cn|aws-iso|aws-iso-b):sso::[0-9]+:application\[a-zA-Z0-9-_.\]+\ap1-[a-zA-Z0-9]+$`

### SingleSignOnManagedApplicationInstanceId

The IAM Identity Center managed application instance ID.

Type: String

Length Constraints: Maximum length of 256.

### Status

The status.

Type: String

Valid Values: `Deleting` | `Failed` | `InService` | `Pending` | `Updating` | `Update_Failed` | `Delete_Failed`

### SubnetIds

The VPC subnets that the domain uses for communication.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

### Url

The domain's URL.

Type: String

Length Constraints: Maximum length of 1024.

### VpcId

The ID of the Amazon Virtual Private Cloud (VPC) that the domain uses for communication.

Type: String

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeEdgeDeploymentPlan

Service: Amazon SageMaker Service

Describes an edge deployment plan with deployment status per stage.

## Request Syntax

```
{
  "EdgeDeploymentPlanName": "string",
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EdgeDeploymentPlanName

The name of the deployment plan to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### MaxResults

The maximum number of results to select (50 by default).

Type: Integer

Valid Range: Maximum value of 10.

Required: No

### NextToken

If the edge deployment plan has enough stages to require tokening, then this is the response from the last list of stages returned.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## Response Syntax

```
{
  "CreationTime": number,
  "DeviceFleetName": "string",
  "EdgeDeploymentFailed": number,
  "EdgeDeploymentPending": number,
  "EdgeDeploymentPlanArn": "string",
  "EdgeDeploymentPlanName": "string",
  "EdgeDeploymentSuccess": number,
  "LastModifiedTime": number,
  "ModelConfigs": [
    {
      "EdgePackagingJobName": "string",
      "ModelHandle": "string"
    }
  ],
  "NextToken": "string",
  "Stages": [
    {
      "DeploymentConfig": {
        "FailureHandlingPolicy": "string"
      },
      "DeploymentStatus": {
        "EdgeDeploymentFailedInStage": number,
        "EdgeDeploymentPendingInStage": number,
        "EdgeDeploymentStageStartTime": number,
        "EdgeDeploymentStatusMessage": "string",
        "EdgeDeploymentSuccessInStage": number,
        "StageStatus": "string"
      },
      "DeviceSelectionConfig": {
        "DeviceNameContains": "string",
        "DeviceNames": [ "string" ],
        "DeviceSubsetType": "string",

```

```
        "Percentage": number
      },
      "StageName": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The time when the edge deployment plan was created.

Type: Timestamp

### DeviceFleetName

The device fleet used for this edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### EdgeDeploymentFailed

The number of edge devices that failed the deployment.

Type: Integer

### EdgeDeploymentPending

The number of edge devices yet to pick up deployment, or in progress.

Type: Integer

### EdgeDeploymentPlanArn

The ARN of edge deployment plan.

Type: String



Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\ ]*:sagemaker:[a-z\-\ ]*:\d{12}:edge-deployment/?[a-zA-Z_0-9+=,.\@-\_/\ ]+$`

### EdgeDeploymentPlanName

The name of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### EdgeDeploymentSuccess

The number of edge devices with the successful deployment.

Type: Integer

### LastModifiedTime

The time when the edge deployment plan was last updated.

Type: Timestamp

### ModelConfigs

List of models associated with the edge deployment plan.

Type: Array of [EdgeDeploymentModelConfig](#) objects

### NextToken

Token to use when calling the next set of stages in the edge deployment plan.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

### Stages

List of stages in the edge deployment plan.

Type: Array of [DeploymentStageStatusSummary](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeEdgePackagingJob

Service: Amazon SageMaker Service

A description of edge packaging jobs.

## Request Syntax

```
{  
  "EdgePackagingJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EdgePackagingJobName

The name of the edge packaging job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{  
  "CompilationJobName": "string",  
  "CreationTime": number,  
  "EdgePackagingJobArn": "string",  
  "EdgePackagingJobName": "string",  
  "EdgePackagingJobStatus": "string",  
  "EdgePackagingJobStatusMessage": "string",  
  "LastModifiedTime": number,  
  "ModelArtifact": "string",  
  "ModelName": "string",  
}
```

```

"ModelSignature": "string",
"ModelVersion": "string",
"OutputConfig": {
  "KmsKeyId": "string",
  "PresetDeploymentConfig": "string",
  "PresetDeploymentType": "string",
  "S3OutputLocation": "string"
},
"PresetDeploymentOutput": {
  "Artifact": "string",
  "Status": "string",
  "StatusMessage": "string",
  "Type": "string"
},
"ResourceKey": "string",
"RoleArn": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CompilationJobName

The name of the SageMaker Neo compilation job that is used to locate model artifacts that are being packaged.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### CreationTime

The timestamp of when the packaging job was created.

Type: Timestamp

### EdgePackagingJobArn

The Amazon Resource Name (ARN) of the edge packaging job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z\-*]:\d{12}:edge-packaging-job/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

### EdgePackagingJobName

The name of the edge packaging job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### EdgePackagingJobStatus

The current status of the packaging job.

Type: String

Valid Values: STARTING | INPROGRESS | COMPLETED | FAILED | STOPPING | STOPPED

### EdgePackagingJobStatusMessage

Returns a message describing the job status and error messages.

Type: String

### LastModifiedTime

The timestamp of when the job was last updated.

Type: Timestamp

### ModelArtifact

The Amazon Simple Storage (S3) URI where model artifacts are stored.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

## ModelName

The name of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

## ModelSignature

The signature document of files in the model artifact.

Type: String

## ModelVersion

The version of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: `[a-zA-Z0-9\ \_\.]+`

## OutputConfig

The output configuration for the edge packaging job.

Type: [EdgeOutputConfig](#) object

## PresetDeploymentOutput

The output of a SageMaker Edge Manager deployable resource.

Type: [EdgePresetDeploymentOutput](#) object

## ResourceKey

The AWS KMS key to use when encrypting the EBS volume the job run on.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

## RoleArn

The Amazon Resource Name (ARN) of an IAM role that enables Amazon SageMaker to download and upload the model, and to contact Neo.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeEndpoint

Service: Amazon SageMaker Service

Returns the description of an endpoint.

## Request Syntax

```
{  
  "EndpointName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EndpointName

The name of the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{  
  "AsyncInferenceConfig": {  
    "ClientConfig": {  
      "MaxConcurrentInvocationsPerInstance": number  
    },  
    "OutputConfig": {  
      "KmsKeyId": "string",  
      "NotificationConfig": {  
        "ErrorTopic": "string",  
        "IncludeInferenceResponseIn": [ "string" ],  
        "SuccessTopic": "string"  
      },  
    },  
  },  
}
```



```

        "S3FailurePath": "string",
        "S3OutputPath": "string"
    }
},
"CreationTime": number,
"DataCaptureConfig": {
    "CaptureStatus": "string",
    "CurrentSamplingPercentage": number,
    "DestinationS3Uri": "string",
    "EnableCapture": boolean,
    "KmsKeyId": "string"
},
"EndpointArn": "string",
"EndpointConfigName": "string",
"EndpointName": "string",
"EndpointStatus": "string",
"ExplainerConfig": {
    "ClarifyExplainerConfig": {
        "EnableExplanations": "string",
        "InferenceConfig": {
            "ContentTemplate": "string",
            "FeatureHeaders": [ "string" ],
            "FeaturesAttribute": "string",
            "FeatureTypes": [ "string" ],
            "LabelAttribute": "string",
            "LabelHeaders": [ "string" ],
            "LabelIndex": number,
            "MaxPayloadInMB": number,
            "MaxRecordCount": number,
            "ProbabilityAttribute": "string",
            "ProbabilityIndex": number
        }
    },
    "ShapConfig": {
        "NumberOfSamples": number,
        "Seed": number,
        "ShapBaselineConfig": {
            "MimeType": "string",
            "ShapBaseline": "string",
            "ShapBaselineUri": "string"
        }
    },
    "TextConfig": {
        "Granularity": "string",
        "Language": "string"
    }
},

```

```

    "UseLogit": boolean
  }
}
},
"FailureReason": "string",
"LastDeploymentConfig": {
  "AutoRollbackConfiguration": {
    "Alarms": [
      {
        "AlarmName": "string"
      }
    ]
  },
  "BlueGreenUpdatePolicy": {
    "MaximumExecutionTimeoutInSeconds": number,
    "TerminationWaitInSeconds": number,
    "TrafficRoutingConfiguration": {
      "CanarySize": {
        "Type": "string",
        "Value": number
      },
      "LinearStepSize": {
        "Type": "string",
        "Value": number
      },
      "Type": "string",
      "WaitIntervalInSeconds": number
    }
  },
  "RollingUpdatePolicy": {
    "MaximumBatchSize": {
      "Type": "string",
      "Value": number
    },
    "MaximumExecutionTimeoutInSeconds": number,
    "RollbackMaximumBatchSize": {
      "Type": "string",
      "Value": number
    },
    "WaitIntervalInSeconds": number
  }
},
"LastModifiedTime": number,
"PendingDeploymentSummary": {

```

```

"EndpointConfigName": "string",
"ProductionVariants": [
  {
    "AcceleratorType": "string",
    "CurrentInstanceCount": number,
    "CurrentServerlessConfig": {
      "MaxConcurrency": number,
      "MemorySizeInMB": number,
      "ProvisionedConcurrency": number
    },
    "CurrentWeight": number,
    "DeployedImages": [
      {
        "ResolutionTime": number,
        "ResolvedImage": "string",
        "SpecifiedImage": "string"
      }
    ],
    "DesiredInstanceCount": number,
    "DesiredServerlessConfig": {
      "MaxConcurrency": number,
      "MemorySizeInMB": number,
      "ProvisionedConcurrency": number
    },
    "DesiredWeight": number,
    "InstanceType": "string",
    "ManagedInstanceScaling": {
      "MaxInstanceCount": number,
      "MinInstanceCount": number,
      "Status": "string"
    },
    "RoutingConfig": {
      "RoutingStrategy": "string"
    },
    "VariantName": "string",
    "VariantStatus": [
      {
        "StartTime": number,
        "Status": "string",
        "StatusMessage": "string"
      }
    ]
  }
],

```

```

    "ShadowProductionVariants": [
      {
        "AcceleratorType": "string",
        "CurrentInstanceCount": number,
        "CurrentServerlessConfig": {
          "MaxConcurrency": number,
          "MemorySizeInMB": number,
          "ProvisionedConcurrency": number
        },
        "CurrentWeight": number,
        "DeployedImages": [
          {
            "ResolutionTime": number,
            "ResolvedImage": "string",
            "SpecifiedImage": "string"
          }
        ],
        "DesiredInstanceCount": number,
        "DesiredServerlessConfig": {
          "MaxConcurrency": number,
          "MemorySizeInMB": number,
          "ProvisionedConcurrency": number
        },
        "DesiredWeight": number,
        "InstanceType": "string",
        "ManagedInstanceScaling": {
          "MaxInstanceCount": number,
          "MinInstanceCount": number,
          "Status": "string"
        },
        "RoutingConfig": {
          "RoutingStrategy": "string"
        },
        "VariantName": "string",
        "VariantStatus": [
          {
            "StartTime": number,
            "Status": "string",
            "StatusMessage": "string"
          }
        ]
      }
    ],
    "StartTime": number
  }

```

```

},
"ProductionVariants": [
  {
    "CurrentInstanceCount": number,
    "CurrentServerlessConfig": {
      "MaxConcurrency": number,
      "MemorySizeInMB": number,
      "ProvisionedConcurrency": number
    },
    "CurrentWeight": number,
    "DeployedImages": [
      {
        "ResolutionTime": number,
        "ResolvedImage": "string",
        "SpecifiedImage": "string"
      }
    ],
    "DesiredInstanceCount": number,
    "DesiredServerlessConfig": {
      "MaxConcurrency": number,
      "MemorySizeInMB": number,
      "ProvisionedConcurrency": number
    },
    "DesiredWeight": number,
    "ManagedInstanceScaling": {
      "MaxInstanceCount": number,
      "MinInstanceCount": number,
      "Status": "string"
    },
    "RoutingConfig": {
      "RoutingStrategy": "string"
    },
    "VariantName": "string",
    "VariantStatus": [
      {
        "StartTime": number,
        "Status": "string",
        "StatusMessage": "string"
      }
    ]
  }
]
},
"ShadowProductionVariants": [
  {

```

```

    "CurrentInstanceCount": number,
    "CurrentServerlessConfig": {
      "MaxConcurrency": number,
      "MemorySizeInMB": number,
      "ProvisionedConcurrency": number
    },
    "CurrentWeight": number,
    "DeployedImages": [
      {
        "ResolutionTime": number,
        "ResolvedImage": "string",
        "SpecifiedImage": "string"
      }
    ],
    "DesiredInstanceCount": number,
    "DesiredServerlessConfig": {
      "MaxConcurrency": number,
      "MemorySizeInMB": number,
      "ProvisionedConcurrency": number
    },
    "DesiredWeight": number,
    "ManagedInstanceScaling": {
      "MaxInstanceCount": number,
      "MinInstanceCount": number,
      "Status": "string"
    },
    "RoutingConfig": {
      "RoutingStrategy": "string"
    },
    "VariantName": "string",
    "VariantStatus": [
      {
        "StartTime": number,
        "Status": "string",
        "StatusMessage": "string"
      }
    ]
  ]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AsyncInferenceConfig

Returns the description of an endpoint configuration created using the [CreateEndpointConfig](#) API.

Type: [AsyncInferenceConfig](#) object

### CreationTime

A timestamp that shows when the endpoint was created.

Type: Timestamp

### DataCaptureConfig

The currently active data capture configuration used by your Endpoint.

Type: [DataCaptureConfigSummary](#) object

### EndpointArn

The Amazon Resource Name (ARN) of the endpoint.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:endpoint/.*`

### EndpointConfigName

The name of the endpoint configuration associated with this endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

### EndpointName

Name of the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

## EndpointStatus

The status of the endpoint.

- **OutOfService**: Endpoint is not available to take incoming requests.
- **Creating**: [CreateEndpoint](#) is executing.
- **Updating**: [UpdateEndpoint](#) or [UpdateEndpointWeightsAndCapacities](#) is executing.
- **SystemUpdating**: Endpoint is undergoing maintenance and cannot be updated or deleted or re-scaled until it has completed. This maintenance operation does not change any customer-specified values such as VPC config, KMS encryption, model, instance type, or instance count.
- **RollingBack**: Endpoint fails to scale up or down or change its variant weight and is in the process of rolling back to its previous configuration. Once the rollback completes, endpoint returns to an **InService** status. This transitional status only applies to an endpoint that has autoscaling enabled and is undergoing variant weight or capacity changes as part of an [UpdateEndpointWeightsAndCapacities](#) call or when the [UpdateEndpointWeightsAndCapacities](#) operation is called explicitly.
- **InService**: Endpoint is available to process incoming requests.
- **Deleting**: [DeleteEndpoint](#) is executing.
- **Failed**: Endpoint could not be created, updated, or re-scaled. Use the `FailureReason` value returned by [DescribeEndpoint](#) for information about the failure. [DeleteEndpoint](#) is the only operation that can be performed on a failed endpoint.
- **UpdateRollbackFailed**: Both the rolling deployment and auto-rollback failed. Your endpoint is in service with a mix of the old and new endpoint configurations. For information about how to remedy this issue and restore the endpoint's status to **InService**, see [Rolling Deployments](#).

Type: String

Valid Values: `OutOfService | Creating | Updating | SystemUpdating | RollingBack | InService | Deleting | Failed | UpdateRollbackFailed`



## ExplainerConfig

The configuration parameters for an explainer.

Type: [ExplainerConfig](#) object

## FailureReason

If the status of the endpoint is Failed, the reason why it failed.

Type: String

Length Constraints: Maximum length of 1024.

## LastDeploymentConfig

The most recent deployment configuration for the endpoint.

Type: [DeploymentConfig](#) object

## LastModifiedTime

A timestamp that shows when the endpoint was last modified.

Type: Timestamp

## PendingDeploymentSummary

Returns the summary of an in-progress deployment. This field is only returned when the endpoint is creating or updating with a new endpoint configuration.

Type: [PendingDeploymentSummary](#) object

## ProductionVariants

An array of [ProductionVariantSummary](#) objects, one for each model hosted behind this endpoint.

Type: Array of [ProductionVariantSummary](#) objects

Array Members: Minimum number of 1 item.

## ShadowProductionVariants

An array of [ProductionVariantSummary](#) objects, one for each model that you want to host at this endpoint in shadow mode with production traffic replicated from the model specified on [ProductionVariants](#).

Type: Array of [ProductionVariantSummary](#) objects

Array Members: Minimum number of 1 item.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeEndpointConfig

Service: Amazon SageMaker Service

Returns the description of an endpoint configuration created using the `CreateEndpointConfig` API.

## Request Syntax

```
{
  "EndpointConfigName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EndpointConfigName

The name of the endpoint configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{
  "AsyncInferenceConfig": {
    "ClientConfig": {
      "MaxConcurrentInvocationsPerInstance": number
    },
    "OutputConfig": {
      "KmsKeyId": "string",
      "NotificationConfig": {
        "ErrorTopic": "string",
        "IncludeInferenceResponseIn": [ "string" ],

```

```

    "SuccessTopic": "string"
  },
  "S3FailurePath": "string",
  "S3OutputPath": "string"
}
},
"CreationTime": number,
"DataCaptureConfig": {
  "CaptureContentTypeHeader": {
    "CsvContentTypes": [ "string" ],
    "JsonContentTypes": [ "string" ]
  },
  "CaptureOptions": [
    {
      "CaptureMode": "string"
    }
  ],
  "DestinationS3Uri": "string",
  "EnableCapture": boolean,
  "InitialSamplingPercentage": number,
  "KmsKeyId": "string"
},
"EnableNetworkIsolation": boolean,
"EndpointConfigArn": "string",
"EndpointConfigName": "string",
"ExecutionRoleArn": "string",
"ExplainerConfig": {
  "ClarifyExplainerConfig": {
    "EnableExplanations": "string",
    "InferenceConfig": {
      "ContentTemplate": "string",
      "FeatureHeaders": [ "string" ],
      "FeaturesAttribute": "string",
      "FeatureTypes": [ "string" ],
      "LabelAttribute": "string",
      "LabelHeaders": [ "string" ],
      "LabelIndex": number,
      "MaxPayloadInMB": number,
      "MaxRecordCount": number,
      "ProbabilityAttribute": "string",
      "ProbabilityIndex": number
    }
  },
  "ShapConfig": {
    "NumberOfSamples": number,

```

```

    "Seed": number,
    "ShapBaselineConfig": {
      "MimeType": "string",
      "ShapBaseline": "string",
      "ShapBaselineUri": "string"
    },
    "TextConfig": {
      "Granularity": "string",
      "Language": "string"
    },
    "UseLogit": boolean
  }
}
},
"KmsKeyId": "string",
"ProductionVariants": [
  {
    "AcceleratorType": "string",
    "ContainerStartupHealthCheckTimeoutInSeconds": number,
    "CoreDumpConfig": {
      "DestinationS3Uri": "string",
      "KmsKeyId": "string"
    },
    "EnableSSMAccess": boolean,
    "InferenceAmiVersion": "string",
    "InitialInstanceCount": number,
    "InitialVariantWeight": number,
    "InstanceType": "string",
    "ManagedInstanceScaling": {
      "MaxInstanceCount": number,
      "MinInstanceCount": number,
      "Status": "string"
    },
    "ModelDataDownloadTimeoutInSeconds": number,
    "ModelName": "string",
    "RoutingConfig": {
      "RoutingStrategy": "string"
    },
    "ServerlessConfig": {
      "MaxConcurrency": number,
      "MemorySizeInMB": number,
      "ProvisionedConcurrency": number
    },
    "VariantName": "string",

```

```

    "VolumeSizeInGB": number
  }
],
"ShadowProductionVariants": [
  {
    "AcceleratorType": "string",
    "ContainerStartupHealthCheckTimeoutInSeconds": number,
    "CoreDumpConfig": {
      "DestinationS3Uri": "string",
      "KmsKeyId": "string"
    },
    "EnableSSMAccess": boolean,
    "InferenceAmiVersion": "string",
    "InitialInstanceCount": number,
    "InitialVariantWeight": number,
    "InstanceType": "string",
    "ManagedInstanceScaling": {
      "MaxInstanceCount": number,
      "MinInstanceCount": number,
      "Status": "string"
    },
    "ModelDataDownloadTimeoutInSeconds": number,
    "ModelName": "string",
    "RoutingConfig": {
      "RoutingStrategy": "string"
    },
    "ServerlessConfig": {
      "MaxConcurrency": number,
      "MemorySizeInMB": number,
      "ProvisionedConcurrency": number
    },
    "VariantName": "string",
    "VolumeSizeInGB": number
  }
],
"VpcConfig": {
  "SecurityGroupIds": [ "string " ],
  "Subnets": [ "string " ]
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AsyncInferenceConfig

Returns the description of an endpoint configuration created using the [CreateEndpointConfig](#) API.

Type: [AsyncInferenceConfig](#) object

### CreationTime

A timestamp that shows when the endpoint configuration was created.

Type: Timestamp

### DataCaptureConfig

Configuration to control how SageMaker captures inference data.

Type: [DataCaptureConfig](#) object

### EnableNetworkIsolation

Indicates whether all model containers deployed to the endpoint are isolated. If they are, no inbound or outbound network calls can be made to or from the model containers.

Type: Boolean

### EndpointConfigArn

The Amazon Resource Name (ARN) of the endpoint configuration.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:endpoint-config/.*`

### EndpointConfigName

Name of the SageMaker endpoint configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

### ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role that you assigned to the endpoint configuration.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

### ExplainerConfig

The configuration parameters for an explainer.

Type: [ExplainerConfig](#) object

### KmsKeyId

AWS KMS key ID Amazon SageMaker uses to encrypt data when storing it on the ML storage volume attached to the instance.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

### ProductionVariants

An array of [ProductionVariant](#) objects, one for each model that you want to host at this endpoint.

Type: Array of [ProductionVariant](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

### ShadowProductionVariants

An array of [ProductionVariant](#) objects, one for each model that you want to host at this endpoint in shadow mode with production traffic replicated from the model specified on [ProductionVariants](#).



Type: Array of [ProductionVariant](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

## [VpcConfig](#)

Specifies an Amazon Virtual Private Cloud (VPC) that your SageMaker jobs, hosted models, and compute resources have access to. You can control access to and from your resources by configuring a VPC. For more information, see [Give SageMaker Access to Resources in your Amazon VPC](#).

Type: [VpcConfig](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeExperiment

Service: Amazon SageMaker Service

Provides a list of an experiment's properties.

## Request Syntax

```
{
  "ExperimentName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ExperimentName

The name of the experiment to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{
  "CreatedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
}
```

```
"CreationTime": number,
"Description": "string",
"DisplayName": "string",
"ExperimentArn": "string",
"ExperimentName": "string",
"LastModifiedBy": {
  "DomainId": "string",
  "IamIdentity": {
    "Arn": "string",
    "PrincipalId": "string",
    "SourceIdentity": "string"
  },
  "UserProfileArn": "string",
  "UserProfileName": "string"
},
"LastModifiedTime": number,
"Source": {
  "SourceArn": "string",
  "SourceType": "string"
}
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreatedBy

Who created the experiment.

Type: [UserContext](#) object

### CreationTime

When the experiment was created.

Type: Timestamp

### Description

The description of the experiment.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .\*

### DisplayName

The name of the experiment as displayed. If `DisplayName` isn't specified, `ExperimentName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

### ExperimentArn

The Amazon Resource Name (ARN) of the experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment/.*`

### ExperimentName

The name of the experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

### LastModifiedBy

Who last modified the experiment.

Type: [UserContext](#) object

### LastModifiedTime

When the experiment was last modified.

Type: Timestamp

## Source

The Amazon Resource Name (ARN) of the source and, optionally, the type.

Type: [ExperimentSource](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeFeatureGroup

Service: Amazon SageMaker Service

Use this operation to describe a FeatureGroup. The response includes information on the creation time, FeatureGroup name, the unique identifier for each FeatureGroup, and more.

## Request Syntax

```
{
  "FeatureGroupName": "string",
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### FeatureGroupName

The name or Amazon Resource Name (ARN) of the FeatureGroup you want described.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: (arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:feature-group\|)?([a-zA-Z0-9]([\_-\]\*[a-zA-Z0-9])){0,63}

Required: Yes

### NextToken

A token to resume pagination of the list of Features (FeatureDefinitions). 2,500 Features are returned by default.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## Response Syntax

```
{
  "CreationTime": number,
  "Description": "string",
  "EventTimeFeatureName": "string",
  "FailureReason": "string",
  "FeatureDefinitions": [
    {
      "CollectionConfig": { ... },
      "CollectionType": "string",
      "FeatureName": "string",
      "FeatureType": "string"
    }
  ],
  "FeatureGroupArn": "string",
  "FeatureGroupName": "string",
  "FeatureGroupStatus": "string",
  "LastModifiedTime": number,
  "LastUpdateStatus": {
    "FailureReason": "string",
    "Status": "string"
  },
  "NextToken": "string",
  "OfflineStoreConfig": {
    "DataCatalogConfig": {
      "Catalog": "string",
      "Database": "string",
      "TableName": "string"
    },
    "DisableGlueTableCreation": boolean,
    "S3StorageConfig": {
      "KmsKeyId": "string",
      "ResolvedOutputS3Uri": "string",
      "S3Uri": "string"
    },
    "TableFormat": "string"
  },
  "OfflineStoreStatus": {
    "BlockedReason": "string",
    "Status": "string"
  }
}
```

```

},
"OnlineStoreConfig": {
  "EnableOnlineStore": boolean,
  "SecurityConfig": {
    "KmsKeyId": "string"
  },
  "StorageType": "string",
  "TtlDuration": {
    "Unit": "string",
    "Value": number
  }
},
"OnlineStoreTotalSizeBytes": number,
"RecordIdentifierFeatureName": "string",
"RoleArn": "string",
"ThroughputConfig": {
  "ProvisionedReadCapacityUnits": number,
  "ProvisionedWriteCapacityUnits": number,
  "ThroughputMode": "string"
}
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

A timestamp indicating when SageMaker created the FeatureGroup.

Type: Timestamp

### Description

A free form description of the feature group.

Type: String

Length Constraints: Maximum length of 128.

### EventTimeFeatureName

The name of the feature that stores the EventTime of a Record in a FeatureGroup.



An `EventTime` is a point in time when a new event occurs that corresponds to the creation or update of a `Record` in a `FeatureGroup`. All `Records` in the `FeatureGroup` have a corresponding `EventTime`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,63}`

### FailureReason

The reason that the `FeatureGroup` failed to be replicated in the `OfflineStore`. This is failure can occur because:

- The `FeatureGroup` could not be created in the `OfflineStore`.
- The `FeatureGroup` could not be deleted from the `OfflineStore`.

Type: String

Length Constraints: Maximum length of 1024.

### FeatureDefinitions

A list of the `Features` in the `FeatureGroup`. Each feature is defined by a `FeatureName` and `FeatureType`.

Type: Array of [FeatureDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2500 items.

### FeatureGroupArn

The Amazon Resource Name (ARN) of the `FeatureGroup`.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:feature-group/.*`

### FeatureGroupName

The name of the `FeatureGroup`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([_-]*[a-zA-Z0-9]){0,63}`

### FeatureGroupStatus

The status of the feature group.

Type: String

Valid Values: `Creating` | `Created` | `CreateFailed` | `Deleting` | `DeleteFailed`

### LastModifiedTime

A timestamp indicating when the feature group was last updated.

Type: Timestamp

### LastUpdateStatus

A value indicating whether the update made to the feature group was successful.

Type: [LastUpdateStatus](#) object

### NextToken

A token to resume pagination of the list of Features (FeatureDefinitions).

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

### OfflineStoreConfig

The configuration of the offline store. It includes the following configurations:

- Amazon S3 location of the offline store.
- Configuration of the Glue data catalog.
- Table format of the offline store.
- Option to disable the automatic creation of a Glue table for the offline store.
- Encryption configuration.

Type: [OfflineStoreConfig](#) object

## OfflineStoreStatus

The status of the OfflineStore. Notifies you if replicating data into the OfflineStore has failed. Returns either: Active or Blocked

Type: [OfflineStoreStatus](#) object

## OnlineStoreConfig

The configuration for the OnlineStore.

Type: [OnlineStoreConfig](#) object

## OnlineStoreTotalSizeBytes

The size of the OnlineStore in bytes.

Type: Long

## RecordIdentifierFeatureName

The name of the Feature used for RecordIdentifier, whose value uniquely identifies a record stored in the feature store.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,63}`

## RoleArn

The Amazon Resource Name (ARN) of the IAM execution role used to persist data into the OfflineStore if an OfflineStoreConfig is provided.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z-]*:iam:.*:role/?[a-zA-Z_0-9+=,.\@-_/]+$`

## ThroughputConfig

Active throughput configuration of the feature group. There are two modes: ON\_DEMAND and PROVISIONED. With on-demand mode, you are charged for data reads and writes that your application performs on your feature group. You do not need to specify read and write

throughput because Feature Store accommodates your workloads as they ramp up and down. You can switch a feature group to on-demand only once in a 24 hour period. With provisioned throughput mode, you specify the read and write capacity per second that you expect your application to require, and you are billed based on those limits. Exceeding provisioned throughput will result in your requests being throttled.

Note: PROVISIONED throughput mode is supported only for feature groups that are offline-only, or use the [Standard](#) tier online store.

Type: [ThroughputConfigDescription](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeFeatureMetadata

Service: Amazon SageMaker Service

Shows the metadata for a feature within a feature group.

## Request Syntax

```
{
  "FeatureGroupName": "string",
  "FeatureName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### FeatureGroupName

The name or Amazon Resource Name (ARN) of the feature group containing the feature.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: (arn:aws[a-z\-\ ]\*:sagemaker:[a-z0-9\-\ ]\*:[0-9]{12}:feature-group\|/)?  
([a-zA-Z0-9]([\_-\ ]\*[a-zA-Z0-9]){0,63})

Required: Yes

### FeatureName

The name of the feature.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9]([\_-\ ]\*[a-zA-Z0-9]){0,63}

Required: Yes

## Response Syntax

```
{
  "CreationTime": number,
  "Description": "string",
  "FeatureGroupArn": "string",
  "FeatureGroupName": "string",
  "FeatureName": "string",
  "FeatureType": "string",
  "LastModifiedTime": number,
  "Parameters": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

A timestamp indicating when the feature was created.

Type: Timestamp

### Description

The description you added to describe the feature.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

Pattern: .\*

### FeatureGroupArn

The Amazon Resource Number (ARN) of the feature group that contains the feature.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:feature-group/.*`

### FeatureGroupName

The name of the feature group that you've specified.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([_-]*[a-zA-Z0-9]){0,63}`

### FeatureName

The name of the feature that you've specified.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([_-]*[a-zA-Z0-9]){0,63}`

### FeatureType

The data type of the feature.

Type: String

Valid Values: `Integral | Fractional | String`

### LastModifiedTime

A timestamp indicating when the metadata for the feature group was modified. For example, if you add a parameter describing the feature, the timestamp changes to reflect the last time you

Type: Timestamp

### Parameters

The key-value pairs that you added to describe the feature.

Type: Array of [FeatureParameter](#) objects

Array Members: Minimum number of 0 items. Maximum number of 25 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DescribeFlowDefinition

Service: Amazon SageMaker Service

Returns information about the specified flow definition.

## Request Syntax

```
{  
  "FlowDefinitionName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### FlowDefinitionName

The name of the flow definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-z0-9](-*[a-z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{  
  "CreationTime": number,  
  "FailureReason": "string",  
  "FlowDefinitionArn": "string",  
  "FlowDefinitionName": "string",  
  "FlowDefinitionStatus": "string",  
  "HumanLoopActivationConfig": {  
    "HumanLoopActivationConditionsConfig": {  
      "HumanLoopActivationConditions": "string"  
    }  
  }  
},
```

```

"HumanLoopConfig": {
  "HumanTaskUiArn": "string",
  "PublicWorkforceTaskPrice": {
    "AmountInUsd": {
      "Cents": number,
      "Dollars": number,
      "TenthFractionsOfACent": number
    }
  },
  "TaskAvailabilityLifetimeInSeconds": number,
  "TaskCount": number,
  "TaskDescription": "string",
  "TaskKeywords": [ "string" ],
  "TaskTimeLimitInSeconds": number,
  "TaskTitle": "string",
  "WorkteamArn": "string"
},
"HumanLoopRequestSource": {
  "AwsManagedHumanLoopRequestSource": "string"
},
"OutputConfig": {
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
"RoleArn": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The timestamp when the flow definition was created.

Type: Timestamp

### FailureReason

The reason your flow definition failed.

Type: String

Length Constraints: Maximum length of 1024.

### FlowDefinitionArn

The Amazon Resource Name (ARN) of the flow definition.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]+:[0-9]{12}:flow-definition/.*`

### FlowDefinitionName

The Amazon Resource Name (ARN) of the flow definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-z0-9](-*[a-z0-9]){0,62}`

### FlowDefinitionStatus

The status of the flow definition. Valid values are listed below.

Type: String

Valid Values: `Initializing | Active | Failed | Deleting`

### HumanLoopActivationConfig

An object containing information about what triggers a human review workflow.

Type: [HumanLoopActivationConfig](#) object

### HumanLoopConfig

An object containing information about who works on the task, the workforce task price, and other task details.

Type: [HumanLoopConfig](#) object

### HumanLoopRequestSource

Container for configuring the source of human task requests. Used to specify if Amazon Rekognition or Amazon Textract is used as an integration source.

Type: [HumanLoopRequestSource](#) object

### [OutputConfig](#)

An object containing information about the output file.

Type: [FlowDefinitionOutputConfig](#) object

### [RoleArn](#)

The Amazon Resource Name (ARN) of the AWS Identity and Access Management (IAM) execution role for the flow definition.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeHub

Service: Amazon SageMaker Service

Describes a hub.

## Request Syntax

```
{
  "HubName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### HubName

The name of the hub to describe.

Type: String

Pattern: `^(arn:[a-z0-9-\.]{1,63}:sagemaker:\w+(?:-\w+)+:(\d{12}|aws):hub/)?[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{
  "CreationTime": number,
  "FailureReason": "string",
  "HubArn": "string",
  "HubDescription": "string",
  "HubDisplayName": "string",
  "HubName": "string",
  "HubSearchKeywords": [ "string" ],
  "HubStatus": "string",
  "LastModifiedTime": number,
  "S3StorageConfig": {
```

```
    "S3OutputPath": "string"  
  }  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The date and time that the hub was created.

Type: Timestamp

### FailureReason

The failure reason if importing hub content failed.

Type: String

Length Constraints: Maximum length of 1024.

### HubArn

The Amazon Resource Name (ARN) of the hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

### HubDescription

A description of the hub.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

### HubDisplayName

The display name of the hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

### HubName

The name of the hub.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

### HubSearchKeywords

The searchable keywords for the hub.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 255.

Pattern: `^[^A-Z]*$`

### HubStatus

The status of the hub.

Type: String

Valid Values: InService | Creating | Updating | Deleting | CreateFailed | UpdateFailed | DeleteFailed

### LastModifiedTime

The date and time that the hub was last modified.

Type: Timestamp

### S3StorageConfig

The Amazon S3 storage configuration for the hub.



Type: [HubS3StorageConfig](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeHubContent

Service: Amazon SageMaker Service

Describe the content of a hub.

## Request Syntax

```
{
  "HubContentName": "string",
  "HubContentType": "string",
  "HubContentVersion": "string",
  "HubName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### HubContentName

The name of the content to describe.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### HubContentType

The type of content in the hub.

Type: String

Valid Values: Model | Notebook | ModelReference

Required: Yes

### HubContentVersion

The version of the content to describe.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern:  $^{\wedge}\backslash d\{1,4\}.\backslash d\{1,4\}.\backslash d\{1,4\}\$$

Required: No

### HubName

The name of the hub that contains the content to describe.

Type: String

Pattern:  $^{\wedge}(arn:[a-z0-9-\.]{1,63}:sagemaker:\backslash w+(?:-\backslash w+)+:(\backslash d\{12\}|aws):hub\backslash /)?[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}\$$

Required: Yes

## Response Syntax

```
{
  "CreationTime": number,
  "DocumentSchemaVersion": "string",
  "FailureReason": "string",
  "HubArn": "string",
  "HubContentArn": "string",
  "HubContentDependencies": [
    {
      "DependencyCopyPath": "string",
      "DependencyOriginPath": "string"
    }
  ],
  "HubContentDescription": "string",
  "HubContentDisplayName": "string",
  "HubContentDocument": "string",
  "HubContentMarkdown": "string",
  "HubContentName": "string",
  "HubContentSearchKeywords": [ "string" ],
  "HubContentStatus": "string",
  "HubContentType": "string",
  "HubContentVersion": "string",
  "HubName": "string",
```

```
"ReferenceMinVersion": "string",  
"SageMakerPublicHubContentArn": "string",  
"SupportStatus": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The date and time that hub content was created.

Type: Timestamp

### DocumentSchemaVersion

The document schema version for the hub content.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern:  $\backslash d\{1,4\}.\backslash d\{1,4\}.\backslash d\{1,4\}$

### FailureReason

The failure reason if importing hub content failed.

Type: String

Length Constraints: Maximum length of 1024.

### HubArn

The Amazon Resource Name (ARN) of the hub that contains the content.

Type: String

Length Constraints: Maximum length of 255.

Pattern:  $.*$

## HubContentArn

The Amazon Resource Name (ARN) of the hub content.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

## HubContentDependencies

The location of any dependencies that the hub content has, such as scripts, model artifacts, datasets, or notebooks.

Type: Array of [HubContentDependency](#) objects

Array Members: Maximum number of 50 items.

## HubContentDescription

A description of the hub content.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

## HubContentDisplayName

The display name of the hub content.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

## HubContentDocument

The hub content document that describes information about the hub content such as type, associated containers, scripts, and more.

Type: String

Length Constraints: Maximum length of 65535.

Pattern: .\*

### HubContentMarkdown

A string that provides a description of the hub content. This string can include links, tables, and standard markdown formatting.

Type: String

Length Constraints: Maximum length of 65535.

### HubContentName

The name of the hub content.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

### HubContentSearchKeywords

The searchable keywords for the hub content.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 255.

Pattern: `^[^A-Z]*$`

### HubContentStatus

The status of the hub content.

Type: String

Valid Values: Available | Importing | Deleting | ImportFailed | DeleteFailed

### HubContentType

The type of hub content.

Type: String

Valid Values: Model | Notebook | ModelReference

### HubContentVersion

The version of the hub content.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: `^\d{1,4}.\d{1,4}.\d{1,4}$`

### HubName

The name of the hub that contains the content.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

### ReferenceMinVersion

The minimum version of the hub content.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: `^\d{1,4}.\d{1,4}.\d{1,4}$`

### SageMakerPublicHubContentArn

The ARN of the public hub content.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `^arn:[a-z0-9-\.] {1,63}:sagemaker:\w+(?:-\w+)+:aws:hub-content\[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}\Model\[a-zA-Z0-9](-*[a-zA-Z0-9]){0,63}$`

### SupportStatus

The support status of the hub content.

Type: String

Valid Values: Supported | Deprecated

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DescribeHumanTaskUi

Service: Amazon SageMaker Service

Returns information about the requested human task user interface (worker task template).

## Request Syntax

```
{  
  "HumanTaskUiName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [HumanTaskUiName](#)

The name of the human task user interface (worker task template) you want information about.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-z0-9](-*[a-z0-9])*`

Required: Yes

## Response Syntax

```
{  
  "CreationTime": number,  
  "HumanTaskUiArn": "string",  
  "HumanTaskUiName": "string",  
  "HumanTaskUiStatus": "string",  
  "UiTemplate": {  
    "ContentSha256": "string",  
    "Url": "string"  
  }  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The timestamp when the human task user interface was created.

Type: Timestamp

### HumanTaskUiArn

The Amazon Resource Name (ARN) of the human task user interface (worker task template).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]+:[0-9]{12}:human-task-ui/.*`

### HumanTaskUiName

The name of the human task user interface (worker task template).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-z0-9](-*[a-z0-9])*`

### HumanTaskUiStatus

The status of the human task user interface (worker task template). Valid values are listed below.

Type: String

Valid Values: Active | Deleting

### UiTemplate

Container for user interface template information.

Type: [UiTemplateInfo](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeHyperParameterTuningJob

Service: Amazon SageMaker Service

Returns a description of a hyperparameter tuning job, depending on the fields selected. These fields can include the name, Amazon Resource Name (ARN), job status of your tuning job and more.

## Request Syntax

```
{
  "HyperParameterTuningJobName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### HyperParameterTuningJobName

The name of the tuning job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

## Response Syntax

```
{
  "Autotune": {
    "Mode": "string"
  },
  "BestTrainingJob": {
    "CreationTime": number,
    "FailureReason": "string",
    "FinalHyperParameterTuningJobObjectiveMetric": {
      "MetricName": "string",
      "Type": "string",
    }
  }
}
```

```

    "Value": number
  },
  "ObjectiveStatus": "string",
  "TrainingEndTime": number,
  "TrainingJobArn": "string",
  "TrainingJobDefinitionName": "string",
  "TrainingJobName": "string",
  "TrainingJobStatus": "string",
  "TrainingStartTime": number,
  "TunedHyperParameters": {
    "string" : "string"
  },
  "TuningJobName": "string"
},
"ConsumedResources": {
  "RuntimeInSeconds": number
},
"CreationTime": number,
"FailureReason": "string",
"HyperParameterTuningEndTime": number,
"HyperParameterTuningJobArn": "string",
"HyperParameterTuningJobConfig": {
  "HyperParameterTuningJobObjective": {
    "MetricName": "string",
    "Type": "string"
  },
  "ParameterRanges": {
    "AutoParameters": [
      {
        "Name": "string",
        "ValueHint": "string"
      }
    ],
    "CategoricalParameterRanges": [
      {
        "Name": "string",
        "Values": [ "string" ]
      }
    ],
    "ContinuousParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",

```

```

        "ScalingType": "string"
    }
],
"IntegerParameterRanges": [
    {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
    }
]
},
"RandomSeed": number,
"ResourceLimits": {
    "MaxNumberOfTrainingJobs": number,
    "MaxParallelTrainingJobs": number,
    "MaxRuntimeInSeconds": number
},
"Strategy": "string",
"StrategyConfig": {
    "HyperbandStrategyConfig": {
        "MaxResource": number,
        "MinResource": number
    }
},
"TrainingJobEarlyStoppingType": "string",
"TrainingJobCompletionCriteria": {
    "BestObjectiveNotImproving": {
        "MaxNumberOfTrainingJobsNotImproving": number
    },
    "ConvergenceDetected": {
        "CompleteOnConvergence": "string"
    },
    "TargetObjectiveMetricValue": number
}
},
"HyperParameterTuningJobName": "string",
"HyperParameterTuningJobStatus": "string",
"LastModifiedTime": number,
"ObjectiveStatusCounters": {
    "Failed": number,
    "Pending": number,
    "Succeeded": number
},

```

```

"OverallBestTrainingJob": {
  "CreationTime": number,
  "FailureReason": "string",
  "FinalHyperParameterTuningJobObjectiveMetric": {
    "MetricName": "string",
    "Type": "string",
    "Value": number
  },
  "ObjectiveStatus": "string",
  "TrainingEndTime": number,
  "TrainingJobArn": "string",
  "TrainingJobDefinitionName": "string",
  "TrainingJobName": "string",
  "TrainingJobStatus": "string",
  "TrainingStartTime": number,
  "TunedHyperParameters": {
    "string" : "string"
  },
  "TuningJobName": "string"
},
"TrainingJobDefinition": {
  "AlgorithmSpecification": {
    "AlgorithmName": "string",
    "MetricDefinitions": [
      {
        "Name": "string",
        "Regex": "string"
      }
    ],
    "TrainingImage": "string",
    "TrainingInputMode": "string"
  },
  "CheckpointConfig": {
    "LocalPath": "string",
    "S3Uri": "string"
  },
  "DefinitionName": "string",
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableManagedSpotTraining": boolean,
  "EnableNetworkIsolation": boolean,
  "Environment": {
    "string" : "string"
  },
  "HyperParameterRanges": {

```

```

    "AutoParameters": [
      {
        "Name": "string",
        "ValueHint": "string"
      }
    ],
    "CategoricalParameterRanges": [
      {
        "Name": "string",
        "Values": [ "string" ]
      }
    ],
    "ContinuousParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
      }
    ],
    "IntegerParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
      }
    ]
  },
  "HyperParameterTuningResourceConfig": {
    "AllocationStrategy": "string",
    "InstanceConfigs": [
      {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeSizeInGB": number
      }
    ],
    "InstanceCount": number,
    "InstanceType": "string",
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
  },
  "InputDataConfig": [

```



```

{
  "ChannelName": "string",
  "CompressionType": "string",
  "ContentType": "string",
  "DataSource": {
    "FileSystemDataSource": {
      "DirectoryPath": "string",
      "FileSystemAccessMode": "string",
      "FileSystemId": "string",
      "FileSystemType": "string"
    },
    "S3DataSource": {
      "AttributeNames": [ "string" ],
      "InstanceGroupNames": [ "string" ],
      "S3DataDistributionType": "string",
      "S3DataType": "string",
      "S3Uri": "string"
    }
  },
  "InputMode": "string",
  "RecordWrapperType": "string",
  "ShuffleConfig": {
    "Seed": number
  }
},
"OutputDataConfig": {
  "CompressionType": "string",
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
"ResourceConfig": {
  "InstanceCount": number,
  "InstanceGroups": [
    {
      "InstanceCount": number,
      "InstanceGroupName": "string",
      "InstanceType": "string"
    }
  ]
},
"InstanceType": "string",
"KeepAlivePeriodInSeconds": number,
"VolumeKmsKeyId": "string",
"VolumeSizeInGB": number

```

```

    },
    "RetryStrategy": {
      "MaximumRetryAttempts": number
    },
    "RoleArn": "string",
    "StaticHyperParameters": {
      "string" : "string"
    },
    "StoppingCondition": {
      "MaxPendingTimeInSeconds": number,
      "MaxRuntimeInSeconds": number,
      "MaxWaitTimeInSeconds": number
    },
    "TuningObjective": {
      "MetricName": "string",
      "Type": "string"
    },
    "VpcConfig": {
      "SecurityGroupIds": [ "string" ],
      "Subnets": [ "string" ]
    }
  },
  "TrainingJobDefinitions": [
    {
      "AlgorithmSpecification": {
        "AlgorithmName": "string",
        "MetricDefinitions": [
          {
            "Name": "string",
            "Regex": "string"
          }
        ],
        "TrainingImage": "string",
        "TrainingInputMode": "string"
      },
      "CheckpointConfig": {
        "LocalPath": "string",
        "S3Uri": "string"
      },
      "DefinitionName": "string",
      "EnableInterContainerTrafficEncryption": boolean,
      "EnableManagedSpotTraining": boolean,
      "EnableNetworkIsolation": boolean,
      "Environment": {

```

```

    "string" : "string"
  },
  "HyperParameterRanges": {
    "AutoParameters": [
      {
        "Name": "string",
        "ValueHint": "string"
      }
    ],
    "CategoricalParameterRanges": [
      {
        "Name": "string",
        "Values": [ "string" ]
      }
    ],
    "ContinuousParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
      }
    ],
    "IntegerParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
      }
    ]
  },
  "HyperParameterTuningResourceConfig": {
    "AllocationStrategy": "string",
    "InstanceConfigs": [
      {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeSizeInGB": number
      }
    ],
    "InstanceCount": number,
    "InstanceType": "string",
    "VolumeKmsKeyId": "string",

```

```

    "VolumeSizeInGB": number
  },
  "InputDataConfig": [
    {
      "ChannelName": "string",
      "CompressionType": "string",
      "ContentType": "string",
      "DataSource": {
        "FileSystemDataSource": {
          "DirectoryPath": "string",
          "FileSystemAccessMode": "string",
          "FileSystemId": "string",
          "FileSystemType": "string"
        },
        "S3DataSource": {
          "AttributeNames": [ "string " ],
          "InstanceGroupNames": [ "string " ],
          "S3DataDistributionType": "string",
          "S3DataType": "string",
          "S3Uri": "string"
        }
      },
      "InputMode": "string",
      "RecordWrapperType": "string",
      "ShuffleConfig": {
        "Seed": number
      }
    }
  ],
  "OutputDataConfig": {
    "CompressionType": "string",
    "KmsKeyId": "string",
    "S3OutputPath": "string"
  },
  "ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
      {
        "InstanceCount": number,
        "InstanceGroupName": "string",
        "InstanceType": "string"
      }
    ],
    "InstanceType": "string",

```

```

        "KeepAlivePeriodInSeconds": number,
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    },
    "RetryStrategy": {
        "MaximumRetryAttempts": number
    },
    "RoleArn": "string",
    "StaticHyperParameters": {
        "string" : "string"
    },
    "StoppingCondition": {
        "MaxPendingTimeInSeconds": number,
        "MaxRuntimeInSeconds": number,
        "MaxWaitTimeInSeconds": number
    },
    "TuningObjective": {
        "MetricName": "string",
        "Type": "string"
    },
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
}
],
"TrainingJobStatusCounters": {
    "Completed": number,
    "InProgress": number,
    "NonRetryableError": number,
    "RetryableError": number,
    "Stopped": number
},
"TuningJobCompletionDetails": {
    "ConvergenceDetectedTime": number,
    "NumberOfTrainingJobsObjectiveNotImproving": number
},
"WarmStartConfig": {
    "ParentHyperParameterTuningJobs": [
        {
            "HyperParameterTuningJobName": "string"
        }
    ]
},
"WarmStartType": "string"

```

```
}  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Autotune

A flag to indicate if autotune is enabled for the hyperparameter tuning job.

Type: [Autotune](#) object

### BestTrainingJob

A [TrainingJobSummary](#) object that describes the training job that completed with the best current [HyperParameterTuningJobObjective](#).

Type: [HyperParameterTrainingJobSummary](#) object

### ConsumedResources

The total resources consumed by your hyperparameter tuning job.

Type: [HyperParameterTuningJobConsumedResources](#) object

### CreationTime

The date and time that the tuning job started.

Type: Timestamp

### FailureReason

If the tuning job failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

### HyperParameterTuningEndTime

The date and time that the tuning job ended.

Type: Timestamp

### [HyperParameterTuningJobArn](#)

The Amazon Resource Name (ARN) of the tuning job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:hyper-parameter-tuning-job/.*`

### [HyperParameterTuningJobConfig](#)

The [HyperParameterTuningJobConfig](#) object that specifies the configuration of the tuning job.

Type: [HyperParameterTuningJobConfig](#) object

### [HyperParameterTuningJobName](#)

The name of the hyperparameter tuning job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

### [HyperParameterTuningJobStatus](#)

The status of the tuning job.

Type: String

Valid Values: `Completed | InProgress | Failed | Stopped | Stopping | Deleting | DeleteFailed`

### [LastModifiedTime](#)

The date and time that the status of the tuning job was modified.

Type: Timestamp

### [ObjectiveStatusCounters](#)

The [ObjectiveStatusCounters](#) object that specifies the number of training jobs, categorized by the status of their final objective metric, that this tuning job launched.

Type: [ObjectiveStatusCounters](#) object

## OverallBestTrainingJob

If the hyperparameter tuning job is a warm start tuning job with a `WarmStartType` of `IDENTICAL_DATA_AND_ALGORITHM`, this is the [TrainingJobSummary](#) for the training job with the best objective metric value of all training jobs launched by this tuning job and all parent jobs specified for the warm start tuning job.

Type: [HyperParameterTrainingJobSummary](#) object

## TrainingJobDefinition

The [HyperParameterTrainingJobDefinition](#) object that specifies the definition of the training jobs that this tuning job launches.

Type: [HyperParameterTrainingJobDefinition](#) object

## TrainingJobDefinitions

A list of the [HyperParameterTrainingJobDefinition](#) objects launched for this tuning job.

Type: Array of [HyperParameterTrainingJobDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

## TrainingJobStatusCounters

The [TrainingJobStatusCounters](#) object that specifies the number of training jobs, categorized by status, that this tuning job launched.

Type: [TrainingJobStatusCounters](#) object

## TuningJobCompletionDetails

Tuning job completion information returned as the response from a hyperparameter tuning job. This information tells if your tuning job has or has not converged. It also includes the number of training jobs that have not improved model performance as evaluated against the objective function.

Type: [HyperParameterTuningJobCompletionDetails](#) object

## WarmStartConfig

The configuration for starting the hyperparameter parameter tuning job using one or more previous tuning jobs as a starting point. The results of previous tuning jobs are used to inform which combinations of hyperparameters to search over in the new tuning job.



Type: [HyperParameterTuningJobWarmStartConfig](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeImage

Service: Amazon SageMaker Service

Describes a SageMaker image.

## Request Syntax

```
{  
  "ImageName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ImageName

The name of the image to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{  
  "CreationTime": number,  
  "Description": "string",  
  "DisplayName": "string",  
  "FailureReason": "string",  
  "ImageArn": "string",  
  "ImageName": "string",  
  "ImageStatus": "string",  
  "LastModifiedTime": number,  
  "RoleArn": "string"  
}
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

When the image was created.

Type: Timestamp

### Description

The description of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: .\*

### DisplayName

The name of the image as displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^\S(.\*\S)?\$

### FailureReason

When a create, update, or delete operation fails, the reason for the failure.

Type: String

Length Constraints: Maximum length of 1024.

### ImageArn

The ARN of the image.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws(-[\w]+)*:sagemaker:.+:[0-9]{12}:image/[a-z0-9]([-.]?[a-z0-9])*$`

### ImageName

The name of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}$`

### ImageStatus

The status of the image.

Type: String

Valid Values: CREATING | CREATED | CREATE\_FAILED | UPDATING | UPDATE\_FAILED | DELETING | DELETE\_FAILED

### LastModifiedTime

When the image was last modified.

Type: Timestamp

### RoleArn

The ARN of the IAM role that enables Amazon SageMaker to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeImageVersion

Service: Amazon SageMaker Service

Describes a version of a SageMaker image.

## Request Syntax

```
{  
  "Alias": "string",  
  "ImageName": "string",  
  "Version": number  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Alias

The alias of the image version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `(?!^[.-])^([a-zA-Z0-9-_.]+)$`

Required: No

### ImageName

The name of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}$`

Required: Yes

## Version

The version of the image. If not specified, the latest version is described.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## Response Syntax

```
{
  "BaseImage": "string",
  "ContainerImage": "string",
  "CreationTime": number,
  "FailureReason": "string",
  "Horovod": boolean,
  "ImageArn": "string",
  "ImageVersionArn": "string",
  "ImageVersionStatus": "string",
  "JobType": "string",
  "LastModifiedTime": number,
  "MLFramework": "string",
  "Processor": "string",
  "ProgrammingLang": "string",
  "ReleaseNotes": "string",
  "VendorGuidance": "string",
  "Version": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### BaseImage

The registry path of the container image on which this image version is based.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .\*

### ContainerImage

The registry path of the container image that contains this image version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

### CreationTime

When the version was created.

Type: Timestamp

### FailureReason

When a create or delete operation fails, the reason for the failure.

Type: String

Length Constraints: Maximum length of 1024.

### Horovod

Indicates Horovod compatibility.

Type: Boolean

### ImageArn

The ARN of the image the version is based on.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws(-[\w]+)\*:sagemaker:.+:[0-9]{12}:image/[a-z0-9]([-.]?[a-z0-9])\*\$

### ImageVersionArn

The ARN of the version.

Type: String



Length Constraints: Maximum length of 256.

Pattern: `^arn:aws(-[\w]+)*:sagemaker:.+:[0-9]{12}:image-version/[a-z0-9]([-.]?[a-z0-9])*/[0-9]+$`

### ImageVersionStatus

The status of the version.

Type: String

Valid Values: CREATING | CREATED | CREATE\_FAILED | DELETING | DELETE\_FAILED

### JobType

Indicates SageMaker job type compatibility.

- TRAINING: The image version is compatible with SageMaker training jobs.
- INFERENCE: The image version is compatible with SageMaker inference jobs.
- NOTEBOOK\_KERNEL: The image version is compatible with SageMaker notebook kernels.

Type: String

Valid Values: TRAINING | INFERENCE | NOTEBOOK\_KERNEL

### LastModifiedTime

When the version was last modified.

Type: Timestamp

### MLFramework

The machine learning framework vended in the image version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z]+ ?\d+\. \d+(\. \d+)?$`

### Processor

Indicates CPU or GPU compatibility.

- CPU: The image version is compatible with CPU.

- GPU: The image version is compatible with GPU.

Type: String

Valid Values: CPU | GPU

### ProgrammingLang

The supported programming language and its version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z]+ ?\d+\.\d+(\.\d+)?$`

### ReleaseNotes

The maintainer description of the image version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `.*`

### VendorGuidance

The stability of the image version specified by the maintainer.

- NOT\_PROVIDED: The maintainers did not provide a status for image version stability.
- STABLE: The image version is stable.
- TO\_BE\_ARCHIVED: The image version is set to be archived. Custom image versions that are set to be archived are automatically archived after three months.
- ARCHIVED: The image version is archived. Archived image versions are not searchable and are no longer actively supported.

Type: String

Valid Values: NOT\_PROVIDED | STABLE | TO\_BE\_ARCHIVED | ARCHIVED

### Version

The version number.

Type: Integer

Valid Range: Minimum value of 0.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeInferenceComponent

Service: Amazon SageMaker Service

Returns information about an inference component.

## Request Syntax

```
{  
  "InferenceComponentName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### InferenceComponentName

The name of the inference component.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9]*[a-zA-Z0-9])?$`

Required: Yes

## Response Syntax

```
{  
  "CreationTime": number,  
  "EndpointArn": "string",  
  "EndpointName": "string",  
  "FailureReason": "string",  
  "InferenceComponentArn": "string",  
  "InferenceComponentName": "string",  
  "InferenceComponentStatus": "string",  
  "LastModifiedTime": number,  
  "RuntimeConfig": {  
    "CurrentCopyCount": number,
```

```

    "DesiredCopyCount": number
  },
  "Specification": {
    "ComputeResourceRequirements": {
      "MaxMemoryRequiredInMb": number,
      "MinMemoryRequiredInMb": number,
      "NumberOfAcceleratorDevicesRequired": number,
      "NumberOfCpuCoresRequired": number
    },
    "Container": {
      "ArtifactUrl": "string",
      "DeployedImage": {
        "ResolutionTime": number,
        "ResolvedImage": "string",
        "SpecifiedImage": "string"
      },
      "Environment": {
        "string" : "string"
      }
    },
    "ModelName": "string",
    "StartupParameters": {
      "ContainerStartupHealthCheckTimeoutInSeconds": number,
      "ModelDataDownloadTimeoutInSeconds": number
    }
  },
  "VariantName": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The time when the inference component was created.

Type: Timestamp

### EndpointArn

The Amazon Resource Name (ARN) of the endpoint that hosts the inference component.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:endpoint/.*`

### EndpointName

The name of the endpoint that hosts the inference component.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

### FailureReason

If the inference component status is `Failed`, the reason for the failure.

Type: String

Length Constraints: Maximum length of 1024.

### InferenceComponentArn

The Amazon Resource Name (ARN) of the inference component.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

### InferenceComponentName

The name of the inference component.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\ -a-zA-Z0-9 ]*[a-zA-Z0-9] )? $`

### InferenceComponentStatus

The status of the inference component.

Type: String

Valid Values: InService | Creating | Updating | Failed | Deleting

### LastModifiedTime

The time when the inference component was last updated.

Type: Timestamp

### RuntimeConfig

Details about the runtime settings for the model that is deployed with the inference component.

Type: [InferenceComponentRuntimeConfigSummary](#) object

### Specification

Details about the resources that are deployed with this inference component.

Type: [InferenceComponentSpecificationSummary](#) object

### VariantName

The name of the production variant that hosts the inference component.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DescribeInferenceExperiment

Service: Amazon SageMaker Service

Returns details about an inference experiment.

## Request Syntax

```
{
  "Name": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the inference experiment to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{
  "Arn": "string",
  "CompletionTime": number,
  "CreationTime": number,
  "DataStorageConfig": {
    "ContentType": {
      "CsvContentTypes": [ "string" ],
      "JsonContentTypes": [ "string" ]
    },
    "Destination": "string",
    "KmsKey": "string"
  },
}
```

```

"Description": "string",
"EndpointMetadata": {
  "EndpointConfigName": "string",
  "EndpointName": "string",
  "EndpointStatus": "string",
  "FailureReason": "string"
},
"KmsKey": "string",
"LastModifiedTime": number,
"ModelVariants": [
  {
    "InfrastructureConfig": {
      "InfrastructureType": "string",
      "RealTimeInferenceConfig": {
        "InstanceCount": number,
        "InstanceType": "string"
      }
    },
    "ModelName": "string",
    "Status": "string",
    "VariantName": "string"
  }
],
"Name": "string",
"RoleArn": "string",
"Schedule": {
  "EndTime": number,
  "StartTime": number
},
"ShadowModeConfig": {
  "ShadowModelVariants": [
    {
      "SamplingPercentage": number,
      "ShadowModelVariantName": "string"
    }
  ],
  "SourceModelVariantName": "string"
},
"Status": "string",
"StatusReason": "string",
"Type": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Arn

The ARN of the inference experiment being described.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:inference-experiment/.*`

### CompletionTime

The timestamp at which the inference experiment was completed.

Type: Timestamp

### CreationTime

The timestamp at which you created the inference experiment.

Type: Timestamp

### DataStorageConfig

The Amazon S3 location and configuration for storing inference request and response data.

Type: [InferenceExperimentDataStorageConfig](#) object

### Description

The description of the inference experiment.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `.*`

## EndpointMetadata

The metadata of the endpoint on which the inference experiment ran.

Type: [EndpointMetadata](#) object

## KmsKey

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance that hosts the endpoint. For more information, see [CreateInferenceExperiment](#).

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

## LastModifiedTime

The timestamp at which you last modified the inference experiment.

Type: Timestamp

## ModelVariants

An array of [ModelVariantConfigSummary](#) objects. There is one for each variant in the inference experiment. Each [ModelVariantConfigSummary](#) object in the array describes the infrastructure configuration for deploying the corresponding variant.

Type: Array of [ModelVariantConfigSummary](#) objects

## Name

The name of the inference experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

## RoleArn

The ARN of the IAM role that Amazon SageMaker can assume to access model artifacts and container images, and manage Amazon SageMaker Inference endpoints for model deployment.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

## Schedule

The duration for which the inference experiment ran or will run.

Type: [InferenceExperimentSchedule](#) object

## ShadowModeConfig

The configuration of ShadowMode inference experiment type, which shows the production variant that takes all the inference requests, and the shadow variant to which Amazon SageMaker replicates a percentage of the inference requests. For the shadow variant it also shows the percentage of requests that Amazon SageMaker replicates.

Type: [ShadowModeConfig](#) object

## Status

The status of the inference experiment. The following are the possible statuses for an inference experiment:

- **Creating** - Amazon SageMaker is creating your experiment.
- **Created** - Amazon SageMaker has finished the creation of your experiment and will begin the experiment at the scheduled time.
- **Updating** - When you make changes to your experiment, your experiment shows as updating.
- **Starting** - Amazon SageMaker is beginning your experiment.
- **Running** - Your experiment is in progress.
- **Stopping** - Amazon SageMaker is stopping your experiment.
- **Completed** - Your experiment has completed.
- **Cancelled** - When you conclude your experiment early using the [StopInferenceExperiment](#) API, or if any operation fails with an unexpected error, it shows as cancelled.

Type: String

Valid Values: `Creating | Created | Updating | Running | Starting | Stopping | Completed | Cancelled`

## StatusReason

The error message or client-specified Reason from the [StopInferenceExperiment](#) API, that explains the status of the inference experiment.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

## Type

The type of the inference experiment.

Type: String

Valid Values: ShadowMode

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeInferenceRecommendationsJob

Service: Amazon SageMaker Service

Provides the results of the Inference Recommender job. One or more recommendation jobs are returned.

## Request Syntax

```
{
  "JobName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobName

The name of the job. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,63}`

Required: Yes

## Response Syntax

```
{
  "CompletionTime": number,
  "CreationTime": number,
  "EndpointPerformances": [
    {
      "EndpointInfo": {
        "EndpointName": "string"
      },
      "Metrics": {
        "MaxInvocations": number,
```



```

    "ModelLatency": number
  }
}
],
"FailureReason": "string",
"InferenceRecommendations": [
  {
    "EndpointConfiguration": {
      "EndpointName": "string",
      "InitialInstanceCount": number,
      "InstanceType": "string",
      "ServerlessConfig": {
        "MaxConcurrency": number,
        "MemorySizeInMB": number,
        "ProvisionedConcurrency": number
      },
      "VariantName": "string"
    },
    "InvocationEndTime": number,
    "InvocationStartTime": number,
    "Metrics": {
      "CostPerHour": number,
      "CostPerInference": number,
      "CpuUtilization": number,
      "MaxInvocations": number,
      "MemoryUtilization": number,
      "ModelLatency": number,
      "ModelSetupTime": number
    },
    "ModelConfiguration": {
      "CompilationJobName": "string",
      "EnvironmentParameters": [
        {
          "Key": "string",
          "Value": "string",
          "ValueType": "string"
        }
      ],
      "InferenceSpecificationName": "string"
    },
    "RecommendationId": "string"
  }
],
"InputConfig": {

```

```

"ContainerConfig": {
  "DataInputConfig": "string",
  "Domain": "string",
  "Framework": "string",
  "FrameworkVersion": "string",
  "NearestModelName": "string",
  "PayloadConfig": {
    "SamplePayloadUrl": "string",
    "SupportedContentTypes": [ "string" ]
  },
  "SupportedEndpointType": "string",
  "SupportedInstanceTypes": [ "string" ],
  "SupportedResponseMIMETypes": [ "string" ],
  "Task": "string"
},
"EndpointConfigurations": [
  {
    "EnvironmentParameterRanges": {
      "CategoricalParameterRanges": [
        {
          "Name": "string",
          "Value": [ "string" ]
        }
      ]
    },
    "InferenceSpecificationName": "string",
    "InstanceType": "string",
    "ServerlessConfig": {
      "MaxConcurrency": number,
      "MemorySizeInMB": number,
      "ProvisionedConcurrency": number
    }
  }
],
"Endpoints": [
  {
    "EndpointName": "string"
  }
],
"JobDurationInSeconds": number,
"ModelName": "string",
"ModelPackageVersionArn": "string",
"ResourceLimit": {
  "MaxNumberOfTests": number,

```

```

    "MaxParallelOfTests": number
  },
  "TrafficPattern": {
    "Phases": [
      {
        "DurationInSeconds": number,
        "InitialNumberOfUsers": number,
        "SpawnRate": number
      }
    ],
    "Stairs": {
      "DurationInSeconds": number,
      "NumberOfSteps": number,
      "UsersPerStep": number
    },
    "TrafficType": "string"
  },
  "VolumeKmsKeyId": "string",
  "VpcConfig": {
    "SecurityGroupIds": [ "string " ],
    "Subnets": [ "string " ]
  }
},
"JobArn": "string",
"JobDescription": "string",
"JobName": "string",
"JobType": "string",
"LastModifiedTime": number,
"RoleArn": "string",
"Status": "string",
"StoppingConditions": {
  "FlatInvocations": "string",
  "MaxInvocations": number,
  "ModelLatencyThresholds": [
    {
      "Percentile": "string",
      "ValueInMilliseconds": number
    }
  ]
}
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CompletionTime

A timestamp that shows when the job completed.

Type: Timestamp

### CreationTime

A timestamp that shows when the job was created.

Type: Timestamp

### EndpointPerformances

The performance results from running an Inference Recommender job on an existing endpoint.

Type: Array of [EndpointPerformance](#) objects

Array Members: Maximum number of 1 item.

### FailureReason

If the job fails, provides information why the job failed.

Type: String

Length Constraints: Maximum length of 1024.

### InferenceRecommendations

The recommendations made by Inference Recommender.

Type: Array of [InferenceRecommendation](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

### InputConfig

Returns information about the versioned model package Amazon Resource Name (ARN), the traffic pattern, and endpoint configurations you provided when you initiated the job.

Type: [RecommendationJobInputConfig](#) object

## JobArn

The Amazon Resource Name (ARN) of the job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:inference-recommendations-job/.*`

## JobDescription

The job description that you provided when you initiated the job.

Type: String

Length Constraints: Maximum length of 128.

## JobName

The name of the job. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,63}`

## JobType

The job type that you provided when you initiated the job.

Type: String

Valid Values: `Default` | `Advanced`

## LastModifiedTime

A timestamp that shows when the job was last modified.

Type: Timestamp

## RoleArn

The Amazon Resource Name (ARN) of the AWS Identity and Access Management (IAM) role you provided when you initiated the job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

### Status

The status of the job.

Type: String

Valid Values: PENDING | IN\_PROGRESS | COMPLETED | FAILED | STOPPING | STOPPED | DELETING | DELETED

### StoppingConditions

The stopping conditions that you provided when you initiated the job.

Type: [RecommendationJobStoppingConditions](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeLabelingJob

Service: Amazon SageMaker Service

Gets information about a labeling job.

## Request Syntax

```
{
  "LabelingJobName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### LabelingJobName

The name of the labeling job to return information for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{
  "CreationTime": number,
  "FailureReason": "string",
  "HumanTaskConfig": {
    "AnnotationConsolidationConfig": {
      "AnnotationConsolidationLambdaArn": "string"
    },
    "MaxConcurrentTaskCount": number,
    "NumberOfHumanWorkersPerDataObject": number,
    "PreHumanTaskLambdaArn": "string",
    "PublicWorkforceTaskPrice": {
      "AmountInUsd": {
```



```

        "Cents": number,
        "Dollars": number,
        "TenthFractionsOfACent": number
    }
},
"TaskAvailabilityLifetimeInSeconds": number,
"TaskDescription": "string",
"TaskKeywords": [ "string" ],
"TaskTimeLimitInSeconds": number,
"TaskTitle": "string",
"UiConfig": {
    "HumanTaskUiArn": "string",
    "UiTemplateS3Uri": "string"
},
"WorkteamArn": "string"
},
"InputConfig": {
    "DataAttributes": {
        "ContentClassifiers": [ "string" ]
    },
    "DataSource": {
        "S3DataSource": {
            "ManifestS3Uri": "string"
        },
        "SnsDataSource": {
            "SnsTopicArn": "string"
        }
    }
},
"JobReferenceCode": "string",
"LabelAttributeName": "string",
"LabelCategoryConfigS3Uri": "string",
"LabelCounters": {
    "FailedNonRetryableError": number,
    "HumanLabeled": number,
    "MachineLabeled": number,
    "TotalLabeled": number,
    "Unlabeled": number
},
"LabelingJobAlgorithmsConfig": {
    "InitialActiveLearningModelArn": "string",
    "LabelingJobAlgorithmSpecificationArn": "string",
    "LabelingJobResourceConfig": {
        "VolumeKmsKeyId": "string",

```

```

    "VpcConfig": {
      "SecurityGroupIds": [ "string" ],
      "Subnets": [ "string" ]
    }
  },
  "LabelingJobArn": "string",
  "LabelingJobName": "string",
  "LabelingJobOutput": {
    "FinalActiveLearningModelArn": "string",
    "OutputDatasetS3Uri": "string"
  },
  "LabelingJobStatus": "string",
  "LastModifiedTime": number,
  "OutputConfig": {
    "KmsKeyId": "string",
    "S3OutputPath": "string",
    "SnsTopicArn": "string"
  },
  "RoleArn": "string",
  "StoppingConditions": {
    "MaxHumanLabeledObjectCount": number,
    "MaxPercentageOfInputDatasetLabeled": number
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The date and time that the labeling job was created.

Type: Timestamp

## FailureReason

If the job failed, the reason that it failed.

Type: String

Length Constraints: Maximum length of 1024.

## HumanTaskConfig

Configuration information required for human workers to complete a labeling task.

Type: [HumanTaskConfig](#) object

## InputConfig

Input configuration information for the labeling job, such as the Amazon S3 location of the data objects and the location of the manifest file that describes the data objects.

Type: [LabelingJobInputConfig](#) object

## JobReferenceCode

A unique identifier for work done as part of a labeling job.

Type: String

Length Constraints: Minimum length of 1.

Pattern: . +

## LabelAttributeName

The attribute used as the label in the output manifest file.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 127.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,126}`

## LabelCategoryConfigS3Uri

The S3 location of the JSON file that defines the categories used to label data objects. Please note the following label-category limits:

- Semantic segmentation labeling jobs using automated labeling: 20 labels

- Box bounding labeling jobs (all): 10 labels

The file is a JSON structure in the following format:

```
{  
  "document-version": "2018-11-28"  
  "labels": [  
    {  
      "label": "label 1"  
    },  
    {  
      "label": "label 2"  
    },  
    ...  
    {  
      "label": "label n"  
    }  
  ]  
}
```

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

### LabelCounters

Provides a breakdown of the number of data objects labeled by humans, the number of objects labeled by machine, the number of objects than couldn't be labeled, and the total number of objects labeled.

Type: [LabelCounters](#) object

### [LabelingJobAlgorithmsConfig](#)

Configuration information for automated data labeling.

Type: [LabelingJobAlgorithmsConfig](#) object

### [LabelingJobArn](#)

The Amazon Resource Name (ARN) of the labeling job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:labeling-job/.*`

### [LabelingJobName](#)

The name assigned to the labeling job when it was created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

### [LabelingJobOutput](#)

The location of the output produced by the labeling job.

Type: [LabelingJobOutput](#) object

### [LabelingJobStatus](#)

The processing status of the labeling job.

Type: String

Valid Values: `Initializing | InProgress | Completed | Failed | Stopping | Stopped`

### [LastModifiedTime](#)

The date and time that the labeling job was last updated.

Type: Timestamp

## OutputConfig

The location of the job's output data and the AWS Key Management Service key ID for the key used to encrypt the output data, if any.

Type: [LabelingJobOutputConfig](#) object

## RoleArn

The Amazon Resource Name (ARN) that SageMaker assumes to perform tasks on your behalf during data labeling.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

## StoppingConditions

A set of conditions for stopping a labeling job. If any of the conditions are met, the job is automatically stopped.

Type: [LabelingJobStoppingConditions](#) object

## Tags

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeLineageGroup

Service: Amazon SageMaker Service

Provides a list of properties for the requested lineage group. For more information, see [Cross-Account Lineage Tracking](#) in the *Amazon SageMaker Developer Guide*.

## Request Syntax

```
{
  "LineageGroupName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### LineageGroupName

The name of the lineage group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{
  "CreatedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
```



```
    "UserProfileName": "string"
  },
  "CreationTime": number,
  "Description": "string",
  "DisplayName": "string",
  "LastModifiedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
  },
  "UserProfileArn": "string",
  "UserProfileName": "string"
},
"LastModifiedTime": number,
"LineageGroupArn": "string",
"LineageGroupName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

### CreationTime

The creation time of lineage group.

Type: Timestamp

### Description

The description of the lineage group.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: . \*

### DisplayName

The display name of the lineage group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

### LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

### LastModifiedTime

The last modified time of the lineage group.

Type: Timestamp

### LineageGroupArn

The Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:lineage-group/. *`

### LineageGroupName

The name of the lineage group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeMlflowTrackingServer

Service: Amazon SageMaker Service

Returns information about an MLflow Tracking Server.

## Request Syntax

```
{
  "TrackingServerName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### TrackingServerName

The name of the MLflow Tracking Server to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: Yes

## Response Syntax

```
{
  "ArtifactStoreUri": "string",
  "AutomaticModelRegistration": boolean,
  "CreatedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
  },
  "UserProfileArn": "string",
}
```

```

    "UserProfileName": "string"
  },
  "CreationTime": number,
  "IsActive": "string",
  "LastModifiedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    }
  },
  "UserProfileArn": "string",
  "UserProfileName": "string"
},
"LastModifiedTime": number,
"MlflowVersion": "string",
"RoleArn": "string",
"TrackingServerArn": "string",
"TrackingServerName": "string",
"TrackingServerSize": "string",
"TrackingServerStatus": "string",
"TrackingServerUrl": "string",
"WeeklyMaintenanceWindowStart": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ArtifactStoreUri

The S3 URI of the general purpose bucket used as the MLflow Tracking Server artifact store.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\s]+)?/?(.*)$`

### AutomaticModelRegistration

Whether automatic registration of new MLflow models to the SageMaker Model Registry is enabled.

Type: Boolean

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

### CreationTime

The timestamp of when the described MLflow Tracking Server was created.

Type: Timestamp

### IsActive

Whether the described MLflow Tracking Server is currently active.

Type: String

Valid Values: Active | Inactive

### LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

### LastModifiedTime

The timestamp of when the described MLflow Tracking Server was last modified.

Type: Timestamp

### MlflowVersion

The MLflow version used for the described tracking server.

Type: String

Length Constraints: Maximum length of 16.

Pattern: `^[0-9]*.[0-9]*.[0-9]*`

## RoleArn

The Amazon Resource Name (ARN) for an IAM role in your account that the described MLflow Tracking Server uses to access the artifact store in Amazon S3.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@\-\_/\]+$`

## TrackingServerArn

The ARN of the described tracking server.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:mlflow-tracking-server/.*`

## TrackingServerName

The name of the described tracking server.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

## TrackingServerSize

The size of the described tracking server.

Type: String

Valid Values: Small | Medium | Large

## TrackingServerStatus

The current creation status of the described MLflow Tracking Server.

Type: String

Valid Values: Creating | Created | CreateFailed | Updating | Updated | UpdateFailed | Deleting | DeleteFailed | Stopping | Stopped | StopFailed | Starting | Started | StartFailed | MaintenanceInProgress | MaintenanceComplete | MaintenanceFailed

### TrackingServerUrl

The URL to connect to the MLflow user interface for the described tracking server.

Type: String

Length Constraints: Maximum length of 2048.

### WeeklyMaintenanceWindowStart

The day and time of the week when weekly maintenance occurs on the described tracking server.

Type: String

Length Constraints: Maximum length of 9.

Pattern: (Mon|Tue|Wed|Thu|Fri|Sat|Sun):([01]\d|2[0-3]):([0-5]\d)

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)



- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeModel

Service: Amazon SageMaker Service

Describes a model that you created using the `CreateModel` API.

## Request Syntax

```
{
  "ModelName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ModelName

The name of the model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\ -a-zA-Z0-9]*[a-zA-Z0-9])?`

Required: Yes

## Response Syntax

```
{
  "Containers": [
    {
      "ContainerHostname": "string",
      "Environment": {
        "string": "string"
      },
      "Image": "string",
      "ImageConfig": {
        "RepositoryAccessMode": "string",
        "RepositoryAuthConfig": {
          "RepositoryCredentialsProviderArn": "string"
        }
      }
    }
  ]
}
```

```

    }
  },
  "InferenceSpecificationName": "string",
  "Mode": "string",
  "ModelDataSource": {
    "S3DataSource": {
      "CompressionType": "string",
      "HubAccessConfig": {
        "HubContentArn": "string"
      },
      "ModelAccessConfig": {
        "AcceptEula": boolean
      },
      "S3DataType": "string",
      "S3Uri": "string"
    }
  },
  "ModelDataUrl": "string",
  "ModelPackageName": "string",
  "MultiModelConfig": {
    "ModelCacheSetting": "string"
  }
}
],
"CreationTime": number,
"DeploymentRecommendation": {
  "RealTimeInferenceRecommendations": [
    {
      "Environment": {
        "string": "string"
      },
      "InstanceType": "string",
      "RecommendationId": "string"
    }
  ],
  "RecommendationStatus": "string"
},
"EnableNetworkIsolation": boolean,
"ExecutionRoleArn": "string",
"InferenceExecutionConfig": {
  "Mode": "string"
},
"ModelArn": "string",
"ModelName": "string",

```

```

"PrimaryContainer": {
  "ContainerHostname": "string",
  "Environment": {
    "string" : "string"
  },
  "Image": "string",
  "ImageConfig": {
    "RepositoryAccessMode": "string",
    "RepositoryAuthConfig": {
      "RepositoryCredentialsProviderArn": "string"
    }
  },
  "InferenceSpecificationName": "string",
  "Mode": "string",
  "ModelDataSource": {
    "S3DataSource": {
      "CompressionType": "string",
      "HubAccessConfig": {
        "HubContentArn": "string"
      },
      "ModelAccessConfig": {
        "AcceptEula": boolean
      },
      "S3DataType": "string",
      "S3Uri": "string"
    }
  },
  "ModelDataUrl": "string",
  "ModelPackageName": "string",
  "MultiModelConfig": {
    "ModelCacheSetting": "string"
  }
},
"VpcConfig": {
  "SecurityGroupIds": [ "string" ],
  "Subnets": [ "string" ]
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## Containers

The containers in the inference pipeline.

Type: Array of [ContainerDefinition](#) objects

Array Members: Maximum number of 15 items.

## CreationTime

A timestamp that shows when the model was created.

Type: Timestamp

## DeploymentRecommendation

A set of recommended deployment configurations for the model.

Type: [DeploymentRecommendation](#) object

## EnableNetworkIsolation

If True, no inbound or outbound network calls can be made to or from the model container.

Type: Boolean

## ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role that you specified for the model.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\ ]* :iam: :\d{12} :role/?[a-zA-Z_0-9+=,.\@\-\_/\ ]+$`

## InferenceExecutionConfig

Specifies details of how containers in a multi-container endpoint are called.

Type: [InferenceExecutionConfig](#) object

## ModelArn

The Amazon Resource Name (ARN) of the model.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:model/.*`

### ModelName

Name of the SageMaker model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\a-zA-Z0-9]*[a-zA-Z0-9] )?`

### PrimaryContainer

The location of the primary inference code, associated artifacts, and custom environment map that the inference code uses when it is deployed in production.

Type: [ContainerDefinition](#) object

### VpcConfig

A [VpcConfig](#) object that specifies the VPC that this model has access to. For more information, see [Protect Endpoints by Using an Amazon Virtual Private Cloud](#)

Type: [VpcConfig](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeModelBiasJobDefinition

Service: Amazon SageMaker Service

Returns a description of a model bias job definition.

## Request Syntax

```
{  
  "JobDefinitionName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobDefinitionName

The name of the model bias job definition. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{  
  "CreationTime": number,  
  "JobDefinitionArn": "string",  
  "JobDefinitionName": "string",  
  "JobResources": {  
    "ClusterConfig": {  
      "InstanceCount": number,  
      "InstanceType": "string",  
      "VolumeKmsKeyId": "string",  
      "VolumeSizeInGB": number    }  
  }
```



```

    }
  },
  "ModelBiasAppSpecification": {
    "ConfigUri": "string",
    "Environment": {
      "string": "string"
    },
    "ImageUri": "string"
  },
  "ModelBiasBaselineConfig": {
    "BaseliningJobName": "string",
    "ConstraintsResource": {
      "S3Uri": "string"
    }
  },
  "ModelBiasJobInput": {
    "BatchTransformInput": {
      "DataCapturedDestinationS3Uri": "string",
      "DatasetFormat": {
        "Csv": {
          "Header": boolean
        },
        "Json": {
          "Line": boolean
        },
        "Parquet": {
        }
      },
      "EndTimeOffset": "string",
      "ExcludeFeaturesAttribute": "string",
      "FeaturesAttribute": "string",
      "InferenceAttribute": "string",
      "LocalPath": "string",
      "ProbabilityAttribute": "string",
      "ProbabilityThresholdAttribute": number,
      "S3DataDistributionType": "string",
      "S3InputMode": "string",
      "StartTimeOffset": "string"
    },
    "EndpointInput": {
      "EndpointName": "string",
      "EndTimeOffset": "string",
      "ExcludeFeaturesAttribute": "string",
      "FeaturesAttribute": "string",

```

```

    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  },
  "GroundTruthS3Input": {
    "S3Uri": "string"
  }
},
"ModelBiasJobOutputConfig": {
  "KmsKeyId": "string",
  "MonitoringOutputs": [
    {
      "S3Output": {
        "LocalPath": "string",
        "S3UploadMode": "string",
        "S3Uri": "string"
      }
    }
  ]
},
"NetworkConfig": {
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableNetworkIsolation": boolean,
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  }
},
"RoleArn": "string",
"StoppingCondition": {
  "MaxRuntimeInSeconds": number
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The time at which the model bias job was created.

Type: Timestamp

### JobDefinitionArn

The Amazon Resource Name (ARN) of the model bias job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

### JobDefinitionName

The name of the bias job definition. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### JobResources

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources](#) object

### ModelBiasAppSpecification

Configures the model bias job to run a specified Docker container image.

Type: [ModelBiasAppSpecification](#) object

### ModelBiasBaselineConfig

The baseline configuration for a model bias job.

Type: [ModelBiasBaselineConfig](#) object

### ModelBiasJobInput

Inputs for the model bias job.

Type: [ModelBiasJobInput](#) object

### [ModelBiasJobOutputConfig](#)

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig](#) object

### [NetworkConfig](#)

Networking options for a model bias job.

Type: [MonitoringNetworkConfig](#) object

### [RoleArn](#)

The Amazon Resource Name (ARN) of the IAM role that has read permission to the input data location and write permission to the output data location in Amazon S3.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

### [StoppingCondition](#)

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeModelCard

Service: Amazon SageMaker Service

Describes the content, creation time, and security configuration of an Amazon SageMaker Model Card.

## Request Syntax

```
{  
  "ModelCardName": "string",  
  "ModelCardVersion": number  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ModelCardName

The name or Amazon Resource Name (ARN) of the model card to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: (arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:model-card/.\*)?  
([a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62})

Required: Yes

### ModelCardVersion

The version of the model card to describe. If a version is not provided, then the latest version of the model card is described.

Type: Integer

Required: No

## Response Syntax

```
{
  "Content": "string",
  "CreatedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "CreationTime": number,
  "LastModifiedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "LastModifiedTime": number,
  "ModelCardArn": "string",
  "ModelCardName": "string",
  "ModelCardProcessingStatus": "string",
  "ModelCardStatus": "string",
  "ModelCardVersion": number,
  "SecurityConfig": {
    "KmsKeyId": "string"
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## Content

The content of the model card.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100000.

Pattern: .\*

## CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

## CreationTime

The date and time the model card was created.

Type: Timestamp

## LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

## LastModifiedTime

The date and time the model card was last modified.

Type: Timestamp

## ModelCardArn

The Amazon Resource Name (ARN) of the model card.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`



## ModelCardName

The name of the model card.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

## ModelCardProcessingStatus

The processing status of model card deletion. The `ModelCardProcessingStatus` updates throughout the different deletion steps.

- `DeletePending`: Model card deletion request received.
- `DeleteInProgress`: Model card deletion is in progress.
- `ContentDeleted`: Deleted model card content.
- `ExportJobsDeleted`: Deleted all export jobs associated with the model card.
- `DeleteCompleted`: Successfully deleted the model card.
- `DeleteFailed`: The model card failed to delete.

Type: String

Valid Values: `DeleteInProgress` | `DeletePending` | `ContentDeleted` | `ExportJobsDeleted` | `DeleteCompleted` | `DeleteFailed`

## ModelCardStatus

The approval status of the model card within your organization. Different organizations might have different criteria for model card review and approval.

- `Draft`: The model card is a work in progress.
- `PendingReview`: The model card is pending review.
- `Approved`: The model card is approved.
- `Archived`: The model card is archived. No more updates should be made to the model card, but it can still be exported.

Type: String

Valid Values: `Draft` | `PendingReview` | `Approved` | `Archived`

## ModelCardVersion

The version of the model card.

Type: Integer

## SecurityConfig

The security configuration used to protect model card content.

Type: [ModelCardSecurityConfig](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeModelCardExportJob

Service: Amazon SageMaker Service

Describes an Amazon SageMaker Model Card export job.

## Request Syntax

```
{  
  "ModelCardExportJobArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [ModelCardExportJobArn](#)

The Amazon Resource Name (ARN) of the model card export job to describe.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}/export-job/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{  
  "CreatedAt": number,  
  "ExportArtifacts": {  
    "S3ExportArtifacts": "string"  
  },  
  "FailureReason": "string",  
  "LastModifiedAt": number,  
  "ModelCardExportJobArn": "string",
```

```
"ModelCardExportJobName": "string",
"ModelCardName": "string",
"ModelCardVersion": number,
"OutputConfig": {
  "S3OutputPath": "string"
},
"Status": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreatedAt

The date and time that the model export job was created.

Type: Timestamp

### ExportArtifacts

The exported model card artifacts.

Type: [ModelCardExportArtifacts](#) object

### FailureReason

The failure reason if the model export job fails.

Type: String

Length Constraints: Maximum length of 1024.

### LastModifiedAt

The date and time that the model export job was last modified.

Type: Timestamp

### ModelCardExportJobArn

The Amazon Resource Name (ARN) of the model card export job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]{9,16}:[\0-9]{12}:model-card/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}/export-job/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### ModelCardExportJobName

The name of the model card export job to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### ModelCardName

The name or Amazon Resource Name (ARN) of the model card that the model export job exports.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### ModelCardVersion

The version of the model card that the model export job exports.

Type: Integer

### OutputConfig

The export output details for the model card.

Type: [ModelCardExportOutputConfig](#) object

### Status

The completion status of the model card export job.

- **InProgress:** The model card export job is in progress.
- **Completed:** The model card export job is complete.

- **Failed:** The model card export job failed. To see the reason for the failure, see the `FailureReason` field in the response to a `DescribeModelCardExportJob` call.

Type: String

Valid Values: `InProgress` | `Completed` | `Failed`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeModelExplainabilityJobDefinition

Service: Amazon SageMaker Service

Returns a description of a model explainability job definition.

## Request Syntax

```
{
  "JobDefinitionName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobDefinitionName

The name of the model explainability job definition. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{
  "CreationTime": number,
  "JobDefinitionArn": "string",
  "JobDefinitionName": "string",
  "JobResources": {
    "ClusterConfig": {
      "InstanceCount": number,
      "InstanceType": "string",
      "VolumeKmsKeyId": "string",
      "VolumeSizeInGB": number
    }
  }
}
```

```

    }
  },
  "ModelExplainabilityAppSpecification": {
    "ConfigUri": "string",
    "Environment": {
      "string": "string"
    },
    "ImageUri": "string"
  },
  "ModelExplainabilityBaselineConfig": {
    "BaseliningJobName": "string",
    "ConstraintsResource": {
      "S3Uri": "string"
    }
  },
  "ModelExplainabilityJobInput": {
    "BatchTransformInput": {
      "DataCapturedDestinationS3Uri": "string",
      "DatasetFormat": {
        "Csv": {
          "Header": boolean
        },
        "Json": {
          "Line": boolean
        },
        "Parquet": {
        }
      },
      "EndTimeOffset": "string",
      "ExcludeFeaturesAttribute": "string",
      "FeaturesAttribute": "string",
      "InferenceAttribute": "string",
      "LocalPath": "string",
      "ProbabilityAttribute": "string",
      "ProbabilityThresholdAttribute": number,
      "S3DataDistributionType": "string",
      "S3InputMode": "string",
      "StartTimeOffset": "string"
    },
    "EndpointInput": {
      "EndpointName": "string",
      "EndTimeOffset": "string",
      "ExcludeFeaturesAttribute": "string",
      "FeaturesAttribute": "string",

```



```

    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  }
},
"ModelExplainabilityJobOutputConfig": {
  "KmsKeyId": "string",
  "MonitoringOutputs": [
    {
      "S3Output": {
        "LocalPath": "string",
        "S3UploadMode": "string",
        "S3Uri": "string"
      }
    }
  ]
},
"NetworkConfig": {
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableNetworkIsolation": boolean,
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  }
},
"RoleArn": "string",
"StoppingCondition": {
  "MaxRuntimeInSeconds": number
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The time at which the model explainability job was created.

Type: Timestamp

### JobDefinitionArn

The Amazon Resource Name (ARN) of the model explainability job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

### JobDefinitionName

The name of the explainability job definition. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### JobResources

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources](#) object

### ModelExplainabilityAppSpecification

Configures the model explainability job to run a specified Docker container image.

Type: [ModelExplainabilityAppSpecification](#) object

### ModelExplainabilityBaselineConfig

The baseline configuration for a model explainability job.

Type: [ModelExplainabilityBaselineConfig](#) object

### ModelExplainabilityJobInput

Inputs for the model explainability job.

Type: [ModelExplainabilityJobInput](#) object

## **ModelExplainabilityJobOutputConfig**

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig](#) object

## **NetworkConfig**

Networking options for a model explainability job.

Type: [MonitoringNetworkConfig](#) object

## **RoleArn**

The Amazon Resource Name (ARN) of the IAM role that has read permission to the input data location and write permission to the output data location in Amazon S3.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

## **StoppingCondition**

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition](#) object

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeModelPackage

Service: Amazon SageMaker Service

Returns a description of the specified model package, which is used to create SageMaker models or list them on AWS Marketplace.

## Important

If you provided a AWS KMS Key ID when you created your model package, you will see the [KMS Decrypt](#) API call in your CloudTrail logs when you use this API.

To create models in SageMaker, buyers can subscribe to model packages listed on AWS Marketplace.

## Request Syntax

```
{  
  "ModelPackageName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [ModelPackageName](#)

The name or Amazon Resource Name (ARN) of the model package to describe.

When you specify a name, the name must have 1 to 63 characters. Valid characters are a-z, A-Z, 0-9, and - (hyphen).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 176.

Pattern: (arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:[a-z\-\-]\*\/)?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!--)(\/[0-9]{1,5})?&

Required: Yes

## Response Syntax

```

{
  "AdditionalInferenceSpecifications": [
    {
      "Containers": [
        {
          "AdditionalS3DataSource": {
            "CompressionType": "string",
            "S3DataType": "string",
            "S3Uri": "string"
          },
          "ContainerHostname": "string",
          "Environment": {
            "string" : "string"
          },
          "Framework": "string",
          "FrameworkVersion": "string",
          "Image": "string",
          "ImageDigest": "string",
          "ModelDataSource": {
            "S3DataSource": {
              "CompressionType": "string",
              "HubAccessConfig": {
                "HubContentArn": "string"
              },
              "ModelAccessConfig": {
                "AcceptEula": boolean
              },
              "S3DataType": "string",
              "S3Uri": "string"
            }
          },
          "ModelDataUrl": "string",
          "ModelInput": {
            "DataInputConfig": "string"
          },
          "NearestModelName": "string",
          "ProductId": "string"
        }
      ],
      "Description": "string",
      "Name": "string",

```

```

    "SupportedContentTypes": [ "string" ],
    "SupportedRealtimeInferenceInstanceTypes": [ "string" ],
    "SupportedResponseMIMETypes": [ "string" ],
    "SupportedTransformInstanceTypes": [ "string" ]
  }
],
"ApprovalDescription": "string",
"CertifyForMarketplace": boolean,
"CreatedBy": {
  "DomainId": "string",
  "IamIdentity": {
    "Arn": "string",
    "PrincipalId": "string",
    "SourceIdentity": "string"
  },
  "UserProfileArn": "string",
  "UserProfileName": "string"
},
"CreationTime": number,
"CustomerMetadataProperties": {
  "string" : "string"
},
"Domain": "string",
"DriftCheckBaselines": {
  "Bias": {
    "ConfigFile": {
      "ContentDigest": "string",
      "ContentType": "string",
      "S3Uri": "string"
    },
    "PostTrainingConstraints": {
      "ContentDigest": "string",
      "ContentType": "string",
      "S3Uri": "string"
    },
    "PreTrainingConstraints": {
      "ContentDigest": "string",
      "ContentType": "string",
      "S3Uri": "string"
    }
  }
},
"Explainability": {
  "ConfigFile": {
    "ContentDigest": "string",

```

```

        "ContentType": "string",
        "S3Uri": "string"
    },
    "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
},
"ModelDataQuality": {
    "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    },
    "Statistics": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
},
"ModelQuality": {
    "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    },
    "Statistics": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
},
}
},
"InferenceSpecification": {
    "Containers": [
        {
            "AdditionalS3DataSource": {
                "CompressionType": "string",
                "S3DataType": "string",
                "S3Uri": "string"
            },
            "ContainerHostname": "string",
            "Environment": {

```



```

    "string" : "string"
  },
  "Framework": "string",
  "FrameworkVersion": "string",
  "Image": "string",
  "ImageDigest": "string",
  "ModelDataSource": {
    "S3DataSource": {
      "CompressionType": "string",
      "HubAccessConfig": {
        "HubContentArn": "string"
      },
      "ModelAccessConfig": {
        "AcceptEula": boolean
      },
      "S3DataType": "string",
      "S3Uri": "string"
    }
  },
  "ModelDataUrl": "string",
  "ModelInput": {
    "DataInputConfig": "string"
  },
  "NearestModelName": "string",
  "ProductId": "string"
}
],
"SupportedContentTypes": [ "string" ],
"SupportedRealtimeInferenceInstanceTypes": [ "string" ],
"SupportedResponseMIMETypes": [ "string" ],
"SupportedTransformInstanceTypes": [ "string" ]
},
"LastModifiedBy": {
  "DomainId": "string",
  "IamIdentity": {
    "Arn": "string",
    "PrincipalId": "string",
    "SourceIdentity": "string"
  },
  "UserProfileArn": "string",
  "UserProfileName": "string"
},
"LastModifiedTime": number,
"MetadataProperties": {

```

```

    "CommitId": "string",
    "GeneratedBy": "string",
    "ProjectId": "string",
    "Repository": "string"
  },
  "ModelApprovalStatus": "string",
  "ModelCard": {
    "ModelCardContent": "string",
    "ModelCardStatus": "string"
  },
  "ModelMetrics": {
    "Bias": {
      "PostTrainingReport": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
      },
      "PreTrainingReport": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
      },
      "Report": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
      }
    },
    "Explainability": {
      "Report": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
      }
    },
    "ModelDataQuality": {
      "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
      },
      "Statistics": {
        "ContentDigest": "string",
        "ContentType": "string",

```

```

        "S3Uri": "string"
    }
},
"ModelQuality": {
    "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    },
    "Statistics": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
}
},
"ModelPackageArn": "string",
"ModelPackageDescription": "string",
"ModelPackageGroupName": "string",
"ModelPackageName": "string",
"ModelPackageStatus": "string",
"ModelPackageStatusDetails": {
    "ImageScanStatuses": [
        {
            "FailureReason": "string",
            "Name": "string",
            "Status": "string"
        }
    ],
    "ValidationStatuses": [
        {
            "FailureReason": "string",
            "Name": "string",
            "Status": "string"
        }
    ]
}
},
"ModelPackageVersion": number,
"SamplePayloadUrl": "string",
"SecurityConfig": {
    "KmsKeyId": "string"
},
"SkipModelValidation": "string",
"SourceAlgorithmSpecification": {

```

```

    "SourceAlgorithms": [
      {
        "AlgorithmName": "string",
        "ModelDataSource": {
          "S3DataSource": {
            "CompressionType": "string",
            "HubAccessConfig": {
              "HubContentArn": "string"
            },
            "ModelAccessConfig": {
              "AcceptEula": boolean
            },
            "S3DataType": "string",
            "S3Uri": "string"
          }
        },
        "ModelDataUrl": "string"
      }
    ],
    "SourceUri": "string",
    "Task": "string",
    "ValidationSpecification": {
      "ValidationProfiles": [
        {
          "ProfileName": "string",
          "TransformJobDefinition": {
            "BatchStrategy": "string",
            "Environment": {
              "string": "string"
            },
            "MaxConcurrentTransforms": number,
            "MaxPayloadInMB": number,
            "TransformInput": {
              "CompressionType": "string",
              "ContentType": "string",
              "DataSource": {
                "S3DataSource": {
                  "S3DataType": "string",
                  "S3Uri": "string"
                }
              },
              "SplitType": "string"
            }
          }
        }
      ]
    }
  }
}

```

```
    "TransformOutput": {
      "Accept": "string",
      "AssembleWith": "string",
      "KmsKeyId": "string",
      "S3OutputPath": "string"
    },
    "TransformResources": {
      "InstanceCount": number,
      "InstanceType": "string",
      "VolumeKmsKeyId": "string"
    }
  }
],
"ValidationRole": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AdditionalInferenceSpecifications

An array of additional Inference Specification objects. Each additional Inference Specification specifies artifacts based on this model package that can be used on inference endpoints. Generally used with SageMaker Neo to store the compiled artifacts.

Type: Array of [AdditionalInferenceSpecificationDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 15 items.

### ApprovalDescription

A description provided for the model approval.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

## CertifyForMarketplace

Whether the model package is certified for listing on AWS Marketplace.

Type: Boolean

## CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

## CreationTime

A timestamp specifying when the model package was created.

Type: Timestamp

## CustomerMetadataProperties

The metadata properties associated with the model package versions.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern:  $^([\p{L}\p{Z}\p{N}_.\:/=+\-@]^*)\{1,128\}$

Value Length Constraints: Minimum length of 1. Maximum length of 256.

Value Pattern:  $^([\p{L}\p{Z}\p{N}_.\:/=+\-@]^*)\{1,256\}$

## Domain

The machine learning domain of the model package you specified. Common machine learning domains include computer vision and natural language processing.

Type: String

## DriftCheckBaselines

Represents the drift check baselines that can be used when the model monitor is set using the model package. For more information, see the topic on [Drift Detection against Previous Baselines in SageMaker Pipelines](#) in the *Amazon SageMaker Developer Guide*.

Type: [DriftCheckBaselines](#) object

### [InferenceSpecification](#)

Details about inference jobs that you can run with models based on this model package.

Type: [InferenceSpecification](#) object

### [LastModifiedBy](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

### [LastModifiedTime](#)

The last time that the model package was modified.

Type: Timestamp

### [MetadataProperties](#)

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties](#) object

### [ModelApprovalStatus](#)

The approval status of the model package.

Type: String

Valid Values: `Approved` | `Rejected` | `PendingManualApproval`

### [ModelCard](#)

The model card associated with the model package. Since `ModelPackageModelCard` is tied to a model package, it is a specific usage of a model card and its schema is simplified compared to the schema of `ModelCard`. The `ModelPackageModelCard` schema does not include `model_package_details`, and `model_overview` is composed of the `model_creator` and `model_artifact` properties. For more information about the model package model card schema, see [Model package model card schema](#). For more information about the model card associated with the model package, see [View the Details of a Model Version](#).

Type: [ModelPackageModelCard](#) object

## ModelMetrics

Metrics for the model.

Type: [ModelMetrics](#) object

## ModelPackageArn

The Amazon Resource Name (ARN) of the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9-]{9,16}:[0-9]{12}:model-package/[\S]{1,2048}$`

## ModelPackageDescription

A brief summary of the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

## ModelPackageGroupName

If the model is a versioned model, the name of the model group that the versioned model belongs to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

## ModelPackageName

The name of the model package being described.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.



Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### ModelPackageStatus

The current status of the model package.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting

### ModelPackageStatusDetails

Details about the current status of the model package.

Type: [ModelPackageStatusDetails](#) object

### ModelPackageVersion

The version of the model package.

Type: Integer

Valid Range: Minimum value of 1.

### SamplePayloadUrl

The Amazon Simple Storage Service (Amazon S3) path where the sample payload are stored. This path points to a single gzip compressed tar archive (.tar.gz suffix).

Type: String

### SecurityConfig

The AWS KMS Key ID (KMSKeyId) used for encryption of model package information.

Type: [ModelPackageSecurityConfig](#) object

### SkipModelValidation

Indicates if you want to skip model validation.

Type: String

Valid Values: All | None

### SourceAlgorithmSpecification

Details about the algorithm that was used to create the model package.

Type: [SourceAlgorithmSpecification](#) object

### SourceUri

The URI of the source for the model package.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{N}\p{P}]{0,1024}`

### Task

The machine learning task you specified that your model package accomplishes. Common machine learning tasks include object detection and image classification.

Type: String

### ValidationSpecification

Configurations for one or more transform jobs that SageMaker runs to test the model package.

Type: [ModelPackageValidationSpecification](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeModelPackageGroup

Service: Amazon SageMaker Service

Gets a description for the specified model group.

## Request Syntax

```
{  
  "ModelPackageName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ModelPackageName

The name of the model group to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: (arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:[a-z\-\]\*\V)?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!--)\$

Required: Yes

## Response Syntax

```
{  
  "CreatedBy": {  
    "DomainId": "string",  
    "IamIdentity": {  
      "Arn": "string",  
      "PrincipalId": "string",  
      "SourceIdentity": "string"  
    },  
    "UserProfileArn": "string",
```

```
    "UserProfileName": "string",
  },
  "CreationTime": number,
  "ModelPackageGroupArn": "string",
  "ModelPackageGroupDescription": "string",
  "ModelPackageGroupName": "string",
  "ModelPackageGroupStatus": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

### CreationTime

The time that the model group was created.

Type: Timestamp

### ModelPackageGroupArn

The Amazon Resource Name (ARN) of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9-]{9,16}:[0-9]{12}:model-package-group/[\\S]{1,2048}$`

### ModelPackageGroupDescription

A description of the model group.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

### ModelPackageGroupName

The name of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### ModelPackageGroupStatus

The status of the model group.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting | DeleteFailed

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

# DescribeModelQualityJobDefinition

Service: Amazon SageMaker Service

Returns a description of a model quality job definition.

## Request Syntax

```
{
  "JobDefinitionName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobDefinitionName

The name of the model quality job. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{
  "CreationTime": number,
  "JobDefinitionArn": "string",
  "JobDefinitionName": "string",
  "JobResources": {
    "ClusterConfig": {
      "InstanceCount": number,
      "InstanceType": "string",
      "VolumeKmsKeyId": "string",
      "VolumeSizeInGB": number
    }
  }
}
```



```

    }
  },
  "ModelQualityAppSpecification": {
    "ContainerArguments": [ "string" ],
    "ContainerEntrypoint": [ "string" ],
    "Environment": {
      "string": "string"
    },
    "ImageUri": "string",
    "PostAnalyticsProcessorSourceUri": "string",
    "ProblemType": "string",
    "RecordPreprocessorSourceUri": "string"
  },
  "ModelQualityBaselineConfig": {
    "BaseliningJobName": "string",
    "ConstraintsResource": {
      "S3Uri": "string"
    }
  },
  "ModelQualityJobInput": {
    "BatchTransformInput": {
      "DataCapturedDestinationS3Uri": "string",
      "DatasetFormat": {
        "Csv": {
          "Header": boolean
        },
        "Json": {
          "Line": boolean
        },
        "Parquet": {
        }
      },
      "EndTimeOffset": "string",
      "ExcludeFeaturesAttribute": "string",
      "FeaturesAttribute": "string",
      "InferenceAttribute": "string",
      "LocalPath": "string",
      "ProbabilityAttribute": "string",
      "ProbabilityThresholdAttribute": number,
      "S3DataDistributionType": "string",
      "S3InputMode": "string",
      "StartTimeOffset": "string"
    },
    "EndpointInput": {

```

```

    "EndpointName": "string",
    "EndTimeOffset": "string",
    "ExcludeFeaturesAttribute": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  },
  "GroundTruthS3Input": {
    "S3Uri": "string"
  }
},
"ModelQualityJobOutputConfig": {
  "KmsKeyId": "string",
  "MonitoringOutputs": [
    {
      "S3Output": {
        "LocalPath": "string",
        "S3UploadMode": "string",
        "S3Uri": "string"
      }
    }
  ]
},
"NetworkConfig": {
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableNetworkIsolation": boolean,
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  }
},
"RoleArn": "string",
"StoppingCondition": {
  "MaxRuntimeInSeconds": number
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The time at which the model quality job was created.

Type: Timestamp

### JobDefinitionArn

The Amazon Resource Name (ARN) of the model quality job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

### JobDefinitionName

The name of the quality job definition. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

### JobResources

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources](#) object

### ModelQualityAppSpecification

Configures the model quality job to run a specified Docker container image.

Type: [ModelQualityAppSpecification](#) object

### ModelQualityBaselineConfig

The baseline configuration for a model quality job.

Type: [ModelQualityBaselineConfig](#) object

### [ModelQualityJobInput](#)

Inputs for the model quality job.

Type: [ModelQualityJobInput](#) object

### [ModelQualityJobOutputConfig](#)

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig](#) object

### [NetworkConfig](#)

Networking options for a model quality job.

Type: [MonitoringNetworkConfig](#) object

### [RoleArn](#)

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

### [StoppingCondition](#)

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeMonitoringSchedule

Service: Amazon SageMaker Service

Describes the schedule for a monitoring job.

## Request Syntax

```
{
  "MonitoringScheduleName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MonitoringScheduleName

Name of a previously created monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{
  "CreationTime": number,
  "EndpointName": "string",
  "FailureReason": "string",
  "LastModifiedTime": number,
  "LastMonitoringExecutionSummary": {
    "CreationTime": number,
    "EndpointName": "string",
    "FailureReason": "string",
    "LastModifiedTime": number,
    "MonitoringExecutionStatus": "string",
    "MonitoringJobDefinitionName": "string",
  }
}
```

```

    "MonitoringScheduleName": "string",
    "MonitoringType": "string",
    "ProcessingJobArn": "string",
    "ScheduledTime": number
  },
  "MonitoringScheduleArn": "string",
  "MonitoringScheduleConfig": {
    "MonitoringJobDefinition": {
      "BaselineConfig": {
        "BaseliningJobName": "string",
        "ConstraintsResource": {
          "S3Uri": "string"
        },
        "StatisticsResource": {
          "S3Uri": "string"
        }
      },
      "Environment": {
        "string": "string"
      }
    },
    "MonitoringAppSpecification": {
      "ContainerArguments": [ "string" ],
      "ContainerEntrypoint": [ "string" ],
      "ImageUri": "string",
      "PostAnalyticsProcessorSourceUri": "string",
      "RecordPreprocessorSourceUri": "string"
    },
    "MonitoringInputs": [
      {
        "BatchTransformInput": {
          "DataCapturedDestinationS3Uri": "string",
          "DatasetFormat": {
            "Csv": {
              "Header": boolean
            },
            "Json": {
              "Line": boolean
            },
            "Parquet": {
            }
          },
          "EndTimeOffset": "string",
          "ExcludeFeaturesAttribute": "string",
          "FeaturesAttribute": "string",

```

```

        "InferenceAttribute": "string",
        "LocalPath": "string",
        "ProbabilityAttribute": "string",
        "ProbabilityThresholdAttribute": number,
        "S3DataDistributionType": "string",
        "S3InputMode": "string",
        "StartTimeOffset": "string"
    },
    "EndpointInput": {
        "EndpointName": "string",
        "EndTimeOffset": "string",
        "ExcludeFeaturesAttribute": "string",
        "FeaturesAttribute": "string",
        "InferenceAttribute": "string",
        "LocalPath": "string",
        "ProbabilityAttribute": "string",
        "ProbabilityThresholdAttribute": number,
        "S3DataDistributionType": "string",
        "S3InputMode": "string",
        "StartTimeOffset": "string"
    }
}
],
"MonitoringOutputConfig": {
    "KmsKeyId": "string",
    "MonitoringOutputs": [
        {
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ]
},
"MonitoringResources": {
    "ClusterConfig": {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    }
},
"NetworkConfig": {

```



```

    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
      "SecurityGroupIds": [ string ],
      "Subnets": [ string ]
    }
  },
  "RoleArn": string,
  "StoppingCondition": {
    "MaxRuntimeInSeconds": number
  }
},
"MonitoringJobDefinitionName": string,
"MonitoringType": string,
"ScheduleConfig": {
  "DataAnalysisEndTime": string,
  "DataAnalysisStartTime": string,
  "ScheduleExpression": string
}
},
"MonitoringScheduleName": string,
"MonitoringScheduleStatus": string,
"MonitoringType": string
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The time at which the monitoring job was created.

Type: Timestamp

### EndpointName

The name of the endpoint for the monitoring job.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

### FailureReason

A string, up to one KB in size, that contains the reason a monitoring job failed, if it failed.

Type: String

Length Constraints: Maximum length of 1024.

### LastModifiedTime

The time at which the monitoring job was last modified.

Type: Timestamp

### LastMonitoringExecutionSummary

Describes metadata on the last execution to run, if there was one.

Type: [MonitoringExecutionSummary](#) object

### MonitoringScheduleArn

The Amazon Resource Name (ARN) of the monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `.*`

### MonitoringScheduleConfig

The configuration object that specifies the monitoring schedule and defines the monitoring job.

Type: [MonitoringScheduleConfig](#) object

### MonitoringScheduleName

Name of the monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

## MonitoringScheduleStatus

The status of an monitoring job.

Type: String

Valid Values: Pending | Failed | Scheduled | Stopped

## MonitoringType

The type of the monitoring job that this schedule runs. This is one of the following values.

- DATA\_QUALITY - The schedule is for a data quality monitoring job.
- MODEL\_QUALITY - The schedule is for a model quality monitoring job.
- MODEL\_BIAS - The schedule is for a bias monitoring job.
- MODEL\_EXPLAINABILITY - The schedule is for an explainability monitoring job.

Type: String

Valid Values: DataQuality | ModelQuality | ModelBias | ModelExplainability

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeNotebookInstance

Service: Amazon SageMaker Service

Returns information about a notebook instance.

## Request Syntax

```
{  
  "NotebookInstanceName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### NotebookInstanceName

The name of the notebook instance that you want information about.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

## Response Syntax

```
{  
  "AcceleratorTypes": [ "string" ],  
  "AdditionalCodeRepositories": [ "string" ],  
  "CreationTime": number,  
  "DefaultCodeRepository": "string",  
  "DirectInternetAccess": "string",  
  "FailureReason": "string",  
  "InstanceMetadataServiceConfiguration": {  
    "MinimumInstanceMetadataServiceVersion": "string"  
  },  
}
```

```
"InstanceType": "string",
"KmsKeyId": "string",
"LastModifiedTime": number,
"NetworkInterfaceId": "string",
"NotebookInstanceArn": "string",
"NotebookInstanceLifecycleConfigName": "string",
"NotebookInstanceName": "string",
"NotebookInstanceStatus": "string",
"PlatformIdentifier": "string",
"RoleArn": "string",
"RootAccess": "string",
"SecurityGroups": [ "string" ],
"SubnetId": "string",
"Url": "string",
"VolumeSizeInGB": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AcceleratorTypes

A list of the Elastic Inference (EI) instance types associated with this notebook instance. Currently only one EI instance type can be associated with a notebook instance. For more information, see [Using Elastic Inference in Amazon SageMaker](#).

Type: Array of strings

Valid Values: ml.eia1.medium | ml.eia1.large | ml.eia1.xlarge | ml.eia2.medium | ml.eia2.large | ml.eia2.xlarge

### AdditionalCodeRepositories

An array of up to three Git repositories associated with the notebook instance. These can be either the names of Git repositories stored as resources in your account, or the URL of Git repositories in [AWS CodeCommit](#) or in any other Git repository. These repositories are cloned at the same level as the default repository of your notebook instance. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: Array of strings

Array Members: Maximum number of 3 items.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^https://([\^/]+)/?(.*)$|^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

### CreationTime

A timestamp. Use this parameter to return the time when the notebook instance was created

Type: Timestamp

### DefaultCodeRepository

The Git repository associated with the notebook instance as its default code repository. This can be either the name of a Git repository stored as a resource in your account, or the URL of a Git repository in [AWS CodeCommit](#) or in any other Git repository. When you open a notebook instance, it opens in the directory that contains this repository. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^https://([\^/]+)/?(.*)$|^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

### DirectInternetAccess

Describes whether SageMaker provides internet access to the notebook instance. If this value is set to *Disabled*, the notebook instance does not have internet access, and cannot connect to SageMaker training and endpoint services.

For more information, see [Notebook Instances Are Internet-Enabled by Default](#).

Type: String

Valid Values: Enabled | Disabled

### FailureReason

If status is Failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

## InstanceMetadataServiceConfiguration

Information on the IMDS configuration of the notebook instance

Type: [InstanceMetadataServiceConfiguration](#) object

## InstanceType

The type of ML compute instance running on the notebook instance.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.8xlarge | ml.m5d.12xlarge | ml.m5d.16xlarge | ml.m5d.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.inf1.xlarge | ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge | ml.p4d.24xlarge | ml.p4de.24xlarge | ml.p5.48xlarge | ml.m6i.large | ml.m6i.xlarge | ml.m6i.2xlarge | ml.m6i.4xlarge | ml.m6i.8xlarge | ml.m6i.12xlarge | ml.m6i.16xlarge | ml.m6i.24xlarge | ml.m6i.32xlarge | ml.m7i.large | ml.m7i.xlarge | ml.m7i.2xlarge | ml.m7i.4xlarge | ml.m7i.8xlarge | ml.m7i.12xlarge | ml.m7i.16xlarge | ml.m7i.24xlarge | ml.m7i.48xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge | ml.c7i.large | ml.c7i.xlarge | ml.c7i.2xlarge | ml.c7i.4xlarge | ml.c7i.8xlarge | ml.c7i.12xlarge



| ml.c7i.16xlarge | ml.c7i.24xlarge | ml.c7i.48xlarge | ml.r6i.large  
| ml.r6i.xlarge | ml.r6i.2xlarge | ml.r6i.4xlarge | ml.r6i.8xlarge |  
ml.r6i.12xlarge | ml.r6i.16xlarge | ml.r6i.24xlarge | ml.r6i.32xlarge  
| ml.r7i.large | ml.r7i.xlarge | ml.r7i.2xlarge | ml.r7i.4xlarge |  
ml.r7i.8xlarge | ml.r7i.12xlarge | ml.r7i.16xlarge | ml.r7i.24xlarge  
| ml.r7i.48xlarge | ml.m6id.large | ml.m6id.xlarge | ml.m6id.2xlarge |  
ml.m6id.4xlarge | ml.m6id.8xlarge | ml.m6id.12xlarge | ml.m6id.16xlarge  
| ml.m6id.24xlarge | ml.m6id.32xlarge | ml.c6id.large | ml.c6id.xlarge  
| ml.c6id.2xlarge | ml.c6id.4xlarge | ml.c6id.8xlarge | ml.c6id.12xlarge  
| ml.c6id.16xlarge | ml.c6id.24xlarge | ml.c6id.32xlarge |  
ml.r6id.large | ml.r6id.xlarge | ml.r6id.2xlarge | ml.r6id.4xlarge |  
ml.r6id.8xlarge | ml.r6id.12xlarge | ml.r6id.16xlarge | ml.r6id.24xlarge  
| ml.r6id.32xlarge | ml.g6.xlarge | ml.g6.2xlarge | ml.g6.4xlarge |  
ml.g6.8xlarge | ml.g6.12xlarge | ml.g6.16xlarge | ml.g6.24xlarge |  
ml.g6.48xlarge

### KmsKeyId

The AWS KMS key ID SageMaker uses to encrypt data when storing it on the ML storage volume attached to the instance.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

### LastModifiedTime

A timestamp. Use this parameter to retrieve the time when the notebook instance was last modified.

Type: Timestamp

### NetworkInterfaceId

The network interface IDs that SageMaker created at the time of creating the instance.

Type: String

### NotebookInstanceArn

The Amazon Resource Name (ARN) of the notebook instance.

Type: String

Length Constraints: Maximum length of 256.

### NotebookInstanceLifecycleConfigName

Returns the name of a notebook instance lifecycle configuration.

For information about notebook instance lifestyle configurations, see [Step 2.1: \(Optional\) Customize a Notebook Instance](#)

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

### NotebookInstanceName

The name of the SageMaker notebook instance.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

### NotebookInstanceStatus

The status of the notebook instance.

Type: String

Valid Values: Pending | InService | Stopping | Stopped | Failed | Deleting | Updating

### PlatformIdentifier

The platform identifier of the notebook instance runtime environment.

Type: String

Length Constraints: Maximum length of 15.

Pattern: `^(notebook-a11-v1|notebook-a12-v1|notebook-a12-v2)$`

## RoleArn

The Amazon Resource Name (ARN) of the IAM role associated with the instance.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

## RootAccess

Whether root access is enabled or disabled for users of the notebook instance.

### Note

Lifecycle configurations need root access to be able to set up a notebook instance. Because of this, lifecycle configurations associated with a notebook instance always run with root access even if you disable root access for users.

Type: String

Valid Values: Enabled | Disabled

## SecurityGroups

The IDs of the VPC security groups.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

## SubnetId

The ID of the VPC subnet.

Type: String

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

## Url

The URL that you use to connect to the Jupyter notebook that is running in your notebook instance.

Type: String

## VolumeSizeInGB

The size, in GB, of the ML storage volume attached to the notebook instance.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 16384.

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeNotebookInstanceLifecycleConfig

Service: Amazon SageMaker Service

Returns a description of a notebook instance lifecycle configuration.

For information about notebook instance lifestyle configurations, see [Step 2.1: \(Optional\) Customize a Notebook Instance](#).

## Request Syntax

```
{  
  "NotebookInstanceLifecycleConfigName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [NotebookInstanceLifecycleConfigName](#)

The name of the lifecycle configuration to describe.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

## Response Syntax

```
{  
  "CreationTime": number,  
  "LastModifiedTime": number,  
  "NotebookInstanceLifecycleConfigArn": "string",  
  "NotebookInstanceLifecycleConfigName": "string",  
  "OnCreate": [  
    {
```

```
    "Content": "string"
  }
],
"OnStart": [
  {
    "Content": "string"
  }
]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

A timestamp that tells when the lifecycle configuration was created.

Type: Timestamp

### LastModifiedTime

A timestamp that tells when the lifecycle configuration was last modified.

Type: Timestamp

### NotebookInstanceLifecycleConfigArn

The Amazon Resource Name (ARN) of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 256.

### NotebookInstanceLifecycleConfigName

The name of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

## OnCreate

The shell script that runs only once, when you create a notebook instance.

Type: Array of [NotebookInstanceLifecycleHook](#) objects

Array Members: Maximum number of 1 item.

## OnStart

The shell script that runs every time you start a notebook instance, including when you create the notebook instance.

Type: Array of [NotebookInstanceLifecycleHook](#) objects

Array Members: Maximum number of 1 item.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribePipeline

Service: Amazon SageMaker Service

Describes the details of a pipeline.

## Request Syntax

```
{
  "PipelineName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### PipelineName

The name or Amazon Resource Name (ARN) of the pipeline to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: (arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:pipeline/.\*)?([a-zA-Z0-9](-\*[a-zA-Z0-9]){0,255})

Required: Yes

## Response Syntax

```
{
  "CreatedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    }
  },
}
```



```

    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "CreationTime": number,
  "LastModifiedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "LastModifiedTime": number,
  "LastRunTime": number,
  "ParallelismConfiguration": {
    "MaxParallelExecutionSteps": number
  },
  "PipelineArn": "string",
  "PipelineDefinition": "string",
  "PipelineDescription": "string",
  "PipelineDisplayName": "string",
  "PipelineName": "string",
  "PipelineStatus": "string",
  "RoleArn": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

### CreationTime

The time when the pipeline was created.

Type: Timestamp

### LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

### LastModifiedTime

The time when the pipeline was last modified.

Type: Timestamp

### LastRunTime

The time when the pipeline was last run.

Type: Timestamp

### ParallelismConfiguration

Lists the parallelism configuration applied to the pipeline.

Type: [ParallelismConfiguration](#) object

### PipelineArn

The Amazon Resource Name (ARN) of the pipeline.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:pipeline/.*`

### PipelineDefinition

The JSON pipeline definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1048576.

Pattern: `.*(?:[\r\n\t]).*`

## PipelineDescription

The description of the pipeline.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: .\*

## PipelineDisplayName

The display name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

## PipelineName

The name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

## PipelineStatus

The status of the pipeline execution.

Type: String

Valid Values: Active | Deleting

## RoleArn

The Amazon Resource Name (ARN) that the pipeline uses to execute.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@\_\/]]+$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribePipelineDefinitionForExecution

Service: Amazon SageMaker Service

Describes the details of an execution's pipeline definition.

## Request Syntax

```
{  
  "PipelineExecutionArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [PipelineExecutionArn](#)

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:pipeline\./.*\./execution\./.*$`

Required: Yes

## Response Syntax

```
{  
  "CreationTime": number,  
  "PipelineDefinition": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The time when the pipeline was created.

Type: Timestamp

### PipelineDefinition

The JSON pipeline definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1048576.

Pattern: `.*(?:[ \r\n\t].*)*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribePipelineExecution

Service: Amazon SageMaker Service

Describes the details of a pipeline execution.

## Request Syntax

```
{  
  "PipelineExecutionArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### PipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:pipeline\./.*\./execution\./.*$`

Required: Yes

## Response Syntax

```
{  
  "CreatedBy": {  
    "DomainId": "string",  
    "IamIdentity": {  
      "Arn": "string",  
      "PrincipalId": "string",  
      "SourceIdentity": "string"  
    },  
  },  
}
```



```

    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "CreationTime": number,
  "FailureReason": "string",
  "LastModifiedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    }
  },
  "UserProfileArn": "string",
  "UserProfileName": "string"
},
"LastModifiedTime": number,
"ParallelismConfiguration": {
  "MaxParallelExecutionSteps": number
},
"PipelineArn": "string",
"PipelineExecutionArn": "string",
"PipelineExecutionDescription": "string",
"PipelineExecutionDisplayName": "string",
"PipelineExecutionStatus": "string",
"PipelineExperimentConfig": {
  "ExperimentName": "string",
  "TrialName": "string"
},
"SelectiveExecutionConfig": {
  "SelectedSteps": [
    {
      "StepName": "string"
    }
  ],
  "SourcePipelineExecutionArn": "string"
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

### CreationTime

The time when the pipeline execution was created.

Type: Timestamp

### FailureReason

If the execution failed, a message describing why.

Type: String

Length Constraints: Maximum length of 1300.

Pattern: .\*

### LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

### LastModifiedTime

The time when the pipeline execution was modified last.

Type: Timestamp

### ParallelismConfiguration

The parallelism configuration applied to the pipeline.

Type: [ParallelismConfiguration](#) object

### PipelineArn

The Amazon Resource Name (ARN) of the pipeline.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:pipeline/.*`

### PipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:pipeline\/.*\ execution\/.*$`

### PipelineExecutionDescription

The description of the pipeline execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: `.*`

### PipelineExecutionDisplayName

The display name of the pipeline execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,81}`

### PipelineExecutionStatus

The status of the pipeline execution.

Type: String

Valid Values: `Executing | Stopping | Stopped | Failed | Succeeded`

### PipelineExperimentConfig

Specifies the names of the experiment and trial created by a pipeline.

Type: [PipelineExperimentConfig](#) object

## [SelectiveExecutionConfig](#)

The selective execution configuration applied to the pipeline run.

Type: [SelectiveExecutionConfig](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeProcessingJob

Service: Amazon SageMaker Service

Returns a description of a processing job.

## Request Syntax

```
{  
  "ProcessingJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ProcessingJobName

The name of the processing job. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{  
  "AppSpecification": {  
    "ContainerArguments": [ "string" ],  
    "ContainerEntrypoint": [ "string" ],  
    "ImageUri": "string"  
  },  
  "AutoMLJobArn": "string",  
  "CreationTime": number,  
  "Environment": {  
    "string": "string"  
  }  
}
```

```

},
"ExitMessage": "string",
"ExperimentConfig": {
  "ExperimentName": "string",
  "RunName": "string",
  "TrialComponentDisplayName": "string",
  "TrialName": "string"
},
"FailureReason": "string",
"LastModifiedTime": number,
"MonitoringScheduleArn": "string",
"NetworkConfig": {
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableNetworkIsolation": boolean,
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  }
},
"ProcessingEndTime": number,
"ProcessingInputs": [
  {
    "AppManaged": boolean,
    "DatasetDefinition": {
      "AthenaDatasetDefinition": {
        "Catalog": "string",
        "Database": "string",
        "KmsKeyId": "string",
        "OutputCompression": "string",
        "OutputFormat": "string",
        "OutputS3Uri": "string",
        "QueryString": "string",
        "WorkGroup": "string"
      },
      "DataDistributionType": "string",
      "InputMode": "string",
      "LocalPath": "string",
      "RedshiftDatasetDefinition": {
        "ClusterId": "string",
        "ClusterRoleArn": "string",
        "Database": "string",
        "DbUser": "string",
        "KmsKeyId": "string",
        "OutputCompression": "string",

```

```

        "OutputFormat": "string",
        "OutputS3Uri": "string",
        "QueryString": "string"
    }
},
"InputName": "string",
"S3Input": {
    "LocalPath": "string",
    "S3CompressionType": "string",
    "S3DataDistributionType": "string",
    "S3DataType": "string",
    "S3InputMode": "string",
    "S3Uri": "string"
}
],
"ProcessingJobArn": "string",
"ProcessingJobName": "string",
"ProcessingJobStatus": "string",
"ProcessingOutputConfig": {
    "KmsKeyId": "string",
    "Outputs": [
        {
            "AppManaged": boolean,
            "FeatureStoreOutput": {
                "FeatureGroupName": "string"
            },
            "OutputName": "string",
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ]
},
"ProcessingResources": {
    "ClusterConfig": {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    }
},

```

```
"ProcessingStartTime": number,
"RoleArn": "string",
"StoppingCondition": {
  "MaxRuntimeInSeconds": number
},
"TrainingJobArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AppSpecification

Configures the processing job to run a specified container image.

Type: [AppSpecification](#) object

### AutoMLJobArn

The ARN of an AutoML job associated with this processing job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:automl-job/.*`

### CreationTime

The time at which the processing job was created.

Type: Timestamp

### Environment

The environment variables set in the Docker container.

Type: String to string map

Map Entries: Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.



Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 256.

Value Pattern: `[\S\s]*`

### ExitMessage

An optional string, up to one KB in size, that contains metadata from the processing container when the processing job exits.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\S\s]*`

### ExperimentConfig

The configuration information used to create an experiment.

Type: [ExperimentConfig](#) object

### FailureReason

A string, up to one KB in size, that contains the reason a processing job failed, if it failed.

Type: String

Length Constraints: Maximum length of 1024.

### LastModifiedTime

The time at which the processing job was last modified.

Type: Timestamp

### MonitoringScheduleArn

The ARN of a monitoring schedule for an endpoint associated with this processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `.*`

## NetworkConfig

Networking options for a processing job.

Type: [NetworkConfig](#) object

## ProcessingEndTime

The time at which the processing job completed.

Type: Timestamp

## ProcessingInputs

The inputs for a processing job.

Type: Array of [ProcessingInput](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

## ProcessingJobArn

The Amazon Resource Name (ARN) of the processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:processing-job/.*`

## ProcessingJobName

The name of the processing job. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

## ProcessingJobStatus

Provides the status of a processing job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

### ProcessingOutputConfig

Output configuration for the processing job.

Type: [ProcessingOutputConfig](#) object

### ProcessingResources

Identifies the resources, ML compute instances, and ML storage volumes to deploy for a processing job. In distributed training, you specify more than one instance.

Type: [ProcessingResources](#) object

### ProcessingStartTime

The time at which the processing job started.

Type: Timestamp

### RoleArn

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

### StoppingCondition

The time limit for how long the processing job is allowed to run.

Type: [ProcessingStoppingCondition](#) object

### TrainingJobArn

The ARN of a training job associated with this processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*:sagemaker:[a-z0-9\-*:][0-9]{12}:training-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeProject

Service: Amazon SageMaker Service

Describes the details of a project.

## Request Syntax

```
{  
  "ProjectName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ProjectName

The name of the project to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

## Response Syntax

```
{  
  "CreatedBy": {  
    "DomainId": "string",  
    "IamIdentity": {  
      "Arn": "string",  
      "PrincipalId": "string",  
      "SourceIdentity": "string"  
    },  
    "UserProfileArn": "string",  
    "UserProfileName": "string"  
  },  
}
```

```

"CreationTime": number,
"LastModifiedBy": {
  "DomainId": "string",
  "IamIdentity": {
    "Arn": "string",
    "PrincipalId": "string",
    "SourceIdentity": "string"
  },
  "UserProfileArn": "string",
  "UserProfileName": "string"
},
"LastModifiedTime": number,
"ProjectArn": "string",
"ProjectDescription": "string",
"ProjectId": "string",
"ProjectName": "string",
"ProjectStatus": "string",
"ServiceCatalogProvisionedProductDetails": {
  "ProvisionedProductId": "string",
  "ProvisionedProductStatusMessage": "string"
},
"ServiceCatalogProvisioningDetails": {
  "PathId": "string",
  "ProductId": "string",
  "ProvisioningArtifactId": "string",
  "ProvisioningParameters": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

### CreationTime

The time when the project was created.

Type: Timestamp

### LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

### LastModifiedTime

The timestamp when project was last modified.

Type: Timestamp

### ProjectArn

The Amazon Resource Name (ARN) of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:project/[\S]{1,2048}$`

### ProjectDescription

The description of the project.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

### ProjectId

The ID of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

### **ProjectName**

The name of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

### **ProjectStatus**

The status of the project.

Type: String

Valid Values: Pending | CreateInProgress | CreateCompleted | CreateFailed | DeleteInProgress | DeleteFailed | DeleteCompleted | UpdateInProgress | UpdateCompleted | UpdateFailed

### **ServiceCatalogProvisionedProductDetails**

Information about a provisioned service catalog product.

Type: [ServiceCatalogProvisionedProductDetails](#) object

### **ServiceCatalogProvisioningDetails**

Information used to provision a service catalog product. For information, see [What is AWS Service Catalog](#).

Type: [ServiceCatalogProvisioningDetails](#) object

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeSpace

Service: Amazon SageMaker Service

Describes the space.

## Request Syntax

```
{  
  "DomainId": "string",  
  "SpaceName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DomainId

The ID of the associated domain.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-( -*[a-z0-9]){1,61}`

Required: Yes

### SpaceName

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( -*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{
  "CreationTime": number,
  "DomainId": "string",
  "FailureReason": "string",
  "HomeEfsFileSystemUid": "string",
  "LastModifiedTime": number,
  "OwnershipSettings": {
    "OwnerUserProfileName": "string"
  },
  "SpaceArn": "string",
  "SpaceDisplayName": "string",
  "SpaceName": "string",
  "SpaceSettings": {
    "AppType": "string",
    "CodeEditorAppSettings": {
      "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionAlias": "string",
        "SageMakerImageVersionArn": "string"
      }
    }
  },
  "CustomFileSystems": [
    { ... }
  ],
  "JupyterLabAppSettings": {
    "CodeRepositories": [
      {
        "RepositoryUrl": "string"
      }
    ]
  },
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  }
},
  "JupyterServerAppSettings": {
```

```

    "CodeRepositories": [
      {
        "RepositoryUrl": "string"
      }
    ],
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
  },
  "KernelGatewayAppSettings": {
    "CustomImages": [
      {
        "AppImageConfigName": "string",
        "ImageName": "string",
        "ImageVersionNumber": number
      }
    ],
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
  },
  "SpaceStorageSettings": {
    "EbsStorageSettings": {
      "EbsVolumeSizeInGb": number
    }
  }
},
"SpaceSharingSettings": {
  "SharingType": "string"
},
"Status": "string",
"Url": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The creation time.

Type: Timestamp

### DomainId

The ID of the associated domain.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-( -*[a-z0-9]){1,61}`

### FailureReason

The failure reason.

Type: String

Length Constraints: Maximum length of 1024.

### HomeEfsFileSystemUid

The ID of the space's profile in the Amazon EFS volume.

Type: String

Length Constraints: Maximum length of 10.

Pattern: `\d+`

### LastModifiedTime

The last modified time.

Type: Timestamp

## OwnershipSettings

The collection of ownership settings for a space.

Type: [OwnershipSettings](#) object

## SpaceArn

The space's Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:space/.*`

## SpaceDisplayName

The name of the space that appears in the Amazon SageMaker Studio UI.

Type: String

Length Constraints: Maximum length of 64.

Pattern: `^(?!\\s*$).+`

## SpaceName

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

## SpaceSettings

A collection of space settings.

Type: [SpaceSettings](#) object

## SpaceSharingSettings

The collection of space sharing settings for a space.

Type: [SpaceSharingSettings](#) object

## Status

The status.

Type: String

Valid Values: Deleting | Failed | InService | Pending | Updating | Update\_Failed | Delete\_Failed

## Url

Returns the URL of the space. If the space is created with AWS IAM Identity Center (Successor to AWS Single Sign-On) authentication, users can navigate to the URL after appending the respective redirect parameter for the application type to be federated through AWS IAM Identity Center.

The following application types are supported:

- Studio Classic: `&redirect=JupyterServer`
- JupyterLab: `&redirect=JupyterLab`
- Code Editor, based on Code-OSS, Visual Studio Code - Open Source: `&redirect=CodeEditor`

Type: String

Length Constraints: Maximum length of 1024.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DescribeStudioLifecycleConfig

Service: Amazon SageMaker Service

Describes the Amazon SageMaker Studio Lifecycle Configuration.

## Request Syntax

```
{
  "StudioLifecycleConfigName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### StudioLifecycleConfigName

The name of the Amazon SageMaker Studio Lifecycle Configuration to describe.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{
  "CreationTime": number,
  "LastModifiedTime": number,
  "StudioLifecycleConfigAppType": "string",
  "StudioLifecycleConfigArn": "string",
  "StudioLifecycleConfigContent": "string",
  "StudioLifecycleConfigName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The creation time of the Amazon SageMaker Studio Lifecycle Configuration.

Type: Timestamp

### LastModifiedTime

This value is equivalent to CreationTime because Amazon SageMaker Studio Lifecycle Configurations are immutable.

Type: Timestamp

### StudioLifecycleConfigAppType

The App type that the Lifecycle Configuration is attached to.

Type: String

Valid Values: JupyterServer | KernelGateway | CodeEditor | JupyterLab

### StudioLifecycleConfigArn

The ARN of the Lifecycle Configuration to describe.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:studio-lifecycle-config/.*`

### StudioLifecycleConfigContent

The content of your Amazon SageMaker Studio Lifecycle Configuration script.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16384.

Pattern: `[\S\s]+`

### StudioLifecycleConfigName

The name of the Amazon SageMaker Studio Lifecycle Configuration that is described.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeSubscribedWorkteam

Service: Amazon SageMaker Service

Gets information about a work team provided by a vendor. It returns details about the subscription with a vendor in the AWS Marketplace.

## Request Syntax

```
{
  "WorkteamArn": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### WorkteamArn

The Amazon Resource Name (ARN) of the subscribed work team to describe.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:workteam/.*`

Required: Yes

## Response Syntax

```
{
  "SubscribedWorkteam": {
    "ListingId": "string",
    "MarketplaceDescription": "string",
    "MarketplaceTitle": "string",
    "SellerName": "string",
    "WorkteamArn": "string"
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### SubscribedWorkteam

A Workteam instance that contains information about the work team.

Type: [SubscribedWorkteam](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeTrainingJob

Service: Amazon SageMaker Service

Returns information about a training job.

Some of the attributes below only appear if the training job successfully starts. If the training job fails, `TrainingJobStatus` is `Failed` and, depending on the `FailureReason`, attributes like `TrainingStartTime`, `TrainingTimeInSeconds`, `TrainingEndTime`, and `BillableTimeInSeconds` may not be present in the response.

## Request Syntax

```
{
  "TrainingJobName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### TrainingJobName

The name of the training job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{
  "AlgorithmSpecification": {
    "AlgorithmName": "string",
    "ContainerArguments": [ "string" ],
    "ContainerEntrypoint": [ "string" ],
    "EnableSageMakerMetricsTimeSeries": boolean,
```

```

    "MetricDefinitions": [
      {
        "Name": "string",
        "Regex": "string"
      }
    ],
    "TrainingImage": "string",
    "TrainingImageConfig": {
      "TrainingRepositoryAccessMode": "string",
      "TrainingRepositoryAuthConfig": {
        "TrainingRepositoryCredentialsProviderArn": "string"
      }
    },
    "TrainingInputMode": "string"
  },
  "AutoMLJobArn": "string",
  "BillableTimeInSeconds": number,
  "CheckpointConfig": {
    "LocalPath": "string",
    "S3Uri": "string"
  },
  "CreationTime": number,
  "DebugHookConfig": {
    "CollectionConfigurations": [
      {
        "CollectionName": "string",
        "CollectionParameters": {
          "string": "string"
        }
      }
    ],
    "HookParameters": {
      "string": "string"
    },
    "LocalPath": "string",
    "S3OutputPath": "string"
  },
  "DebugRuleConfigurations": [
    {
      "InstanceType": "string",
      "LocalPath": "string",
      "RuleConfigurationName": "string",
      "RuleEvaluatorImage": "string",
      "RuleParameters": {

```

```

        "string" : "string"
    },
    "S3OutputPath": "string",
    "VolumeSizeInGB": number
}
],
"DebugRuleEvaluationStatuses": [
{
    "LastModifiedTime": number,
    "RuleConfigurationName": "string",
    "RuleEvaluationJobArn": "string",
    "RuleEvaluationStatus": "string",
    "StatusDetails": "string"
}
],
"EnableInterContainerTrafficEncryption": boolean,
"EnableManagedSpotTraining": boolean,
"EnableNetworkIsolation": boolean,
"Environment": {
    "string" : "string"
},
"ExperimentConfig": {
    "ExperimentName": "string",
    "RunName": "string",
    "TrialComponentDisplayName": "string",
    "TrialName": "string"
},
"FailureReason": "string",
"FinalMetricDataList": [
{
    "MetricName": "string",
    "Timestamp": number,
    "Value": number
}
],
"HyperParameters": {
    "string" : "string"
},
"InfraCheckConfig": {
    "EnableInfraCheck": boolean
},
"InputDataConfig": [
{
    "ChannelName": "string",

```



```

    "CompressionType": "string",
    "ContentType": "string",
    "DataSource": {
      "FileSystemDataSource": {
        "DirectoryPath": "string",
        "FileSystemAccessMode": "string",
        "FileSystemId": "string",
        "FileSystemType": "string"
      },
      "S3DataSource": {
        "AttributeNames": [ "string" ],
        "InstanceGroupNames": [ "string" ],
        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
      }
    },
    "InputMode": "string",
    "RecordWrapperType": "string",
    "ShuffleConfig": {
      "Seed": number
    }
  }
],
"LabelingJobArn": "string",
"LastModifiedTime": number,
"ModelArtifacts": {
  "S3ModelArtifacts": "string"
},
"OutputDataConfig": {
  "CompressionType": "string",
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
"ProfilerConfig": {
  "DisableProfiler": boolean,
  "ProfilingIntervalInMilliseconds": number,
  "ProfilingParameters": {
    "string": "string"
  },
  "S3OutputPath": "string"
},
"ProfilerRuleConfigurations": [
  {

```

```

    "InstanceType": "string",
    "LocalPath": "string",
    "RuleConfigurationName": "string",
    "RuleEvaluatorImage": "string",
    "RuleParameters": {
      "string": "string"
    },
    "S3OutputPath": "string",
    "VolumeSizeInGB": number
  }
],
"ProfilerRuleEvaluationStatuses": [
  {
    "LastModifiedTime": number,
    "RuleConfigurationName": "string",
    "RuleEvaluationJobArn": "string",
    "RuleEvaluationStatus": "string",
    "StatusDetails": "string"
  }
],
"ProfilingStatus": "string",
"RemoteDebugConfig": {
  "EnableRemoteDebug": boolean
},
"ResourceConfig": {
  "InstanceCount": number,
  "InstanceGroups": [
    {
      "InstanceCount": number,
      "InstanceGroupName": "string",
      "InstanceType": "string"
    }
  ],
  "InstanceType": "string",
  "KeepAlivePeriodInSeconds": number,
  "VolumeKmsKeyId": "string",
  "VolumeSizeInGB": number
},
"RetryStrategy": {
  "MaximumRetryAttempts": number
},
"RoleArn": "string",
"SecondaryStatus": "string",
"SecondaryStatusTransitions": [

```

```

    {
      "EndTime": number,
      "StartTime": number,
      "Status": "string",
      "StatusMessage": "string"
    }
  ],
  "StoppingCondition": {
    "MaxPendingTimeInSeconds": number,
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
  },
  "TensorBoardOutputConfig": {
    "LocalPath": "string",
    "S3OutputPath": "string"
  },
  "TrainingEndTime": number,
  "TrainingJobArn": "string",
  "TrainingJobName": "string",
  "TrainingJobStatus": "string",
  "TrainingStartTime": number,
  "TrainingTimeInSeconds": number,
  "TuningJobArn": "string",
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  },
  "WarmPoolStatus": {
    "ResourceRetainedBillableTimeInSeconds": number,
    "ReusedByJob": "string",
    "Status": "string"
  }
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AlgorithmSpecification

Information about the algorithm used for training, and algorithm metadata.

Type: [AlgorithmSpecification](#) object

### [AutoMLJobArn](#)

The Amazon Resource Name (ARN) of an AutoML job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:automl-job/.*`

### [BillableTimeInSeconds](#)

The billable time in seconds. Billable time refers to the absolute wall-clock time.

Multiply `BillableTimeInSeconds` by the number of instances (`InstanceCount`) in your training cluster to get the total compute time SageMaker bills you if you run distributed training. The formula is as follows: `BillableTimeInSeconds * InstanceCount`.

You can calculate the savings from using managed spot training using the formula  $(1 - \text{BillableTimeInSeconds} / \text{TrainingTimeInSeconds}) * 100$ . For example, if `BillableTimeInSeconds` is 100 and `TrainingTimeInSeconds` is 500, the savings is 80%.

Type: Integer

Valid Range: Minimum value of 1.

### [CheckpointConfig](#)

Contains information about the output location for managed spot training checkpoint data.

Type: [CheckpointConfig](#) object

### [CreationTime](#)

A timestamp that indicates when the training job was created.

Type: Timestamp

### [DebugHookConfig](#)

Configuration information for the Amazon SageMaker Debugger hook parameters, metric and tensor collections, and storage paths. To learn more about how to configure the

`DebugHookConfig` parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

Type: [DebugHookConfig](#) object

### [DebugRuleConfigurations](#)

Configuration information for Amazon SageMaker Debugger rules for debugging output tensors.

Type: Array of [DebugRuleConfiguration](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

### [DebugRuleEvaluationStatuses](#)

Evaluation status of Amazon SageMaker Debugger rules for debugging on a training job.

Type: Array of [DebugRuleEvaluationStatus](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

### [EnableInterContainerTrafficEncryption](#)

To encrypt all communications between ML compute instances in distributed training, choose `True`. Encryption provides greater security for distributed training, but training might take longer. How long it takes depends on the amount of communication between compute instances, especially if you use a deep learning algorithms in distributed training.

Type: Boolean

### [EnableManagedSpotTraining](#)

A Boolean indicating whether managed spot training is enabled (`True`) or not (`False`).

Type: Boolean

### [EnableNetworkIsolation](#)

If you want to allow inbound or outbound network calls, except for calls between peers within a training cluster for distributed training, choose `True`. If you enable network isolation for training jobs that are configured to use a VPC, SageMaker downloads and uploads customer data and model artifacts through the specified VPC, but the training container does not have network access.

Type: Boolean

### Environment

The environment variables to set in the Docker container.

Type: String to string map

Map Entries: Maximum number of 100 items.

Key Length Constraints: Maximum length of 512.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 512.

Value Pattern: `[\S\s]*`

### ExperimentConfig

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob](#)
- [CreateTrainingJob](#)
- [CreateTransformJob](#)

Type: [ExperimentConfig](#) object

### FailureReason

If the training job failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

### FinalMetricDataList

A collection of [MetricData](#) objects that specify the names, values, and dates and times that the training algorithm emitted to Amazon CloudWatch.

Type: Array of [MetricData](#) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

## HyperParameters

Algorithm-specific parameters.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 2500.

Value Pattern: .\*

## InfraCheckConfig

Contains information about the infrastructure health check configuration for the training job.

Type: [InfraCheckConfig](#) object

## InputDataConfig

An array of [Channel](#) objects that describes each data input channel.

Type: Array of [Channel](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

## LabelingJobArn

The Amazon Resource Name (ARN) of the SageMaker Ground Truth labeling job that created the transform or training job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:labeling-job/.\*

## LastModifiedTime

A timestamp that indicates when the status of the training job was last modified.

Type: Timestamp

### **ModelArtifacts**

Information about the Amazon S3 location that is configured for storing model artifacts.

Type: [ModelArtifacts](#) object

### **OutputDataConfig**

The S3 path where model artifacts that you configured when creating the job are stored. SageMaker creates subfolders for model artifacts.

Type: [OutputDataConfig](#) object

### **ProfilerConfig**

Configuration information for Amazon SageMaker Debugger system monitoring, framework profiling, and storage paths.

Type: [ProfilerConfig](#) object

### **ProfilerRuleConfigurations**

Configuration information for Amazon SageMaker Debugger rules for profiling system and framework metrics.

Type: Array of [ProfilerRuleConfiguration](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

### **ProfilerRuleEvaluationStatuses**

Evaluation status of Amazon SageMaker Debugger rules for profiling on a training job.

Type: Array of [ProfilerRuleEvaluationStatus](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

### **ProfilingStatus**

Profiling status of a training job.

Type: String

Valid Values: Enabled | Disabled



## RemoteDebugConfig

Configuration for remote debugging. To learn more about the remote debugging functionality of SageMaker, see [Access a training container through AWS Systems Manager \(SSM\) for remote debugging](#).

Type: [RemoteDebugConfig](#) object

## ResourceConfig

Resources, including ML compute instances and ML storage volumes, that are configured for model training.

Type: [ResourceConfig](#) object

## RetryStrategy

The number of times to retry the job when the job fails due to an `InternalServerError`.

Type: [RetryStrategy](#) object

## RoleArn

The AWS Identity and Access Management (IAM) role configured for the training job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

## SecondaryStatus

Provides detailed information about the state of the training job. For detailed information on the secondary status of the training job, see `StatusMessage` under [SecondaryStatusTransition](#).

SageMaker provides primary statuses and secondary statuses that apply to each of them:

InProgress

- `Starting` - Starting the training job.
- `Downloading` - An optional stage for algorithms that support `File` training input mode. It indicates that data is being downloaded to the ML storage volumes.
- `Training` - Training is in progress.
- `Interrupted` - The job stopped because the managed spot training instances were interrupted.

- **Uploading** - Training is complete and the model artifacts are being uploaded to the S3 location.

#### Completed

- **Completed** - The training job has completed.

#### Failed

- **Failed** - The training job has failed. The reason for the failure is returned in the `FailureReason` field of `DescribeTrainingJobResponse`.

#### Stopped

- **MaxRuntimeExceeded** - The job stopped because it exceeded the maximum allowed runtime.
- **MaxWaitTimeExceeded** - The job stopped because it exceeded the maximum allowed wait time.
- **Stopped** - The training job has stopped.

#### Stopping

- **Stopping** - Stopping the training job.

#### **Important**

Valid values for `SecondaryStatus` are subject to change.

We no longer support the following secondary statuses:

- `LaunchingMLInstances`
- `PreparingTraining`
- `DownloadingTrainingImage`

Type: String

Valid Values: `Starting` | `LaunchingMLInstances` | `PreparingTrainingStack` | `Downloading` | `DownloadingTrainingImage` | `Training` | `Uploading` | `Stopping` | `Stopped` | `MaxRuntimeExceeded` | `Completed` | `Failed` | `Interrupted` | `MaxWaitTimeExceeded` | `Updating` | `Restarting` | `Pending`

### SecondaryStatusTransitions

A history of all of the secondary statuses that the training job has transitioned through.

Type: Array of [SecondaryStatusTransition](#) objects

### [StoppingCondition](#)

Specifies a limit to how long a model training job can run. It also specifies how long a managed Spot training job has to complete. When the job reaches the time limit, SageMaker ends the training job. Use this API to cap model training costs.

To stop a job, SageMaker sends the algorithm the SIGTERM signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts, so the results of training are not lost.

Type: [StoppingCondition](#) object

### [TensorBoardOutputConfig](#)

Configuration of storage locations for the Amazon SageMaker Debugger TensorBoard output data.

Type: [TensorBoardOutputConfig](#) object

### [TrainingEndTime](#)

Indicates the time when the training job ends on training instances. You are billed for the time interval between the value of `TrainingStartTime` and this time. For successful jobs and stopped jobs, this is the time after model artifacts are uploaded. For failed jobs, this is the time when SageMaker detects a job failure.

Type: Timestamp

### [TrainingJobArn](#)

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:training-job/.*`

### [TrainingJobName](#)

Name of the model training job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

### TrainingJobStatus

The status of the training job.

SageMaker provides the following training job statuses:

- `InProgress` - The training is in progress.
- `Completed` - The training job has completed.
- `Failed` - The training job has failed. To see the reason for the failure, see the `FailureReason` field in the response to a `DescribeTrainingJobResponse` call.
- `Stopping` - The training job is stopping.
- `Stopped` - The training job has stopped.

For more detailed information, see `SecondaryStatus`.

Type: String

Valid Values: `InProgress` | `Completed` | `Failed` | `Stopping` | `Stopped`

### TrainingStartTime

Indicates the time when the training job starts on training instances. You are billed for the time interval between this time and the value of `TrainingEndTime`. The start time in CloudWatch Logs might be later than this time. The difference is due to the time it takes to download the training data and to the size of the training container.

Type: Timestamp

### TrainingTimeInSeconds

The training time in seconds.

Type: Integer

Valid Range: Minimum value of 1.

### TuningJobArn

The Amazon Resource Name (ARN) of the associated hyperparameter tuning job if the training job was launched by a hyperparameter tuning job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:hyper-parameter-tuning-job/.*`

### VpcConfig

A [VpcConfig](#) object that specifies the VPC that this training job has access to. For more information, see [Protect Training Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [VpcConfig](#) object

### WarmPoolStatus

The status of the warm pool associated with the training job.

Type: [WarmPoolStatus](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeTransformJob

Service: Amazon SageMaker Service

Returns information about a transform job.

## Request Syntax

```
{  
  "TransformJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### TransformJobName

The name of the transform job that you want to view details of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{  
  "AutoMLJobArn": "string",  
  "BatchStrategy": "string",  
  "CreationTime": number,  
  "DataCaptureConfig": {  
    "DestinationS3Uri": "string",  
    "GenerateInferenceId": boolean,  
    "KmsKeyId": "string"  
  },  
  "DataProcessing": {  
    "InputFilter": "string",  
    "JoinSource": "string",  
  }  
}
```

```

    "OutputFilter": "string"
  },
  "Environment": {
    "string" : "string"
  },
  "ExperimentConfig": {
    "ExperimentName": "string",
    "RunName": "string",
    "TrialComponentDisplayName": "string",
    "TrialName": "string"
  },
  "FailureReason": "string",
  "LabelingJobArn": "string",
  "MaxConcurrentTransforms": number,
  "MaxPayloadInMB": number,
  "ModelClientConfig": {
    "InvocationsMaxRetries": number,
    "InvocationsTimeoutInSeconds": number
  },
  "ModelName": "string",
  "TransformEndTime": number,
  "TransformInput": {
    "CompressionType": "string",
    "ContentType": "string",
    "DataSource": {
      "S3DataSource": {
        "S3DataType": "string",
        "S3Uri": "string"
      }
    }
  },
  "SplitType": "string"
},
"TransformJobArn": "string",
"TransformJobName": "string",
"TransformJobStatus": "string",
"TransformOutput": {
  "Accept": "string",
  "AssembleWith": "string",
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
"TransformResources": {
  "InstanceCount": number,
  "InstanceType": "string",

```



```
    "VolumeKmsKeyId": "string"  
  },  
  "TransformStartTime": number  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AutoMLJobArn

The Amazon Resource Name (ARN) of the AutoML transform job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:automl-job/.\*

### BatchStrategy

Specifies the number of records to include in a mini-batch for an HTTP inference request. A *record* is a single unit of input data that inference can be made on. For example, a single line in a CSV file is a record.

To enable the batch strategy, you must set `SplitType` to `Line`, `RecordIO`, or `TFRecord`.

Type: String

Valid Values: `MultiRecord` | `SingleRecord`

### CreationTime

A timestamp that shows when the transform Job was created.

Type: Timestamp

### DataCaptureConfig

Configuration to control how SageMaker captures inference data.

Type: [BatchDataCaptureConfig](#) object

## DataProcessing

The data structure used to specify the data to be used for inference in a batch transform job and to associate the data that is relevant to the prediction results in the output. The input filter provided allows you to exclude input data that is not needed for inference in a batch transform job. The output filter provided allows you to include input data relevant to interpreting the predictions in the output from the job. For more information, see [Associate Prediction Results with their Corresponding Input Records](#).

Type: [DataProcessing](#) object

## Environment

The environment variables to set in the Docker container. We support up to 16 key and values entries in the map.

Type: String to string map

Map Entries: Maximum number of 16 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]{0,1023}`

Value Length Constraints: Maximum length of 10240.

Value Pattern: `[\S\s]*`

## ExperimentConfig

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob](#)
- [CreateTrainingJob](#)
- [CreateTransformJob](#)

Type: [ExperimentConfig](#) object

## FailureReason

If the transform job failed, `FailureReason` describes why it failed. A transform job creates a log file, which includes error messages, and stores it as an Amazon S3 object. For more information, see [Log Amazon SageMaker Events with Amazon CloudWatch](#).

Type: String

Length Constraints: Maximum length of 1024.

### LabelingJobArn

The Amazon Resource Name (ARN) of the Amazon SageMaker Ground Truth labeling job that created the transform or training job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:labeling-job/.*`

### MaxConcurrentTransforms

The maximum number of parallel requests on each instance node that can be launched in a transform job. The default value is 1.

Type: Integer

Valid Range: Minimum value of 0.

### MaxPayloadInMB

The maximum payload size, in MB, used in the transform job.

Type: Integer

Valid Range: Minimum value of 0.

### ModelClientConfig

The timeout and maximum number of retries for processing a transform job invocation.

Type: [ModelClientConfig](#) object

### ModelName

The name of the model used in the transform job.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9]*[a-zA-Z0-9] )?`

## TransformEndTime

Indicates when the transform job has been completed, or has stopped or failed. You are billed for the time interval between this time and the value of `TransformStartTime`.

Type: Timestamp

## TransformInput

Describes the dataset to be transformed and the Amazon S3 location where it is stored.

Type: [TransformInput](#) object

## TransformJobArn

The Amazon Resource Name (ARN) of the transform job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:transform-job/.*`

## TransformJobName

The name of the transform job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

## TransformJobStatus

The status of the transform job. If the transform job failed, the reason is returned in the `FailureReason` field.

Type: String

Valid Values: `InProgress` | `Completed` | `Failed` | `Stopping` | `Stopped`

## TransformOutput

Identifies the Amazon S3 location where you want Amazon SageMaker to save the results from the transform job.

Type: [TransformOutput](#) object

### [TransformResources](#)

Describes the resources, including ML instance types and ML instance count, to use for the transform job.

Type: [TransformResources](#) object

### [TransformStartTime](#)

Indicates when the transform job starts on ML instances. You are billed for the time interval between this time and the value of `TransformEndTime`.

Type: Timestamp

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

# DescribeTrial

Service: Amazon SageMaker Service

Provides a list of a trial's properties.

## Request Syntax

```
{  
  "TrialName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### TrialName

The name of the trial to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{  
  "CreatedBy": {  
    "DomainId": "string",  
    "IamIdentity": {  
      "Arn": "string",  
      "PrincipalId": "string",  
      "SourceIdentity": "string"  
    },  
    "UserProfileArn": "string",  
    "UserProfileName": "string"  
  }
```

```

},
"CreationTime": number,
"DisplayName": "string",
"ExperimentName": "string",
"LastModifiedBy": {
  "DomainId": "string",
  "IamIdentity": {
    "Arn": "string",
    "PrincipalId": "string",
    "SourceIdentity": "string"
  },
  "UserProfileArn": "string",
  "UserProfileName": "string"
},
"LastModifiedTime": number,
"MetadataProperties": {
  "CommitId": "string",
  "GeneratedBy": "string",
  "ProjectId": "string",
  "Repository": "string"
},
"Source": {
  "SourceArn": "string",
  "SourceType": "string"
},
"TrialArn": "string",
"TrialName": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreatedBy

Who created the trial.

Type: [UserContext](#) object

### CreationTime

When the trial was created.



Type: Timestamp

### DisplayName

The name of the trial as displayed. If `DisplayName` isn't specified, `TrialName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

### ExperimentName

The name of the experiment the trial is part of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

### LastModifiedBy

Who last modified the trial.

Type: [UserContext](#) object

### LastModifiedTime

When the trial was last modified.

Type: Timestamp

### MetadataProperties

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties](#) object

### Source

The Amazon Resource Name (ARN) of the source and, optionally, the job type.

Type: [TrialSource](#) object

### TrialArn

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial/.*`

### TrialName

The name of the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeTrialComponent

Service: Amazon SageMaker Service

Provides a list of a trials component's properties.

## Request Syntax

```
{
  "TrialComponentName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### TrialComponentName

The name of the trial component to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: (arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:(experiment|experiment-trial|experiment-trial-component|artifact|action|context)\|/)?([a-zA-Z0-9](-\*[a-zA-Z0-9])){0,119}

Required: Yes

## Response Syntax

```
{
  "CreatedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
```

```

    "UserProfileName": "string"
  },
  "CreationTime": number,
  "DisplayName": "string",
  "EndTime": number,
  "InputArtifacts": {
    "string" : {
      "MediaType": "string",
      "Value": "string"
    }
  },
  "LastModifiedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "LastModifiedTime": number,
  "LineageGroupArn": "string",
  "MetadataProperties": {
    "CommitId": "string",
    "GeneratedBy": "string",
    "ProjectId": "string",
    "Repository": "string"
  },
  "Metrics": [
    {
      "Avg": number,
      "Count": number,
      "Last": number,
      "Max": number,
      "MetricName": "string",
      "Min": number,
      "SourceArn": "string",
      "StdDev": number,
      "TimeStamp": number
    }
  ],
  "OutputArtifacts": {
    "string" : {

```

```
    "MediaType": "string",
    "Value": "string"
  }
},
"Parameters": {
  "string": {
    "NumberValue": number,
    "StringValue": "string"
  }
},
"Source": {
  "SourceArn": "string",
  "SourceType": "string"
},
"Sources": [
  {
    "SourceArn": "string",
    "SourceType": "string"
  }
],
"StartTime": number,
"Status": {
  "Message": "string",
  "PrimaryStatus": "string"
},
"TrialComponentArn": "string",
"TrialComponentName": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreatedBy

Who created the trial component.

Type: [UserContext](#) object

### CreationTime

When the component was created.

Type: Timestamp

### DisplayName

The name of the component as displayed. If `DisplayName` isn't specified, `TrialComponentName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

### EndTime

When the component ended.

Type: Timestamp

### InputArtifacts

The input artifacts of the component.

Type: String to [TrialComponentArtifact](#) object map

Map Entries: Maximum number of 60 items.

Key Length Constraints: Maximum length of 128.

Key Pattern: `.*`

### LastModifiedBy

Who last modified the component.

Type: [UserContext](#) object

### LastModifiedTime

When the component was last modified.

Type: Timestamp

### LineageGroupArn

The Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:lineage-group/.*`

### MetadataProperties

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties](#) object

### Metrics

The metrics for the component.

Type: Array of [TrialComponentMetricSummary](#) objects

### OutputArtifacts

The output artifacts of the component.

Type: String to [TrialComponentArtifact](#) object map

Map Entries: Maximum number of 60 items.

Key Length Constraints: Maximum length of 128.

Key Pattern: `.*`

### Parameters

The hyperparameters of the component.

Type: String to [TrialComponentParameterValue](#) object map

Map Entries: Maximum number of 300 items.

Key Length Constraints: Maximum length of 320.

Key Pattern: `.*`

### Source

The Amazon Resource Name (ARN) of the source and, optionally, the job type.

Type: [TrialComponentSource](#) object



## Sources

A list of ARNs and, if applicable, job types for multiple sources of an experiment run.

Type: Array of [TrialComponentSource](#) objects

## StartTime

When the component started.

Type: Timestamp

## Status

The status of the component. States include:

- InProgress
- Completed
- Failed

Type: [TrialComponentStatus](#) object

## TrialComponentArn

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial-component/.*`

## TrialComponentName

The name of the trial component.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeUserProfile

Service: Amazon SageMaker Service

Describes a user profile. For more information, see [CreateUserProfile](#).

## Request Syntax

```
{
  "DomainId": "string",
  "UserProfileName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-( -*[a-z0-9]){1,61}`

Required: Yes

### UserProfileName

The user profile name. This value is not case sensitive.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( -*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{
  "CreationTime": number,
  "DomainId": "string",
  "FailureReason": "string",
  "HomeEfsFileSystemUid": "string",
  "LastModifiedTime": number,
  "SingleSignOnUserIdentifier": "string",
  "SingleSignOnUserValue": "string",
  "Status": "string",
  "UserProfileArn": "string",
  "UserProfileName": "string",
  "UserSettings": {
    "CanvasAppSettings": {
      "DirectDeploySettings": {
        "Status": "string"
      },
      "GenerativeAiSettings": {
        "AmazonBedrockRoleArn": "string"
      },
      "IdentityProviderOauthSettings": [
        {
          "DataSourceName": "string",
          "SecretArn": "string",
          "Status": "string"
        }
      ],
      "KendraSettings": {
        "Status": "string"
      },
      "ModelRegisterSettings": {
        "CrossAccountModelRegisterRoleArn": "string",
        "Status": "string"
      },
      "TimeSeriesForecastingSettings": {
        "AmazonForecastRoleArn": "string",
        "Status": "string"
      },
      "WorkspaceSettings": {
        "S3ArtifactPath": "string",
        "S3KmsKeyId": "string"
      }
    }
  }
}
```

```

},
"CodeEditorAppSettings": {
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"CustomFileSystemConfigs": [
  { ... }
],
"CustomPosixUserConfig": {
  "Gid": number,
  "Uid": number
},
"DefaultLandingUri": "string",
"ExecutionRole": "string",
"JupyterLabAppSettings": {
  "CodeRepositories": [
    {
      "RepositoryUrl": "string"
    }
  ],
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",

```

```

        "SageMakerImageVersionAlias": "string",
        "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
},
"JupyterServerAppSettings": {
    "CodeRepositories": [
        {
            "RepositoryUrl": "string"
        }
    ],
    "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionAlias": "string",
        "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
},
"KernelGatewayAppSettings": {
    "CustomImages": [
        {
            "AppImageConfigName": "string",
            "ImageName": "string",
            "ImageVersionNumber": number
        }
    ],
    "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionAlias": "string",
        "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
},
"RSessionAppSettings": {
    "CustomImages": [
        {
            "AppImageConfigName": "string",
            "ImageName": "string",
            "ImageVersionNumber": number
        }
    ]
}

```

```

    ],
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    }
  },
  "RStudioServerProAppSettings": {
    "AccessStatus": "string",
    "UserGroup": "string"
  },
  "SecurityGroups": [ "string" ],
  "SharingSettings": {
    "NotebookOutputOption": "string",
    "S3KmsKeyId": "string",
    "S3OutputPath": "string"
  },
  "SpaceStorageSettings": {
    "DefaultEbsStorageSettings": {
      "DefaultEbsVolumeSizeInGb": number,
      "MaximumEbsVolumeSizeInGb": number
    }
  },
  "StudioWebPortal": "string",
  "StudioWebPortalSettings": {
    "HiddenAppTypes": [ "string" ],
    "HiddenMLTools": [ "string" ]
  },
  "TensorBoardAppSettings": {
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    }
  }
}
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CreationTime

The creation time.

Type: Timestamp

### DomainId

The ID of the domain that contains the profile.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-( -*[a-z0-9]){1,61}`

### FailureReason

The failure reason.

Type: String

Length Constraints: Maximum length of 1024.

### HomeEfsFileSystemUid

The ID of the user's profile in the Amazon Elastic File System volume.

Type: String

Length Constraints: Maximum length of 10.

Pattern: `\d+`

### LastModifiedTime

The last modified time.

Type: Timestamp



### SingleSignInUserIdentifier

The IAM Identity Center user identifier.

Type: String

Pattern: UserName

### SingleSignInUserValue

The IAM Identity Center user value.

Type: String

Length Constraints: Maximum length of 256.

### Status

The status.

Type: String

Valid Values: Deleting | Failed | InService | Pending | Updating | Update\_Failed | Delete\_Failed

### UserProfileArn

The user profile Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:user-profile/.\*

### UserProfileName

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

### UserSettings

A collection of settings.

Type: [UserSettings](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeWorkforce

Service: Amazon SageMaker Service

Lists private workforce information, including workforce name, Amazon Resource Name (ARN), and, if applicable, allowed IP address ranges ([CIDRs](#)). Allowable IP address ranges are the IP addresses that workers can use to access tasks.

## Important

This operation applies only to private workforces.

## Request Syntax

```
{  
  "WorkforceName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### WorkforceName

The name of the private workforce whose access you want to restrict. `WorkforceName` is automatically set to `default` when a workforce is created and cannot be modified.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([a-zA-Z0-9\-\-]){0,62}$`

Required: Yes

## Response Syntax

```
{
```

```

"Workforce": {
  "CognitoConfig": {
    "ClientId": "string",
    "UserPool": "string"
  },
  "CreateDate": number,
  "FailureReason": "string",
  "LastUpdatedDate": number,
  "OidcConfig": {
    "AuthenticationRequestExtraParams": {
      "string" : "string"
    },
    "AuthorizationEndpoint": "string",
    "ClientId": "string",
    "Issuer": "string",
    "JwksUri": "string",
    "LogoutEndpoint": "string",
    "Scope": "string",
    "TokenEndpoint": "string",
    "UserInfoEndpoint": "string"
  },
  "SourceIpConfig": {
    "Cidrs": [ "string" ]
  },
  "Status": "string",
  "SubDomain": "string",
  "WorkforceArn": "string",
  "WorkforceName": "string",
  "WorkforceVpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ],
    "VpcEndpointId": "string",
    "VpcId": "string"
  }
}
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## Workforce

A single private workforce, which is automatically created when you create your first private work team. You can create one private work force in each AWS Region. By default, any workforce-related API operation used in a specific region will apply to the workforce created in that region. To learn how to create a private workforce, see [Create a Private Workforce](#).

Type: [Workforce](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeWorkteam

Service: Amazon SageMaker Service

Gets information about a specific work team. You can see information such as the creation date, the last updated date, membership information, and the work team's Amazon Resource Name (ARN).

## Request Syntax

```
{  
  "WorkteamName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### WorkteamName

The name of the work team to return a description of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{  
  "Workteam": {  
    "CreateDate": number,  
    "Description": "string",  
    "LastUpdatedDate": number,  
    "MemberDefinitions": [  
      {  
        "CognitoMemberDefinition": {
```

```

        "ClientId": "string",
        "UserGroup": "string",
        "UserPool": "string"
    },
    "OidcMemberDefinition": {
        "Groups": [ "string" ]
    }
}
],
"NotificationConfiguration": {
    "NotificationTopicArn": "string"
},
"ProductListingIds": [ "string" ],
"SubDomain": "string",
"WorkerAccessConfiguration": {
    "S3Presign": {
        "IamPolicyConstraints": {
            "SourceIp": "string",
            "VpcSourceIp": "string"
        }
    }
},
"WorkforceArn": "string",
"WorkteamArn": "string",
"WorkteamName": "string"
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Workteam

A Workteam instance that contains information about the work team.

Type: [Workteam](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DisableSagemakerServicecatalogPortfolio

Service: Amazon SageMaker Service

Disables using Service Catalog in SageMaker. Service Catalog is used to create SageMaker projects.

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DisassociateTrialComponent

Service: Amazon SageMaker Service

Disassociates a trial component from a trial. This doesn't effect other trials the component is associated with. Before you can delete a component, you must disassociate the component from all trials it is associated with. To associate a trial component with a trial, call the [AssociateTrialComponent](#) API.

To get a list of the trials a component is associated with, use the [Search](#) API. Specify `ExperimentTrialComponent` for the `Resource` parameter. The list appears in the response under `Results.TrialComponent.Parents`.

## Request Syntax

```
{
  "TrialComponentName": "string",
  "TrialName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [TrialComponentName](#)

The name of the component to disassociate from the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

### [TrialName](#)

The name of the trial to disassociate from.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{
  "TrialArn": "string",
  "TrialComponentArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### TrialArn

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial/.*`

### TrialComponentArn

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial-component/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# EnableSagemakerServicecatalogPortfolio

Service: Amazon SageMaker Service

Enables using Service Catalog in SageMaker. Service Catalog is used to create SageMaker projects.

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetDeviceFleetReport

Service: Amazon SageMaker Service

Describes a fleet.

## Request Syntax

```
{  
  "DeviceFleetName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DeviceFleetName

The name of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{  
  "AgentVersions": [  
    {  
      "AgentCount": number,  
      "Version": "string"  
    }  
  ],  
  "Description": "string",  
  "DeviceFleetArn": "string",  
  "DeviceFleetName": "string",
```

```

"DeviceStats": {
  "ConnectedDeviceCount": number,
  "RegisteredDeviceCount": number
},
"ModelStats": [
  {
    "ActiveDeviceCount": number,
    "ConnectedDeviceCount": number,
    "ModelName": "string",
    "ModelVersion": "string",
    "OfflineDeviceCount": number,
    "SamplingDeviceCount": number
  }
],
"OutputConfig": {
  "KmsKeyId": "string",
  "PresetDeploymentConfig": "string",
  "PresetDeploymentType": "string",
  "S3OutputLocation": "string"
},
"ReportGenerated": number
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AgentVersions

The versions of Edge Manager agent deployed on the fleet.

Type: Array of [AgentVersion](#) objects

### Description

Description of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 800.

Pattern: `^[-a-zA-Z0-9_.,;:! ]*$`

## DeviceFleetArn

The Amazon Resource Name (ARN) of the device.

Type: String

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:device-fleet/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

## DeviceFleetName

The name of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

## DeviceStats

Status of devices.

Type: [DeviceStats](#) object

## ModelStats

Status of model on device.

Type: Array of [EdgeModelStat](#) objects

## OutputConfig

The output configuration for storing sample data collected by the fleet.

Type: [EdgeOutputConfig](#) object

## ReportGenerated

Timestamp of when the report was generated.

Type: Timestamp

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetLineageGroupPolicy

Service: Amazon SageMaker Service

The resource policy for the lineage group.

## Request Syntax

```
{  
  "LineageGroupName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [LineageGroupName](#)

The name or Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: (arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:lineage-group\|)?  
([a-zA-Z0-9](-\*[a-zA-Z0-9])){0,119})

Required: Yes

## Response Syntax

```
{  
  "LineageGroupArn": "string",  
  "ResourcePolicy": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### LineageGroupArn

The Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:lineage-group/.*`

### ResourcePolicy

The resource policy that gives access to the lineage group in another account.

Type: String

Length Constraints: Maximum length of 20480.

Pattern: `.*(?:[\r\n\t].)*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetModelPackageGroupPolicy

Service: Amazon SageMaker Service

Gets a resource policy that manages access for a model group. For information about resource policies, see [Identity-based policies and resource-based policies](#) in the *AWS Identity and Access Management User Guide*.

## Request Syntax

```
{  
  "ModelPackageGroupName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [ModelPackageGroupName](#)

The name of the model group for which to get the resource policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{  
  "ResourcePolicy": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## ResourcePolicy

The resource policy for the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20480.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetSagemakerServicecatalogPortfolioStatus

Service: Amazon SageMaker Service

Gets the status of Service Catalog in SageMaker. Service Catalog is used to create SageMaker projects.

## Response Syntax

```
{
  "Status": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Status

Whether Service Catalog is enabled or disabled in SageMaker.

Type: String

Valid Values: Enabled | Disabled

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# GetScalingConfigurationRecommendation

Service: Amazon SageMaker Service

Starts an Amazon SageMaker Inference Recommender autoscaling recommendation job. Returns recommendations for autoscaling policies that you can apply to your SageMaker endpoint.

## Request Syntax

```
{
  "EndpointName": "string",
  "InferenceRecommendationsJobName": "string",
  "RecommendationId": "string",
  "ScalingPolicyObjective": {
    "MaxInvocationsPerMinute": number,
    "MinInvocationsPerMinute": number
  },
  "TargetCpuUtilizationPerCore": number
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EndpointName

The name of an endpoint benchmarked during a previously completed inference recommendation job. This name should come from one of the recommendations returned by the job specified in the `InferenceRecommendationsJobName` field.

Specify either this field or the `RecommendationId` field.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### InferenceRecommendationsJobName

The name of a previously completed Inference Recommender job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,63}`

Required: Yes

### RecommendationId

The recommendation ID of a previously completed inference recommendation. This ID should come from one of the recommendations returned by the job specified in the `InferenceRecommendationsJobName` field.

Specify either this field or the `EndpointName` field.

Type: String

Required: No

### ScalingPolicyObjective

An object where you specify the anticipated traffic pattern for an endpoint.

Type: [ScalingPolicyObjective](#) object

Required: No

### TargetCpuUtilizationPerCore

The percentage of how much utilization you want an instance to use before autoscaling. The default value is 50%.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

## Response Syntax

```
{
  "DynamicScalingConfiguration": {
```

```

    "MaxCapacity": number,
    "MinCapacity": number,
    "ScaleInCooldown": number,
    "ScaleOutCooldown": number,
    "ScalingPolicies": [
      { ... }
    ]
  },
  "EndpointName": "string",
  "InferenceRecommendationsJobName": "string",
  "Metric": {
    "InvocationsPerInstance": number,
    "ModelLatency": number
  },
  "RecommendationId": "string",
  "ScalingPolicyObjective": {
    "MaxInvocationsPerMinute": number,
    "MinInvocationsPerMinute": number
  },
  "TargetCpuUtilizationPerCore": number
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### DynamicScalingConfiguration

An object with the recommended values for you to specify when creating an autoscaling policy.

Type: [DynamicScalingConfiguration](#) object

### EndpointName

The name of an endpoint benchmarked during a previously completed Inference Recommender job.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

### InferenceRecommendationsJobName

The name of a previously completed Inference Recommender job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,63}`

### Metric

An object with a list of metrics that were benchmarked during the previously completed Inference Recommender job.

Type: [ScalingPolicyMetric](#) object

### RecommendationId

The recommendation ID of a previously completed inference recommendation.

Type: String

### ScalingPolicyObjective

An object representing the anticipated traffic pattern for an endpoint that you specified in the request.

Type: [ScalingPolicyObjective](#) object

### TargetCpuUtilizationPerCore

The percentage of how much utilization you want an instance to use before autoscaling, which you specified in the request. The default value is 50%.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetSearchSuggestions

Service: Amazon SageMaker Service

An auto-complete API for the search functionality in the SageMaker console. It returns suggestions of possible matches for the property name to use in Search queries. Provides suggestions for HyperParameters, Tags, and Metrics.

## Request Syntax

```
{
  "Resource": "string",
  "SuggestionQuery": {
    "PropertyNameQuery": {
      "PropertyNameHint": "string"
    }
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [Resource](#)

The name of the SageMaker resource to search for.

Type: String

Valid Values: TrainingJob | Experiment | ExperimentTrial | ExperimentTrialComponent | Endpoint | Model | ModelPackage | ModelPackageGroup | Pipeline | PipelineExecution | FeatureGroup | FeatureMetadata | Image | ImageVersion | Project | HyperparameterTuningJob | ModelCard

Required: Yes

### [SuggestionQuery](#)

Limits the property names that are included in the response.

Type: [SuggestionQuery](#) object

Required: No

## Response Syntax

```
{
  "PropertyNameSuggestions": [
    {
      "PropertyName": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [PropertyNameSuggestions](#)

A list of property names for a Resource that match a SuggestionQuery.

Type: Array of [PropertyNameSuggestion](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ImportHubContent

Service: Amazon SageMaker Service

Import hub content.

## Request Syntax

```
{
  "DocumentSchemaVersion": "string",
  "HubContentDescription": "string",
  "HubContentDisplayName": "string",
  "HubContentDocument": "string",
  "HubContentMarkdown": "string",
  "HubContentName": "string",
  "HubContentSearchKeywords": [ "string" ],
  "HubContentType": "string",
  "HubContentVersion": "string",
  "HubName": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DocumentSchemaVersion

The version of the hub content schema to import.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: `^\d{1,4}.\d{1,4}.\d{1,4}$`

Required: Yes

### HubContentDescription

A description of the hub content to import.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

Required: No

### HubContentDisplayName

The display name of the hub content to import.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: No

### HubContentDocument

The hub content document that describes information about the hub content such as type, associated containers, scripts, and more.

Type: String

Length Constraints: Maximum length of 65535.

Pattern: .\*

Required: Yes

### HubContentMarkdown

A string that provides a description of the hub content. This string can include links, tables, and standard markdown formatting.

Type: String

Length Constraints: Maximum length of 65535.

Required: No

### HubContentName

The name of the hub content to import.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### HubContentSearchKeywords

The searchable keywords of the hub content.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 255.

Pattern: `^[^A-Z]*$`

Required: No

### HubContentType

The type of hub content to import.

Type: String

Valid Values: `Model` | `Notebook` | `ModelReference`

Required: Yes

### HubContentVersion

The version of the hub content to import.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: `^\d{1,4}.\d{1,4}.\d{1,4}$`

Required: No

### HubName

The name of the hub to import content into.

Type: String

Pattern: `^(arn:[a-z0-9-\.]{1,63}:sagemaker:\w+(?:-\w+)+:(\d{12}|aws):hub\w)?[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### Tags

Any tags associated with the hub content.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "HubArn": "string",
  "HubContentArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### HubArn

The ARN of the hub that the content was imported into.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

### **HubContentArn**

The ARN of the hub content that was imported.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListActions

Service: Amazon SageMaker Service

Lists the actions in your account and their properties.

### Request Syntax

```
{
  "ActionType": "string",
  "CreatedAfter": number,
  "CreatedBefore": number,
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "SourceUri": "string"
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

#### ActionType

A filter that returns only actions of the specified type.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### CreatedAfter

A filter that returns only actions created on or after the specified time.

Type: Timestamp

Required: No

#### CreatedBefore

A filter that returns only actions created on or before the specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of actions to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the previous call to `ListActions` didn't return the full set of actions, the call returns a token for getting the next set of actions.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

### SortOrder

The sort order. The default value is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No



## SourceUri

A filter that returns only actions with the specified source URI.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: .\*

Required: No

## Response Syntax

```
{
  "ActionSummaries": [
    {
      "ActionArn": "string",
      "ActionName": "string",
      "ActionType": "string",
      "CreationTime": number,
      "LastModifiedTime": number,
      "Source": {
        "SourceId": "string",
        "SourceType": "string",
        "SourceUri": "string"
      },
      "Status": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ActionSummaries

A list of actions and their properties.

Type: Array of [ActionSummary](#) objects

### [NextToken](#)

A token for getting the next set of actions, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListAlgorithms

Service: Amazon SageMaker Service

Lists the machine learning algorithms that have been created.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only algorithms created after the specified time (timestamp).

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only algorithms created before the specified time (timestamp).

Type: Timestamp

Required: No

### MaxResults

The maximum number of algorithms to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in the algorithm name. This filter returns only algorithms whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\ - ]+

Required: No

### NextToken

If the response to a previous `ListAlgorithms` request was truncated, the response includes a `NextToken`. To retrieve the next set of algorithms, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The parameter by which to sort the results. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

### SortOrder

The sort order for the results. The default is `Ascending`.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "AlgorithmSummaryList": [
    {
      "AlgorithmArn": "string",
      "AlgorithmDescription": "string",
      "AlgorithmName": "string",
      "AlgorithmStatus": "string",
      "CreationTime": number
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AlgorithmSummaryList

>An array of `AlgorithmSummary` objects, each of which lists an algorithm.

Type: Array of [AlgorithmSummary](#) objects

### NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of algorithms, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListAliases

Service: Amazon SageMaker Service

Lists the aliases of a specified image or image version.

### Request Syntax

```
{  
  "Alias": "string",  
  "ImageName": "string",  
  "MaxResults": number,  
  "NextToken": "string",  
  "Version": number  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

#### Alias

The alias of the image version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `(?!^[.-])^([a-zA-Z0-9-_.]+)$`

Required: No

#### ImageName

The name of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}$`

Required: Yes

## MaxResults

The maximum number of aliases to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

## NextToken

If the previous call to `ListAliases` didn't return the full set of aliases, the call returns a token for retrieving the next set of aliases.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## Version

The version of the image. If image version is not specified, the aliases of all versions of the image are listed.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "SageMakerImageVersionAliases": [ "string" ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.



The following data is returned in JSON format by the service.

### NextToken

A token for getting the next set of aliases, if more aliases exist.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### SageMakerImageVersionAliases

A list of SageMaker image version aliases.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: (?![^[-]])([a-zA-Z0-9-\_.]+)\$

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListAppImageConfigs

Service: Amazon SageMaker Service

Lists the AppImageConfigs in your account and their properties. The list can be filtered by creation time or modified time, and whether the AppImageConfig name contains a specified string.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "MaxResults": number,
  "ModifiedTimeAfter": number,
  "ModifiedTimeBefore": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only AppImageConfigs created on or after the specified time.

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only AppImageConfigs created on or before the specified time.

Type: Timestamp

Required: No

## MaxResults

The total number of items to return in the response. If the total number of items available is more than the value specified, a `NextToken` is provided in the response. To resume pagination, provide the `NextToken` value in the as part of a subsequent call. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

## ModifiedTimeAfter

A filter that returns only `ApplImageConfigs` modified on or after the specified time.

Type: Timestamp

Required: No

## ModifiedTimeBefore

A filter that returns only `ApplImageConfigs` modified on or before the specified time.

Type: Timestamp

Required: No

## NameContains

A filter that returns only `ApplImageConfigs` whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## NextToken

If the previous call to `ListImages` didn't return the full set of `ApplImageConfigs`, the call returns a token for getting the next set of `ApplImageConfigs`.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `CreationTime` | `LastModifiedTime` | `Name`

Required: No

### SortOrder

The sort order. The default value is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{
  "AppImageConfigs": [
    {
      "AppImageConfigArn": "string",
      "AppImageConfigName": "string",
      "CodeEditorAppImageConfig": {
        "ContainerConfig": {
          "ContainerArguments": [ "string" ],
          "ContainerEntrypoint": [ "string" ],
          "ContainerEnvironmentVariables": {
            "string" : "string"
          }
        }
      },
      "FileSystemConfig": {
        "DefaultGid": number,
        "DefaultUid": number,
        "MountPath": "string"
      }
    }
  ]
}
```

```

    },
    "CreationTime": number,
    "JupyterLabAppImageConfig": {
      "ContainerConfig": {
        "ContainerArguments": [ string ],
        "ContainerEntrypoint": [ string ],
        "ContainerEnvironmentVariables": {
          string : string
        }
      }
    },
    "FileSystemConfig": {
      "DefaultGid": number,
      "DefaultUid": number,
      "MountPath": string
    }
  },
  "KernelGatewayImageConfig": {
    "FileSystemConfig": {
      "DefaultGid": number,
      "DefaultUid": number,
      "MountPath": string
    },
    "KernelSpecs": [
      {
        "DisplayName": string,
        "Name": string
      }
    ]
  },
  "LastModifiedTime": number
}
],
"NextToken": string
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AppImageConfigs

A list of AppImageConfigs and their properties.

Type: Array of [ApplImageConfigDetails](#) objects

### **NextToken**

A token for getting the next set of ApplImageConfigs, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListApps

Service: Amazon SageMaker Service

Lists apps.

## Request Syntax

```
{
  "DomainIdEquals": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "SpaceNameEquals": "string",
  "UserProfileNameEquals": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DomainIdEquals

A parameter to search for the domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern:  $^d-(-*[a-z0-9]){1,61}$

Required: No

### MaxResults

This parameter defines the maximum number of results that can be return in a single response. The `MaxResults` parameter is an upper bound, not a target. If there are more results available than the value specified, a `NextToken` is provided in the response. The `NextToken` indicates that the user should get the next set of results by providing this token as a part of a subsequent call. The default value for `MaxResults` is 10.



Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The parameter by which to sort the results. The default is CreationTime.

Type: String

Valid Values: CreationTime

Required: No

### SortOrder

The sort order for the results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

### SpaceNameEquals

A parameter to search by space name. If UserProfileNameEquals is set, then this value cannot be set.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### UserProfileNameEquals

A parameter to search by user profile name. If `SpaceNameEquals` is set, then this value cannot be set.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## Response Syntax

```
{
  "Apps": [
    {
      "AppName": "string",
      "AppType": "string",
      "CreationTime": number,
      "DomainId": "string",
      "ResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionAlias": "string",
        "SageMakerImageVersionArn": "string"
      },
      "SpaceName": "string",
      "Status": "string",
      "UserProfileName": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Apps

The list of apps.

Type: Array of [AppDetails](#) objects

### NextToken

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

## ListArtifacts

Service: Amazon SageMaker Service

Lists the artifacts in your account and their properties.

### Request Syntax

```
{
  "ArtifactType": "string",
  "CreatedAfter": number,
  "CreatedBefore": number,
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "SourceUri": "string"
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

#### ArtifactType

A filter that returns only artifacts of the specified type.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### CreatedAfter

A filter that returns only artifacts created on or after the specified time.

Type: Timestamp

Required: No

#### CreatedBefore

A filter that returns only artifacts created on or before the specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of artifacts to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the previous call to `ListArtifacts` didn't return the full set of artifacts, the call returns a token for getting the next set of artifacts.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `CreationTime`

Required: No

### SortOrder

The sort order. The default value is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

### SourceUri

A filter that returns only artifacts with the specified source URI.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: .\*

Required: No

## Response Syntax

```
{
  "ArtifactSummaries": [
    {
      "ArtifactArn": "string",
      "ArtifactName": "string",
      "ArtifactType": "string",
      "CreationTime": number,
      "LastModifiedTime": number,
      "Source": {
        "SourceTypes": [
          {
            "SourceIdType": "string",
            "Value": "string"
          }
        ],
        "SourceUri": "string"
      }
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## ArtifactSummaries

A list of artifacts and their properties.

Type: Array of [ArtifactSummary](#) objects

## NextToken

A token for getting the next set of artifacts, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . \*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)



- [AWS SDK for Ruby V3](#)

## ListAssociations

Service: Amazon SageMaker Service

Lists the associations in your account and their properties.

### Request Syntax

```
{
  "AssociationType": "string",
  "CreatedAfter": number,
  "CreatedBefore": number,
  "DestinationArn": "string",
  "DestinationType": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "SourceArn": "string",
  "SourceType": "string"
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

#### AssociationType

A filter that returns only associations of the specified type.

Type: String

Valid Values: ContributedTo | AssociatedWith | DerivedFrom | Produced | SameAs

Required: No

#### CreatedAfter

A filter that returns only associations created on or after the specified time.

Type: Timestamp

Required: No

### CreatedBefore

A filter that returns only associations created on or before the specified time.

Type: Timestamp

Required: No

### DestinationArn

A filter that returns only associations with the specified destination Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

Required: No

### DestinationType

A filter that returns only associations with the specified destination type.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### MaxResults

The maximum number of associations to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the previous call to `ListAssociations` didn't return the full set of associations, the call returns a token for getting the next set of associations.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `SourceArn` | `DestinationArn` | `SourceType` | `DestinationType` | `CreationTime`

Required: No

### SortOrder

The sort order. The default value is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

### SourceArn

A filter that returns only associations with the specified source ARN.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

Required: No

### SourceType

A filter that returns only associations with the specified source type.

Type: String

Length Constraints: Maximum length of 256.

Required: No

## Response Syntax

```
{
  "AssociationSummaries": [
    {
      "AssociationType": "string",
      "CreatedBy": {
        "DomainId": "string",
        "IamIdentity": {
          "Arn": "string",
          "PrincipalId": "string",
          "SourceIdentity": "string"
        },
        "UserProfileArn": "string",
        "UserProfileName": "string"
      },
      "CreationTime": number,
      "DestinationArn": "string",
      "DestinationName": "string",
      "DestinationType": "string",
      "SourceArn": "string",
      "SourceName": "string",
      "SourceType": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AssociationSummaries](#)

A list of associations and their properties.

Type: Array of [AssociationSummary](#) objects

### [NextToken](#)

A token for getting the next set of associations, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListAutoMLJobs

Service: Amazon SageMaker Service

Request a list of jobs.

## Request Syntax

```
{  
  "CreationTimeAfter": number,  
  "CreationTimeBefore": number,  
  "LastModifiedTimeAfter": number,  
  "LastModifiedTimeBefore": number,  
  "MaxResults": number,  
  "NameContains": "string",  
  "NextToken": "string",  
  "SortBy": "string",  
  "SortOrder": "string",  
  "StatusEquals": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

Request a list of jobs, using a filter for time.

Type: Timestamp

Required: No

### CreationTimeBefore

Request a list of jobs, using a filter for time.

Type: Timestamp

Required: No

### LastModifiedTimeAfter

Request a list of jobs, using a filter for time.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

Request a list of jobs, using a filter for time.

Type: Timestamp

Required: No

### MaxResults

Request a list of jobs up to a specified limit.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

Request a list of jobs, using a search filter for name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

### NextToken

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No



## SortBy

The parameter by which to sort the results. The default is Name.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

## SortOrder

The sort order for the results. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

## StatusEquals

Request a list of jobs, using a filter for status.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

Required: No

## Response Syntax

```
{
  "AutoMLJobSummaries": [
    {
      "AutoMLJobArn": "string",
      "AutoMLJobName": "string",
      "AutoMLJobSecondaryStatus": "string",
      "AutoMLJobStatus": "string",
      "CreationTime": number,
      "EndTime": number,
      "FailureReason": "string",
      "LastModifiedTime": number,
      "PartialFailureReasons": [
```

```
    {
      "PartialFailureMessage": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### AutoMLJobSummaries

Returns a summary list of jobs.

Type: Array of [AutoMLJobSummary](#) objects

### NextToken

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListCandidatesForAutoMLJob

Service: Amazon SageMaker Service

List the candidates created for the job.

## Request Syntax

```
{
  "AutoMLJobName": "string",
  "CandidateNameEquals": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AutoMLJobName

List the candidates created for the job by providing the job's name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

### CandidateNameEquals

List the candidates for the job and filter by candidate name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

## MaxResults

List the job's candidates up to a specified limit.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 300.

Required: No

## NextToken

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## SortBy

The parameter by which to sort the results. The default is Descending.

Type: String

Valid Values: CreationTime | Status | FinalObjectiveMetricValue

Required: No

## SortOrder

The sort order for the results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

## StatusEquals

List the candidates for the job and filter by status.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

Required: No

## Response Syntax

```
{
  "Candidates": [
    {
      "CandidateName": "string",
      "CandidateProperties": {
        "CandidateArtifactLocations": {
          "BacktestResults": "string",
          "Explainability": "string",
          "ModelInsights": "string"
        },
        "CandidateMetrics": [
          {
            "MetricName": "string",
            "Set": "string",
            "StandardMetricName": "string",
            "Value": number
          }
        ]
      },
      "CandidateStatus": "string",
      "CandidateSteps": [
        {
          "CandidateStepArn": "string",
          "CandidateStepName": "string",
          "CandidateStepType": "string"
        }
      ],
      "CreationTime": number,
      "EndTime": number,
      "FailureReason": "string",
      "FinalAutoMLJobObjectiveMetric": {
        "MetricName": "string",
        "StandardMetricName": "string",
        "Type": "string",
        "Value": number
      }
    }
  ]
}
```

```
    },
    "InferenceContainerDefinitions": {
      "string" : [
        {
          "Environment": {
            "string" : "string"
          },
          "Image": "string",
          "ModelDataUrl": "string"
        }
      ]
    },
    "InferenceContainers": [
      {
        "Environment": {
          "string" : "string"
        },
        "Image": "string",
        "ModelDataUrl": "string"
      }
    ],
    "LastModifiedTime": number,
    "ObjectiveStatus": "string"
  }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Candidates

Summaries about the AutoMLCandidates.

Type: Array of [AutoMLCandidate](#) objects

### NextToken

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListClusterNodes

Service: Amazon SageMaker Service

Retrieves the list of instances (also called *nodes* interchangeably) in a SageMaker HyperPod cluster.

## Request Syntax

```
{
  "ClusterName": "string",
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "InstanceGroupNameContains": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ClusterName

The string name or the Amazon Resource Name (ARN) of the SageMaker HyperPod cluster in which you want to retrieve the list of nodes.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^(arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:cluster/[a-z0-9]{12})|([a-zA-Z0-9](-*[a-zA-Z0-9]){0,62})$`

Required: Yes

### CreationTimeAfter

A filter that returns nodes in a SageMaker HyperPod cluster created after the specified time. Timestamps are formatted according to the ISO 8601 standard.

Acceptable formats include:

- YYYY-MM-DDThh:mm:ss.sssTZD (UTC), for example, 2014-10-01T20:30:00.000Z
- YYYY-MM-DDThh:mm:ss.sssTZD (with offset), for example, 2014-10-01T12:30:00.000-08:00
- YYYY-MM-DD, for example, 2014-10-01
- Unix time in seconds, for example, 1412195400. This is also referred to as Unix Epoch time and represents the number of seconds since midnight, January 1, 1970 UTC.

For more information about the timestamp format, see [Timestamp](#) in the *AWS Command Line Interface User Guide*.

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns nodes in a SageMaker HyperPod cluster created before the specified time. The acceptable formats are the same as the timestamp formats for `CreationTimeAfter`. For more information about the timestamp format, see [Timestamp](#) in the *AWS Command Line Interface User Guide*.

Type: Timestamp

Required: No

### InstanceGroupNameContains

A filter that returns the instance groups whose name contain a specified string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: No

### MaxResults

The maximum number of nodes to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the result of the previous `ListClusterNodes` request was truncated, the response includes a `NextToken`. To retrieve the next set of cluster nodes, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### SortBy

The field by which to sort results. The default value is `CREATION_TIME`.

Type: String

Valid Values: `CREATION_TIME` | `NAME`

Required: No

### SortOrder

The sort order for results. The default value is `Ascending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{
  "ClusterNodeSummaries": [
    {
      "InstanceGroupName": "string",
```

```
    "InstanceId": "string",
    "InstanceStatus": {
      "Message": "string",
      "Status": "string"
    },
    "InstanceType": "string",
    "LaunchTime": number
  }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ClusterNodeSummaries

The summaries of listed instances in a SageMaker HyperPod cluster

Type: Array of [ClusterNodeSummary](#) objects

### NextToken

The next token specified for listing instances in a SageMaker HyperPod cluster.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListClusters

Service: Amazon SageMaker Service

Retrieves the list of SageMaker HyperPod clusters.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

Set a start time for the time range during which you want to list SageMaker HyperPod clusters. Timestamps are formatted according to the ISO 8601 standard.

Acceptable formats include:

- YYYY-MM-DDThh:mm:ss.sssTZD (UTC), for example, 2014-10-01T20:30:00.000Z
- YYYY-MM-DDThh:mm:ss.sssTZD (with offset), for example, 2014-10-01T12:30:00.000-08:00
- YYYY-MM-DD, for example, 2014-10-01
- Unix time in seconds, for example, 1412195400. This is also referred to as Unix Epoch time and represents the number of seconds since midnight, January 1, 1970 UTC.

For more information about the timestamp format, see [Timestamp](#) in the *AWS Command Line Interface User Guide*.

Type: Timestamp

Required: No

### CreationTimeBefore

Set an end time for the time range during which you want to list SageMaker HyperPod clusters. A filter that returns nodes in a SageMaker HyperPod cluster created before the specified time. The acceptable formats are the same as the timestamp formats for `CreationTimeAfter`. For more information about the timestamp format, see [Timestamp](#) in the *AWS Command Line Interface User Guide*.

Type: Timestamp

Required: No

### MaxResults

Set the maximum number of SageMaker HyperPod clusters to list.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

Set the maximum number of instances to print in the list.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `[a-zA-Z0-9\ - ]+`

Required: No

### NextToken

Set the next token to retrieve the list of SageMaker HyperPod clusters.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

## SortBy

The field by which to sort results. The default value is CREATION\_TIME.

Type: String

Valid Values: CREATION\_TIME | NAME

Required: No

## SortOrder

The sort order for results. The default value is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "ClusterSummaries": [
    {
      "ClusterArn": "string",
      "ClusterName": "string",
      "ClusterStatus": "string",
      "CreationTime": number
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ClusterSummaries

The summaries of listed SageMaker HyperPod clusters.



Type: Array of [ClusterSummary](#) objects

### **NextToken**

If the result of the previous `ListClusters` request was truncated, the response includes a `NextToken`. To retrieve the next set of clusters, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListCodeRepositories

Service: Amazon SageMaker Service

Gets a list of the Git repositories in your account.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

A filter that returns only Git repositories that were created after the specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

A filter that returns only Git repositories that were created before the specified time.

Type: Timestamp

Required: No

### [LastModifiedTimeAfter](#)

A filter that returns only Git repositories that were last modified after the specified time.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns only Git repositories that were last modified before the specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of Git repositories to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in the Git repositories name. This filter returns only repositories whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9-]+

Required: No

### NextToken

If the result of a `ListCodeRepositoriesOutput` request was truncated, the response includes a `NextToken`. To get the next set of Git repositories, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## SortBy

The field to sort results by. The default is Name.

Type: String

Valid Values: Name | CreationTime | LastModifiedTime

Required: No

## SortOrder

The sort order for results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "CodeRepositorySummaryList": [
    {
      "CodeRepositoryArn": "string",
      "CodeRepositoryName": "string",
      "CreationTime": number,
      "GitConfig": {
        "Branch": "string",
        "RepositoryUrl": "string",
        "SecretArn": "string"
      },
      "LastModifiedTime": number
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CodeRepositorySummaryList](#)

Gets a list of summaries of the Git repositories. Each summary specifies the following values for the repository:

- Name
- Amazon Resource Name (ARN)
- Creation time
- Last modified time
- Configuration information, including the URL location of the repository and the ARN of the AWS Secrets Manager secret that contains the credentials used to access the repository.

Type: Array of [CodeRepositorySummary](#) objects

### [NextToken](#)

If the result of a `ListCodeRepositoriesOutput` request was truncated, the response includes a `NextToken`. To get the next set of Git repositories, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . \*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListCompilationJobs

Service: Amazon SageMaker Service

Lists model compilation jobs that satisfy various filters.

To create a model compilation job, use [CreateCompilationJob](#). To get information about a particular model compilation job you have created, use [DescribeCompilationJob](#).

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

A filter that returns the model compilation jobs that were created after a specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

A filter that returns the model compilation jobs that were created before a specified time.

Type: Timestamp

Required: No

### LastModifiedTimeAfter

A filter that returns the model compilation jobs that were modified after a specified time.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns the model compilation jobs that were modified before a specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of model compilation jobs to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A filter that returns the model compilation jobs whose name contains a specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

### NextToken

If the result of the previous `ListCompilationJobs` request was truncated, the response includes a `NextToken`. To retrieve the next set of model compilation jobs, use the token in the next request.



Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The field by which to sort results. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime` | `Status`

Required: No

### SortOrder

The sort order for results. The default is `Ascending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

### StatusEquals

A filter that retrieves model compilation jobs with a specific `CompilationJobStatus` status.

Type: String

Valid Values: `INPROGRESS` | `COMPLETED` | `FAILED` | `STARTING` | `STOPPING` | `STOPPED`

Required: No

## Response Syntax

```
{  
  "CompilationJobSummaries": [  
    ...  
  ]  
}
```

```
{
  "CompilationEndTime": number,
  "CompilationJobArn": "string",
  "CompilationJobName": "string",
  "CompilationJobStatus": "string",
  "CompilationStartTime": number,
  "CompilationTargetDevice": "string",
  "CompilationTargetPlatformAccelerator": "string",
  "CompilationTargetPlatformArch": "string",
  "CompilationTargetPlatformOs": "string",
  "CreationTime": number,
  "LastModifiedTime": number
},
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CompilationJobSummaries

An array of [CompilationJobSummary](#) objects, each describing a model compilation job.

Type: Array of [CompilationJobSummary](#) objects

### NextToken

If the response is truncated, Amazon SageMaker returns this NextToken. To retrieve the next set of model compilation jobs, use this token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListContexts

Service: Amazon SageMaker Service

Lists the contexts in your account and their properties.

### Request Syntax

```
{
  "ContextType": "string",
  "CreatedAfter": number,
  "CreatedBefore": number,
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "SourceUri": "string"
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

#### [ContextType](#)

A filter that returns only contexts of the specified type.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### [CreatedAfter](#)

A filter that returns only contexts created on or after the specified time.

Type: Timestamp

Required: No

#### [CreatedBefore](#)

A filter that returns only contexts created on or before the specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of contexts to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the previous call to `ListContexts` didn't return the full set of contexts, the call returns a token for getting the next set of contexts.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

### SortOrder

The sort order. The default value is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## SourceUri

A filter that returns only contexts with the specified source URI.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: .\*

Required: No

## Response Syntax

```
{
  "ContextSummaries": [
    {
      "ContextArn": "string",
      "ContextName": "string",
      "ContextType": "string",
      "CreationTime": number,
      "LastModifiedTime": number,
      "Source": {
        "SourceId": "string",
        "SourceType": "string",
        "SourceUri": "string"
      }
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ContextSummaries

A list of contexts and their properties.

Type: Array of [ContextSummary](#) objects

## **NextToken**

A token for getting the next set of contexts, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListDataQualityJobDefinitions

Service: Amazon SageMaker Service

Lists the data quality job definitions in your account.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "EndpointName": "string",
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

A filter that returns only data quality monitoring job definitions created after the specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

A filter that returns only data quality monitoring job definitions created before the specified time.

Type: Timestamp

Required: No

### [EndpointName](#)

A filter that lists the data quality job definitions associated with the specified endpoint.



Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### MaxResults

The maximum number of data quality monitoring job definitions to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in the data quality monitoring job definition name. This filter returns only data quality monitoring job definitions whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `[a-zA-Z0-9\ - ]+`

Required: No

### NextToken

If the result of the previous `ListDataQualityJobDefinitions` request was truncated, the response includes a `NextToken`. To retrieve the next set of transform jobs, use the token in the next request.>

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

## SortBy

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

## SortOrder

Whether to sort the results in Ascending or Descending order. The default is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{
  "JobDefinitionSummaries": [
    {
      "CreationTime": number,
      "EndpointName": "string",
      "MonitoringJobDefinitionArn": "string",
      "MonitoringJobDefinitionName": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobDefinitionSummaries

A list of data quality monitoring job definitions.

Type: Array of [MonitoringJobDefinitionSummary](#) objects

### NextToken

If the result of the previous `ListDataQualityJobDefinitions` request was truncated, the response includes a `NextToken`. To retrieve the next set of data quality monitoring job definitions, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListDeviceFleets

Service: Amazon SageMaker Service

Returns a list of devices in the fleet.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

Filter fleets where packaging job was created after specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

Filter fleets where the edge packaging job was created before specified time.

Type: Timestamp

Required: No

### [LastModifiedTimeAfter](#)

Select fleets where the job was updated after X

Type: Timestamp

Required: No

### LastModifiedTimeBefore

Select fleets where the job was updated before X

Type: Timestamp

Required: No

### MaxResults

The maximum number of results to select.

Type: Integer

Valid Range: Maximum value of 100.

Required: No

### NameContains

Filter for fleets containing this name in their fleet device name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\ - ]+

Required: No

### NextToken

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## SortBy

The column to sort by.

Type: String

Valid Values: NAME | CREATION\_TIME | LAST\_MODIFIED\_TIME

Required: No

## SortOrder

What direction to sort in.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "DeviceFleetSummaries": [
    {
      "CreationTime": number,
      "DeviceFleetArn": "string",
      "DeviceFleetName": "string",
      "LastModifiedTime": number
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### DeviceFleetSummaries

Summary of the device fleet.

Type: Array of [DeviceFleetSummary](#) objects

### **NextToken**

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListDevices

Service: Amazon SageMaker Service

A list of devices.

## Request Syntax

```
{
  "DeviceFleetName": "string",
  "LatestHeartbeatAfter": number,
  "MaxResults": number,
  "ModelName": "string",
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DeviceFleetName

Filter for fleets containing this name in their device fleet name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### LatestHeartbeatAfter

Select fleets where the job was updated after X

Type: Timestamp

Required: No

### MaxResults

Maximum number of results to select.



Type: Integer

Valid Range: Maximum value of 100.

Required: No

### ModelName

A filter that searches devices that contains this name in any of their models.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### NextToken

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

## Response Syntax

```
{
  "DeviceSummaries": [
    {
      "AgentVersion": "string",
      "Description": "string",
      "DeviceArn": "string",
      "DeviceFleetName": "string",
      "DeviceName": "string",
      "IotThingName": "string",
      "LatestHeartbeat": number,
      "Models": [
        {
```

```
        "ModelName": "string",
        "ModelVersion": "string"
    }
],
"RegistrationTime": number
}
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### DeviceSummaries

Summary of devices.

Type: Array of [DeviceSummary](#) objects

### NextToken

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListDomains

Service: Amazon SageMaker Service

Lists the domains.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [MaxResults](#)

This parameter defines the maximum number of results that can be return in a single response. The `MaxResults` parameter is an upper bound, not a target. If there are more results available than the value specified, a `NextToken` is provided in the response. The `NextToken` indicates that the user should get the next set of results by providing this token as a part of a subsequent call. The default value for `MaxResults` is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NextToken](#)

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## Response Syntax

```
{
  "Domains": [
    {
      "CreationTime": number,
      "DomainArn": "string",
      "DomainId": "string",
      "DomainName": "string",
      "LastModifiedTime": number,
      "Status": "string",
      "Url": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Domains

The list of domains.

Type: Array of [DomainDetails](#) objects

### NextToken

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListEdgeDeploymentPlans

Service: Amazon SageMaker Service

Lists all edge deployment plans.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "DeviceFleetNameContains": "string",
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

Selects edge deployment plans created after this time.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

Selects edge deployment plans created before this time.

Type: Timestamp

Required: No

### [DeviceFleetNameContains](#)

Selects edge deployment plans with a device fleet name containing this name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\ - ]+

Required: No

### LastModifiedTimeAfter

Selects edge deployment plans that were last updated after this time.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

Selects edge deployment plans that were last updated before this time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of results to select (50 by default).

Type: Integer

Valid Range: Maximum value of 100.

Required: No

### NameContains

Selects edge deployment plans with names containing this name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\ - ]+

Required: No



## NextToken

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## SortBy

The column by which to sort the edge deployment plans. Can be one of NAME, DEVICEFLEETNAME, CREATIONTIME, LASTMODIFIEDTIME.

Type: String

Valid Values: NAME | DEVICE\_FLEET\_NAME | CREATION\_TIME | LAST\_MODIFIED\_TIME

Required: No

## SortOrder

The direction of the sorting (ascending or descending).

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "EdgeDeploymentPlanSummaries": [
    {
      "CreationTime": number,
      "DeviceFleetName": "string",
      "EdgeDeploymentFailed": number,
      "EdgeDeploymentPending": number,
      "EdgeDeploymentPlanArn": "string",
      "EdgeDeploymentPlanName": "string",
    }
  ]
}
```

```
    "EdgeDeploymentSuccess": number,
    "LastModifiedTime": number
  }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### EdgeDeploymentPlanSummaries

List of summaries of edge deployment plans.

Type: Array of [EdgeDeploymentPlanSummary](#) objects

### NextToken

The token to use when calling the next page of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListEdgePackagingJobs

Service: Amazon SageMaker Service

Returns a list of edge packaging jobs.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "ModelNameContains": "string",
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

Select jobs where the job was created after specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

Select jobs where the job was created before specified time.

Type: Timestamp

Required: No

### LastModifiedTimeAfter

Select jobs where the job was updated after specified time.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

Select jobs where the job was updated before specified time.

Type: Timestamp

Required: No

### MaxResults

Maximum number of results to select.

Type: Integer

Valid Range: Maximum value of 100.

Required: No

### ModelNameContains

Filter for jobs where the model name contains this string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

### NameContains

Filter for jobs containing this name in their packaging job name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

### NextToken

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

Use to specify what column to sort by.

Type: String

Valid Values: NAME | MODEL\_NAME | CREATION\_TIME | LAST\_MODIFIED\_TIME | STATUS

Required: No

### SortOrder

What direction to sort by.

Type: String

Valid Values: Ascending | Descending

Required: No

### StatusEquals

The job status to filter for.

Type: String

Valid Values: STARTING | INPROGRESS | COMPLETED | FAILED | STOPPING | STOPPED

Required: No

## Response Syntax

```
{
  "EdgePackagingJobSummaries": [
    {
      "CompilationJobName": "string",
      "CreationTime": number,
      "EdgePackagingJobArn": "string",
      "EdgePackagingJobName": "string",
      "EdgePackagingJobStatus": "string",
      "LastModifiedTime": number,
      "ModelName": "string",
      "ModelVersion": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [EdgePackagingJobSummaries](#)

Summaries of edge packaging jobs.

Type: Array of [EdgePackagingJobSummary](#) objects

### [NextToken](#)

Token to use when calling the next page of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListEndpointConfigs

Service: Amazon SageMaker Service

Lists endpoint configurations.

## Request Syntax

```
{  
  "CreationTimeAfter": number,  
  "CreationTimeBefore": number,  
  "MaxResults": number,  
  "NameContains": "string",  
  "NextToken": "string",  
  "SortBy": "string",  
  "SortOrder": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only endpoint configurations with a creation time greater than or equal to the specified time (timestamp).

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only endpoint configurations created before the specified time (timestamp).

Type: Timestamp

Required: No

### MaxResults

The maximum number of training jobs to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in the endpoint configuration name. This filter returns only endpoint configurations whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9- ]+

Required: No

### NextToken

If the result of the previous `ListEndpointConfig` request was truncated, the response includes a `NextToken`. To retrieve the next set of endpoint configurations, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

### SortOrder

The sort order for results. The default is `Descending`.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "EndpointConfigs": [
    {
      "CreationTime": number,
      "EndpointConfigArn": "string",
      "EndpointConfigName": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### EndpointConfigs

An array of endpoint configurations.

Type: Array of [EndpointConfigSummary](#) objects

### NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of endpoint configurations, use it in the subsequent request

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListEndpoints

Service: Amazon SageMaker Service

Lists endpoints.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only endpoints with a creation time greater than or equal to the specified time (timestamp).

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only endpoints that were created before the specified time (timestamp).

Type: Timestamp

Required: No

### LastModifiedTimeAfter

A filter that returns only endpoints that were modified after the specified timestamp.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns only endpoints that were modified before the specified timestamp.

Type: Timestamp

Required: No

### MaxResults

The maximum number of endpoints to return in the response. This value defaults to 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in endpoint names. This filter returns only endpoints whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9-]+

Required: No

### NextToken

If the result of a `ListEndpoints` request was truncated, the response includes a `NextToken`. To retrieve the next set of endpoints, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

Sorts the list of results. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime` | `Status`

Required: No

### SortOrder

The sort order for results. The default is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

### StatusEquals

A filter that returns only endpoints with the specified status.

Type: String

Valid Values: `OutOfService` | `Creating` | `Updating` | `SystemUpdating` | `RollingBack` | `InService` | `Deleting` | `Failed` | `UpdateRollbackFailed`

Required: No

## Response Syntax

```
{
  "Endpoints": [
    {
      "CreationTime": number,
      "EndpointArn": "string",
```

```
    "EndpointName": "string",
    "EndpointStatus": "string",
    "LastModifiedTime": number
  }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Endpoints

An array of endpoint objects.

Type: Array of [EndpointSummary](#) objects

### NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of training jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)



- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListExperiments

Service: Amazon SageMaker Service

Lists all the experiments in your account. The list can be filtered to show only experiments that were created in a specific time range. The list can be sorted by experiment name or creation time.

## Request Syntax

```
{
  "CreatedAfter": number,
  "CreatedBefore": number,
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreatedAfter

A filter that returns only experiments created after the specified time.

Type: Timestamp

Required: No

### CreatedBefore

A filter that returns only experiments created before the specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of experiments to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the previous call to `ListExperiments` didn't return the full set of experiments, the call returns a token for getting the next set of experiments.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . \*

Required: No

### SortBy

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

### SortOrder

The sort order. The default value is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{
  "ExperimentSummaries": [
    {
      "CreationTime": number,
      "DisplayName": "string",
      "ExperimentArn": "string",
```

```
    "ExperimentName": "string",
    "ExperimentSource": {
      "SourceArn": "string",
      "SourceType": "string"
    },
    "LastModifiedTime": number
  },
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ExperimentSummaries

A list of the summaries of your experiments.

Type: Array of [ExperimentSummary](#) objects

### NextToken

A token for getting the next set of experiments, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListFeatureGroups

Service: Amazon SageMaker Service

List FeatureGroups based on given filter and order.

## Request Syntax

```
{  
  "CreationTimeAfter": number,  
  "CreationTimeBefore": number,  
  "FeatureGroupStatusEquals": "string",  
  "MaxResults": number,  
  "NameContains": "string",  
  "NextToken": "string",  
  "OfflineStoreStatusEquals": "string",  
  "SortBy": "string",  
  "SortOrder": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

Use this parameter to search for FeatureGroupss created after a specific date and time.

Type: Timestamp

Required: No

### CreationTimeBefore

Use this parameter to search for FeatureGroupss created before a specific date and time.

Type: Timestamp

Required: No

### FeatureGroupStatusEquals

A FeatureGroup status. Filters by FeatureGroup status.

Type: String

Valid Values: Creating | Created | CreateFailed | Deleting | DeleteFailed

Required: No

### MaxResults

The maximum number of results returned by ListFeatureGroups.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string that partially matches one or more FeatureGroups names. Filters FeatureGroups by name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

### NextToken

A token to resume pagination of ListFeatureGroups results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### OfflineStoreStatusEquals

An OfflineStore status. Filters by OfflineStore status.

Type: String

Valid Values: Active | Blocked | Disabled

Required: No

### SortBy

The value on which the feature group list is sorted.

Type: String

Valid Values: Name | FeatureGroupStatus | OfflineStoreStatus | CreationTime

Required: No

### SortOrder

The order in which feature groups are listed.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "FeatureGroupSummaries": [
    {
      "CreationTime": number,
      "FeatureGroupArn": "string",
      "FeatureGroupName": "string",
      "FeatureGroupStatus": "string",
      "OfflineStoreStatus": {
        "BlockedReason": "string",
        "Status": "string"
      }
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.



The following data is returned in JSON format by the service.

### FeatureGroupSummaries

A summary of feature groups.

Type: Array of [FeatureGroupSummary](#) objects

### NextToken

A token to resume pagination of `ListFeatureGroups` results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListFlowDefinitions

Service: Amazon SageMaker Service

Returns information about the flow definitions in your account.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "MaxResults": number,
  "NextToken": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

A filter that returns only flow definitions with a creation time greater than or equal to the specified timestamp.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

A filter that returns only flow definitions that were created before the specified timestamp.

Type: Timestamp

Required: No

### [MaxResults](#)

The total number of items to return. If the total number of available items is more than the value specified in `MaxResults`, then a `NextToken` will be provided in the output that you can use to resume pagination.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortOrder

An optional value that specifies whether you want the results sorted in Ascending or Descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "FlowDefinitionSummaries": [
    {
      "CreationTime": number,
      "FailureReason": "string",
      "FlowDefinitionArn": "string",
      "FlowDefinitionName": "string",
      "FlowDefinitionStatus": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### FlowDefinitionSummaries

An array of objects describing the flow definitions.

Type: Array of [FlowDefinitionSummary](#) objects

### NextToken

A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListHubContents

Service: Amazon SageMaker Service

List the contents of a hub.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "HubContentType": "string",
  "HubName": "string",
  "MaxResults": number,
  "MaxSchemaVersion": "string",
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

Only list hub content that was created after the time specified.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

Only list hub content that was created before the time specified.

Type: Timestamp

Required: No

### [HubContentType](#)

The type of hub content to list.

Type: String

Valid Values: Model | Notebook | ModelReference

Required: Yes

### HubName

The name of the hub to list the contents of.

Type: String

Pattern: `^(arn:[a-z0-9-\.]{{1,63}}:sagemaker:\w+(?:-\w+)+:(\d{12}|aws):hub\w)?[a-zA-Z0-9](-*[a-zA-Z0-9]){{0,62}}$`

Required: Yes

### MaxResults

The maximum amount of hub content to list.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### MaxSchemaVersion

The upper bound of the hub content schema version.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: `^\d{1,4}.\d{1,4}.\d{1,4}$`

Required: No

### NameContains

Only list hub content if the name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

### NextToken

If the response to a previous `ListHubContents` request was truncated, the response includes a `NextToken`. To retrieve the next set of hub content, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

Sort hub content versions by either name or creation time.

Type: String

Valid Values: `HubContentName` | `CreationTime` | `HubContentStatus`

Required: No

### SortOrder

Sort hubs by ascending or descending order.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{
  "HubContentSummaries": [
    {
      "CreationTime": number,
```



```
    "DocumentSchemaVersion": "string",
    "HubContentArn": "string",
    "HubContentDescription": "string",
    "HubContentDisplayName": "string",
    "HubContentName": "string",
    "HubContentSearchKeywords": [ "string" ],
    "HubContentStatus": "string",
    "HubContentType": "string",
    "HubContentVersion": "string",
    "OriginalCreationTime": number,
    "SageMakerPublicHubContentArn": "string",
    "SupportStatus": "string"
  }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### HubContentSummaries

The summaries of the listed hub content.

Type: Array of [HubContentInfo](#) objects

### NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of hub content, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListHubContentVersions

Service: Amazon SageMaker Service

List hub content versions.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "HubContentName": "string",
  "HubContentType": "string",
  "HubName": "string",
  "MaxResults": number,
  "MaxSchemaVersion": "string",
  "MinVersion": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

Only list hub content versions that were created after the time specified.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

Only list hub content versions that were created before the time specified.

Type: Timestamp

Required: No

## HubContentName

The name of the hub content.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## HubContentType

The type of hub content to list versions of.

Type: String

Valid Values: Model | Notebook | ModelReference

Required: Yes

## HubName

The name of the hub to list the content versions of.

Type: String

Pattern: `^(arn:[a-z0-9-\.]{{1,63}}:sagemaker:\w+(?:-\w+)+:(\d{12}|aws):hub\w/)?[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## MaxResults

The maximum number of hub content versions to list.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

## MaxSchemaVersion

The upper bound of the hub content schema version.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: `^\d{1,4}.\d{1,4}.\d{1,4}$`

Required: No

### MinVersion

The lower bound of the hub content versions to list.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: `^\d{1,4}.\d{1,4}.\d{1,4}$`

Required: No

### NextToken

If the response to a previous `ListHubContentVersions` request was truncated, the response includes a `NextToken`. To retrieve the next set of hub content versions, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### SortBy

Sort hub content versions by either name or creation time.

Type: String

Valid Values: `HubContentName` | `CreationTime` | `HubContentStatus`

Required: No

### SortOrder

Sort hub content versions by ascending or descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "HubContentSummaries": [
    {
      "CreationTime": number,
      "DocumentSchemaVersion": "string",
      "HubContentArn": "string",
      "HubContentDescription": "string",
      "HubContentDisplayName": "string",
      "HubContentName": "string",
      "HubContentSearchKeywords": [ "string" ],
      "HubContentStatus": "string",
      "HubContentType": "string",
      "HubContentVersion": "string",
      "OriginalCreationTime": number,
      "SageMakerPublicHubContentArn": "string",
      "SupportStatus": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [HubContentSummaries](#)

The summaries of the listed hub content versions.

Type: Array of [HubContentInfo](#) objects

### [NextToken](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of hub content versions, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListHubs

Service: Amazon SageMaker Service

List all existing hubs.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

Only list hubs that were created after the time specified.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

Only list hubs that were created before the time specified.

Type: Timestamp

Required: No

### [LastModifiedTimeAfter](#)

Only list hubs that were last modified after the time specified.



Type: Timestamp

Required: No

### LastModifiedTimeBefore

Only list hubs that were last modified before the time specified.

Type: Timestamp

Required: No

### MaxResults

The maximum number of hubs to list.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

Only list hubs with names that contain the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

### NextToken

If the response to a previous `ListHubs` request was truncated, the response includes a `NextToken`. To retrieve the next set of hubs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## SortBy

Sort hubs by either name or creation time.

Type: String

Valid Values: HubName | CreationTime | HubStatus | AccountIdOwner

Required: No

## SortOrder

Sort hubs by ascending or descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "HubSummaries": [
    {
      "CreationTime": number,
      "HubArn": "string",
      "HubDescription": "string",
      "HubDisplayName": "string",
      "HubName": "string",
      "HubSearchKeywords": [ "string" ],
      "HubStatus": "string",
      "LastModifiedTime": number
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## [HubSummaries](#)

The summaries of the listed hubs.

Type: Array of [HubInfo](#) objects

## [NextToken](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of hubs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListHumanTaskUis

Service: Amazon SageMaker Service

Returns information about the human task user interfaces in your account.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "MaxResults": number,
  "NextToken": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

A filter that returns only human task user interfaces with a creation time greater than or equal to the specified timestamp.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

A filter that returns only human task user interfaces that were created before the specified timestamp.

Type: Timestamp

Required: No

### [MaxResults](#)

The total number of items to return. If the total number of available items is more than the value specified in `MaxResults`, then a `NextToken` will be provided in the output that you can use to resume pagination.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortOrder

An optional value that specifies whether you want the results sorted in Ascending or Descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "HumanTaskUiSummaries": [
    {
      "CreationTime": number,
      "HumanTaskUiArn": "string",
      "HumanTaskUiName": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### HumanTaskUiSummaries

An array of objects describing the human task user interfaces.

Type: Array of [HumanTaskUiSummary](#) objects

### NextToken

A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListHyperParameterTuningJobs

Service: Amazon SageMaker Service

Gets a list of [HyperParameterTuningJobSummary](#) objects that describe the hyperparameter tuning jobs launched in your account.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

A filter that returns only tuning jobs that were created after the specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

A filter that returns only tuning jobs that were created before the specified time.

Type: Timestamp

Required: No

### LastModifiedTimeAfter

A filter that returns only tuning jobs that were modified after the specified time.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns only tuning jobs that were modified before the specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of tuning jobs to return. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in the tuning job name. This filter returns only tuning jobs whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\ - ]+

Required: No

### NextToken

If the result of the previous `ListHyperParameterTuningJobs` request was truncated, the response includes a `NextToken`. To retrieve the next set of tuning jobs, use the token in the next request.

Type: String



Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The field to sort results by. The default is Name.

Type: String

Valid Values: Name | Status | CreationTime

Required: No

### SortOrder

The sort order for results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

### StatusEquals

A filter that returns only tuning jobs with the specified status.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping | Deleting | DeleteFailed

Required: No

## Response Syntax

```
{
  "HyperParameterTuningJobSummaries": [
    {
      "CreationTime": number,
      "HyperParameterTuningEndTime": number,
```

```

    "HyperParameterTuningJobArn": "string",
    "HyperParameterTuningJobName": "string",
    "HyperParameterTuningJobStatus": "string",
    "LastModifiedTime": number,
    "ObjectiveStatusCounters": {
      "Failed": number,
      "Pending": number,
      "Succeeded": number
    },
    "ResourceLimits": {
      "MaxNumberOfTrainingJobs": number,
      "MaxParallelTrainingJobs": number,
      "MaxRuntimeInSeconds": number
    },
    "Strategy": "string",
    "TrainingJobStatusCounters": {
      "Completed": number,
      "InProgress": number,
      "NonRetryableError": number,
      "RetryableError": number,
      "Stopped": number
    }
  }
],
  "NextToken": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### HyperParameterTuningJobSummaries

A list of [HyperParameterTuningJobSummary](#) objects that describe the tuning jobs that the ListHyperParameterTuningJobs request returned.

Type: Array of [HyperParameterTuningJobSummary](#) objects

### NextToken

If the result of this ListHyperParameterTuningJobs request was truncated, the response includes a NextToken. To retrieve the next set of tuning jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListImages

Service: Amazon SageMaker Service

Lists the images in your account and their properties. The list can be filtered by creation time or modified time, and whether the image name contains a specified string.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only images created on or after the specified time.

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only images created on or before the specified time.

Type: Timestamp

Required: No

### LastModifiedTimeAfter

A filter that returns only images modified on or after the specified time.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns only images modified on or before the specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of images to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A filter that returns only images whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9\-.]+$`

Required: No

### NextToken

If the previous call to `ListImages` didn't return the full set of images, the call returns a token for getting the next set of images.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

## SortBy

The property used to sort results. The default value is CREATION\_TIME.

Type: String

Valid Values: CREATION\_TIME | LAST\_MODIFIED\_TIME | IMAGE\_NAME

Required: No

## SortOrder

The sort order. The default value is DESCENDING.

Type: String

Valid Values: ASCENDING | DESCENDING

Required: No

## Response Syntax

```
{
  "Images": [
    {
      "CreationTime": number,
      "Description": "string",
      "DisplayName": "string",
      "FailureReason": "string",
      "ImageArn": "string",
      "ImageName": "string",
      "ImageStatus": "string",
      "LastModifiedTime": number
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## Images

A list of images and their properties.

Type: Array of [Image](#) objects

## NextToken

A token for getting the next set of images, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListImageVersions

Service: Amazon SageMaker Service

Lists the versions of a specified image and their properties. The list can be filtered by creation time or modified time.

## Request Syntax

```
{  
  "CreationTimeAfter": number,  
  "CreationTimeBefore": number,  
  "ImageName": "string",  
  "LastModifiedTimeAfter": number,  
  "LastModifiedTimeBefore": number,  
  "MaxResults": number,  
  "NextToken": "string",  
  "SortBy": "string",  
  "SortOrder": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only versions created on or after the specified time.

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only versions created on or before the specified time.

Type: Timestamp

Required: No

### ImageName

The name of the image to list the versions of.



Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}$`

Required: Yes

### LastModifiedTimeAfter

A filter that returns only versions modified on or after the specified time.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns only versions modified on or before the specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of versions to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the previous call to `ListImageVersions` didn't return the full set of versions, the call returns a token for getting the next set of versions.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

## SortBy

The property used to sort results. The default value is CREATION\_TIME.

Type: String

Valid Values: CREATION\_TIME | LAST\_MODIFIED\_TIME | VERSION

Required: No

## SortOrder

The sort order. The default value is DESCENDING.

Type: String

Valid Values: ASCENDING | DESCENDING

Required: No

## Response Syntax

```
{
  "ImageVersions": [
    {
      "CreationTime": number,
      "FailureReason": "string",
      "ImageArn": "string",
      "ImageVersionArn": "string",
      "ImageVersionStatus": "string",
      "LastModifiedTime": number,
      "Version": number
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## ImageVersions

A list of versions and their properties.

Type: Array of [ImageVersion](#) objects

## NextToken

A token for getting the next set of versions, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . \*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

# ListInferenceComponents

Service: Amazon SageMaker Service

Lists the inference components in your account and their properties.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "EndpointNameEquals": "string",
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string",
  "VariantNameEquals": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

Filters the results to only those inference components that were created after the specified time.

Type: Timestamp

Required: No

### CreationTimeBefore

Filters the results to only those inference components that were created before the specified time.

Type: Timestamp

Required: No

### EndpointNameEquals

An endpoint name to filter the listed inference components. The response includes only those inference components that are hosted at the specified endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern:  $^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$

Required: No

### LastModifiedTimeAfter

Filters the results to only those inference components that were updated after the specified time.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

Filters the results to only those inference components that were updated before the specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of inference components to return in the response. This value defaults to 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

Filters the results to only those inference components with a name that contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9-]+

Required: No

### NextToken

A token that you use to get the next set of results following a truncated response. If the response to the previous request was truncated, that response provides the value for this token.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The field by which to sort the inference components in the response. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime` | `Status`

Required: No

### SortOrder

The sort order for results. The default is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

### StatusEquals

Filters the results to only those inference components with the specified status.

Type: String

Valid Values: InService | Creating | Updating | Failed | Deleting

Required: No

### VariantNameEquals

A production variant name to filter the listed inference components. The response includes only those inference components that are hosted at the specified variant.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## Response Syntax

```
{
  "InferenceComponents": [
    {
      "CreationTime": number,
      "EndpointArn": "string",
      "EndpointName": "string",
      "InferenceComponentArn": "string",
      "InferenceComponentName": "string",
      "InferenceComponentStatus": "string",
      "LastModifiedTime": number,
      "VariantName": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.



## InferenceComponents

A list of inference components and their properties that matches any of the filters you specified in the request.

Type: Array of [InferenceComponentSummary](#) objects

## NextToken

The token to use in a subsequent request to get the next set of results following a truncated response.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListInferenceExperiments

Service: Amazon SageMaker Service

Returns the list of all inference experiments.

## Request Syntax

```
{  
  "CreationTimeAfter": number,  
  "CreationTimeBefore": number,  
  "LastModifiedTimeAfter": number,  
  "LastModifiedTimeBefore": number,  
  "MaxResults": number,  
  "NameContains": "string",  
  "NextToken": "string",  
  "SortBy": "string",  
  "SortOrder": "string",  
  "StatusEquals": "string",  
  "Type": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

Selects inference experiments which were created after this timestamp.

Type: Timestamp

Required: No

### CreationTimeBefore

Selects inference experiments which were created before this timestamp.

Type: Timestamp

Required: No

### LastModifiedTimeAfter

Selects inference experiments which were last modified after this timestamp.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

Selects inference experiments which were last modified before this timestamp.

Type: Timestamp

Required: No

### MaxResults

The maximum number of results to select.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

Selects inference experiments whose names contain this name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\ - ]+

Required: No

### NextToken

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The column by which to sort the listed inference experiments.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

### SortOrder

The direction of sorting (ascending or descending).

Type: String

Valid Values: Ascending | Descending

Required: No

### StatusEquals

Selects inference experiments which are in this status. For the possible statuses, see [DescribeInferenceExperiment](#).

Type: String

Valid Values: Creating | Created | Updating | Running | Starting | Stopping  
| Completed | Cancelled

Required: No

### Type

Selects inference experiments of this type. For the possible types of inference experiments, see [CreateInferenceExperiment](#).

Type: String

Valid Values: ShadowMode

Required: No

## Response Syntax

```
{
  "InferenceExperiments": [
    {
      "CompletionTime": number,
      "CreationTime": number,
      "Description": "string",
      "LastModifiedTime": number,
      "Name": "string",
      "RoleArn": "string",
      "Schedule": {
        "EndTime": number,
        "StartTime": number
      },
      "Status": "string",
      "StatusReason": "string",
      "Type": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### InferenceExperiments

List of inference experiments.

Type: Array of [InferenceExperimentSummary](#) objects

### NextToken

The token to use when calling the next page of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListInferenceRecommendationsJobs

Service: Amazon SageMaker Service

Lists recommendation jobs that satisfy various filters.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "ModelNameEquals": "string",
  "ModelPackageVersionArnEquals": "string",
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

A filter that returns only jobs created after the specified time (timestamp).

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

A filter that returns only jobs created before the specified time (timestamp).

Type: Timestamp

Required: No

### LastModifiedTimeAfter

A filter that returns only jobs that were last modified after the specified time (timestamp).

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns only jobs that were last modified before the specified time (timestamp).

Type: Timestamp

Required: No

### MaxResults

The maximum number of recommendations to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### ModelNameEquals

A filter that returns only jobs that were created for this model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\ -a-zA-Z0-9 ] * [a-zA-Z0-9] ) ?`

Required: No

### ModelPackageVersionArnEquals

A filter that returns only jobs that were created for this versioned model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.



Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-]{9,16}:[0-9]{12}:model-package/[\S]{1,2048}$`

Required: No

### NameContains

A string in the job name. This filter returns only recommendations whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `[a-zA-Z0-9\-]+`

Required: No

### NextToken

If the response to a previous `ListInferenceRecommendationsJobsRequest` request was truncated, the response includes a `NextToken`. To retrieve the next set of recommendations, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### SortBy

The parameter by which to sort the results.

Type: String

Valid Values: `Name` | `CreationTime` | `Status`

Required: No

### SortOrder

The sort order for the results.

Type: String

Valid Values: Ascending | Descending

Required: No

### StatusEquals

A filter that retrieves only inference recommendations jobs with a specific status.

Type: String

Valid Values: PENDING | IN\_PROGRESS | COMPLETED | FAILED | STOPPING | STOPPED | DELETING | DELETED

Required: No

## Response Syntax

```
{
  "InferenceRecommendationsJobs": [
    {
      "CompletionTime": number,
      "CreationTime": number,
      "FailureReason": "string",
      "JobArn": "string",
      "JobDescription": "string",
      "JobName": "string",
      "JobType": "string",
      "LastModifiedTime": number,
      "ModelName": "string",
      "ModelPackageVersionArn": "string",
      "RoleArn": "string",
      "SamplePayloadUrl": "string",
      "Status": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [InferenceRecommendationsJobs](#)

The recommendations created from the Amazon SageMaker Inference Recommender job.

Type: Array of [InferenceRecommendationsJob](#) objects

### [NextToken](#)

A token for getting the next set of recommendations, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListInferenceRecommendationsJobSteps

Service: Amazon SageMaker Service

Returns a list of the subtasks for an Inference Recommender job.

The supported subtasks are benchmarks, which evaluate the performance of your model on different instance types.

## Request Syntax

```
{
  "JobName": "string",
  "MaxResults": number,
  "NextToken": "string",
  "Status": "string",
  "StepType": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobName

The name for the Inference Recommender job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,63}`

Required: Yes

### MaxResults

The maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

## NextToken

A token that you can specify to return more results from the list. Specify this field if you have a token that was returned from a previous request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## Status

A filter to return benchmarks of a specified status. If this field is left empty, then all benchmarks are returned.

Type: String

Valid Values: PENDING | IN\_PROGRESS | COMPLETED | FAILED | STOPPING | STOPPED | DELETING | DELETED

Required: No

## StepType

A filter to return details about the specified type of subtask.

BENCHMARK: Evaluate the performance of your model on different instance types.

Type: String

Valid Values: BENCHMARK

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Steps": [
    {
      "InferenceBenchmark": {
        "EndpointConfiguration": {
```

```

    "EndpointName": "string",
    "InitialInstanceCount": number,
    "InstanceType": "string",
    "ServerlessConfig": {
      "MaxConcurrency": number,
      "MemorySizeInMB": number,
      "ProvisionedConcurrency": number
    },
    "VariantName": "string"
  },
  "EndpointMetrics": {
    "MaxInvocations": number,
    "ModelLatency": number
  },
  "FailureReason": "string",
  "InvocationEndTime": number,
  "InvocationStartTime": number,
  "Metrics": {
    "CostPerHour": number,
    "CostPerInference": number,
    "CpuUtilization": number,
    "MaxInvocations": number,
    "MemoryUtilization": number,
    "ModelLatency": number,
    "ModelSetupTime": number
  },
  "ModelConfiguration": {
    "CompilationJobName": "string",
    "EnvironmentParameters": [
      {
        "Key": "string",
        "Value": "string",
        "ValueType": "string"
      }
    ],
    "InferenceSpecificationName": "string"
  }
},
"JobName": "string",
>Status": "string",
StepType": "string"
}
]

```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A token that you can specify in your next request to return more results from the list.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### Steps

A list of all subtask details in Inference Recommender.

Type: Array of [InferenceRecommendationsJobStep](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListLabelingJobs

Service: Amazon SageMaker Service

Gets a list of labeling jobs.

## Request Syntax

```
{  
  "CreationTimeAfter": number,  
  "CreationTimeBefore": number,  
  "LastModifiedTimeAfter": number,  
  "LastModifiedTimeBefore": number,  
  "MaxResults": number,  
  "NameContains": "string",  
  "NextToken": "string",  
  "SortBy": "string",  
  "SortOrder": "string",  
  "StatusEquals": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only labeling jobs created after the specified time (timestamp).

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only labeling jobs created before the specified time (timestamp).

Type: Timestamp

Required: No

### LastModifiedTimeAfter

A filter that returns only labeling jobs modified after the specified time (timestamp).

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns only labeling jobs modified before the specified time (timestamp).

Type: Timestamp

Required: No

### MaxResults

The maximum number of labeling jobs to return in each page of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in the labeling job name. This filter returns only labeling jobs whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\ - ]+

Required: No

### NextToken

If the result of the previous `ListLabelingJobs` request was truncated, the response includes a `NextToken`. To retrieve the next set of labeling jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime` | `Status`

Required: No

### SortOrder

The sort order for results. The default is `Ascending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

### StatusEquals

A filter that retrieves only labeling jobs with a specific status.

Type: String

Valid Values: `Initializing` | `InProgress` | `Completed` | `Failed` | `Stopping` | `Stopped`

Required: No

## Response Syntax

```
{
  "LabelingJobSummaryList": [
    {
      "AnnotationConsolidationLambdaArn": "string",
      "CreationTime": number,
      "FailureReason": "string",
      "InputConfig": {
        "DataAttributes": {
```

```

        "ContentClassifiers": [ "string" ]
    },
    "DataSource": {
        "S3DataSource": {
            "ManifestS3Uri": "string"
        },
        "SnsDataSource": {
            "SnsTopicArn": "string"
        }
    }
},
"LabelCounters": {
    "FailedNonRetryableError": number,
    "HumanLabeled": number,
    "MachineLabeled": number,
    "TotalLabeled": number,
    "Unlabeled": number
},
"LabelingJobArn": "string",
"LabelingJobName": "string",
"LabelingJobOutput": {
    "FinalActiveLearningModelArn": "string",
    "OutputDatasetS3Uri": "string"
},
"LabelingJobStatus": "string",
"LastModifiedTime": number,
"PreHumanTaskLambdaArn": "string",
"WorkteamArn": "string"
}
],
"NextToken": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### LabelingJobSummaryList

An array of `LabelingJobSummary` objects, each describing a labeling job.

Type: Array of [LabelingJobSummary](#) objects

## NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of labeling jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListLabelingJobsForWorkteam

Service: Amazon SageMaker Service

Gets a list of labeling jobs assigned to a specified work team.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "JobReferenceCodeContains": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "WorkteamArn": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

A filter that returns only labeling jobs created after the specified time (timestamp).

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

A filter that returns only labeling jobs created before the specified time (timestamp).

Type: Timestamp

Required: No

### [JobReferenceCodeContains](#)

A filter that limits jobs to only the ones whose job reference code contains the specified string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: No

### MaxResults

The maximum number of labeling jobs to return in each page of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the result of the previous `ListLabelingJobsForWorkteam` request was truncated, the response includes a `NextToken`. To retrieve the next set of labeling jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: `CreationTime`

Required: No

### SortOrder

The sort order for results. The default is `Ascending`.

Type: String

Valid Values: Ascending | Descending

Required: No

### WorkteamArn

The Amazon Resource Name (ARN) of the work team for which you want to see labeling jobs for.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:workteam/.*`

Required: Yes

## Response Syntax

```
{
  "LabelingJobSummaryList": [
    {
      "CreationTime": number,
      "JobReferenceCode": "string",
      "LabelCounters": {
        "HumanLabeled": number,
        "PendingHuman": number,
        "Total": number
      },
      "LabelingJobName": "string",
      "NumberOfHumanWorkersPerDataObject": number,
      "WorkRequesterAccountId": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.



The following data is returned in JSON format by the service.

### LabelingJobSummaryList

An array of `LabelingJobSummary` objects, each describing a labeling job.

Type: Array of [LabelingJobForWorkteamSummary](#) objects

### NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of labeling jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListLineageGroups

Service: Amazon SageMaker Service

A list of lineage groups shared with your AWS account. For more information, see [Cross-Account Lineage Tracking](#) in the *Amazon SageMaker Developer Guide*.

## Request Syntax

```
{
  "CreatedAfter": number,
  "CreatedBefore": number,
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreatedAfter](#)

A timestamp to filter against lineage groups created after a certain point in time.

Type: Timestamp

Required: No

### [CreatedBefore](#)

A timestamp to filter against lineage groups created before a certain point in time.

Type: Timestamp

Required: No

### [MaxResults](#)

The maximum number of endpoints to return in the response. This value defaults to 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of algorithms, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The parameter by which to sort the results. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

### SortOrder

The sort order for the results. The default is `Ascending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{
  "LineageGroupSummaries": [
    {
      "CreationTime": number,
      "DisplayName": "string",
```

```
    "LastModifiedTime": number,
    "LineageGroupArn": "string",
    "LineageGroupName": "string"
  }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### LineageGroupSummaries

A list of lineage groups and their properties.

Type: Array of [LineageGroupSummary](#) objects

### NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of algorithms, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListMlflowTrackingServers

Service: Amazon SageMaker Service

Lists all MLflow Tracking Servers.

## Request Syntax

```
{
  "CreatedAfter": number,
  "CreatedBefore": number,
  "MaxResults": number,
  "MlflowVersion": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "TrackingServerStatus": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreatedAfter](#)

Use the CreatedAfter filter to only list tracking servers created after a specific date and time. Listed tracking servers are shown with a date and time such as "2024-03-16T01:46:56+00:00". The CreatedAfter parameter takes in a Unix timestamp. To convert a date and time into a Unix timestamp, see [EpochConverter](#).

Type: Timestamp

Required: No

### [CreatedBefore](#)

Use the CreatedBefore filter to only list tracking servers created before a specific date and time. Listed tracking servers are shown with a date and time such as "2024-03-16T01:46:56+00:00". The CreatedBefore parameter takes in a Unix timestamp. To convert a date and time into a Unix timestamp, see [EpochConverter](#).

Type: Timestamp

Required: No

### MaxResults

The maximum number of tracking servers to list.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### MlflowVersion

Filter for tracking servers using the specified MLflow version.

Type: String

Length Constraints: Maximum length of 16.

Pattern: `^[0-9]*.[0-9]*.[0-9]*`

Required: No

### NextToken

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### SortBy

Filter for trackings servers sorting by name, creation time, or creation status.

Type: String

Valid Values: `Name` | `CreationTime` | `Status`



Required: No

### SortOrder

Change the order of the listed tracking servers. By default, tracking servers are listed in Descending order by creation time. To change the list order, you can specify `SortOrder` to be Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

### TrackingServerStatus

Filter for tracking servers with a specified creation status.

Type: String

Valid Values: Creating | Created | CreateFailed | Updating | Updated | UpdateFailed | Deleting | DeleteFailed | Stopping | Stopped | StopFailed | Starting | Started | StartFailed | MaintenanceInProgress | MaintenanceComplete | MaintenanceFailed

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "TrackingServerSummaries": [
    {
      "CreationTime": number,
      "IsActive": "string",
      "LastModifiedTime": number,
      "MlflowVersion": "string",
      "TrackingServerArn": "string",
      "TrackingServerName": "string",
      "TrackingServerStatus": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . \*

### TrackingServerSummaries

A list of tracking servers according to chosen filters.

Type: Array of [TrackingServerSummary](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListModelBiasJobDefinitions

Service: Amazon SageMaker Service

Lists model bias jobs definitions that satisfy various filters.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "EndpointName": "string",
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

A filter that returns only model bias jobs created after a specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

A filter that returns only model bias jobs created before a specified time.

Type: Timestamp

Required: No

### [EndpointName](#)

Name of the endpoint to monitor for model bias.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### MaxResults

The maximum number of model bias jobs to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

Filter for model bias jobs whose name contains a specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `[a-zA-Z0-9\ -]+`

Required: No

### NextToken

The token returned if the response is truncated. To retrieve the next set of job executions, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### SortBy

Whether to sort results by the Name or CreationTime field. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime

Required: No

### SortOrder

Whether to sort the results in Ascending or Descending order. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "JobDefinitionSummaries": [
    {
      "CreationTime": number,
      "EndpointName": "string",
      "MonitoringJobDefinitionArn": "string",
      "MonitoringJobDefinitionName": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobDefinitionSummaries

A JSON array in which each element is a summary for a model bias jobs.

Type: Array of [MonitoringJobDefinitionSummary](#) objects

### NextToken

The token returned if the response is truncated. To retrieve the next set of job executions, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListModelCardExportJobs

Service: Amazon SageMaker Service

List the export jobs for the Amazon SageMaker Model Card.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "MaxResults": number,
  "ModelCardExportJobNameContains": "string",
  "ModelCardName": "string",
  "ModelCardVersion": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

Only list model card export jobs that were created after the time specified.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

Only list model card export jobs that were created before the time specified.

Type: Timestamp

Required: No

### [MaxResults](#)

The maximum number of model card export jobs to list.



Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### ModelCardExportJobNameContains

Only list model card export jobs with names that contain the specified string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### ModelCardName

List export jobs for the model card with the specified name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelCardVersion

List export jobs for the model card with the specified version.

Type: Integer

Required: No

### NextToken

If the response to a previous `ListModelCardExportJobs` request was truncated, the response includes a `NextToken`. To retrieve the next set of model card export jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

Sort model card export jobs by either name or creation time. Sorts by creation time by default.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

### SortOrder

Sort model card export jobs by ascending or descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

### StatusEquals

Only list model card export jobs with the specified status.

Type: String

Valid Values: InProgress | Completed | Failed

Required: No

## Response Syntax

```
{
  "ModelCardExportJobSummaries": [
    {
      "CreatedAt": number,
      "LastModifiedAt": number,
      "ModelCardExportJobArn": "string",
      "ModelCardExportJobName": "string",
    }
  ]
}
```

```
    "ModelCardName": "string",
    "ModelCardVersion": number,
    "Status": "string"
  }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ModelCardExportJobSummaries

The summaries of the listed model card export jobs.

Type: Array of [ModelCardExportJobSummary](#) objects

### NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of model card export jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListModelCards

Service: Amazon SageMaker Service

List existing model cards.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "MaxResults": number,
  "ModelCardStatus": "string",
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

Only list model cards that were created after the time specified.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

Only list model cards that were created before the time specified.

Type: Timestamp

Required: No

### [MaxResults](#)

The maximum number of model cards to list.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### ModelCardStatus

Only list model cards with the specified approval status.

Type: String

Valid Values: Draft | PendingReview | Approved | Archived

Required: No

### NameContains

Only list model cards with names that contain the specified string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### NextToken

If the response to a previous `ListModelCards` request was truncated, the response includes a `NextToken`. To retrieve the next set of model cards, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### SortBy

Sort model cards by either name or creation time. Sorts by creation time by default.

Type: String

Valid Values: Name | CreationTime

Required: No

### SortOrder

Sort model cards by ascending or descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "ModelCardSummaries": [
    {
      "CreationTime": number,
      "LastModifiedTime": number,
      "ModelCardArn": "string",
      "ModelCardName": "string",
      "ModelCardStatus": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ModelCardSummaries

The summaries of the listed model cards.

Type: Array of [ModelCardSummary](#) objects

### NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of model cards, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListModelCardVersions

Service: Amazon SageMaker Service

List existing versions of an Amazon SageMaker Model Card.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "MaxResults": number,
  "ModelCardName": "string",
  "ModelCardStatus": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

Only list model card versions that were created after the time specified.

Type: Timestamp

Required: No

### CreationTimeBefore

Only list model card versions that were created before the time specified.

Type: Timestamp

Required: No

### MaxResults

The maximum number of model card versions to list.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### ModelCardName

List model card versions for the model card with the specified name or Amazon Resource Name (ARN).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: (arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:model-card/.\*)?  
([a-zA-Z0-9](-\*[a-zA-Z0-9])){0,62})

Required: Yes

### ModelCardStatus

Only list model card versions with the specified approval status.

Type: String

Valid Values: Draft | PendingReview | Approved | Archived

Required: No

### NextToken

If the response to a previous `ListModelCardVersions` request was truncated, the response includes a `NextToken`. To retrieve the next set of model card versions, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

Sort listed model card versions by version. Sorts by version by default.

Type: String

Valid Values: Version

Required: No

### SortOrder

Sort model card versions by ascending or descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "ModelCardVersionSummaryList": [
    {
      "CreationTime": number,
      "LastModifiedTime": number,
      "ModelCardArn": "string",
      "ModelCardName": "string",
      "ModelCardStatus": "string",
      "ModelCardVersion": number
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ModelCardVersionSummaryList

The summaries of the listed versions of the model card.

Type: Array of ModelCardVersionSummary objects

## **NextToken**

If the response is truncated, SageMaker returns this token. To retrieve the next set of model card versions, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListModelExplainabilityJobDefinitions

Service: Amazon SageMaker Service

Lists model explainability job definitions that satisfy various filters.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "EndpointName": "string",
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

A filter that returns only model explainability jobs created after a specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

A filter that returns only model explainability jobs created before a specified time.

Type: Timestamp

Required: No

### [EndpointName](#)

Name of the endpoint to monitor for model explainability.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### MaxResults

The maximum number of jobs to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

Filter for model explainability jobs whose name contains a specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `[a-zA-Z0-9\ -]+`

Required: No

### NextToken

The token returned if the response is truncated. To retrieve the next set of job executions, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### SortBy

Whether to sort results by the Name or CreationTime field. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime

Required: No

### SortOrder

Whether to sort the results in Ascending or Descending order. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "JobDefinitionSummaries": [
    {
      "CreationTime": number,
      "EndpointName": "string",
      "MonitoringJobDefinitionArn": "string",
      "MonitoringJobDefinitionName": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobDefinitionSummaries

A JSON array in which each element is a summary for a explainability bias jobs.

Type: Array of [MonitoringJobDefinitionSummary](#) objects

### NextToken

The token returned if the response is truncated. To retrieve the next set of job executions, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListModelMetadata

Service: Amazon SageMaker Service

Lists the domain, framework, task, and model name of standard machine learning models found in common model zoos.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "SearchExpression": {
    "Filters": [
      {
        "Name": "string",
        "Value": "string"
      }
    ]
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The maximum number of models to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the response to a previous `ListModelMetadataResponse` request was truncated, the response includes a `NextToken`. To retrieve the next set of model metadata, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SearchExpression

One or more filters that searches for the specified resource or resources in a search. All resource objects that satisfy the expression's condition are included in the search results. Specify the Framework, FrameworkVersion, Domain or Task to filter supported. Filter names and values are case-sensitive.

Type: [ModelMetadataSearchExpression](#) object

Required: No

## Response Syntax

```
{
  "ModelMetadataSummaries": [
    {
      "Domain": "string",
      "Framework": "string",
      "FrameworkVersion": "string",
      "Model": "string",
      "Task": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ModelMetadataSummaries

A structure that holds model metadata.

Type: Array of [ModelMetadataSummary](#) objects

### **NextToken**

A token for getting the next set of recommendations, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListModelPackageGroups

Service: Amazon SageMaker Service

Gets a list of the model groups in your AWS account.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "CrossAccountFilterOption": "string",
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only model groups created after the specified time.

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only model groups created before the specified time.

Type: Timestamp

Required: No

### CrossAccountFilterOption

A filter that returns either model groups shared with you or model groups in your own account. When the value is `CrossAccount`, the results show the resources made discoverable to you

from other accounts. When the value is `SameAccount` or `null`, the results show resources from your account. The default is `SameAccount`.

Type: String

Valid Values: `SameAccount` | `CrossAccount`

Required: No

### MaxResults

The maximum number of results to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in the model group name. This filter returns only model groups whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `[a-zA-Z0-9\ - ]+`

Required: No

### NextToken

If the result of the previous `ListModelPackageGroups` request was truncated, the response includes a `NextToken`. To retrieve the next set of model groups, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

## SortBy

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

## SortOrder

The sort order for results. The default is `Ascending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{
  "ModelPackageGroupSummaryList": [
    {
      "CreationTime": number,
      "ModelPackageGroupArn": "string",
      "ModelPackageGroupDescription": "string",
      "ModelPackageGroupName": "string",
      "ModelPackageGroupStatus": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ModelPackageGroupSummaryList

A list of summaries of the model groups in your AWS account.

Type: Array of [ModelPackageGroupSummary](#) objects

### **NextToken**

If the response is truncated, SageMaker returns this token. To retrieve the next set of model groups, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListModelPackages

Service: Amazon SageMaker Service

Lists the model packages that have been created.

## Request Syntax

```
{  
  "CreationTimeAfter": number,  
  "CreationTimeBefore": number,  
  "MaxResults": number,  
  "ModelApprovalStatus": "string",  
  "ModelPackageGroupName": "string",  
  "ModelPackageType": "string",  
  "NameContains": "string",  
  "NextToken": "string",  
  "SortBy": "string",  
  "SortOrder": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only model packages created after the specified time (timestamp).

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only model packages created before the specified time (timestamp).

Type: Timestamp

Required: No

### MaxResults

The maximum number of model packages to return in the response.



Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### ModelApprovalStatus

A filter that returns only the model packages with the specified approval status.

Type: String

Valid Values: Approved | Rejected | PendingManualApproval

Required: No

### ModelPackageName

A filter that returns only model versions that belong to the specified model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: (arn:aws[a-z\-\ ]\*:sagemaker:[a-z0-9\-\ ]\*:[0-9]{12}:[a-z\-\ ]\*\w/)?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!--)\$

Required: No

### ModelPackageType

A filter that returns only the model packages of the specified type. This can be one of the following values.

- UNVERSIONED - List only unversioned models. This is the default value if no ModelPackageType is specified.
- VERSIONED - List only versioned models.
- BOTH - List both versioned and unversioned models.

Type: String

Valid Values: Versioned | Unversioned | Both

Required: No

## NameContains

A string in the model package name. This filter returns only model packages whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\ - ]+

Required: No

## NextToken

If the response to a previous `ListModelPackages` request was truncated, the response includes a `NextToken`. To retrieve the next set of model packages, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## SortBy

The parameter by which to sort the results. The default is `CreationTime`.

Type: String

Valid Values: Name | CreationTime

Required: No

## SortOrder

The sort order for the results. The default is `Ascending`.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "ModelPackageSummaryList": [
    {
      "CreationTime": number,
      "ModelApprovalStatus": "string",
      "ModelPackageArn": "string",
      "ModelPackageDescription": "string",
      "ModelPackageGroupName": "string",
      "ModelPackageName": "string",
      "ModelPackageStatus": "string",
      "ModelPackageVersion": number
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ModelPackageSummaryList

An array of `ModelPackageSummary` objects, each of which lists a model package.

Type: Array of [ModelPackageSummary](#) objects

### NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of model packages, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListModelQualityJobDefinitions

Service: Amazon SageMaker Service

Gets a list of model quality monitoring job definitions in your account.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "EndpointName": "string",
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only model quality monitoring job definitions created after the specified time.

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only model quality monitoring job definitions created before the specified time.

Type: Timestamp

Required: No

## EndpointName

A filter that returns only model quality monitoring job definitions that are associated with the specified endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## MaxResults

The maximum number of results to return in a call to `ListModelQualityJobDefinitions`.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

## NameContains

A string in the transform job name. This filter returns only model quality monitoring job definitions whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `[a-zA-Z0-9\ - ]+`

Required: No

## NextToken

If the result of the previous `ListModelQualityJobDefinitions` request was truncated, the response includes a `NextToken`. To retrieve the next set of model quality monitoring job definitions, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

### SortOrder

Whether to sort the results in `Ascending` or `Descending` order. The default is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{
  "JobDefinitionSummaries": [
    {
      "CreationTime": number,
      "EndpointName": "string",
      "MonitoringJobDefinitionArn": "string",
      "MonitoringJobDefinitionName": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## JobDefinitionSummaries

A list of summaries of model quality monitoring job definitions.

Type: Array of [MonitoringJobDefinitionSummary](#) objects

## NextToken

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of model quality monitoring job definitions, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListModels

Service: Amazon SageMaker Service

Lists models created with the `CreateModel` API.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only models with a creation time greater than or equal to the specified time (timestamp).

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only models created before the specified time (timestamp).

Type: Timestamp

Required: No

### MaxResults

The maximum number of models to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in the model name. This filter returns only models whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9-]+

Required: No

### NextToken

If the response to a previous `ListModels` request was truncated, the response includes a `NextToken`. To retrieve the next set of models, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

Sorts the list of results. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

### SortOrder

The sort order for results. The default is `Descending`.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "Models": [
    {
      "CreationTime": number,
      "ModelArn": "string",
      "ModelName": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Models

An array of `ModelSummary` objects, each of which lists a model.

Type: Array of [ModelSummary](#) objects

### NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of models, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListMonitoringAlertHistory

Service: Amazon SageMaker Service

Gets a list of past alerts in a model monitoring schedule.

## Request Syntax

```
{  
  "CreationTimeAfter": number,  
  "CreationTimeBefore": number,  
  "MaxResults": number,  
  "MonitoringAlertName": "string",  
  "MonitoringScheduleName": "string",  
  "NextToken": "string",  
  "SortBy": "string",  
  "SortOrder": "string",  
  "StatusEquals": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only alerts created on or after the specified time.

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only alerts created on or before the specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of results to display. The default is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### MonitoringAlertName

The name of a monitoring alert.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### MonitoringScheduleName

The name of a monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### NextToken

If the result of the previous `ListMonitoringAlertHistory` request was truncated, the response includes a `NextToken`. To retrieve the next set of alerts in the history, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### SortBy

The field used to sort results. The default is `CreationTime`.

Type: String

Valid Values: CreationTime | Status

Required: No

### SortOrder

The sort order, whether Ascending or Descending, of the alert history. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

### StatusEquals

A filter that retrieves only alerts with a specific status.

Type: String

Valid Values: InAlert | OK

Required: No

## Response Syntax

```
{
  "MonitoringAlertHistory": [
    {
      "AlertStatus": "string",
      "CreationTime": number,
      "MonitoringAlertName": "string",
      "MonitoringScheduleName": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### MonitoringAlertHistory

An alert history for a model monitoring schedule.

Type: Array of [MonitoringAlertHistorySummary](#) objects

### NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of alerts, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)



- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListMonitoringAlerts

Service: Amazon SageMaker Service

Gets the alerts for a single monitoring schedule.

## Request Syntax

```
{
  "MaxResults": number,
  "MonitoringScheduleName": "string",
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The maximum number of results to display. The default is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### MonitoringScheduleName

The name of a monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## NextToken

If the result of the previous `ListMonitoringAlerts` request was truncated, the response includes a `NextToken`. To retrieve the next set of alerts in the history, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## Response Syntax

```
{
  "MonitoringAlertSummaries": [
    {
      "Actions": {
        "ModelDashboardIndicator": {
          "Enabled": boolean
        }
      },
      "AlertStatus": "string",
      "CreationTime": number,
      "DatapointsToAlert": number,
      "EvaluationPeriod": number,
      "LastModifiedTime": number,
      "MonitoringAlertName": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## MonitoringAlertSummaries

A JSON array where each element is a summary for a monitoring alert.

Type: Array of [MonitoringAlertSummary](#) objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

## NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of alerts, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListMonitoringExecutions

Service: Amazon SageMaker Service

Returns list of all monitoring job executions.

## Request Syntax

```
{  
  "CreationTimeAfter": number,  
  "CreationTimeBefore": number,  
  "EndpointName": "string",  
  "LastModifiedTimeAfter": number,  
  "LastModifiedTimeBefore": number,  
  "MaxResults": number,  
  "MonitoringJobDefinitionName": "string",  
  "MonitoringScheduleName": "string",  
  "MonitoringTypeEquals": "string",  
  "NextToken": "string",  
  "ScheduledTimeAfter": number,  
  "ScheduledTimeBefore": number,  
  "SortBy": "string",  
  "SortOrder": "string",  
  "StatusEquals": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only jobs created after a specified time.

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only jobs created before a specified time.

Type: Timestamp

Required: No

### EndpointName

Name of a specific endpoint to fetch jobs for.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### LastModifiedTimeAfter

A filter that returns only jobs modified before a specified time.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns only jobs modified after a specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of jobs to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### MonitoringJobDefinitionName

Gets a list of the monitoring job runs of the specified monitoring job definitions.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### MonitoringScheduleName

Name of a specific schedule to fetch jobs for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### MonitoringTypeEquals

A filter that returns only the monitoring job runs of the specified monitoring type.

Type: String

Valid Values: `DataQuality | ModelQuality | ModelBias | ModelExplainability`

Required: No

### NextToken

The token returned if the response is truncated. To retrieve the next set of job executions, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### ScheduledTimeAfter

Filter for jobs scheduled after a specified time.

Type: Timestamp



Required: No

### ScheduledTimeBefore

Filter for jobs scheduled before a specified time.

Type: Timestamp

Required: No

### SortBy

Whether to sort the results by the Status, CreationTime, or ScheduledTime field. The default is CreationTime.

Type: String

Valid Values: CreationTime | ScheduledTime | Status

Required: No

### SortOrder

Whether to sort the results in Ascending or Descending order. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

### StatusEquals

A filter that retrieves only jobs with a specific status.

Type: String

Valid Values: Pending | Completed | CompletedWithViolations | InProgress | Failed | Stopping | Stopped

Required: No

## Response Syntax

```
{
```

```
"MonitoringExecutionSummaries": [  
  {  
    "CreationTime": number,  
    "EndpointName": "string",  
    "FailureReason": "string",  
    "LastModifiedTime": number,  
    "MonitoringExecutionStatus": "string",  
    "MonitoringJobDefinitionName": "string",  
    "MonitoringScheduleName": "string",  
    "MonitoringType": "string",  
    "ProcessingJobArn": "string",  
    "ScheduledTime": number  
  }  
],  
"NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### MonitoringExecutionSummaries

A JSON array in which each element is a summary for a monitoring execution.

Type: Array of [MonitoringExecutionSummary](#) objects

### NextToken

The token returned if the response is truncated. To retrieve the next set of job executions, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListMonitoringSchedules

Service: Amazon SageMaker Service

Returns list of all monitoring schedules.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "EndpointName": "string",
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "MonitoringJobDefinitionName": "string",
  "MonitoringTypeEquals": "string",
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only monitoring schedules created after a specified time.

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only monitoring schedules created before a specified time.

Type: Timestamp

Required: No

### EndpointName

Name of a specific endpoint to fetch schedules for.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### LastModifiedTimeAfter

A filter that returns only monitoring schedules modified after a specified time.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns only monitoring schedules modified before a specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of jobs to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### MonitoringJobDefinitionName

Gets a list of the monitoring schedules for the specified monitoring job definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### MonitoringTypeEquals

A filter that returns only the monitoring schedules for the specified monitoring type.

Type: String

Valid Values: `DataQuality` | `ModelQuality` | `ModelBias` | `ModelExplainability`

Required: No

### NameContains

Filter for monitoring schedules whose name contains a specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `[a-zA-Z0-9\-\-]+`

Required: No

### NextToken

The token returned if the response is truncated. To retrieve the next set of job executions, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### SortBy

Whether to sort the results by the `Status`, `CreationTime`, or `ScheduledTime` field. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime` | `Status`

Required: No

### SortOrder

Whether to sort the results in Ascending or Descending order. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

### StatusEquals

A filter that returns only monitoring schedules modified before a specified time.

Type: String

Valid Values: Pending | Failed | Scheduled | Stopped

Required: No

## Response Syntax

```
{
  "MonitoringScheduleSummaries": [
    {
      "CreationTime": number,
      "EndpointName": "string",
      "LastModifiedTime": number,
      "MonitoringJobDefinitionName": "string",
      "MonitoringScheduleArn": "string",
      "MonitoringScheduleName": "string",
      "MonitoringScheduleStatus": "string",
      "MonitoringType": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### MonitoringScheduleSummaries

A JSON array in which each element is a summary for a monitoring schedule.

Type: Array of [MonitoringScheduleSummary](#) objects

### NextToken

The token returned if the response is truncated. To retrieve the next set of job executions, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListNotebookInstanceLifecycleConfigs

Service: Amazon SageMaker Service

Lists notebook instance lifestyle configurations created with the [CreateNotebookInstanceLifecycleConfig](#) API.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

A filter that returns only lifecycle configurations that were created after the specified time (timestamp).

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

A filter that returns only lifecycle configurations that were created before the specified time (timestamp).

Type: Timestamp

Required: No

### LastModifiedTimeAfter

A filter that returns only lifecycle configurations that were modified after the specified time (timestamp).

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns only lifecycle configurations that were modified before the specified time (timestamp).

Type: Timestamp

Required: No

### MaxResults

The maximum number of lifecycle configurations to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in the lifecycle configuration name. This filter returns only lifecycle configurations whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9-]+

Required: No

### NextToken

If the result of a `ListNotebookInstanceLifecycleConfigs` request was truncated, the response includes a `NextToken`. To get the next set of lifecycle configurations, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

Sorts the list of results. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime` | `LastModifiedTime`

Required: No

### SortOrder

The sort order for results.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "NotebookInstanceLifecycleConfigs": [
    {
      "CreationTime": number,
      "LastModifiedTime": number,
      "NotebookInstanceLifecycleConfigArn": "string",
      "NotebookInstanceLifecycleConfigName": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the response is truncated, SageMaker returns this token. To get the next set of lifecycle configurations, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### NotebookInstanceLifecycleConfigs

An array of NotebookInstanceLifecycleConfiguration objects, each listing a lifecycle configuration.

Type: Array of [NotebookInstanceLifecycleConfigSummary](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListNotebookInstances

Service: Amazon SageMaker Service

Returns a list of the SageMaker notebook instances in the requester's account in an AWS Region.

## Request Syntax

```
{
  "AdditionalCodeRepositoryEquals": "string",
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "DefaultCodeRepositoryContains": "string",
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "NotebookInstanceLifecycleConfigNameContains": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [AdditionalCodeRepositoryEquals](#)

A filter that returns only notebook instances with associated with the specified git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^https://(?:[^\./]+)?(?:.*)$|^([a-zA-Z0-9])(-*[a-zA-Z0-9])*`

Required: No

### CreationTimeAfter

A filter that returns only notebook instances that were created after the specified time (timestamp).

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only notebook instances that were created before the specified time (timestamp).

Type: Timestamp

Required: No

### DefaultCodeRepositoryContains

A string in the name or URL of a Git repository associated with this notebook instance. This filter returns only notebook instances associated with a git repository with a name that contains the specified string.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [a-zA-Z0-9-]+

Required: No

### LastModifiedTimeAfter

A filter that returns only notebook instances that were modified after the specified time (timestamp).

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns only notebook instances that were modified before the specified time (timestamp).

Type: Timestamp

Required: No

### MaxResults

The maximum number of notebook instances to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in the notebook instances' name. This filter returns only notebook instances whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9- ]+

Required: No

### NextToken

If the previous call to the `ListNotebookInstances` is truncated, the response includes a `NextToken`. You can use this token in your subsequent `ListNotebookInstances` request to fetch the next set of notebook instances.

#### **Note**

You might specify a filter or a sort order in your request. When response is truncated, you must use the same values for the filter and sort order in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### NotebookInstanceLifecycleConfigNameContains

A string in the name of a notebook instances lifecycle configuration associated with this notebook instance. This filter returns only notebook instances associated with a lifecycle configuration with a name that contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: No

### SortBy

The field to sort results by. The default is Name.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

### SortOrder

The sort order for results.

Type: String

Valid Values: Ascending | Descending

Required: No

### StatusEquals

A filter that returns only notebook instances with the specified status.

Type: String

Valid Values: Pending | InService | Stopping | Stopped | Failed | Deleting | Updating

Required: No



## Response Syntax

```
{
  "NextToken": "string",
  "NotebookInstances": [
    {
      "AdditionalCodeRepositories": [ "string" ],
      "CreationTime": number,
      "DefaultCodeRepository": "string",
      "InstanceType": "string",
      "LastModifiedTime": number,
      "NotebookInstanceArn": "string",
      "NotebookInstanceLifecycleConfigName": "string",
      "NotebookInstanceName": "string",
      "NotebookInstanceStatus": "string",
      "Url": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the response to the previous `ListNotebookInstances` request was truncated, SageMaker returns this token. To retrieve the next set of notebook instances, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### NotebookInstances

An array of `NotebookInstanceSummary` objects, one for each notebook instance.

Type: Array of [NotebookInstanceSummary](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListPipelineExecutions

Service: Amazon SageMaker Service

Gets a list of the pipeline executions.

## Request Syntax

```
{
  "CreatedAfter": number,
  "CreatedBefore": number,
  "MaxResults": number,
  "NextToken": "string",
  "PipelineName": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreatedAfter](#)

A filter that returns the pipeline executions that were created after a specified time.

Type: Timestamp

Required: No

### [CreatedBefore](#)

A filter that returns the pipeline executions that were created before a specified time.

Type: Timestamp

Required: No

### [MaxResults](#)

The maximum number of pipeline executions to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the result of the previous `ListPipelineExecutions` request was truncated, the response includes a `NextToken`. To retrieve the next set of pipeline executions, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### PipelineName

The name or Amazon Resource Name (ARN) of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: (arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:pipeline/.\*)?([a-zA-Z0-9](-\*[a-zA-Z0-9]){0,255})

Required: Yes

### SortBy

The field by which to sort results. The default is `CreatedTime`.

Type: String

Valid Values: `CreationTime` | `PipelineExecutionArn`

Required: No

### SortOrder

The sort order for results.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "PipelineExecutionSummaries": [
    {
      "PipelineExecutionArn": "string",
      "PipelineExecutionDescription": "string",
      "PipelineExecutionDisplayName": "string",
      "PipelineExecutionFailureReason": "string",
      "PipelineExecutionStatus": "string",
      "StartTime": number
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the result of the previous `ListPipelineExecutions` request was truncated, the response includes a `NextToken`. To retrieve the next set of pipeline executions, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### PipelineExecutionSummaries

Contains a sorted list of pipeline execution summary objects matching the specified filters. Each run summary includes the Amazon Resource Name (ARN) of the pipeline execution, the run date, and the status. This list can be empty.

Type: Array of [PipelineExecutionSummary](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListPipelineExecutionSteps

Service: Amazon SageMaker Service

Gets a list of PipelineExecutionStep objects.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string",  
  "PipelineExecutionArn": "string",  
  "SortOrder": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [MaxResults](#)

The maximum number of pipeline execution steps to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NextToken](#)

If the result of the previous ListPipelineExecutionSteps request was truncated, the response includes a NextToken. To retrieve the next set of pipeline execution steps, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## PipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:pipeline\./.*\./execution\./.*$`

Required: No

## SortOrder

The field by which to sort results. The default is CreatedTime.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "PipelineExecutionSteps": [
    {
      "AttemptCount": number,
      "CacheHitResult": {
        "SourcePipelineExecutionArn": "string"
      },
      "EndTime": number,
      "FailureReason": "string",
      "Metadata": {
        "AutoMLJob": {
          "Arn": "string"
        },
        "Callback": {
          "CallbackToken": "string",
          "OutputParameters": [
            {
              "Name": "string",
```



```

        "Value": "string"
    }
],
"SQSQueueUrl": "string"
},
"ClarifyCheck": {
    "BaselineUsedForDriftCheckConstraints": "string",
    "CalculatedBaselineConstraints": "string",
    "CheckJobArn": "string",
    "CheckType": "string",
    "ModelPackageGroupName": "string",
    "RegisterNewBaseline": boolean,
    "SkipCheck": boolean,
    "ViolationReport": "string"
},
"Condition": {
    "Outcome": "string"
},
"EMR": {
    "ClusterId": "string",
    "LogFilePath": "string",
    "StepId": "string",
    "StepName": "string"
},
"Fail": {
    "ErrorMessage": "string"
},
"Lambda": {
    "Arn": "string",
    "OutputParameters": [
        {
            "Name": "string",
            "Value": "string"
        }
    ]
},
"Model": {
    "Arn": "string"
},
"ProcessingJob": {
    "Arn": "string"
},
"QualityCheck": {
    "BaselineUsedForDriftCheckConstraints": "string",

```

```

    "BaselineUsedForDriftCheckStatistics": "string",
    "CalculatedBaselineConstraints": "string",
    "CalculatedBaselineStatistics": "string",
    "CheckJobArn": "string",
    "CheckType": "string",
    "ModelPackageGroupName": "string",
    "RegisterNewBaseline": boolean,
    "SkipCheck": boolean,
    "ViolationReport": "string"
  },
  "RegisterModel": {
    "Arn": "string"
  },
  "TrainingJob": {
    "Arn": "string"
  },
  "TransformJob": {
    "Arn": "string"
  },
  "TuningJob": {
    "Arn": "string"
  }
},
"SelectiveExecutionResult": {
  "SourcePipelineExecutionArn": "string"
},
"StartTime": number,
"StepDescription": "string",
"StepDisplayName": "string",
"StepName": "string",
"StepStatus": "string"
}
]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## NextToken

If the result of the previous `ListPipelineExecutionSteps` request was truncated, the response includes a `NextToken`. To retrieve the next set of pipeline execution steps, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## PipelineExecutionSteps

A list of `PipelineExecutionStep` objects. Each `PipelineExecutionStep` consists of `StepName`, `StartTime`, `EndTime`, `StepStatus`, and `Metadata`. `Metadata` is an object with properties for each job that contains relevant information about the job created by the step.

Type: Array of [PipelineExecutionStep](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListPipelineParametersForExecution

Service: Amazon SageMaker Service

Gets a list of parameters for a pipeline execution.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string",  
  "PipelineExecutionArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The maximum number of parameters to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the result of the previous ListPipelineParametersForExecution request was truncated, the response includes a NextToken. To retrieve the next set of parameters, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## PipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:pipeline\./.*\./execution\./.*$`

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "PipelineParameters": [
    {
      "Name": "string",
      "Value": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the result of the previous `ListPipelineParametersForExecution` request was truncated, the response includes a `NextToken`. To retrieve the next set of parameters, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

## PipelineParameters

Contains a list of pipeline parameters. This list can be empty.

Type: Array of [Parameter](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListPipelines

Service: Amazon SageMaker Service

Gets a list of pipelines.

## Request Syntax

```
{
  "CreatedAfter": number,
  "CreatedBefore": number,
  "MaxResults": number,
  "NextToken": "string",
  "PipelineNamePrefix": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreatedAfter](#)

A filter that returns the pipelines that were created after a specified time.

Type: Timestamp

Required: No

### [CreatedBefore](#)

A filter that returns the pipelines that were created before a specified time.

Type: Timestamp

Required: No

### [MaxResults](#)

The maximum number of pipelines to return in the response.

Type: Integer



Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the result of the previous `ListPipelines` request was truncated, the response includes a `NextToken`. To retrieve the next set of pipelines, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### PipelineNamePrefix

The prefix of the pipeline name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: No

### SortBy

The field by which to sort results. The default is `CreateTime`.

Type: String

Valid Values: `Name` | `CreateTime`

Required: No

### SortOrder

The sort order for results.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "PipelineSummaries": [
    {
      "CreationTime": number,
      "LastExecutionTime": number,
      "LastModifiedTime": number,
      "PipelineArn": "string",
      "PipelineDescription": "string",
      "PipelineDisplayName": "string",
      "PipelineName": "string",
      "RoleArn": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the result of the previous `ListPipelines` request was truncated, the response includes a `NextToken`. To retrieve the next set of pipelines, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### PipelineSummaries

Contains a sorted list of `PipelineSummary` objects matching the specified filters. Each `PipelineSummary` consists of `PipelineArn`, `PipelineName`, `ExperimentName`, `PipelineDescription`, `CreationTime`, `LastModifiedTime`, `LastRunTime`, and `RoleArn`. This list can be empty.

Type: Array of [PipelineSummary](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListProcessingJobs

Service: Amazon SageMaker Service

Lists processing jobs that satisfy various filters.

## Request Syntax

```
{  
  "CreationTimeAfter": number,  
  "CreationTimeBefore": number,  
  "LastModifiedTimeAfter": number,  
  "LastModifiedTimeBefore": number,  
  "MaxResults": number,  
  "NameContains": "string",  
  "NextToken": "string",  
  "SortBy": "string",  
  "SortOrder": "string",  
  "StatusEquals": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only processing jobs created after the specified time.

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only processing jobs created after the specified time.

Type: Timestamp

Required: No

### LastModifiedTimeAfter

A filter that returns only processing jobs modified after the specified time.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns only processing jobs modified before the specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of processing jobs to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in the processing job name. This filter returns only processing jobs whose name contains the specified string.

Type: String

Required: No

### NextToken

If the result of the previous `ListProcessingJobs` request was truncated, the response includes a `NextToken`. To retrieve the next set of processing jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## SortBy

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime` | `Status`

Required: No

## SortOrder

The sort order for results. The default is `Ascending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## StatusEquals

A filter that retrieves only processing jobs with a specific status.

Type: String

Valid Values: `InProgress` | `Completed` | `Failed` | `Stopping` | `Stopped`

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "ProcessingJobSummaries": [
    {
      "CreationTime": number,
      "ExitMessage": "string",
      "FailureReason": "string",
      "LastModifiedTime": number,
      "ProcessingEndTime": number,
      "ProcessingJobArn": "string",
      "ProcessingJobName": "string",
      "ProcessingJobStatus": "string"
    }
  ]
}
```

```
    }  
  ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of processing jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . \*

### ProcessingJobSummaries

An array of `ProcessingJobSummary` objects, each listing a processing job.

Type: Array of [ProcessingJobSummary](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListProjects

Service: Amazon SageMaker Service

Gets a list of the projects in an AWS account.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns the projects that were created after a specified time.

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns the projects that were created before a specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of projects to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A filter that returns the projects whose name contains a specified string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: No

### NextToken

If the result of the previous `ListProjects` request was truncated, the response includes a `NextToken`. To retrieve the next set of projects, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### SortBy

The field by which to sort results. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

### SortOrder

The sort order for results. The default is `Ascending`.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "ProjectSummaryList": [
    {
      "CreationTime": number,
      "ProjectArn": "string",
      "ProjectDescription": "string",
      "ProjectId": "string",
      "ProjectName": "string",
      "ProjectStatus": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the result of the previous `ListCompilationJobs` request was truncated, the response includes a `NextToken`. To retrieve the next set of model compilation jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### ProjectSummaryList

A list of summaries of projects.

Type: Array of [ProjectSummary](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListResourceCatalogs

Service: Amazon SageMaker Service

Lists Amazon SageMaker Catalogs based on given filters and orders. The maximum number of ResourceCatalogs viewable is 1000.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

Use this parameter to search for ResourceCatalogs created after a specific date and time.

Type: Timestamp

Required: No

### CreationTimeBefore

Use this parameter to search for ResourceCatalogs created before a specific date and time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of results returned by ListResourceCatalogs.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string that partially matches one or more ResourceCatalogs names. Filters ResourceCatalog by name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

### NextToken

A token to resume pagination of ListResourceCatalogs results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The value on which the resource catalog list is sorted.

Type: String

Valid Values: CreationTime

Required: No

### SortOrder

The order in which the resource catalogs are listed.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "ResourceCatalogs": [
    {
      "CreationTime": number,
      "Description": "string",
      "ResourceCatalogArn": "string",
      "ResourceCatalogName": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A token to resume pagination of ListResourceCatalogs results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### ResourceCatalogs

A list of the requested ResourceCatalogs.

Type: Array of [ResourceCatalog](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListSpaces

Service: Amazon SageMaker Service

Lists spaces.

## Request Syntax

```
{
  "DomainIdEquals": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "SpaceNameContains": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DomainIdEquals

A parameter to search for the domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-( -*[a-z0-9]){1,61}`

Required: No

### MaxResults

This parameter defines the maximum number of results that can be return in a single response. The `MaxResults` parameter is an upper bound, not a target. If there are more results available than the value specified, a `NextToken` is provided in the response. The `NextToken` indicates that the user should get the next set of results by providing this token as a part of a subsequent call. The default value for `MaxResults` is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The parameter by which to sort the results. The default is `CreationTime`.

Type: String

Valid Values: `CreationTime` | `LastModifiedTime`

Required: No

### SortOrder

The sort order for the results. The default is `Ascending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

### SpaceNameContains

A parameter by which to filter the results.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Spaces": [
    {
      "CreationTime": number,
      "DomainId": "string",
      "LastModifiedTime": number,
      "OwnershipSettingsSummary": {
        "OwnerUserProfileName": "string"
      },
      "SpaceDisplayName": "string",
      "SpaceName": "string",
      "SpaceSettingsSummary": {
        "AppType": "string",
        "SpaceStorageSettings": {
          "EbsStorageSettings": {
            "EbsVolumeSizeInGb": number
          }
        }
      },
      "SpaceSharingSettingsSummary": {
        "SharingType": "string"
      },
      "Status": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Spaces

The list of spaces.

Type: Array of [SpaceDetails](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListStageDevices

Service: Amazon SageMaker Service

Lists devices allocated to the stage, containing detailed device information and deployment status.

## Request Syntax

```
{
  "EdgeDeploymentPlanName": "string",
  "ExcludeDevicesDeployedInOtherStage": boolean,
  "MaxResults": number,
  "NextToken": "string",
  "StageName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EdgeDeploymentPlanName

The name of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ExcludeDevicesDeployedInOtherStage

Toggle for excluding devices deployed in other stages.

Type: Boolean

Required: No

### MaxResults

The maximum number of requests to select.

Type: Integer

Valid Range: Maximum value of 100.

Required: No

### NextToken

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### StageName

The name of the stage in the deployment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{
  "DeviceDeploymentSummaries": [
    {
      "DeployedStageName": "string",
      "DeploymentStartTime": number,
      "Description": "string",
      "DeviceArn": "string",
      "DeviceDeploymentStatus": "string",
      "DeviceDeploymentStatusMessage": "string",
      "DeviceFleetName": "string",
      "DeviceName": "string",
      "EdgeDeploymentPlanArn": "string",
```

```
    "EdgeDeploymentPlanName": "string",  
    "StageName": "string"  
  }  
],  
"NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### DeviceDeploymentSummaries

List of summaries of devices allocated to the stage.

Type: Array of [DeviceDeploymentSummary](#) objects

### NextToken

The token to use when calling the next page of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListStudioLifecycleConfigs

Service: Amazon SageMaker Service

Lists the Amazon SageMaker Studio Lifecycle Configurations in your AWS Account.

## Request Syntax

```
{
  "AppTypeEquals": "string",
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "MaxResults": number,
  "ModifiedTimeAfter": number,
  "ModifiedTimeBefore": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AppTypeEquals

A parameter to search for the App Type to which the Lifecycle Configuration is attached.

Type: String

Valid Values: JupyterServer | KernelGateway | CodeEditor | JupyterLab

Required: No

### CreationTimeAfter

A filter that returns only Lifecycle Configurations created on or after the specified time.

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only Lifecycle Configurations created on or before the specified time.

Type: Timestamp

Required: No

### MaxResults

The total number of items to return in the response. If the total number of items available is more than the value specified, a `NextToken` is provided in the response. To resume pagination, provide the `NextToken` value in the as part of a subsequent call. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### ModifiedTimeAfter

A filter that returns only Lifecycle Configurations modified after the specified time.

Type: Timestamp

Required: No

### ModifiedTimeBefore

A filter that returns only Lifecycle Configurations modified before the specified time.

Type: Timestamp

Required: No

### NameContains

A string in the Lifecycle Configuration name. This filter returns only Lifecycle Configurations whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### NextToken

If the previous call to `ListStudioLifecycleConfigs` didn't return the full set of Lifecycle Configurations, the call returns a token for getting the next set of Lifecycle Configurations.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . \*

Required: No

### SortBy

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `CreationTime` | `LastModifiedTime` | `Name`

Required: No

### SortOrder

The sort order. The default value is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "StudioLifecycleConfigs": [
    {
      "CreationTime": number,
      "LastModifiedTime": number,
      "StudioLifecycleConfigAppType": "string",
      "StudioLifecycleConfigArn": "string",
```

```
    "StudioLifecycleConfigName": "string"  
  }  
]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### StudioLifecycleConfigs

A list of Lifecycle Configurations and their properties.

Type: Array of [StudioLifecycleConfigDetails](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListSubscribedWorkteams

Service: Amazon SageMaker Service

Gets a list of the work teams that you are subscribed to in the AWS Marketplace. The list may be empty if no work team satisfies the filter specified in the `NameContains` parameter.

## Request Syntax

```
{
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [MaxResults](#)

The maximum number of work teams to return in each page of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NameContains](#)

A string in the work team name. This filter returns only work teams whose name contains the specified string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## NextToken

If the result of the previous `ListSubscribedWorkteams` request was truncated, the response includes a `NextToken`. To retrieve the next set of labeling jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "SubscribedWorkteams": [
    {
      "ListingId": "string",
      "MarketplaceDescription": "string",
      "MarketplaceTitle": "string",
      "SellerName": "string",
      "WorkteamArn": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## NextToken

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of work teams, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### SubscribedWorkteams

An array of Workteam objects, each describing a work team.

Type: Array of [SubscribedWorkteam](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListTags

Service: Amazon SageMaker Service

Returns the tags for the specified SageMaker resource.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string",  
  "ResourceArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

Maximum number of tags to return.

Type: Integer

Valid Range: Minimum value of 50.

Required: No

### NextToken

If the response to the previous ListTags request is truncated, SageMaker returns this token. To retrieve the next set of tags, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### ResourceArn

The Amazon Resource Name (ARN) of the resource whose tags you want to retrieve.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z-]*:sagemaker:[a-z0-9-]*:[0-9]{12}:.+`

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If response is truncated, SageMaker includes a token in the response. You can use this token in your subsequent request to fetch next set of tokens.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

### Tags

An array of Tag objects, each with a tag key and a value.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListTrainingJobs

Service: Amazon SageMaker Service

Lists training jobs.

## Note

When `StatusEquals` and `MaxResults` are set at the same time, the `MaxResults` number of training jobs are first retrieved ignoring the `StatusEquals` parameter and then they are filtered by the `StatusEquals` parameter, which is returned as a response.

For example, if `ListTrainingJobs` is invoked with the following parameters:

```
{ ... MaxResults: 100, StatusEquals: InProgress ... }
```

First, 100 trainings jobs with any status, including those other than `InProgress`, are selected (sorted according to the creation time, from the most current to the oldest). Next, those with a status of `InProgress` are returned.

You can quickly test the API using the following AWS CLI code.

```
aws sagemaker list-training-jobs --max-results 100 --status-equals  
InProgress
```

## Request Syntax

```
{  
  "CreationTimeAfter": number,  
  "CreationTimeBefore": number,  
  "LastModifiedTimeAfter": number,  
  "LastModifiedTimeBefore": number,  
  "MaxResults": number,  
  "NameContains": "string",  
  "NextToken": "string",  
  "SortBy": "string",  
  "SortOrder": "string",  
  "StatusEquals": "string",  
  "WarmPoolStatusEquals": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreationTimeAfter

A filter that returns only training jobs created after the specified time (timestamp).

Type: Timestamp

Required: No

### CreationTimeBefore

A filter that returns only training jobs created before the specified time (timestamp).

Type: Timestamp

Required: No

### LastModifiedTimeAfter

A filter that returns only training jobs modified after the specified time (timestamp).

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns only training jobs modified before the specified time (timestamp).

Type: Timestamp

Required: No

### MaxResults

The maximum number of training jobs to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in the training job name. This filter returns only training jobs whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

### NextToken

If the result of the previous `ListTrainingJobs` request was truncated, the response includes a `NextToken`. To retrieve the next set of training jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime` | `Status`

Required: No

### SortOrder

The sort order for results. The default is `Ascending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

### StatusEquals

A filter that retrieves only training jobs with a specific status.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: No

### WarmPoolStatusEquals

A filter that retrieves only training jobs with a specific warm pool status.

Type: String

Valid Values: Available | Terminated | Reused | InUse

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "TrainingJobSummaries": [
    {
      "CreationTime": number,
      "LastModifiedTime": number,
      "TrainingEndTime": number,
      "TrainingJobArn": "string",
      "TrainingJobName": "string",
      "TrainingJobStatus": "string",
      "WarmPoolStatus": {
        "ResourceRetainedBillableTimeInSeconds": number,
        "ReusedByJob": "string",
        "Status": "string"
      }
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## NextToken

If the response is truncated, SageMaker returns this token. To retrieve the next set of training jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## TrainingJobSummaries

An array of [TrainingJobSummary](#) objects, each listing a training job.

Type: Array of [TrainingJobSummary](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListTrainingJobsForHyperParameterTuningJob

Service: Amazon SageMaker Service

Gets a list of [TrainingJobSummary](#) objects that describe the training jobs that a hyperparameter tuning job launched.

## Request Syntax

```
{
  "HyperParameterTuningJobName": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [HyperParameterTuningJobName](#)

The name of the tuning job whose training jobs you want to list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

### [MaxResults](#)

The maximum number of training jobs to return. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

## NextToken

If the result of the previous `ListTrainingJobsForHyperParameterTuningJob` request was truncated, the response includes a `NextToken`. To retrieve the next set of training jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## SortBy

The field to sort results by. The default is `Name`.

If the value of this field is `FinalObjectiveMetricValue`, any training jobs that did not return an objective metric are not listed.

Type: String

Valid Values: `Name` | `CreationTime` | `Status` | `FinalObjectiveMetricValue`

Required: No

## SortOrder

The sort order for results. The default is `Ascending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## StatusEquals

A filter that returns only training jobs with the specified status.

Type: String

Valid Values: `InProgress` | `Completed` | `Failed` | `Stopping` | `Stopped`

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "TrainingJobSummaries": [
    {
      "CreationTime": number,
      "FailureReason": "string",
      "FinalHyperParameterTuningJobObjectiveMetric": {
        "MetricName": "string",
        "Type": "string",
        "Value": number
      },
      "ObjectiveStatus": "string",
      "TrainingEndTime": number,
      "TrainingJobArn": "string",
      "TrainingJobDefinitionName": "string",
      "TrainingJobName": "string",
      "TrainingJobStatus": "string",
      "TrainingStartTime": number,
      "TunedHyperParameters": {
        "string" : "string"
      },
      "TuningJobName": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the result of this `ListTrainingJobsForHyperParameterTuningJob` request was truncated, the response includes a `NextToken`. To retrieve the next set of training jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## TrainingJobSummaries

A list of [TrainingJobSummary](#) objects that describe the training jobs that the `ListTrainingJobsForHyperParameterTuningJob` request returned.

Type: Array of [HyperParameterTrainingJobSummary](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListTransformJobs

Service: Amazon SageMaker Service

Lists transform jobs.

## Request Syntax

```
{
  "CreationTimeAfter": number,
  "CreationTimeBefore": number,
  "LastModifiedTimeAfter": number,
  "LastModifiedTimeBefore": number,
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter](#)

A filter that returns only transform jobs created after the specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore](#)

A filter that returns only transform jobs created before the specified time.

Type: Timestamp

Required: No

### [LastModifiedTimeAfter](#)

A filter that returns only transform jobs modified after the specified time.

Type: Timestamp

Required: No

### LastModifiedTimeBefore

A filter that returns only transform jobs modified before the specified time.

Type: Timestamp

Required: No

### MaxResults

The maximum number of transform jobs to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in the transform job name. This filter returns only transform jobs whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\ - ]+

Required: No

### NextToken

If the result of the previous `ListTransformJobs` request was truncated, the response includes a `NextToken`. To retrieve the next set of transform jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime` | `Status`

Required: No

### SortOrder

The sort order for results. The default is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

### StatusEquals

A filter that retrieves only transform jobs with a specific status.

Type: String

Valid Values: `InProgress` | `Completed` | `Failed` | `Stopping` | `Stopped`

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "TransformJobSummaries": [
    {
      "CreationTime": number,
      "FailureReason": "string",
      "LastModifiedTime": number,
      "TransformEndTime": number,
      "TransformJobArn": "string",
      "TransformJobName": "string",
    }
  ]
}
```

```
    "TransformJobStatus": "string"  
  }  
]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of transform jobs, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### TransformJobSummaries

An array of TransformJobSummary objects.

Type: Array of [TransformJobSummary](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)



- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListTrialComponents

Service: Amazon SageMaker Service

Lists the trial components in your account. You can sort the list by trial component name or creation time. You can filter the list to show only components that were created in a specific time range. You can also filter on one of the following:

- ExperimentName
- SourceArn
- TrialName

## Request Syntax

```
{
  "CreatedAfter": number,
  "CreatedBefore": number,
  "ExperimentName": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "SourceArn": "string",
  "TrialName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CreatedAfter

A filter that returns only components created after the specified time.

Type: Timestamp

Required: No

### CreatedBefore

A filter that returns only components created before the specified time.

Type: Timestamp

Required: No

### ExperimentName

A filter that returns only components that are part of the specified experiment. If you specify `ExperimentName`, you can't filter by `SourceArn` or `TrialName`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### MaxResults

The maximum number of components to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the previous call to `ListTrialComponents` didn't return the full set of components, the call returns a token for getting the next set of components.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### SortBy

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: Name | CreationTime

Required: No

### SortOrder

The sort order. The default value is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

### SourceArn

A filter that returns only components that have the specified source Amazon Resource Name (ARN). If you specify SourceArn, you can't filter by ExperimentName or TrialName.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### TrialName

A filter that returns only components that are part of the specified trial. If you specify TrialName, you can't filter by ExperimentName or SourceArn.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "TrialComponentSummaries": [
    {
```

```

    "CreatedBy": {
      "DomainId": "string",
      "IamIdentity": {
        "Arn": "string",
        "PrincipalId": "string",
        "SourceIdentity": "string"
      },
      "UserProfileArn": "string",
      "UserProfileName": "string"
    },
    "CreationTime": number,
    "DisplayName": "string",
    "EndTime": number,
    "LastModifiedBy": {
      "DomainId": "string",
      "IamIdentity": {
        "Arn": "string",
        "PrincipalId": "string",
        "SourceIdentity": "string"
      },
      "UserProfileArn": "string",
      "UserProfileName": "string"
    },
    "LastModifiedTime": number,
    "StartTime": number,
    "Status": {
      "Message": "string",
      "PrimaryStatus": "string"
    },
    "TrialComponentArn": "string",
    "TrialComponentName": "string",
    "TrialComponentSource": {
      "SourceArn": "string",
      "SourceType": "string"
    }
  }
]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## NextToken

A token for getting the next set of components, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## TrialComponentSummaries

A list of the summaries of your trial components.

Type: Array of [TrialComponentSummary](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

# ListTrials

Service: Amazon SageMaker Service

Lists the trials in your account. Specify an experiment name to limit the list to the trials that are part of that experiment. Specify a trial component name to limit the list to the trials that associated with that trial component. The list can be filtered to show only trials that were created in a specific time range. The list can be sorted by trial name or creation time.

## Request Syntax

```
{
  "CreatedAfter": number,
  "CreatedBefore": number,
  "ExperimentName": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "TrialComponentName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CreatedAfter](#)

A filter that returns only trials created after the specified time.

Type: Timestamp

Required: No

### [CreatedBefore](#)

A filter that returns only trials created before the specified time.

Type: Timestamp

Required: No



## ExperimentName

A filter that returns only trials that are part of the specified experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

## MaxResults

The maximum number of trials to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

## NextToken

If the previous call to `ListTrials` didn't return the full set of trials, the call returns a token for getting the next set of trials.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

## SortBy

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

## SortOrder

The sort order. The default value is `Descending`.

Type: String

Valid Values: Ascending | Descending

Required: No

### TrialComponentName

A filter that returns only trials that are associated with the specified trial component.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "TrialSummaries": [
    {
      "CreationTime": number,
      "DisplayName": "string",
      "LastModifiedTime": number,
      "TrialArn": "string",
      "TrialName": "string",
      "TrialSource": {
        "SourceArn": "string",
        "SourceType": "string"
      }
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## NextToken

A token for getting the next set of trials, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## TrialSummaries

A list of the summaries of your trials.

Type: Array of [TrialSummary](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

# ListUserProfiles

Service: Amazon SageMaker Service

Lists user profiles.

## Request Syntax

```
{
  "DomainIdEquals": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "UserProfileNameContains": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DomainIdEquals

A parameter by which to filter the results.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-(-*[a-z0-9]){1,61}`

Required: No

### MaxResults

This parameter defines the maximum number of results that can be return in a single response. The `MaxResults` parameter is an upper bound, not a target. If there are more results available than the value specified, a `NextToken` is provided in the response. The `NextToken` indicates that the user should get the next set of results by providing this token as a part of a subsequent call. The default value for `MaxResults` is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The parameter by which to sort the results. The default is CreationTime.

Type: String

Valid Values: CreationTime | LastModifiedTime

Required: No

### SortOrder

The sort order for the results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

### UserProfileNameContains

A parameter by which to filter the results.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "UserProfiles": [
    {
      "CreationTime": number,
      "DomainId": "string",
      "LastModifiedTime": number,
      "Status": "string",
      "UserProfileName": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

### UserProfiles

The list of user profiles.

Type: Array of [UserProfileDetails](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# ListWorkforces

Service: Amazon SageMaker Service

Use this operation to list all private and vendor workforces in an AWS Region. Note that you can only have one private workforce per AWS Region.

## Request Syntax

```
{
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The maximum number of workforces returned in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A filter you can use to search for workforces using part of the workforce name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([a-zA-Z0-9\-\-]){0,62}$`

Required: No

## NextToken

A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## SortBy

Sort workforces using the workforce name or creation date.

Type: String

Valid Values: Name | CreateDate

Required: No

## SortOrder

Sort workforces in ascending or descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Workforces": [
    {
      "CognitoConfig": {
        "ClientId": "string",
        "UserPool": "string"
      },
      "CreateDate": number,
      "FailureReason": "string",
```

```

    "LastUpdatedDate": number,
    "OidcConfig": {
      "AuthenticationRequestExtraParams": {
        "string" : "string"
      },
      "AuthorizationEndpoint": "string",
      "ClientId": "string",
      "Issuer": "string",
      "JwksUri": "string",
      "LogoutEndpoint": "string",
      "Scope": "string",
      "TokenEndpoint": "string",
      "UserInfoEndpoint": "string"
    },
    "SourceIpConfig": {
      "Cidrs": [ "string" ]
    },
    "Status": "string",
    "SubDomain": "string",
    "WorkforceArn": "string",
    "WorkforceName": "string",
    "WorkforceVpcConfig": {
      "SecurityGroupIds": [ "string" ],
      "Subnets": [ "string" ],
      "VpcEndpointId": "string",
      "VpcId": "string"
    }
  }
]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Workforces

A list containing information about your workforce.

Type: Array of [Workforce](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListWorkteams

Service: Amazon SageMaker Service

Gets a list of private work teams that you have defined in a region. The list may be empty if no work team satisfies the filter specified in the `NameContains` parameter.

## Request Syntax

```
{
  "MaxResults": number,
  "NameContains": "string",
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

The maximum number of work teams to return in each page of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NameContains

A string in the work team's name. This filter returns only work teams whose name contains the specified string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### NextToken

If the result of the previous `ListWorkteams` request was truncated, the response includes a `NextToken`. To retrieve the next set of labeling jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### SortBy

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreateDate`

Required: No

### SortOrder

The sort order for results. The default is `Ascending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Workteams": [
    {
      "CreateDate": number,
      "Description": "string",
      "LastUpdatedDate": number,
      "MemberDefinitions": [
```

```

    {
      "CognitoMemberDefinition": {
        "ClientId": "string",
        "UserGroup": "string",
        "UserPool": "string"
      },
      "OidcMemberDefinition": {
        "Groups": [ "string" ]
      }
    }
  ],
  "NotificationConfiguration": {
    "NotificationTopicArn": "string"
  },
  "ProductListingIds": [ "string" ],
  "SubDomain": "string",
  "WorkerAccessConfiguration": {
    "S3Presign": {
      "IamPolicyConstraints": {
        "SourceIp": "string",
        "VpcSourceIp": "string"
      }
    }
  },
  "WorkforceArn": "string",
  "WorkteamArn": "string",
  "WorkteamName": "string"
}
]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken](#)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of work teams, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Workteams

An array of `Workteam` objects, each describing a work team.

Type: Array of [Workteam](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# PutModelPackageGroupPolicy

Service: Amazon SageMaker Service

Adds a resource policy to control access to a model group. For information about resource policies, see [Identity-based policies and resource-based policies](#) in the *AWS Identity and Access Management User Guide*.

## Request Syntax

```
{
  "ModelPackageGroupName": "string",
  "ResourcePolicy": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ModelPackageGroupName

The name of the model group to add a resource policy to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ResourcePolicy

The resource policy for the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20480.

Pattern: `.*`

Required: Yes

## Response Syntax

```
{  
  "ModelPackageGroupArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ModelPackageGroupArn](#)

The Amazon Resource Name (ARN) of the model package group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:model-package-group/[\S]{1,2048}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# QueryLineage

Service: Amazon SageMaker Service

Use this action to inspect your lineage and discover relationships between entities. For more information, see [Querying Lineage Entities](#) in the *Amazon SageMaker Developer Guide*.

## Request Syntax

```
{
  "Direction": "string",
  "Filters": {
    "CreatedAfter": number,
    "CreatedBefore": number,
    "LineageTypes": [ "string" ],
    "ModifiedAfter": number,
    "ModifiedBefore": number,
    "Properties": {
      "string" : "string"
    },
    "Types": [ "string" ]
  },
  "IncludeEdges": boolean,
  "MaxDepth": number,
  "MaxResults": number,
  "NextToken": "string",
  "StartArns": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Direction

Associations between lineage entities have a direction. This parameter determines the direction from the StartArn(s) that the query traverses.

Type: String

Valid Values: Both | Ascendants | Descendants

Required: No

### Filters

A set of filtering parameters that allow you to specify which entities should be returned.

- **Properties** - Key-value pairs to match on the lineage entities' properties.
- **LineageTypes** - A set of lineage entity types to match on. For example: `TrialComponent`, `Artifact`, or `Context`.
- **CreatedBefore** - Filter entities created before this date.
- **ModifiedBefore** - Filter entities modified before this date.
- **ModifiedAfter** - Filter entities modified after this date.

Type: [QueryFilters](#) object

Required: No

### IncludeEdges

Setting this value to `True` retrieves not only the entities of interest but also the [Associations](#) and lineage entities on the path. Set to `False` to only return lineage entities that match your query.

Type: Boolean

Required: No

### MaxDepth

The maximum depth in lineage relationships from the `StartArns` that are traversed. Depth is a measure of the number of `Associations` from the `StartArn` entity to the matched results.

Type: Integer

Valid Range: Maximum value of 10.

Required: No

### MaxResults

Limits the number of vertices in the results. Use the `NextToken` in a response to retrieve the next page of results.

Type: Integer

Valid Range: Maximum value of 50.

Required: No

### NextToken

Limits the number of vertices in the request. Use the NextToken in a response to to retrieve the next page of results.

Type: String

Length Constraints: Maximum length of 8192.

Required: No

### StartArns

A list of resource Amazon Resource Name (ARN) that represent the starting point for your lineage query.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 1 item.

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

Required: No

## Response Syntax

```
{
  "Edges": [
    {
      "AssociationType": "string",
      "DestinationArn": "string",
      "SourceArn": "string"
    }
  ],
  "NextToken": "string",
  "Vertices": [
```

```
{
  "Arn": "string",
  "LineageType": "string",
  "Type": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Edges

A list of edges that connect vertices in the response.

Type: Array of [Edge](#) objects

### NextToken

Limits the number of vertices in the response. Use the NextToken in a response to retrieve the next page of results.

Type: String

Length Constraints: Maximum length of 8192.

### Vertices

A list of vertices connected to the start entity(ies) in the lineage graph.

Type: Array of [Vertex](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# RegisterDevices

Service: Amazon SageMaker Service

Register devices.

## Request Syntax

```
{
  "DeviceFleetName": "string",
  "Devices": [
    {
      "Description": "string",
      "DeviceName": "string",
      "IotThingName": "string"
    }
  ],
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DeviceFleetName

The name of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Devices

A list of devices to register with SageMaker Edge Manager.

Type: Array of [Device](#) objects

Required: Yes

## Tags

The tags associated with devices.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# RenderUiTemplate

Service: Amazon SageMaker Service

Renders the UI template so that you can preview the worker's experience.

## Request Syntax

```
{
  "HumanTaskUiArn": "string",
  "RoleArn": "string",
  "Task": {
    "Input": "string"
  },
  "UiTemplate": {
    "Content": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [HumanTaskUiArn](#)

The HumanTaskUiArn of the worker UI that you want to render. Do not provide a HumanTaskUiArn if you use the UiTemplate parameter.

See a list of available Human Ui Amazon Resource Names (ARNs) in [UiConfig](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]+:[0-9]{12}:human-task-ui/.\*

Required: No

### [RoleArn](#)

The Amazon Resource Name (ARN) that has access to the S3 objects that are used by the template.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: Yes

## Task

A `RenderableTask` object containing a representative task to render.

Type: [RenderableTask](#) object

Required: Yes

## UiTemplate

A `Template` object containing the worker UI template to render.

Type: [UiTemplate](#) object

Required: No

## Response Syntax

```
{
  "Errors": [
    {
      "Code": "string",
      "Message": "string"
    }
  ],
  "RenderedContent": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## Errors

A list of one or more `RenderingError` objects if any were encountered while rendering the template. If there were no errors, the list is empty.

Type: Array of [RenderingError](#) objects

## RenderedContent

A Liquid template that renders the HTML for the worker UI.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# RetryPipelineExecution

Service: Amazon SageMaker Service

Retry the execution of the pipeline.

## Request Syntax

```
{
  "ClientRequestToken": "string",
  "ParallelismConfiguration": {
    "MaxParallelExecutionSteps": number
  },
  "PipelineExecutionArn": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ClientRequestToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than once.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: Yes

### ParallelismConfiguration

This configuration, if specified, overrides the parallelism configuration of the parent pipeline.

Type: [ParallelismConfiguration](#) object

Required: No

### PipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:pipeline\./.*\./execution\./.*$`

Required: Yes

## Response Syntax

```
{
  "PipelineExecutionArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [PipelineExecutionArn](#)

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:pipeline\./.*\./execution\./.*$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.



HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# Search

Service: Amazon SageMaker Service

Finds SageMaker resources that match a search query. Matching resources are returned as a list of SearchRecord objects in the response. You can sort the search results by any resource property in an ascending or descending order.

You can query against the following value types: numeric, text, Boolean, and timestamp.

## Note

The Search API may provide access to otherwise restricted data. See [Amazon SageMaker API Permissions: Actions, Permissions, and Resources Reference](#) for more information.

## Request Syntax

```
{
  "CrossAccountFilterOption": "string",
  "MaxResults": number,
  "NextToken": "string",
  "Resource": "string",
  "SearchExpression": {
    "Filters": [
      {
        "Name": "string",
        "Operator": "string",
        "Value": "string"
      }
    ],
    "NestedFilters": [
      {
        "Filters": [
          {
            "Name": "string",
            "Operator": "string",
            "Value": "string"
          }
        ],
        "NestedPropertyName": "string"
      }
    ],
  }
},
```

```
    "Operator": "string",
    "SubExpressions": [
      "SearchExpression"
    ]
  },
  "SortBy": "string",
  "SortOrder": "string",
  "VisibilityConditions": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CrossAccountFilterOption

A cross account filter option. When the value is "CrossAccount" the search results will only include resources made discoverable to you from other accounts. When the value is "SameAccount" or null the search results will only include resources from your account. Default is null. For more information on searching for resources made discoverable to your account, see [Search discoverable resources](#) in the SageMaker Developer Guide. The maximum number of ResourceCatalogs viewable is 1000.

Type: String

Valid Values: SameAccount | CrossAccount

Required: No

### MaxResults

The maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

If more than `MaxResults` resources match the specified `SearchExpression`, the response includes a `NextToken`. The `NextToken` can be passed to the next `SearchRequest` to continue retrieving results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . \*

Required: No

### Resource

The name of the SageMaker resource to search for.

Type: String

Valid Values: `TrainingJob` | `Experiment` | `ExperimentTrial` | `ExperimentTrialComponent` | `Endpoint` | `Model` | `ModelPackage` | `ModelPackageGroup` | `Pipeline` | `PipelineExecution` | `FeatureGroup` | `FeatureMetadata` | `Image` | `ImageVersion` | `Project` | `HyperParameterTuningJob` | `ModelCard`

Required: Yes

### SearchExpression

A Boolean conditional statement. Resources must satisfy this condition to be included in search results. You must provide at least one subexpression, filter, or nested filter. The maximum number of recursive `SubExpressions`, `NestedFilters`, and `Filters` that can be included in a `SearchExpression` object is 50.

Type: [SearchExpression](#) object

Required: No

### SortBy

The name of the resource property used to sort the `SearchResults`. The default is `LastModifiedTime`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: No

### SortOrder

How SearchResults are ordered. Valid values are Ascending or Descending. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

### VisibilityConditions

Limits the results of your search request to the resources that you can access.

Type: Array of [VisibilityConditions](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "Results": [
    {
      "Endpoint": {
        "CreationTime": number,
        "DataCaptureConfig": {
          "CaptureStatus": "string",
          "CurrentSamplingPercentage": number,
          "DestinationS3Uri": "string",
          "EnableCapture": boolean,
          "KmsKeyId": "string"
        },
        "EndpointArn": "string",
```

```

"EndpointConfigName": "string",
"EndpointName": "string",
"EndpointStatus": "string",
"FailureReason": "string",
"LastModifiedTime": number,
"MonitoringSchedules": [
  {
    "CreationTime": number,
    "EndpointName": "string",
    "FailureReason": "string",
    "LastModifiedTime": number,
    "LastMonitoringExecutionSummary": {
      "CreationTime": number,
      "EndpointName": "string",
      "FailureReason": "string",
      "LastModifiedTime": number,
      "MonitoringExecutionStatus": "string",
      "MonitoringJobDefinitionName": "string",
      "MonitoringScheduleName": "string",
      "MonitoringType": "string",
      "ProcessingJobArn": "string",
      "ScheduledTime": number
    },
    "MonitoringScheduleArn": "string",
    "MonitoringScheduleConfig": {
      "MonitoringJobDefinition": {
        "BaselineConfig": {
          "BaseliningJobName": "string",
          "ConstraintsResource": {
            "S3Uri": "string"
          },
          "StatisticsResource": {
            "S3Uri": "string"
          }
        },
        "Environment": {
          "string": "string"
        }
      },
      "MonitoringAppSpecification": {
        "ContainerArguments": [ "string" ],
        "ContainerEntrypoint": [ "string" ],
        "ImageUri": "string",
        "PostAnalyticsProcessorSourceUri": "string",
        "RecordPreprocessorSourceUri": "string"
      }
    }
  }
]

```

```

    },
    "MonitoringInputs": [
      {
        "BatchTransformInput": {
          "DataCapturedDestinationS3Uri": "string",
          "DatasetFormat": {
            "Csv": {
              "Header": boolean
            },
            "Json": {
              "Line": boolean
            },
            "Parquet": {
            }
          },
          "EndTimeOffset": "string",
          "ExcludeFeaturesAttribute": "string",
          "FeaturesAttribute": "string",
          "InferenceAttribute": "string",
          "LocalPath": "string",
          "ProbabilityAttribute": "string",
          "ProbabilityThresholdAttribute": number,
          "S3DataDistributionType": "string",
          "S3InputMode": "string",
          "StartTimeOffset": "string"
        },
        "EndpointInput": {
          "EndpointName": "string",
          "EndTimeOffset": "string",
          "ExcludeFeaturesAttribute": "string",
          "FeaturesAttribute": "string",
          "InferenceAttribute": "string",
          "LocalPath": "string",
          "ProbabilityAttribute": "string",
          "ProbabilityThresholdAttribute": number,
          "S3DataDistributionType": "string",
          "S3InputMode": "string",
          "StartTimeOffset": "string"
        }
      }
    ],
    "MonitoringOutputConfig": {
      "KmsKeyId": "string",
      "MonitoringOutputs": [

```

```

        {
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ],
},
"MonitoringResources": {
    "ClusterConfig": {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    }
},
"NetworkConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
}
},
"MonitoringJobDefinitionName": "string",
"MonitoringType": "string",
"ScheduleConfig": {
    "DataAnalysisEndTime": "string",
    "DataAnalysisStartTime": "string",
    "ScheduleExpression": "string"
}
},
"MonitoringScheduleName": "string",
"MonitoringScheduleStatus": "string",
"MonitoringType": "string",
"Tags": [
    {
        "Key": "string",

```



```

        "Value": "string"
      }
    ]
  },
  "ProductionVariants": [
    {
      "CurrentInstanceCount": number,
      "CurrentServerlessConfig": {
        "MaxConcurrency": number,
        "MemorySizeInMB": number,
        "ProvisionedConcurrency": number
      },
      "CurrentWeight": number,
      "DeployedImages": [
        {
          "ResolutionTime": number,
          "ResolvedImage": "string",
          "SpecifiedImage": "string"
        }
      ],
      "DesiredInstanceCount": number,
      "DesiredServerlessConfig": {
        "MaxConcurrency": number,
        "MemorySizeInMB": number,
        "ProvisionedConcurrency": number
      },
      "DesiredWeight": number,
      "ManagedInstanceScaling": {
        "MaxInstanceCount": number,
        "MinInstanceCount": number,
        "Status": "string"
      },
      "RoutingConfig": {
        "RoutingStrategy": "string"
      },
      "VariantName": "string",
      "VariantStatus": [
        {
          "StartTime": number,
          "Status": "string",
          "StatusMessage": "string"
        }
      ]
    }
  ]

```

```

    }
  ],
  "ShadowProductionVariants": [
    {
      "CurrentInstanceCount": number,
      "CurrentServerlessConfig": {
        "MaxConcurrency": number,
        "MemorySizeInMB": number,
        "ProvisionedConcurrency": number
      },
      "CurrentWeight": number,
      "DeployedImages": [
        {
          "ResolutionTime": number,
          "ResolvedImage": "string",
          "SpecifiedImage": "string"
        }
      ],
      "DesiredInstanceCount": number,
      "DesiredServerlessConfig": {
        "MaxConcurrency": number,
        "MemorySizeInMB": number,
        "ProvisionedConcurrency": number
      },
      "DesiredWeight": number,
      "ManagedInstanceScaling": {
        "MaxInstanceCount": number,
        "MinInstanceCount": number,
        "Status": "string"
      },
      "RoutingConfig": {
        "RoutingStrategy": "string"
      },
      "VariantName": "string",
      "VariantStatus": [
        {
          "StartTime": number,
          "Status": "string",
          "StatusMessage": "string"
        }
      ]
    }
  ],
  "Tags": [

```

```
    {
      "Key": "string",
      "Value": "string"
    }
  ]
},
"Experiment": {
  "CreatedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "CreationTime": number,
  "Description": "string",
  "DisplayName": "string",
  "ExperimentArn": "string",
  "ExperimentName": "string",
  "LastModifiedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "LastModifiedTime": number,
  "Source": {
    "SourceArn": "string",
    "SourceType": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
},
```

```

"FeatureGroup": {
  "CreationTime": number,
  "Description": "string",
  "EventTimeFeatureName": "string",
  "FailureReason": "string",
  "FeatureDefinitions": [
    {
      "CollectionConfig": { ... },
      "CollectionType": "string",
      "FeatureName": "string",
      "FeatureType": "string"
    }
  ],
  "FeatureGroupArn": "string",
  "FeatureGroupName": "string",
  "FeatureGroupStatus": "string",
  "LastModifiedTime": number,
  "LastUpdateStatus": {
    "FailureReason": "string",
    "Status": "string"
  },
  "OfflineStoreConfig": {
    "DataCatalogConfig": {
      "Catalog": "string",
      "Database": "string",
      "TableName": "string"
    },
    "DisableGlueTableCreation": boolean,
    "S3StorageConfig": {
      "KmsKeyId": "string",
      "ResolvedOutputS3Uri": "string",
      "S3Uri": "string"
    },
    "TableFormat": "string"
  },
  "OfflineStoreStatus": {
    "BlockedReason": "string",
    "Status": "string"
  },
  "OnlineStoreConfig": {
    "EnableOnlineStore": boolean,
    "SecurityConfig": {
      "KmsKeyId": "string"
    }
  },

```

```
    "StorageType": "string",
    "TtlDuration": {
      "Unit": "string",
      "Value": number
    }
  },
  "RecordIdentifierFeatureName": "string",
  "RoleArn": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
},
"FeatureMetadata": {
  "CreationTime": number,
  "Description": "string",
  "FeatureGroupArn": "string",
  "FeatureGroupName": "string",
  "FeatureName": "string",
  "FeatureType": "string",
  "LastModifiedTime": number,
  "Parameters": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
},
"HyperParameterTuningJob": {
  "BestTrainingJob": {
    "CreationTime": number,
    "FailureReason": "string",
    "FinalHyperParameterTuningJobObjectiveMetric": {
      "MetricName": "string",
      "Type": "string",
      "Value": number
    }
  },
  "ObjectiveStatus": "string",
  "TrainingEndTime": number,
  "TrainingJobArn": "string",
  "TrainingJobDefinitionName": "string",
  "TrainingJobName": "string",
```

```
"TrainingJobStatus": "string",
"TrainingStartTime": number,
"TunedHyperParameters": {
  "string" : "string"
},
"TuningJobName": "string"
},
"ConsumedResources": {
  "RuntimeInSeconds": number
},
"CreationTime": number,
"FailureReason": "string",
"HyperParameterTuningEndTime": number,
"HyperParameterTuningJobArn": "string",
"HyperParameterTuningJobConfig": {
  "HyperParameterTuningJobObjective": {
    "MetricName": "string",
    "Type": "string"
  },
  "ParameterRanges": {
    "AutoParameters": [
      {
        "Name": "string",
        "ValueHint": "string"
      }
    ],
    "CategoricalParameterRanges": [
      {
        "Name": "string",
        "Values": [ "string" ]
      }
    ],
    "ContinuousParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
        "Name": "string",
        "ScalingType": "string"
      }
    ],
    "IntegerParameterRanges": [
      {
        "MaxValue": "string",
        "MinValue": "string",
```

```

        "Name": "string",
        "ScalingType": "string"
    }
  ],
  "RandomSeed": number,
  "ResourceLimits": {
    "MaxNumberOfTrainingJobs": number,
    "MaxParallelTrainingJobs": number,
    "MaxRuntimeInSeconds": number
  },
  "Strategy": "string",
  "StrategyConfig": {
    "HyperbandStrategyConfig": {
      "MaxResource": number,
      "MinResource": number
    }
  },
  "TrainingJobEarlyStoppingType": "string",
  "TuningJobCompletionCriteria": {
    "BestObjectiveNotImproving": {
      "MaxNumberOfTrainingJobsNotImproving": number
    },
    "ConvergenceDetected": {
      "CompleteOnConvergence": "string"
    }
  },
  "TargetObjectiveMetricValue": number
}
},
"HyperParameterTuningJobName": "string",
"HyperParameterTuningJobStatus": "string",
"LastModifiedTime": number,
"ObjectiveStatusCounters": {
  "Failed": number,
  "Pending": number,
  "Succeeded": number
},
"OverallBestTrainingJob": {
  "CreationTime": number,
  "FailureReason": "string",
  "FinalHyperParameterTuningJobObjectiveMetric": {
    "MetricName": "string",
    "Type": "string",
    "Value": number
  }
}

```

```

    },
    "ObjectiveStatus": "string",
    "TrainingEndTime": number,
    "TrainingJobArn": "string",
    "TrainingJobDefinitionName": "string",
    "TrainingJobName": "string",
    "TrainingJobStatus": "string",
    "TrainingStartTime": number,
    "TunedHyperParameters": {
      "string" : "string"
    },
    "TuningJobName": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "TrainingJobDefinition": {
    "AlgorithmSpecification": {
      "AlgorithmName": "string",
      "MetricDefinitions": [
        {
          "Name": "string",
          "Regex": "string"
        }
      ],
      "TrainingImage": "string",
      "TrainingInputMode": "string"
    },
    "CheckpointConfig": {
      "LocalPath": "string",
      "S3Uri": "string"
    },
    "DefinitionName": "string",
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableManagedSpotTraining": boolean,
    "EnableNetworkIsolation": boolean,
    "Environment": {
      "string" : "string"
    },
    "HyperParameterRanges": {
      "AutoParameters": [

```



```
    {
      "Name": "string",
      "ValueHint": "string"
    }
  ],
  "CategoricalParameterRanges": [
    {
      "Name": "string",
      "Values": [ "string" ]
    }
  ],
  "ContinuousParameterRanges": [
    {
      "MaxValue": "string",
      "MinValue": "string",
      "Name": "string",
      "ScalingType": "string"
    }
  ],
  "IntegerParameterRanges": [
    {
      "MaxValue": "string",
      "MinValue": "string",
      "Name": "string",
      "ScalingType": "string"
    }
  ]
},
"HyperParameterTuningResourceConfig": {
  "AllocationStrategy": "string",
  "InstanceConfigs": [
    {
      "InstanceCount": number,
      "InstanceType": "string",
      "VolumeSizeInGB": number
    }
  ],
  "InstanceCount": number,
  "InstanceType": "string",
  "VolumeKmsKeyId": "string",
  "VolumeSizeInGB": number
},
"InputDataConfig": [
  {
```

```

    "ChannelName": "string",
    "CompressionType": "string",
    "ContentType": "string",
    "DataSource": {
      "FileSystemDataSource": {
        "DirectoryPath": "string",
        "FileSystemAccessMode": "string",
        "FileSystemId": "string",
        "FileSystemType": "string"
      },
      "S3DataSource": {
        "AttributeNames": [ "string" ],
        "InstanceGroupNames": [ "string" ],
        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
      }
    },
    "InputMode": "string",
    "RecordWrapperType": "string",
    "ShuffleConfig": {
      "Seed": number
    }
  },
  "OutputDataConfig": {
    "CompressionType": "string",
    "KmsKeyId": "string",
    "S3OutputPath": "string"
  },
  "ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
      {
        "InstanceCount": number,
        "InstanceGroupName": "string",
        "InstanceType": "string"
      }
    ]
  },
  "InstanceType": "string",
  "KeepAlivePeriodInSeconds": number,
  "VolumeKmsKeyId": "string",
  "VolumeSizeInGB": number
},

```

```

    "RetryStrategy": {
      "MaximumRetryAttempts": number
    },
    "RoleArn": "string",
    "StaticHyperParameters": {
      "string" : "string"
    },
    "StoppingCondition": {
      "MaxPendingTimeInSeconds": number,
      "MaxRuntimeInSeconds": number,
      "MaxWaitTimeInSeconds": number
    },
    "TuningObjective": {
      "MetricName": "string",
      "Type": "string"
    },
    "VpcConfig": {
      "SecurityGroupIds": [ "string" ],
      "Subnets": [ "string" ]
    }
  },
  "TrainingJobDefinitions": [
    {
      "AlgorithmSpecification": {
        "AlgorithmName": "string",
        "MetricDefinitions": [
          {
            "Name": "string",
            "Regex": "string"
          }
        ],
        "TrainingImage": "string",
        "TrainingInputMode": "string"
      },
      "CheckpointConfig": {
        "LocalPath": "string",
        "S3Uri": "string"
      },
      "DefinitionName": "string",
      "EnableInterContainerTrafficEncryption": boolean,
      "EnableManagedSpotTraining": boolean,
      "EnableNetworkIsolation": boolean,
      "Environment": {
        "string" : "string"
      }
    }
  ]
}

```

```

    },
    "HyperParameterRanges": {
      "AutoParameters": [
        {
          "Name": "string",
          "ValueHint": "string"
        }
      ],
      "CategoricalParameterRanges": [
        {
          "Name": "string",
          "Values": [ "string" ]
        }
      ],
      "ContinuousParameterRanges": [
        {
          "MaxValue": "string",
          "MinValue": "string",
          "Name": "string",
          "ScalingType": "string"
        }
      ],
      "IntegerParameterRanges": [
        {
          "MaxValue": "string",
          "MinValue": "string",
          "Name": "string",
          "ScalingType": "string"
        }
      ]
    },
    "HyperParameterTuningResourceConfig": {
      "AllocationStrategy": "string",
      "InstanceConfigs": [
        {
          "InstanceCount": number,
          "InstanceType": "string",
          "VolumeSizeInGB": number
        }
      ],
      "InstanceCount": number,
      "InstanceType": "string",
      "VolumeKmsKeyId": "string",
      "VolumeSizeInGB": number
    }
  }
}

```

```

    },
    "InputDataConfig": [
      {
        "ChannelName": "string",
        "CompressionType": "string",
        "ContentType": "string",
        "DataSource": {
          "FileSystemDataSource": {
            "DirectoryPath": "string",
            "FileSystemAccessMode": "string",
            "FileSystemId": "string",
            "FileSystemType": "string"
          },
          "S3DataSource": {
            "AttributeNames": [ "string" ],
            "InstanceGroupNames": [ "string" ],
            "S3DataDistributionType": "string",
            "S3DataType": "string",
            "S3Uri": "string"
          }
        },
        "InputMode": "string",
        "RecordWrapperType": "string",
        "ShuffleConfig": {
          "Seed": number
        }
      }
    ],
    "OutputDataConfig": {
      "CompressionType": "string",
      "KmsKeyId": "string",
      "S3OutputPath": "string"
    },
    "ResourceConfig": {
      "InstanceCount": number,
      "InstanceGroups": [
        {
          "InstanceCount": number,
          "InstanceGroupName": "string",
          "InstanceType": "string"
        }
      ]
    },
    "InstanceType": "string",
    "KeepAlivePeriodInSeconds": number,

```

```

        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    },
    "RetryStrategy": {
        "MaximumRetryAttempts": number
    },
    "RoleArn": "string",
    "StaticHyperParameters": {
        "string" : "string"
    },
    "StoppingCondition": {
        "MaxPendingTimeInSeconds": number,
        "MaxRuntimeInSeconds": number,
        "MaxWaitTimeInSeconds": number
    },
    "TuningObjective": {
        "MetricName": "string",
        "Type": "string"
    },
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
}
],
"TrainingJobStatusCounters": {
    "Completed": number,
    "InProgress": number,
    "NonRetryableError": number,
    "RetryableError": number,
    "Stopped": number
},
"TuningJobCompletionDetails": {
    "ConvergenceDetectedTime": number,
    "NumberOfTrainingJobsObjectiveNotImproving": number
},
"WarmStartConfig": {
    "ParentHyperParameterTuningJobs": [
        {
            "HyperParameterTuningJobName": "string"
        }
    ]
},
"WarmStartType": "string"
}

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```
},
  "Model": {
    "Endpoints": [
      {
        "CreationTime": number,
        "EndpointArn": "string",
        "EndpointName": "string",
        "EndpointStatus": "string",
        "LastModifiedTime": number
      }
    ],
    "LastBatchTransformJob": {
      "AutoMLJobArn": "string",
      "BatchStrategy": "string",
      "CreationTime": number,
      "DataCaptureConfig": {
        "DestinationS3Uri": "string",
        "GenerateInferenceId": boolean,
        "KmsKeyId": "string"
      },
      "DataProcessing": {
        "InputFilter": "string",
        "JoinSource": "string",
        "OutputFilter": "string"
      },
      "Environment": {
        "string": "string"
      },
      "ExperimentConfig": {
        "ExperimentName": "string",
        "RunName": "string",
        "TrialComponentDisplayName": "string",
        "TrialName": "string"
      },
      "FailureReason": "string",
      "LabelingJobArn": "string",
      "MaxConcurrentTransforms": number,
      "MaxPayloadInMB": number,
      "ModelClientConfig": {
        "InvocationsMaxRetries": number,
        "InvocationsTimeoutInSeconds": number
      },
      "ModelName": "string",
      "Tags": [
```

```

    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "TransformEndTime": number,
  "TransformInput": {
    "CompressionType": "string",
    "ContentType": "string",
    "DataSource": {
      "S3DataSource": {
        "S3DataType": "string",
        "S3Uri": "string"
      }
    },
    "SplitType": "string"
  },
  "TransformJobArn": "string",
  "TransformJobName": "string",
  "TransformJobStatus": "string",
  "TransformOutput": {
    "Accept": "string",
    "AssembleWith": "string",
    "KmsKeyId": "string",
    "S3OutputPath": "string"
  },
  "TransformResources": {
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    "InstanceType": "string",
    "VolumeKmsKeyId": "string"
  },
  "TransformStartTime": number
},
"Model": {
  "Containers": [
    {
      "ContainerHostname": "string",
      "Environment": {
        "string": "string"
      },
      "Image": "string",
      "ImageConfig": {
        "RepositoryAccessMode": "string",
        "RepositoryAuthConfig": {

```



```

        "RepositoryCredentialsProviderArn": "string"
    }
},
"InferenceSpecificationName": "string",
"Mode": "string",
"ModelDataSource": {
    "S3DataSource": {
        "CompressionType": "string",
        "HubAccessConfig": {
            "HubContentArn": "string"
        },
        "ModelAccessConfig": {
            "AcceptEula": boolean
        },
        "S3DataType": "string",
        "S3Uri": "string"
    }
},
"ModelDataUrl": "string",
"ModelPackageName": "string",
"MultiModelConfig": {
    "ModelCacheSetting": "string"
}
},
],
"CreationTime": number,
"DeploymentRecommendation": {
    "RealTimeInferenceRecommendations": [
        {
            "Environment": {
                "string": "string"
            },
            "InstanceType": "string",
            "RecommendationId": "string"
        }
    ],
    "RecommendationStatus": "string"
},
"EnableNetworkIsolation": boolean,
"ExecutionRoleArn": "string",
"InferenceExecutionConfig": {
    "Mode": "string"
},
"ModelArn": "string",

```

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"ModelName": "string",
"PrimaryContainer": {
  "ContainerHostname": "string",
  "Environment": {
    "string": "string"
  },
  "Image": "string",
  "ImageConfig": {
    "RepositoryAccessMode": "string",
    "RepositoryAuthConfig": {
      "RepositoryCredentialsProviderArn": "string"
    }
  },
  "InferenceSpecificationName": "string",
  "Mode": "string",
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      "CompressionType": "string",
      "HubAccessConfig": {
        "HubContentArn": "string"
      },
      "ModelAccessConfig": {
        "AcceptEula": boolean
      },
      "S3DataType": "string",
      "S3Uri": "string"
    }
  },
  "ModelDataUrl": "string",
  "ModelPackageName": "string",
  "MultiModelConfig": {
    "ModelCacheSetting": "string"
  }
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
],
"VpcConfig": {
  "SecurityGroupIds": [ "string" ],
  "Subnets": [ "string" ]
}
```

```

},
"ModelCard": {
  "CreatedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "CreationTime": number,
  "LastModifiedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "LastModifiedTime": number,
  "ModelCardArn": "string",
  "ModelCardName": "string",
  "ModelCardStatus": "string",
  "ModelCardVersion": number,
  "ModelId": "string",
  "RiskRating": "string",
  "SecurityConfig": {
    "KmsKeyId": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
},
"MonitoringSchedules": [
  {
    "BatchTransformInput": {
      "DataCapturedDestinationS3Uri": "string",

```

```

    "DatasetFormat": {
      "Csv": {
        "Header": boolean
      },
      "Json": {
        "Line": boolean
      },
      "Parquet": {
      }
    },
    "EndTimeOffset": "string",
    "ExcludeFeaturesAttribute": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  },
  "CreationTime": number,
  "EndpointName": "string",
  "FailureReason": "string",
  "LastModifiedTime": number,
  "LastMonitoringExecutionSummary": {
    "CreationTime": number,
    "EndpointName": "string",
    "FailureReason": "string",
    "LastModifiedTime": number,
    "MonitoringExecutionStatus": "string",
    "MonitoringJobDefinitionName": "string",
    "MonitoringScheduleName": "string",
    "MonitoringType": "string",
    "ProcessingJobArn": "string",
    "ScheduledTime": number
  },
  "MonitoringAlertSummaries": [
    {
      "Actions": {
        "ModelDashboardIndicator": {
          "Enabled": boolean
        }
      }
    }
  ],

```

```

        "AlertStatus": "string",
        "CreationTime": number,
        "DatapointsToAlert": number,
        "EvaluationPeriod": number,
        "LastModifiedTime": number,
        "MonitoringAlertName": "string"
    }
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"MonitoringScheduleArn": "string",
"MonitoringScheduleConfig": {
    "MonitoringJobDefinition": {
        "BaselineConfig": {
            "BaseliningJobName": "string",
            "ConstraintsResource": {
                "S3Uri": "string"
            },
            "StatisticsResource": {
                "S3Uri": "string"
            }
        },
        "Environment": {
            "string": "string"
        },
        "MonitoringAppSpecification": {
            "ContainerArguments": [ "string" ],
            "ContainerEntrypoint": [ "string" ],
            "ImageUri": "string",
            "PostAnalyticsProcessorSourceUri": "string",
            "RecordPreprocessorSourceUri": "string"
        },
        "MonitoringInputs": [
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                    "DataCapturedDestinationS3Uri": "string",
                    "DatasetFormat": {
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                            "Header": boolean
                        },
                        "Json": {
                            "Line": boolean
                        },
                        "Parquet": {
                        }
                    }
                }
            }
        ],
    }
},

```

```

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    "FeaturesAttribute": "string",
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    "LocalPath": "string",
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    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  },
  "EndpointInput": {
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    "EndTimeOffset": "string",
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    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  }
},
"MonitoringOutputConfig": {
  "KmsKeyId": "string",
  "MonitoringOutputs": [
    {
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        "LocalPath": "string",
        "S3UploadMode": "string",
        "S3Uri": "string"
      }
    }
  ]
},
"MonitoringResources": {
  "ClusterConfig": {
    "InstanceCount": number,
    "InstanceType": "string",
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
  }
}

```

```

    }
  },
  "NetworkConfig": {
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    "EnableNetworkIsolation": boolean,
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      "Subnets": [ string ]
    }
  },
  "RoleArn": string,
  "StoppingCondition": {
    "MaxRuntimeInSeconds": number
  }
},
"MonitoringJobDefinitionName": string,
"MonitoringType": string,
"ScheduleConfig": {
  "DataAnalysisEndTime": string,
  "DataAnalysisStartTime": string,
  "ScheduleExpression": string
}
},
"MonitoringScheduleName": string,
"MonitoringScheduleStatus": string,
"MonitoringType": string
}
]
},
"ModelCard": {
  "Content": string,
  "CreatedBy": {
    "DomainId": string,
    "IamIdentity": {
      "Arn": string,
      "PrincipalId": string,
      "SourceIdentity": string
    },
    "UserProfileArn": string,
    "UserProfileName": string
  },
  "CreationTime": number,
  "LastModifiedBy": {
    "DomainId": string,

```

```

    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "LastModifiedTime": number,
  "ModelCardArn": "string",
  "ModelCardName": "string",
  "ModelCardStatus": "string",
  "ModelCardVersion": number,
  "ModelId": "string",
  "ModelPackageGroupName": "string",
  "RiskRating": "string",
  "SecurityConfig": {
    "KmsKeyId": "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
},
"ModelPackage": {
  "AdditionalInferenceSpecifications": [
    {
      "Containers": [
        {
          "AdditionalS3DataSource": {
            "CompressionType": "string",
            "S3DataType": "string",
            "S3Uri": "string"
          },
          "ContainerHostname": "string",
          "Environment": {
            "string": "string"
          },
          "Framework": "string",
          "FrameworkVersion": "string",
          "Image": "string",
          "ImageDigest": "string",

```



```

        "ModelDataSource": {
            "S3DataSource": {
                "CompressionType": "string",
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                    "HubContentArn": "string"
                },
                "ModelAccessConfig": {
                    "AcceptEula": boolean
                },
                "S3DataType": "string",
                "S3Uri": "string"
            }
        },
        "ModelDataUrl": "string",
        "ModelInput": {
            "DataInputConfig": "string"
        },
        "NearestModelName": "string",
        "ProductId": "string"
    }
],
"Description": "string",
"Name": "string",
"SupportedContentTypes": [ "string" ],
"SupportedRealtimeInferenceInstanceTypes": [ "string" ],
"SupportedResponseMIMETypes": [ "string" ],
"SupportedTransformInstanceTypes": [ "string" ]
}
],
"ApprovalDescription": "string",
"CertifyForMarketplace": boolean,
"CreatedBy": {
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    "IamIdentity": {
        "Arn": "string",
        "PrincipalId": "string",
        "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
},
"CreationTime": number,
"CustomerMetadataProperties": {
    "string" : "string"
}

```

```
},
  "Domain": "string",
  "DriftCheckBaselines": {
    "Bias": {
      "ConfigFile": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
      },
      "PostTrainingConstraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
      },
      "PreTrainingConstraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
      }
    }
  },
  "Explainability": {
    "ConfigFile": {
      "ContentDigest": "string",
      "ContentType": "string",
      "S3Uri": "string"
    },
    "Constraints": {
      "ContentDigest": "string",
      "ContentType": "string",
      "S3Uri": "string"
    }
  },
  "ModelDataQuality": {
    "Constraints": {
      "ContentDigest": "string",
      "ContentType": "string",
      "S3Uri": "string"
    },
    "Statistics": {
      "ContentDigest": "string",
      "ContentType": "string",
      "S3Uri": "string"
    }
  }
},
```

```

    "ModelQuality": {
      "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
      },
      "Statistics": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
      }
    }
  },
  "InferenceSpecification": {
    "Containers": [
      {
        "AdditionalS3DataSource": {
          "CompressionType": "string",
          "S3DataType": "string",
          "S3Uri": "string"
        },
        "ContainerHostname": "string",
        "Environment": {
          "string": "string"
        },
        "Framework": "string",
        "FrameworkVersion": "string",
        "Image": "string",
        "ImageDigest": "string",
        "ModelDataSource": {
          "S3DataSource": {
            "CompressionType": "string",
            "HubAccessConfig": {
              "HubContentArn": "string"
            },
            "ModelAccessConfig": {
              "AcceptEula": boolean
            },
            "S3DataType": "string",
            "S3Uri": "string"
          }
        },
        "ModelDataUrl": "string",
        "ModelInput": {

```

```

        "DataInputConfig": "string"
    },
    "NearestModelName": "string",
    "ProductId": "string"
}
],
"SupportedContentTypes": [ "string" ],
"SupportedRealtimeInferenceInstanceTypes": [ "string" ],
"SupportedResponseMIMETypes": [ "string" ],
"SupportedTransformInstanceTypes": [ "string" ]
},
"LastModifiedBy": {
    "DomainId": "string",
    "IamIdentity": {
        "Arn": "string",
        "PrincipalId": "string",
        "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
},
"LastModifiedTime": number,
"MetadataProperties": {
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    "GeneratedBy": "string",
    "ProjectId": "string",
    "Repository": "string"
},
"ModelApprovalStatus": "string",
"ModelCard": {
    "ModelCardContent": "string",
    "ModelCardStatus": "string"
},
"ModelMetrics": {
    "Bias": {
        "PostTrainingReport": {
            "ContentDigest": "string",
            "ContentType": "string",
            "S3Uri": "string"
        },
        "PreTrainingReport": {
            "ContentDigest": "string",
            "ContentType": "string",
            "S3Uri": "string"
        }
    }
}

```

```
    },
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      "S3Uri": "string"
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  },
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      "ContentType": "string",
      "S3Uri": "string"
    }
  },
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      "ContentType": "string",
      "S3Uri": "string"
    },
    "Statistics": {
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      "ContentType": "string",
      "S3Uri": "string"
    }
  },
  "ModelQuality": {
    "Constraints": {
      "ContentDigest": "string",
      "ContentType": "string",
      "S3Uri": "string"
    },
    "Statistics": {
      "ContentDigest": "string",
      "ContentType": "string",
      "S3Uri": "string"
    }
  }
},
"ModelPackageArn": "string",
"ModelPackageDescription": "string",
"ModelPackageGroupName": "string",
"ModelPackageName": "string",
"ModelPackageStatus": "string",
```

```

    "ModelPackageStatusDetails": {
      "ImageScanStatuses": [
        {
          "FailureReason": "string",
          "Name": "string",
          "Status": "string"
        }
      ],
      "ValidationStatuses": [
        {
          "FailureReason": "string",
          "Name": "string",
          "Status": "string"
        }
      ]
    },
    "ModelPackageVersion": number,
    "SamplePayloadUrl": "string",
    "SecurityConfig": {
      "KmsKeyId": "string"
    },
    "SkipModelValidation": "string",
    "SourceAlgorithmSpecification": {
      "SourceAlgorithms": [
        {
          "AlgorithmName": "string",
          "ModelDataSource": {
            "S3DataSource": {
              "CompressionType": "string",
              "HubAccessConfig": {
                "HubContentArn": "string"
              },
              "ModelAccessConfig": {
                "AcceptEula": boolean
              },
              "S3DataType": "string",
              "S3Uri": "string"
            }
          },
          "ModelDataUrl": "string"
        }
      ]
    },
    "SourceUri": "string",

```

```

    "Tags": [
      {
        "Key": "string",
        "Value": "string"
      }
    ],
    "Task": "string",
    "ValidationSpecification": {
      "ValidationProfiles": [
        {
          "ProfileName": "string",
          "TransformJobDefinition": {
            "BatchStrategy": "string",
            "Environment": {
              "string": "string"
            },
            "MaxConcurrentTransforms": number,
            "MaxPayloadInMB": number,
            "TransformInput": {
              "CompressionType": "string",
              "ContentType": "string",
              "DataSource": {
                "S3DataSource": {
                  "S3DataType": "string",
                  "S3Uri": "string"
                }
              },
              "SplitType": "string"
            },
            "TransformOutput": {
              "Accept": "string",
              "AssembleWith": "string",
              "KmsKeyId": "string",
              "S3OutputPath": "string"
            },
            "TransformResources": {
              "InstanceCount": number,
              "InstanceType": "string",
              "VolumeKmsKeyId": "string"
            }
          }
        }
      ]
    },
    "ValidationRole": "string"
  }

```

```
    }
  },
  "ModelPackageGroup": {
    "CreatedBy": {
      "DomainId": "string",
      "IamIdentity": {
        "Arn": "string",
        "PrincipalId": "string",
        "SourceIdentity": "string"
      },
      "UserProfileArn": "string",
      "UserProfileName": "string"
    },
    "CreationTime": number,
    "ModelPackageGroupArn": "string",
    "ModelPackageGroupDescription": "string",
    "ModelPackageGroupName": "string",
    "ModelPackageGroupStatus": "string",
    "Tags": [
      {
        "Key": "string",
        "Value": "string"
      }
    ]
  },
  "Pipeline": {
    "CreatedBy": {
      "DomainId": "string",
      "IamIdentity": {
        "Arn": "string",
        "PrincipalId": "string",
        "SourceIdentity": "string"
      },
      "UserProfileArn": "string",
      "UserProfileName": "string"
    },
    "CreationTime": number,
    "LastModifiedBy": {
      "DomainId": "string",
      "IamIdentity": {
        "Arn": "string",
        "PrincipalId": "string",
        "SourceIdentity": "string"
      }
    }
  },
```



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    "UserProfileArn": "string",
    "UserProfileName": "string"
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  "LastModifiedTime": number,
  "LastRunTime": number,
  "ParallelismConfiguration": {
    "MaxParallelExecutionSteps": number
  },
  "PipelineArn": "string",
  "PipelineDescription": "string",
  "PipelineDisplayName": "string",
  "PipelineName": "string",
  "PipelineStatus": "string",
  "RoleArn": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
},
"PipelineExecution": {
  "CreatedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    }
  },
  "UserProfileArn": "string",
  "UserProfileName": "string"
},
"CreationTime": number,
"FailureReason": "string",
"LastModifiedBy": {
  "DomainId": "string",
  "IamIdentity": {
    "Arn": "string",
    "PrincipalId": "string",
    "SourceIdentity": "string"
  }
},
"UserProfileArn": "string",
"UserProfileName": "string"
},
```

```
"LastModifiedTime": number,
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  "MaxParallelExecutionSteps": number
},
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"PipelineExecutionArn": "string",
"PipelineExecutionDescription": "string",
"PipelineExecutionDisplayName": "string",
"PipelineExecutionStatus": "string",
"PipelineExperimentConfig": {
  "ExperimentName": "string",
  "TrialName": "string"
},
"PipelineParameters": [
  {
    "Name": "string",
    "Value": "string"
  }
],
"SelectiveExecutionConfig": {
  "SelectedSteps": [
    {
      "StepName": "string"
    }
  ],
  "SourcePipelineExecutionArn": "string"
}
},
"Project": {
  "CreatedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    }
  },
  "UserProfileArn": "string",
  "UserProfileName": "string"
},
"CreationTime": number,
"LastModifiedBy": {
  "DomainId": "string",
  "IamIdentity": {
    "Arn": "string",
```

```

        "PrincipalId": "string",
        "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
},
"LastModifiedTime": number,
"ProjectArn": "string",
"ProjectDescription": "string",
"ProjectId": "string",
"ProjectName": "string",
"ProjectStatus": "string",
"ServiceCatalogProvisionedProductDetails": {
    "ProvisionedProductId": "string",
    "ProvisionedProductStatusMessage": "string"
},
"ServiceCatalogProvisioningDetails": {
    "PathId": "string",
    "ProductId": "string",
    "ProvisioningArtifactId": "string",
    "ProvisioningParameters": [
        {
            "Key": "string",
            "Value": "string"
        }
    ]
},
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
]
},
"TrainingJob": {
    "AlgorithmSpecification": {
        "AlgorithmName": "string",
        "ContainerArguments": [ "string" ],
        "ContainerEntrypoint": [ "string" ],
        "EnableSageMakerMetricsTimeSeries": boolean,
        "MetricDefinitions": [
            {
                "Name": "string",
                "Regex": "string"
            }
        ]
    }
}

```

```

    }
  ],
  "TrainingImage": "string",
  "TrainingImageConfig": {
    "TrainingRepositoryAccessMode": "string",
    "TrainingRepositoryAuthConfig": {
      "TrainingRepositoryCredentialsProviderArn": "string"
    }
  },
  "TrainingInputMode": "string"
},
"AutoMLJobArn": "string",
"BillableTimeInSeconds": number,
"CheckpointConfig": {
  "LocalPath": "string",
  "S3Uri": "string"
},
"CreationTime": number,
"DebugHookConfig": {
  "CollectionConfigurations": [
    {
      "CollectionName": "string",
      "CollectionParameters": {
        "string" : "string"
      }
    }
  ],
  "HookParameters": {
    "string" : "string"
  },
  "LocalPath": "string",
  "S3OutputPath": "string"
},
"DebugRuleConfigurations": [
  {
    "InstanceType": "string",
    "LocalPath": "string",
    "RuleConfigurationName": "string",
    "RuleEvaluatorImage": "string",
    "RuleParameters": {
      "string" : "string"
    },
    "S3OutputPath": "string",
    "VolumeSizeInGB": number
  }
]

```

```

    }
  ],
  "DebugRuleEvaluationStatuses": [
    {
      "LastModifiedTime": number,
      "RuleConfigurationName": "string",
      "RuleEvaluationJobArn": "string",
      "RuleEvaluationStatus": "string",
      "StatusDetails": "string"
    }
  ],
  "EnableInterContainerTrafficEncryption": boolean,
  "EnableManagedSpotTraining": boolean,
  "EnableNetworkIsolation": boolean,
  "Environment": {
    "string" : "string"
  },
  "ExperimentConfig": {
    "ExperimentName": "string",
    "RunName": "string",
    "TrialComponentDisplayName": "string",
    "TrialName": "string"
  },
  "FailureReason": "string",
  "FinalMetricDataList": [
    {
      "MetricName": "string",
      "Timestamp": number,
      "Value": number
    }
  ],
  "HyperParameters": {
    "string" : "string"
  },
  "InputDataConfig": [
    {
      "ChannelName": "string",
      "CompressionType": "string",
      "ContentType": "string",
      "DataSource": {
        "FileSystemDataSource": {
          "DirectoryPath": "string",
          "FileSystemAccessMode": "string",
          "FileSystemId": "string",

```

```

        "FileSystemType": "string"
    },
    "S3DataSource": {
        "AttributeNames": [ "string" ],
        "InstanceGroupNames": [ "string" ],
        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
    }
},
"InputMode": "string",
"RecordWrapperType": "string",
"ShuffleConfig": {
    "Seed": number
}
},
],
"LabelingJobArn": "string",
"LastModifiedTime": number,
"ModelArtifacts": {
    "S3ModelArtifacts": "string"
},
"OutputDataConfig": {
    "CompressionType": "string",
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"ProfilerConfig": {
    "DisableProfiler": boolean,
    "ProfilingIntervalInMilliseconds": number,
    "ProfilingParameters": {
        "string" : "string"
    },
    "S3OutputPath": "string"
},
"ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
        {
            "InstanceCount": number,
            "InstanceGroupName": "string",
            "InstanceType": "string"
        }
    ]
},
],

```

```
    "InstanceType": "string",
    "KeepAlivePeriodInSeconds": number,
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
  },
  "RetryStrategy": {
    "MaximumRetryAttempts": number
  },
  "RoleArn": "string",
  "SecondaryStatus": "string",
  "SecondaryStatusTransitions": [
    {
      "EndTime": number,
      "StartTime": number,
      "Status": "string",
      "StatusMessage": "string"
    }
  ],
  "StoppingCondition": {
    "MaxPendingTimeInSeconds": number,
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "TensorBoardOutputConfig": {
    "LocalPath": "string",
    "S3OutputPath": "string"
  },
  "TrainingEndTime": number,
  "TrainingJobArn": "string",
  "TrainingJobName": "string",
  "TrainingJobStatus": "string",
  "TrainingStartTime": number,
  "TrainingTimeInSeconds": number,
  "TuningJobArn": "string",
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  }
}
```

```
},
  "Trial": {
    "CreatedBy": {
      "DomainId": "string",
      "IamIdentity": {
        "Arn": "string",
        "PrincipalId": "string",
        "SourceIdentity": "string"
      },
      "UserProfileArn": "string",
      "UserProfileName": "string"
    },
    "CreationTime": number,
    "DisplayName": "string",
    "ExperimentName": "string",
    "LastModifiedBy": {
      "DomainId": "string",
      "IamIdentity": {
        "Arn": "string",
        "PrincipalId": "string",
        "SourceIdentity": "string"
      },
      "UserProfileArn": "string",
      "UserProfileName": "string"
    },
    "LastModifiedTime": number,
    "MetadataProperties": {
      "CommitId": "string",
      "GeneratedBy": "string",
      "ProjectId": "string",
      "Repository": "string"
    },
    "Source": {
      "SourceArn": "string",
      "SourceType": "string"
    },
    "Tags": [
      {
        "Key": "string",
        "Value": "string"
      }
    ],
    "TrialArn": "string",
    "TrialComponentSummaries": [
```



```

    {
      "CreatedBy": {
        "DomainId": "string",
        "IamIdentity": {
          "Arn": "string",
          "PrincipalId": "string",
          "SourceIdentity": "string"
        },
        "UserProfileArn": "string",
        "UserProfileName": "string"
      },
      "CreationTime": number,
      "TrialComponentArn": "string",
      "TrialComponentName": "string",
      "TrialComponentSource": {
        "SourceArn": "string",
        "SourceType": "string"
      }
    }
  ],
  "TrialName": "string"
},
"TrialComponent": {
  "CreatedBy": {
    "DomainId": "string",
    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "CreationTime": number,
  "DisplayName": "string",
  "EndTime": number,
  "InputArtifacts": {
    "string" : {
      "MediaType": "string",
      "Value": "string"
    }
  }
},
"LastModifiedBy": {
  "DomainId": "string",

```

```

    "IamIdentity": {
      "Arn": "string",
      "PrincipalId": "string",
      "SourceIdentity": "string"
    },
    "UserProfileArn": "string",
    "UserProfileName": "string"
  },
  "LastModifiedTime": number,
  "LineageGroupArn": "string",
  "MetadataProperties": {
    "CommitId": "string",
    "GeneratedBy": "string",
    "ProjectId": "string",
    "Repository": "string"
  },
  "Metrics": [
    {
      "Avg": number,
      "Count": number,
      "Last": number,
      "Max": number,
      "MetricName": "string",
      "Min": number,
      "SourceArn": "string",
      "StdDev": number,
      "TimeStamp": number
    }
  ],
  "OutputArtifacts": {
    "string": {
      "MediaType": "string",
      "Value": "string"
    }
  },
  "Parameters": {
    "string": {
      "NumberValue": number,
      "StringValue": "string"
    }
  },
  "Parents": [
    {
      "ExperimentName": "string",

```

```

    "TrialName": "string"
  }
],
"RunName": "string",
"Source": {
  "SourceArn": "string",
  "SourceType": "string"
},
"SourceDetail": {
  "ProcessingJob": {
    "AppSpecification": {
      "ContainerArguments": [ "string" ],
      "ContainerEntrypoint": [ "string" ],
      "ImageUri": "string"
    },
    "AutoMLJobArn": "string",
    "CreationTime": number,
    "Environment": {
      "string": "string"
    },
    "ExitMessage": "string",
    "ExperimentConfig": {
      "ExperimentName": "string",
      "RunName": "string",
      "TrialComponentDisplayName": "string",
      "TrialName": "string"
    },
    "FailureReason": "string",
    "LastModifiedTime": number,
    "MonitoringScheduleArn": "string",
    "NetworkConfig": {
      "EnableInterContainerTrafficEncryption": boolean,
      "EnableNetworkIsolation": boolean,
      "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
      }
    },
    "ProcessingEndTime": number,
    "ProcessingInputs": [
      {
        "AppManaged": boolean,
        "DatasetDefinition": {
          "AthenaDatasetDefinition": {

```

```

        "Catalog": "string",
        "Database": "string",
        "KmsKeyId": "string",
        "OutputCompression": "string",
        "OutputFormat": "string",
        "OutputS3Uri": "string",
        "QueryString": "string",
        "WorkGroup": "string"
    },
    "DataDistributionType": "string",
    "InputMode": "string",
    "LocalPath": "string",
    "RedshiftDatasetDefinition": {
        "ClusterId": "string",
        "ClusterRoleArn": "string",
        "Database": "string",
        "DbUser": "string",
        "KmsKeyId": "string",
        "OutputCompression": "string",
        "OutputFormat": "string",
        "OutputS3Uri": "string",
        "QueryString": "string"
    }
},
"InputName": "string",
"S3Input": {
    "LocalPath": "string",
    "S3CompressionType": "string",
    "S3DataDistributionType": "string",
    "S3DataType": "string",
    "S3InputMode": "string",
    "S3Uri": "string"
}
},
"ProcessingJobArn": "string",
"ProcessingJobName": "string",
"ProcessingJobStatus": "string",
"ProcessingOutputConfig": {
    "KmsKeyId": "string",
    "Outputs": [
        {
            "AppManaged": boolean,
            "FeatureStoreOutput": {

```

```

        "FeatureGroupName": "string"
    },
    "OutputName": "string",
    "S3Output": {
        "LocalPath": "string",
        "S3UploadMode": "string",
        "S3Uri": "string"
    }
}
]
},
"ProcessingResources": {
    "ClusterConfig": {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    }
},
"ProcessingStartTime": number,
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
},
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
],
"TrainingJobArn": "string"
},
"SourceArn": "string",
"TrainingJob": {
    "AlgorithmSpecification": {
        "AlgorithmName": "string",
        "ContainerArguments": [ "string" ],
        "ContainerEntrypoint": [ "string" ],
        "EnableSageMakerMetricsTimeSeries": boolean,
        "MetricDefinitions": [
            {
                "Name": "string",
                "Regex": "string"
            }
        ]
    }
}

```

```
    ],
    "TrainingImage": "string",
    "TrainingImageConfig": {
      "TrainingRepositoryAccessMode": "string",
      "TrainingRepositoryAuthConfig": {
        "TrainingRepositoryCredentialsProviderArn": "string"
      }
    },
    "TrainingInputMode": "string"
  },
  "AutoMLJobArn": "string",
  "BillableTimeInSeconds": number,
  "CheckpointConfig": {
    "LocalPath": "string",
    "S3Uri": "string"
  },
  "CreationTime": number,
  "DebugHookConfig": {
    "CollectionConfigurations": [
      {
        "CollectionName": "string",
        "CollectionParameters": {
          "string" : "string"
        }
      }
    ]
  },
  "HookParameters": {
    "string" : "string"
  },
  "LocalPath": "string",
  "S3OutputPath": "string"
},
"DebugRuleConfigurations": [
  {
    "InstanceType": "string",
    "LocalPath": "string",
    "RuleConfigurationName": "string",
    "RuleEvaluatorImage": "string",
    "RuleParameters": {
      "string" : "string"
    },
    "S3OutputPath": "string",
    "VolumeSizeInGB": number
  }
]
```

```

    ],
    "DebugRuleEvaluationStatuses": [
      {
        "LastModifiedTime": number,
        "RuleConfigurationName": "string",
        "RuleEvaluationJobArn": "string",
        "RuleEvaluationStatus": "string",
        "StatusDetails": "string"
      }
    ],
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableManagedSpotTraining": boolean,
    "EnableNetworkIsolation": boolean,
    "Environment": {
      "string" : "string"
    },
    "ExperimentConfig": {
      "ExperimentName": "string",
      "RunName": "string",
      "TrialComponentDisplayName": "string",
      "TrialName": "string"
    },
    "FailureReason": "string",
    "FinalMetricDataList": [
      {
        "MetricName": "string",
        "Timestamp": number,
        "Value": number
      }
    ],
    "HyperParameters": {
      "string" : "string"
    },
    "InputDataConfig": [
      {
        "ChannelName": "string",
        "CompressionType": "string",
        "ContentType": "string",
        "DataSource": {
          "FileSystemDataSource": {
            "DirectoryPath": "string",
            "FileSystemAccessMode": "string",
            "FileSystemId": "string",
            "FileSystemType": "string"
          }
        }
      }
    ]
  }

```

```

    },
    "S3DataSource": {
      "AttributeNames": [ "string" ],
      "InstanceGroupNames": [ "string" ],
      "S3DataDistributionType": "string",
      "S3DataType": "string",
      "S3Uri": "string"
    }
  },
  "InputMode": "string",
  "RecordWrapperType": "string",
  "ShuffleConfig": {
    "Seed": number
  }
}
],
"LabelingJobArn": "string",
"LastModifiedTime": number,
"ModelArtifacts": {
  "S3ModelArtifacts": "string"
},
"OutputDataConfig": {
  "CompressionType": "string",
  "KmsKeyId": "string",
  "S3OutputPath": "string"
},
"ProfilerConfig": {
  "DisableProfiler": boolean,
  "ProfilingIntervalInMilliseconds": number,
  "ProfilingParameters": {
    "string" : "string"
  },
  "S3OutputPath": "string"
},
"ResourceConfig": {
  "InstanceCount": number,
  "InstanceGroups": [
    {
      "InstanceCount": number,
      "InstanceGroupName": "string",
      "InstanceType": "string"
    }
  ],
  "InstanceType": "string",

```



```
    "KeepAlivePeriodInSeconds": number,
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
  },
  "RetryStrategy": {
    "MaximumRetryAttempts": number
  },
  "RoleArn": "string",
  "SecondaryStatus": "string",
  "SecondaryStatusTransitions": [
    {
      "EndTime": number,
      "StartTime": number,
      "Status": "string",
      "StatusMessage": "string"
    }
  ],
  "StoppingCondition": {
    "MaxPendingTimeInSeconds": number,
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "TensorBoardOutputConfig": {
    "LocalPath": "string",
    "S3OutputPath": "string"
  },
  "TrainingEndTime": number,
  "TrainingJobArn": "string",
  "TrainingJobName": "string",
  "TrainingJobStatus": "string",
  "TrainingStartTime": number,
  "TrainingTimeInSeconds": number,
  "TuningJobArn": "string",
  "VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
  }
},
```

```
"TransformJob": {
  "AutoMLJobArn": "string",
  "BatchStrategy": "string",
  "CreationTime": number,
  "DataCaptureConfig": {
    "DestinationS3Uri": "string",
    "GenerateInferenceId": boolean,
    "KmsKeyId": "string"
  },
  "DataProcessing": {
    "InputFilter": "string",
    "JoinSource": "string",
    "OutputFilter": "string"
  },
  "Environment": {
    "string" : "string"
  },
  "ExperimentConfig": {
    "ExperimentName": "string",
    "RunName": "string",
    "TrialComponentDisplayName": "string",
    "TrialName": "string"
  },
  "FailureReason": "string",
  "LabelingJobArn": "string",
  "MaxConcurrentTransforms": number,
  "MaxPayloadInMB": number,
  "ModelClientConfig": {
    "InvocationsMaxRetries": number,
    "InvocationsTimeoutInSeconds": number
  },
  "ModelName": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "TransformEndTime": number,
  "TransformInput": {
    "CompressionType": "string",
    "ContentType": "string",
    "DataSource": {
      "S3DataSource": {
```

```

        "S3DataType": "string",
        "S3Uri": "string"
    }
},
"SplitType": "string"
},
"TransformJobArn": "string",
"TransformJobName": "string",
"TransformJobStatus": "string",
"TransformOutput": {
    "Accept": "string",
    "AssembleWith": "string",
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"TransformResources": {
    "InstanceCount": number,
    "InstanceType": "string",
    "VolumeKmsKeyId": "string"
},
"TransformStartTime": number
}
},
"StartTime": number,
"Status": {
    "Message": "string",
    "PrimaryStatus": "string"
},
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
],
"TrialComponentArn": "string",
"TrialComponentName": "string"
}
}
]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the result of the previous Search request was truncated, the response includes a NextToken. To retrieve the next set of results, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### Results

A list of SearchRecord objects.

Type: Array of [SearchRecord](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

# SendPipelineExecutionStepFailure

Service: Amazon SageMaker Service

Notifies the pipeline that the execution of a callback step failed, along with a message describing why. When a callback step is run, the pipeline generates a callback token and includes the token in a message sent to Amazon Simple Queue Service (Amazon SQS).

## Request Syntax

```
{
  "CallbackToken": "string",
  "ClientRequestToken": "string",
  "FailureReason": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CallbackToken

The pipeline generated token from the Amazon SQS queue.

Type: String

Length Constraints: Fixed length of 10.

Pattern: `^[a-zA-Z0-9]+$`

Required: Yes

### ClientRequestToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than one time.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: No

## FailureReason

A message describing why the step failed.

Type: String

Length Constraints: Maximum length of 256.

Required: No

## Response Syntax

```
{
  "PipelineExecutionArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## PipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:pipeline\./.*\./execution\./.*$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# SendPipelineExecutionStepSuccess

Service: Amazon SageMaker Service

Notifies the pipeline that the execution of a callback step succeeded and provides a list of the step's output parameters. When a callback step is run, the pipeline generates a callback token and includes the token in a message sent to Amazon Simple Queue Service (Amazon SQS).

## Request Syntax

```
{
  "CallbackToken": "string",
  "ClientRequestToken": "string",
  "OutputParameters": [
    {
      "Name": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CallbackToken

The pipeline generated token from the Amazon SQS queue.

Type: String

Length Constraints: Fixed length of 10.

Pattern: `^[a-zA-Z0-9]+$`

Required: Yes

### ClientRequestToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than one time.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: No

### OutputParameters

A list of the output parameters of the callback step.

Type: Array of [OutputParameter](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
  "PipelineExecutionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### PipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:pipeline\./.*\./execution\./.*$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

## ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartEdgeDeploymentStage

Service: Amazon SageMaker Service

Starts a stage in an edge deployment plan.

## Request Syntax

```
{
  "EdgeDeploymentPlanName": "string",
  "StageName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EdgeDeploymentPlanName

The name of the edge deployment plan to start.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### StageName

The name of the stage to start.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartInferenceExperiment

Service: Amazon SageMaker Service

Starts an inference experiment.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Name

The name of the inference experiment to start.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{  
  "InferenceExperimentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## InferenceExperimentArn

The ARN of the started inference experiment to start.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:inference-experiment/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# StartMlflowTrackingServer

Service: Amazon SageMaker Service

Programmatically start an MLflow Tracking Server.

## Request Syntax

```
{  
  "TrackingServerName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [TrackingServerName](#)

The name of the tracking server to start.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: Yes

## Response Syntax

```
{  
  "TrackingServerArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## TrackingServerArn

The ARN of the started tracking server.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:mlflow-tracking-server/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartMonitoringSchedule

Service: Amazon SageMaker Service

Starts a previously stopped monitoring schedule.

## Note

By default, when you successfully create a new schedule, the status of a monitoring schedule is `scheduled`.

## Request Syntax

```
{
  "MonitoringScheduleName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MonitoringScheduleName

The name of the schedule to start.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartNotebookInstance

Service: Amazon SageMaker Service

Launches an ML compute instance with the latest version of the libraries and attaches your ML storage volume. After configuring the notebook instance, SageMaker sets the notebook instance status to `InService`. A notebook instance's status must be `InService` before you can connect to your Jupyter notebook.

## Request Syntax

```
{  
  "NotebookInstanceName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### NotebookInstanceName

The name of the notebook instance to start.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartPipelineExecution

Service: Amazon SageMaker Service

Starts a pipeline execution.

## Request Syntax

```
{
  "ClientRequestToken": "string",
  "ParallelismConfiguration": {
    "MaxParallelExecutionSteps": number
  },
  "PipelineExecutionDescription": "string",
  "PipelineExecutionDisplayName": "string",
  "PipelineName": "string",
  "PipelineParameters": [
    {
      "Name": "string",
      "Value": "string"
    }
  ],
  "SelectiveExecutionConfig": {
    "SelectedSteps": [
      {
        "StepName": "string"
      }
    ]
  },
  "SourcePipelineExecutionArn": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ClientRequestToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than once.

Type: String



Length Constraints: Minimum length of 32. Maximum length of 128.

Required: Yes

### ParallelismConfiguration

This configuration, if specified, overrides the parallelism configuration of the parent pipeline for this specific run.

Type: [ParallelismConfiguration](#) object

Required: No

### PipelineExecutionDescription

The description of the pipeline execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: . \*

Required: No

### PipelineExecutionDisplayName

The display name of the pipeline execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,81}`

Required: No

### PipelineName

The name or Amazon Resource Name (ARN) of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `(arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:pipeline/.*)?([a-zA-Z0-9](-*[a-zA-Z0-9]){0,255})`

Required: Yes

### PipelineParameters

Contains a list of pipeline parameters. This list can be empty.

Type: Array of [Parameter](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

### SelectiveExecutionConfig

The selective execution configuration applied to the pipeline run.

Type: [SelectiveExecutionConfig](#) object

Required: No

## Response Syntax

```
{  
  "PipelineExecutionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### PipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:pipeline\./.*\./execution\./.*$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopAutoMLJob

Service: Amazon SageMaker Service

A method for forcing a running job to shut down.

## Request Syntax

```
{  
  "AutoMLJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AutoMLJobName

The name of the object you are requesting.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopCompilationJob

Service: Amazon SageMaker Service

Stops a model compilation job.

To stop a job, Amazon SageMaker sends the algorithm the SIGTERM signal. This gracefully shuts the job down. If the job hasn't stopped, it sends the SIGKILL signal.

When it receives a StopCompilationJob request, Amazon SageMaker changes the CompilationJobStatus of the job to Stopping. After Amazon SageMaker stops the job, it sets the CompilationJobStatus to Stopped.

## Request Syntax

```
{  
  "CompilationJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### CompilationJobName

The name of the model compilation job to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopEdgeDeploymentStage

Service: Amazon SageMaker Service

Stops a stage in an edge deployment plan.

## Request Syntax

```
{
  "EdgeDeploymentPlanName": "string",
  "StageName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### EdgeDeploymentPlanName

The name of the edge deployment plan to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### StageName

The name of the stage to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes



## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopEdgePackagingJob

Service: Amazon SageMaker Service

Request to stop an edge packaging job.

## Request Syntax

```
{  
  "EdgePackagingJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [EdgePackagingJobName](#)

The name of the edge packaging job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopHyperParameterTuningJob

Service: Amazon SageMaker Service

Stops a running hyperparameter tuning job and all running training jobs that the tuning job launched.

All model artifacts output from the training jobs are stored in Amazon Simple Storage Service (Amazon S3). All data that the training jobs write to Amazon CloudWatch Logs are still available in CloudWatch. After the tuning job moves to the Stopped state, it releases all reserved resources for the tuning job.

## Request Syntax

```
{  
  "HyperParameterTuningJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [HyperParameterTuningJobName](#)

The name of the tuning job to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopInferenceExperiment

Service: Amazon SageMaker Service

Stops an inference experiment.

## Request Syntax

```
{
  "DesiredModelVariants": [
    {
      "InfrastructureConfig": {
        "InfrastructureType": "string",
        "RealTimeInferenceConfig": {
          "InstanceCount": number,
          "InstanceType": "string"
        }
      },
      "ModelName": "string",
      "VariantName": "string"
    }
  ],
  "DesiredState": "string",
  "ModelVariantActions": {
    "string" : "string"
  },
  "Name": "string",
  "Reason": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DesiredModelVariants

An array of `ModelVariantConfig` objects. There is one for each variant that you want to deploy after the inference experiment stops. Each `ModelVariantConfig` describes the infrastructure configuration for deploying the corresponding variant.

Type: Array of [ModelVariantConfig](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Required: No

### DesiredState

The desired state of the experiment after stopping. The possible states are the following:

- **Completed**: The experiment completed successfully
- **Cancelled**: The experiment was canceled

Type: String

Valid Values: `Completed` | `Cancelled`

Required: No

### ModelVariantActions

Array of key-value pairs, with names of variants mapped to actions. The possible actions are the following:

- **Promote** - Promote the shadow variant to a production variant
- **Remove** - Delete the variant
- **Retain** - Keep the variant as it is

Type: String to string map

Map Entries: Maximum number of 2 items.

Key Length Constraints: Maximum length of 63.

Key Pattern: `^[a-zA-Z0-9]( [\ -a-zA-Z0-9 ] * [a-zA-Z0-9] ) ?`

Valid Values: `Retain` | `Remove` | `Promote`

Required: Yes

### Name

The name of the inference experiment to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

### Reason

The reason for stopping the experiment.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `.*`

Required: No

## Response Syntax

```
{
  "InferenceExperimentArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### InferenceExperimentArn

The ARN of the stopped inference experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:inference-experiment/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).



## ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopInferenceRecommendationsJob

Service: Amazon SageMaker Service

Stops an Inference Recommender job.

## Request Syntax

```
{  
  "JobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### JobName

The name of the job you want to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,63}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopLabelingJob

Service: Amazon SageMaker Service

Stops a running labeling job. A job that is stopped cannot be restarted. Any results obtained before the job is stopped are placed in the Amazon S3 output bucket.

## Request Syntax

```
{
  "LabelingJobName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### LabelingJobName

The name of the labeling job to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceNotFound**

Resource being access is not found.

## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopMlflowTrackingServer

Service: Amazon SageMaker Service

Programmatically stop an MLflow Tracking Server.

## Request Syntax

```
{  
  "TrackingServerName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [TrackingServerName](#)

The name of the tracking server to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: Yes

## Response Syntax

```
{  
  "TrackingServerArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## TrackingServerArn

The ARN of the stopped tracking server.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:mlflow-tracking-server/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# StopMonitoringSchedule

Service: Amazon SageMaker Service

Stops a previously started monitoring schedule.

## Request Syntax

```
{  
  "MonitoringScheduleName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MonitoringScheduleName

The name of the schedule to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopNotebookInstance

Service: Amazon SageMaker Service

Terminates the ML compute instance. Before terminating the instance, SageMaker disconnects the ML storage volume from it. SageMaker preserves the ML storage volume. SageMaker stops charging you for the ML compute instance when you call StopNotebookInstance.

To access data on the ML storage volume for a notebook instance that has been terminated, call the StartNotebookInstance API. StartNotebookInstance launches another ML compute instance, configures it, and attaches the preserved ML storage volume so you can continue your work.

## Request Syntax

```
{
  "NotebookInstanceName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### NotebookInstanceName

The name of the notebook instance to terminate.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopPipelineExecution

Service: Amazon SageMaker Service

Stops a pipeline execution.

## Callback Step

A pipeline execution won't stop while a callback step is running. When you call `StopPipelineExecution` on a pipeline execution with a running callback step, SageMaker Pipelines sends an additional Amazon SQS message to the specified SQS queue. The body of the SQS message contains a "Status" field which is set to "Stopping".

You should add logic to your Amazon SQS message consumer to take any needed action (for example, resource cleanup) upon receipt of the message followed by a call to `SendPipelineExecutionStepSuccess` or `SendPipelineExecutionStepFailure`.

Only when SageMaker Pipelines receives one of these calls will it stop the pipeline execution.

## Lambda Step

A pipeline execution can't be stopped while a lambda step is running because the Lambda function invoked by the lambda step can't be stopped. If you attempt to stop the execution while the Lambda function is running, the pipeline waits for the Lambda function to finish or until the timeout is hit, whichever occurs first, and then stops. If the Lambda function finishes, the pipeline execution status is `Stopped`. If the timeout is hit the pipeline execution status is `Failed`.

## Request Syntax

```
{
  "ClientRequestToken": "string",
  "PipelineExecutionArn": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## ClientRequestToken

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than once.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: Yes

## PipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:pipeline\./.*\./execution\./.*$`

Required: Yes

## Response Syntax

```
{
  "PipelineExecutionArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## PipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:pipeline\./.\*\./execution\./.\*\$

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopProcessingJob

Service: Amazon SageMaker Service

Stops a processing job.

## Request Syntax

```
{
  "ProcessingJobName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ProcessingJobName

The name of the processing job to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopTrainingJob

Service: Amazon SageMaker Service

Stops a training job. To stop a job, SageMaker sends the algorithm the SIGTERM signal, which delays job termination for 120 seconds. Algorithms might use this 120-second window to save the model artifacts, so the results of the training is not lost.

When it receives a StopTrainingJob request, SageMaker changes the status of the job to Stopping. After SageMaker stops the job, it sets the status to Stopped.

## Request Syntax

```
{  
  "TrainingJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### TrainingJobName

The name of the training job to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopTransformJob

Service: Amazon SageMaker Service

Stops a batch transform job.

When Amazon SageMaker receives a `StopTransformJob` request, the status of the job changes to `Stopping`. After Amazon SageMaker stops the job, the status is set to `Stopped`. When you stop a batch transform job before it is completed, Amazon SageMaker doesn't store the job's output in Amazon S3.

## Request Syntax

```
{
  "TransformJobName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### TransformJobName

The name of the batch transform job to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateAction

Service: Amazon SageMaker Service

Updates an action.

## Request Syntax

```
{
  "ActionName": "string",
  "Description": "string",
  "Properties": {
    "string" : "string"
  },
  "PropertiesToRemove": [ "string" ],
  "Status": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ActionName

The name of the action to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

### Description

The new description for the action.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: `.*`

Required: No

### Properties

The new list of properties. Overwrites the current property list.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 2500.

Key Pattern: .\*

Value Length Constraints: Maximum length of 2500.

Value Pattern: .\*

Required: No

### PropertiesToRemove

A list of properties to remove.

Type: Array of strings

Length Constraints: Maximum length of 2500.

Pattern: .\*

Required: No

### Status

The new status for the action.

Type: String

Valid Values: Unknown | InProgress | Completed | Failed | Stopping | Stopped

Required: No

## Response Syntax

```
{
```

```
"ActionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ActionArn

The Amazon Resource Name (ARN) of the action.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:action/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)



- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateAppImageConfig

Service: Amazon SageMaker Service

Updates the properties of an AppImageConfig.

## Request Syntax

```
{
  "AppImageConfigName": "string",
  "CodeEditorAppImageConfig": {
    "ContainerConfig": {
      "ContainerArguments": [ "string " ],
      "ContainerEntrypoint": [ "string " ],
      "ContainerEnvironmentVariables": {
        "string" : "string"
      }
    },
    "FileSystemConfig": {
      "DefaultGid": number,
      "DefaultUid": number,
      "MountPath": "string"
    }
  },
  "JupyterLabAppImageConfig": {
    "ContainerConfig": {
      "ContainerArguments": [ "string " ],
      "ContainerEntrypoint": [ "string " ],
      "ContainerEnvironmentVariables": {
        "string" : "string"
      }
    },
    "FileSystemConfig": {
      "DefaultGid": number,
      "DefaultUid": number,
      "MountPath": "string"
    }
  },
  "KernelGatewayImageConfig": {
    "FileSystemConfig": {
      "DefaultGid": number,
      "DefaultUid": number,
      "MountPath": "string"
    }
  },
}
```

```
    "KernelSpecs": [  
      {  
        "DisplayName": "string",  
        "Name": "string"  
      }  
    ]  
  }  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [AppImageConfigName](#)

The name of the AppImageConfig to update.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### [CodeEditorAppImageConfig](#)

The Code Editor app running on the image.

Type: [CodeEditorAppImageConfig](#) object

Required: No

### [JupyterLabAppImageConfig](#)

The JupyterLab app running on the image.

Type: [JupyterLabAppImageConfig](#) object

Required: No

### [KernelGatewayImageConfig](#)

The new KernelGateway app to run on the image.

Type: [KernelGatewayImageConfig](#) object

Required: No

## Response Syntax

```
{
  "AppImageConfigArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AppImageConfigArn](#)

The ARN for the AppImageConfig.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:app-image-config/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateArtifact

Service: Amazon SageMaker Service

Updates an artifact.

## Request Syntax

```
{
  "ArtifactArn": "string",
  "ArtifactName": "string",
  "Properties": {
    "string" : "string"
  },
  "PropertiesToRemove": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ArtifactArn

The Amazon Resource Name (ARN) of the artifact to update.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:artifact/.*`

Required: Yes

### ArtifactName

The new name for the artifact.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### Properties

The new list of properties. Overwrites the current property list.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 2500.

Key Pattern: .\*

Value Length Constraints: Maximum length of 4096.

Value Pattern: .\*

Required: No

### PropertiesToRemove

A list of properties to remove.

Type: Array of strings

Length Constraints: Maximum length of 2500.

Pattern: .\*

Required: No

## Response Syntax

```
{  
  "ArtifactArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## **ArtifactArn**

The Amazon Resource Name (ARN) of the artifact.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:artifact/.*`

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)



- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateCluster

Service: Amazon SageMaker Service

Updates a SageMaker HyperPod cluster.

## Request Syntax

```
{
  "ClusterName": "string",
  "InstanceGroups": [
    {
      "ExecutionRole": "string",
      "InstanceCount": number,
      "InstanceGroupName": "string",
      "InstanceStorageConfigs": [
        { ... }
      ],
      "InstanceType": "string",
      "LifecycleConfig": {
        "OnCreate": "string",
        "SourceS3Uri": "string"
      },
      "ThreadsPerCore": number
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ClusterName

Specify the name of the SageMaker HyperPod cluster you want to update.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^(arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:cluster/[a-z0-9]{12})|([a-zA-Z0-9](-*[a-zA-Z0-9]){0,62})$`

Required: Yes

### InstanceGroups

Specify the instance groups to update.

Type: Array of [ClusterInstanceGroupSpecification](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: Yes

## Response Syntax

```
{
  "ClusterArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ClusterArn

The Amazon Resource Name (ARN) of the updated SageMaker HyperPod cluster.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-*:]*:sagemaker:[a-z0-9\-*:]{12}:cluster/[a-z0-9]{12}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateClusterSoftware

Service: Amazon SageMaker Service

Updates the platform software of a SageMaker HyperPod cluster for security patching. To learn how to use this API, see [Update the SageMaker HyperPod platform software of a cluster](#).

## Request Syntax

```
{  
  "ClusterName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ClusterName

Specify the name or the Amazon Resource Name (ARN) of the SageMaker HyperPod cluster you want to update for security patching.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^(arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:cluster/[a-z0-9]{12})|([a-zA-Z0-9](-*[a-zA-Z0-9]){0,62})$`

Required: Yes

## Response Syntax

```
{  
  "ClusterArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **ClusterArn**

The Amazon Resource Name (ARN) of the SageMaker HyperPod cluster being updated for security patching.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:cluster/[a-z0-9]{12}$`

### **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

#### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

#### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateCodeRepository

Service: Amazon SageMaker Service

Updates the specified Git repository with the specified values.

## Request Syntax

```
{
  "CodeRepositoryName": "string",
  "GitConfig": {
    "SecretArn": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [CodeRepositoryName](#)

The name of the Git repository to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### [GitConfig](#)

The configuration of the git repository, including the URL and the Amazon Resource Name (ARN) of the AWS Secrets Manager secret that contains the credentials used to access the repository. The secret must have a staging label of `AWSCURRENT` and must be in the following format:

```
{"username": UserName, "password": Password}
```

Type: [GitConfigForUpdate](#) object



Required: No

## Response Syntax

```
{  
  "CodeRepositoryArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CodeRepositoryArn](#)

The ARN of the Git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9-]{9,16}:[0-9]{12}:code-repository/[\S]{1,2048}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateContext

Service: Amazon SageMaker Service

Updates a context.

## Request Syntax

```
{
  "ContextName": "string",
  "Description": "string",
  "Properties": {
    "string" : "string"
  },
  "PropertiesToRemove": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ContextName

The name of the context to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,119}`

Required: Yes

### Description

The new description for the context.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: `.*`

Required: No

### Properties

The new list of properties. Overwrites the current property list.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 2500.

Key Pattern: .\*

Value Length Constraints: Maximum length of 2500.

Value Pattern: .\*

Required: No

### PropertiesToRemove

A list of properties to remove.

Type: Array of strings

Length Constraints: Maximum length of 2500.

Pattern: .\*

Required: No

## Response Syntax

```
{  
  "ContextArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## ContextArn

The Amazon Resource Name (ARN) of the context.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:context/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateDeviceFleet

Service: Amazon SageMaker Service

Updates a fleet of devices.

## Request Syntax

```
{
  "Description": "string",
  "DeviceFleetName": "string",
  "EnableIotRoleAlias": boolean,
  "OutputConfig": {
    "KmsKeyId": "string",
    "PresetDeploymentConfig": "string",
    "PresetDeploymentType": "string",
    "S3OutputLocation": "string"
  },
  "RoleArn": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Description

Description of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 800.

Pattern: `^[-a-zA-Z0-9_.,;:!]*$`

Required: No

### DeviceFleetName

The name of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### EnableIotRoleAlias

Whether to create an AWS IoT Role Alias during device fleet creation. The name of the role alias generated will match this pattern: "SageMakerEdge-{DeviceFleetName}".

For example, if your device fleet is called "demo-fleet", the name of the role alias will be "SageMakerEdge-demo-fleet".

Type: Boolean

Required: No

### OutputConfig

Output configuration for storing sample data collected by the fleet.

Type: [EdgeOutputConfig](#) object

Required: Yes

### RoleArn

The Amazon Resource Name (ARN) of the device.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@\-\_/\]+$`

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).



## ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateDevices

Service: Amazon SageMaker Service

Updates one or more devices in a fleet.

## Request Syntax

```
{
  "DeviceFleetName": "string",
  "Devices": [
    {
      "Description": "string",
      "DeviceName": "string",
      "IotThingName": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DeviceFleetName

The name of the fleet the devices belong to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### Devices

List of devices to register with Edge Manager agent.

Type: Array of [Device](#) objects

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateDomain

Service: Amazon SageMaker Service

Updates the default settings for new user profiles in the domain.

## Request Syntax

```
{
  "AppNetworkAccessType": "string",
  "AppSecurityGroupManagement": "string",
  "DefaultSpaceSettings": {
    "CustomFileSystemConfigs": [
      { ... }
    ],
    "CustomPosixUserConfig": {
      "Gid": number,
      "Uid": number
    },
    "ExecutionRole": "string",
    "JupyterLabAppSettings": {
      "CodeRepositories": [
        {
          "RepositoryUrl": "string"
        }
      ],
      "CustomImages": [
        {
          "AppImageConfigName": "string",
          "ImageName": "string",
          "ImageVersionNumber": number
        }
      ],
      "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionAlias": "string",
        "SageMakerImageVersionArn": "string"
      },
      "LifecycleConfigArns": [ "string" ]
    },
    "JupyterServerAppSettings": {
      "CodeRepositories": [
```

```

    {
      "RepositoryUrl": "string"
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"KernelGatewayAppSettings": {
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"SecurityGroups": [ "string" ],
"SpaceStorageSettings": {
  "DefaultEbsStorageSettings": {
    "DefaultEbsVolumeSizeInGb": number,
    "MaximumEbsVolumeSizeInGb": number
  }
}
},
"DefaultUserSettings": {
  "CanvasAppSettings": {
    "DirectDeploySettings": {
      "Status": "string"
    }
  },
  "GenerativeAiSettings": {

```

```

    "AmazonBedrockRoleArn": "string"
  },
  "IdentityProvider0AuthSettings": [
    {
      "DataSourceName": "string",
      "SecretArn": "string",
      "Status": "string"
    }
  ],
  "KendraSettings": {
    "Status": "string"
  },
  "ModelRegisterSettings": {
    "CrossAccountModelRegisterRoleArn": "string",
    "Status": "string"
  },
  "TimeSeriesForecastingSettings": {
    "AmazonForecastRoleArn": "string",
    "Status": "string"
  },
  "WorkspaceSettings": {
    "S3ArtifactPath": "string",
    "S3KmsKeyId": "string"
  }
},
"CodeEditorAppSettings": {
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"CustomFileSystemConfigs": [
  { ... }
]

```

```

],
  "CustomPosixUserConfig": {
    "Gid": number,
    "Uid": number
  },
  "DefaultLandingUri": "string",
  "ExecutionRole": "string",
  "JupyterLabAppSettings": {
    "CodeRepositories": [
      {
        "RepositoryUrl": "string"
      }
    ],
  },
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
  "JupyterServerAppSettings": {
    "CodeRepositories": [
      {
        "RepositoryUrl": "string"
      }
    ],
  },
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},

```

```
"KernelGatewayAppSettings": {
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"RSessionAppSettings": {
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  }
},
"RStudioServerProAppSettings": {
  "AccessStatus": "string",
  "UserGroup": "string"
},
"SecurityGroups": [ "string" ],
"SharingSettings": {
  "NotebookOutputOption": "string",
  "S3KmsKeyId": "string",
  "S3OutputPath": "string"
},
"SpaceStorageSettings": {
```



```

    "DefaultEbsStorageSettings": {
      "DefaultEbsVolumeSizeInGb": number,
      "MaximumEbsVolumeSizeInGb": number
    }
  },
  "StudioWebPortal": "string",
  "StudioWebPortalSettings": {
    "HiddenAppTypes": [ "string" ],
    "HiddenMLTools": [ "string" ]
  },
  "TensorBoardAppSettings": {
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    }
  }
},
"DomainId": "string",
"DomainSettingsForUpdate": {
  "DockerSettings": {
    "EnableDockerAccess": "string",
    "VpcOnlyTrustedAccounts": [ "string" ]
  },
  "ExecutionRoleIdentityConfig": "string",
  "RStudioServerProDomainSettingsForUpdate": {
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    },
    "DomainExecutionRoleArn": "string",
    "RStudioConnectUrl": "string",
    "RStudioPackageManagerUrl": "string"
  },
  "SecurityGroupIds": [ "string" ]
},
"SubnetIds": [ "string" ]
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AppNetworkAccessType

Specifies the VPC used for non-EFS traffic.

- `PublicInternetOnly` - Non-EFS traffic is through a VPC managed by Amazon SageMaker, which allows direct internet access.
- `VpcOnly` - All Studio traffic is through the specified VPC and subnets.

This configuration can only be modified if there are no apps in the `InService`, `Pending`, or `Deleting` state. The configuration cannot be updated if `DomainSettings.RStudioServerProDomainSettings.DomainExecutionRoleArn` is already set or `DomainSettings.RStudioServerProDomainSettings.DomainExecutionRoleArn` is provided as part of the same request.

Type: String

Valid Values: `PublicInternetOnly` | `VpcOnly`

Required: No

### AppSecurityGroupManagement

The entity that creates and manages the required security groups for inter-app communication in `VPCOnly` mode. Required when `CreateDomain.AppNetworkAccessType` is `VPCOnly` and `DomainSettings.RStudioServerProDomainSettings.DomainExecutionRoleArn` is provided. If setting up the domain for use with RStudio, this value must be set to `Service`.

Type: String

Valid Values: `Service` | `Customer`

Required: No

### DefaultSpaceSettings

The default settings used to create a space within the domain.

Type: [DefaultSpaceSettings](#) object

Required: No

### [DefaultUserSettings](#)

A collection of settings.

Type: [UserSettings](#) object

Required: No

### [DomainId](#)

The ID of the domain to be updated.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-( -*[a-z0-9]){1,61}`

Required: Yes

### [DomainSettingsForUpdate](#)

A collection of `DomainSettings` configuration values to update.

Type: [DomainSettingsForUpdate](#) object

Required: No

### [SubnetIds](#)

The VPC subnets that Studio uses for communication.

If removing subnets, ensure there are no apps in the `InService`, `Pending`, or `Deleting` state.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

Required: No

## Response Syntax

```
{  
  "DomainArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### DomainArn

The Amazon Resource Name (ARN) of the domain.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:domain/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateEndpoint

Service: Amazon SageMaker Service

Deploys the EndpointConfig specified in the request to a new fleet of instances. SageMaker shifts endpoint traffic to the new instances with the updated endpoint configuration and then deletes the old instances using the previous EndpointConfig (there is no availability loss). For more information about how to control the update and traffic shifting process, see [Update models in production](#).

When SageMaker receives the request, it sets the endpoint status to Updating. After updating the endpoint, it sets the status to InService. To check the status of an endpoint, use the [DescribeEndpoint](#) API.

## Note

You must not delete an EndpointConfig in use by an endpoint that is live or while the UpdateEndpoint or CreateEndpoint operations are being performed on the endpoint. To update an endpoint, you must create a new EndpointConfig. If you delete the EndpointConfig of an endpoint that is active or being created or updated you may lose visibility into the instance type the endpoint is using. The endpoint must be deleted in order to stop incurring charges.

## Request Syntax

```
{
  "DeploymentConfig": {
    "AutoRollbackConfiguration": {
      "Alarms": [
        {
          "AlarmName": "string"
        }
      ]
    },
    "BlueGreenUpdatePolicy": {
      "MaximumExecutionTimeoutInSeconds": number,
      "TerminationWaitInSeconds": number,
      "TrafficRoutingConfiguration": {
        "CanarySize": {
          "Type": "string",
```

```

        "Value": number
    },
    "LinearStepSize": {
        "Type": "string",
        "Value": number
    },
    "Type": "string",
    "WaitIntervalInSeconds": number
}
},
"RollingUpdatePolicy": {
    "MaximumBatchSize": {
        "Type": "string",
        "Value": number
    },
    "MaximumExecutionTimeoutInSeconds": number,
    "RollbackMaximumBatchSize": {
        "Type": "string",
        "Value": number
    },
    "WaitIntervalInSeconds": number
}
},
"EndpointConfigName": "string",
"EndpointName": "string",
"ExcludeRetainedVariantProperties": [
    {
        "VariantPropertyType": "string"
    }
],
"RetainAllVariantProperties": boolean,
"RetainDeploymentConfig": boolean
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [DeploymentConfig](#)

The deployment configuration for an endpoint, which contains the desired deployment strategy and rollback configurations.

Type: [DeploymentConfig](#) object

Required: No

### [EndpointConfigName](#)

The name of the new endpoint configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### [EndpointName](#)

The name of the endpoint whose configuration you want to update.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### [ExcludeRetainedVariantProperties](#)

When you are updating endpoint resources with `RetainAllVariantProperties`, whose value is set to `true`, `ExcludeRetainedVariantProperties` specifies the list of type [VariantProperty](#) to override with the values provided by `EndpointConfig`. If you don't specify a value for `ExcludeRetainedVariantProperties`, no variant properties are overridden.

Type: Array of [VariantProperty](#) objects

Array Members: Minimum number of 0 items. Maximum number of 3 items.

Required: No

### [RetainAllVariantProperties](#)

When updating endpoint resources, enables or disables the retention of [variant properties](#), such as the instance count or the variant weight. To retain the variant properties of an endpoint when updating it, set `RetainAllVariantProperties` to `true`. To use the



variant properties specified in a new `EndpointConfig` call when updating an endpoint, set `RetainAllVariantProperties` to `false`. The default is `false`.

Type: Boolean

Required: No

### [RetainDeploymentConfig](#)

Specifies whether to reuse the last deployment configuration. The default value is `false` (the configuration is not reused).

Type: Boolean

Required: No

## Response Syntax

```
{
  "EndpointArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [EndpointArn](#)

The Amazon Resource Name (ARN) of the endpoint.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:endpoint/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateEndpointWeightsAndCapacities

Service: Amazon SageMaker Service

Updates variant weight of one or more variants associated with an existing endpoint, or capacity of one variant associated with an existing endpoint. When it receives the request, SageMaker sets the endpoint status to `Updating`. After updating the endpoint, it sets the status to `InService`. To check the status of an endpoint, use the [DescribeEndpoint](#) API.

## Request Syntax

```
{
  "DesiredWeightsAndCapacities": [
    {
      "DesiredInstanceCount": number,
      "DesiredWeight": number,
      "ServerlessUpdateConfig": {
        "MaxConcurrency": number,
        "ProvisionedConcurrency": number
      },
      "VariantName": "string"
    }
  ],
  "EndpointName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [DesiredWeightsAndCapacities](#)

An object that provides new capacity and weight values for a variant.

Type: Array of [DesiredWeightAndCapacity](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

### [EndpointName](#)

The name of an existing SageMaker endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{  
  "EndpointArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [EndpointArn](#)

The Amazon Resource Name (ARN) of the updated endpoint.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:endpoint/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateExperiment

Service: Amazon SageMaker Service

Adds, updates, or removes the description of an experiment. Updates the display name of an experiment.

## Request Syntax

```
{
  "Description": "string",
  "DisplayName": "string",
  "ExperimentName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Description

The description of the experiment.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .\*

Required: No

### DisplayName

The name of the experiment as displayed. The name doesn't need to be unique. If `DisplayName` isn't specified, `ExperimentName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

## ExperimentName

The name of the experiment to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{
  "ExperimentArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## ExperimentArn

The Amazon Resource Name (ARN) of the experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# UpdateFeatureGroup

Service: Amazon SageMaker Service

Updates the feature group by either adding features or updating the online store configuration. Use one of the following request parameters at a time while using the UpdateFeatureGroup API.

You can add features for your feature group using the FeatureAdditions request parameter. Features cannot be removed from a feature group.

You can update the online store configuration by using the OnlineStoreConfig request parameter. If a TtlDuration is specified, the default TtlDuration applies for all records added to the feature group *after the feature group is updated*. If a record level TtlDuration exists from using the PutRecord API, the record level TtlDuration applies to that record instead of the default TtlDuration. To remove the default TtlDuration from an existing feature group, use the UpdateFeatureGroup API and set the TtlDuration Unit and Value to null.

## Request Syntax

```
{
  "FeatureAdditions": [
    {
      "CollectionConfig": { ... },
      "CollectionType": "string",
      "FeatureName": "string",
      "FeatureType": "string"
    }
  ],
  "FeatureGroupName": "string",
  "OnlineStoreConfig": {
    "TtlDuration": {
      "Unit": "string",
      "Value": number
    }
  },
  "ThroughputConfig": {
    "ProvisionedReadCapacityUnits": number,
    "ProvisionedWriteCapacityUnits": number,
    "ThroughputMode": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [FeatureAdditions](#)

Updates the feature group. Updating a feature group is an asynchronous operation. When you get an HTTP 200 response, you've made a valid request. It takes some time after you've made a valid request for Feature Store to update the feature group.

Type: Array of [FeatureDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

### [FeatureGroupName](#)

The name or Amazon Resource Name (ARN) of the feature group that you're updating.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `(arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:feature-group\|)?([a-zA-Z0-9]([_-\]*[a-zA-Z0-9])){0,63}`

Required: Yes

### [OnlineStoreConfig](#)

Updates the feature group online store configuration.

Type: [OnlineStoreConfigUpdate](#) object

Required: No

### [ThroughputConfig](#)

The new throughput configuration for the feature group. You can switch between on-demand and provisioned modes or update the read / write capacity of provisioned feature groups. You can switch a feature group to on-demand only once in a 24 hour period.

Type: [ThroughputConfigUpdate](#) object

Required: No

## Response Syntax

```
{  
  "FeatureGroupArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [FeatureGroupArn](#)

The Amazon Resource Number (ARN) of the feature group that you're updating.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:feature-group/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateFeatureMetadata

Service: Amazon SageMaker Service

Updates the description and parameters of the feature group.

## Request Syntax

```
{
  "Description": "string",
  "FeatureGroupName": "string",
  "FeatureName": "string",
  "ParameterAdditions": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "ParameterRemovals": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Description

A description that you can write to better describe the feature.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

Pattern: .\*

Required: No

### FeatureGroupName

The name or Amazon Resource Name (ARN) of the feature group containing the feature that you're updating.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `(arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:feature-group\|)?([a-zA-Z0-9]([-_]*[a-zA-Z0-9])){0,63}`

Required: Yes

### FeatureName

The name of the feature that you're updating.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,63}`

Required: Yes

### ParameterAdditions

A list of key-value pairs that you can add to better describe the feature.

Type: Array of [FeatureParameter](#) objects

Array Members: Maximum number of 25 items.

Required: No

### ParameterRemovals

A list of parameter keys that you can specify to remove parameters that describe your feature.

Type: Array of strings

Array Members: Maximum number of 25 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^(\\p{L}\\p{Z}\\p{N}_\\.:/=+\\-]*)$`

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateHub

Service: Amazon SageMaker Service

Update a hub.

## Request Syntax

```
{
  "HubDescription": "string",
  "HubDisplayName": "string",
  "HubName": "string",
  "HubSearchKeywords": [ "string" ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### HubDescription

A description of the updated hub.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

Required: No

### HubDisplayName

The display name of the hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: No



## HubName

The name of the hub to update.

Type: String

Pattern: `^(arn:[a-z0-9-\.]\{1,63\}:sagemaker:\w+(?:-\w+)+:(\d{12}|aws):hub\w)?[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$`

Required: Yes

## HubSearchKeywords

The searchable keywords for the hub.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 255.

Pattern: `^[^A-Z]*$`

Required: No

## Response Syntax

```
{
  "HubArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## HubArn

The Amazon Resource Name (ARN) of the updated hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateImage

Service: Amazon SageMaker Service

Updates the properties of a SageMaker image. To change the image's tags, use the [AddTags](#) and [DeleteTags](#) APIs.

## Request Syntax

```
{
  "DeleteProperties": [ "string" ],
  "Description": "string",
  "DisplayName": "string",
  "ImageName": "string",
  "RoleArn": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [DeleteProperties](#)

A list of properties to delete. Only the Description and DisplayName properties can be deleted.

Type: Array of strings

Array Members: Maximum number of 2 items.

Length Constraints: Minimum length of 1. Maximum length of 11.

Pattern: (^DisplayName\$)|(^Description\$)

Required: No

### [Description](#)

The new description for the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: .\*

Required: No

### DisplayName

The new display name for the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^\S(.\*\S)?\$

Required: No

### ImageName

The name of the image to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}\$

Required: Yes

### RoleArn

The new ARN for the IAM role that enables Amazon SageMaker to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.\@-\\_/\]]+\$

Required: No

## Response Syntax

```
{
```

```
"ImageArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ImageArn

The ARN of the image.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws(-[\w]+)*:sagemaker:.+:[0-9]{12}:image/[a-z0-9]([-.]?[a-z0-9])*$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateImageVersion

Service: Amazon SageMaker Service

Updates the properties of a SageMaker image version.

## Request Syntax

```
{
  "Alias": "string",
  "AliasesToAdd": [ "string" ],
  "AliasesToDelete": [ "string" ],
  "Horovod": boolean,
  "ImageName": "string",
  "JobType": "string",
  "MLFramework": "string",
  "Processor": "string",
  "ProgrammingLang": "string",
  "ReleaseNotes": "string",
  "VendorGuidance": "string",
  "Version": number
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Alias

The alias of the image version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern:  $(?!^[.-])^([a-zA-Z0-9-_.]+)$$

Required: No

### AliasesToAdd

A list of aliases to add.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `(?!^[. -])^([a-zA-Z0-9-_.]+)$`

Required: No

### AliasesToDelete

A list of aliases to delete.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `(?!^[. -])^([a-zA-Z0-9-_.]+)$`

Required: No

### Horovod

Indicates Horovod compatibility.

Type: Boolean

Required: No

### ImageName

The name of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}$`

Required: Yes

### JobType

Indicates SageMaker job type compatibility.

- TRAINING: The image version is compatible with SageMaker training jobs.
- INFERENCE: The image version is compatible with SageMaker inference jobs.



- `NOTEBOOK_KERNEL`: The image version is compatible with SageMaker notebook kernels.

Type: String

Valid Values: `TRAINING` | `INFERENCE` | `NOTEBOOK_KERNEL`

Required: No

### MLFramework

The machine learning framework vended in the image version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z]+ ?\d+\.\d+(\.\d+)?$`

Required: No

### Processor

Indicates CPU or GPU compatibility.

- `CPU`: The image version is compatible with CPU.
- `GPU`: The image version is compatible with GPU.

Type: String

Valid Values: `CPU` | `GPU`

Required: No

### ProgrammingLang

The supported programming language and its version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z]+ ?\d+\.\d+(\.\d+)?$`

Required: No

## ReleaseNotes

The maintainer description of the image version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .\*

Required: No

## VendorGuidance

The availability of the image version specified by the maintainer.

- NOT\_PROVIDED: The maintainers did not provide a status for image version stability.
- STABLE: The image version is stable.
- TO\_BE\_ARCHIVED: The image version is set to be archived. Custom image versions that are set to be archived are automatically archived after three months.
- ARCHIVED: The image version is archived. Archived image versions are not searchable and are no longer actively supported.

Type: String

Valid Values: NOT\_PROVIDED | STABLE | TO\_BE\_ARCHIVED | ARCHIVED

Required: No

## Version

The version of the image.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## **Response Syntax**

```
{
```

```
"ImageVersionArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ImageVersionArn

The ARN of the image version.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws(-[\w]+)*:sagemaker:.+: [0-9]{12}:image-version/[a-z0-9]([-.]?[a-z0-9])*/[0-9]+$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateInferenceComponent

Service: Amazon SageMaker Service

Updates an inference component.

## Request Syntax

```
{
  "InferenceComponentName": "string",
  "RuntimeConfig": {
    "CopyCount": number
  },
  "Specification": {
    "ComputeResourceRequirements": {
      "MaxMemoryRequiredInMb": number,
      "MinMemoryRequiredInMb": number,
      "NumberOfAcceleratorDevicesRequired": number,
      "NumberOfCpuCoresRequired": number
    },
    "Container": {
      "ArtifactUrl": "string",
      "Environment": {
        "string": "string"
      },
      "Image": "string"
    },
    "ModelName": "string",
    "StartupParameters": {
      "ContainerStartupHealthCheckTimeoutInSeconds": number,
      "ModelDataDownloadTimeoutInSeconds": number
    }
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### InferenceComponentName

The name of the inference component.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\ -a-zA-Z0-9 ] * [a-zA-Z0-9] ) ? $`

Required: Yes

## RuntimeConfig

Runtime settings for a model that is deployed with an inference component.

Type: [InferenceComponentRuntimeConfig](#) object

Required: No

## Specification

Details about the resources to deploy with this inference component, including the model, container, and compute resources.

Type: [InferenceComponentSpecification](#) object

Required: No

## Response Syntax

```
{
  "InferenceComponentArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### InferenceComponentArn

The Amazon Resource Name (ARN) of the inference component.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateInferenceComponentRuntimeConfig

Service: Amazon SageMaker Service

Runtime settings for a model that is deployed with an inference component.

## Request Syntax

```
{
  "DesiredRuntimeConfig": {
    "CopyCount": number
  },
  "InferenceComponentName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DesiredRuntimeConfig

Runtime settings for a model that is deployed with an inference component.

Type: [InferenceComponentRuntimeConfig](#) object

Required: Yes

### InferenceComponentName

The name of the inference component to update.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\ -a-zA-Z0-9 ] * [a-zA-Z0-9] ) ? $`

Required: Yes

## Response Syntax

```
{
```



```
"InferenceComponentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [InferenceComponentArn](#)

The Amazon Resource Name (ARN) of the inference component.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateInferenceExperiment

Service: Amazon SageMaker Service

Updates an inference experiment that you created. The status of the inference experiment has to be either Created, Running. For more information on the status of an inference experiment, see [DescribeInferenceExperiment](#).

## Request Syntax

```
{
  "DataStorageConfig": {
    "ContentType": {
      "CsvContentTypes": [ "string" ],
      "JsonContentTypes": [ "string" ]
    },
    "Destination": "string",
    "KmsKey": "string"
  },
  "Description": "string",
  "ModelVariants": [
    {
      "InfrastructureConfig": {
        "InfrastructureType": "string",
        "RealTimeInferenceConfig": {
          "InstanceCount": number,
          "InstanceType": "string"
        }
      },
      "ModelName": "string",
      "VariantName": "string"
    }
  ],
  "Name": "string",
  "Schedule": {
    "EndTime": number,
    "StartTime": number
  },
  "ShadowModeConfig": {
    "ShadowModelVariants": [
      {
        "SamplingPercentage": number,
        "ShadowModelVariantName": "string"
      }
    ]
  }
}
```

```
    ],  
    "SourceModelVariantName": "string"  
  }  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DataStorageConfig

The Amazon S3 location and configuration for storing inference request and response data.

Type: [InferenceExperimentDataStorageConfig](#) object

Required: No

### Description

The description of the inference experiment.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### ModelVariants

An array of [ModelVariantConfig](#) objects. There is one for each variant, whose infrastructure configuration you want to update.

Type: Array of [ModelVariantConfig](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Required: No

### Name

The name of the inference experiment to be updated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

### Schedule

The duration for which the inference experiment will run. If the status of the inference experiment is `Created`, then you can update both the start and end dates. If the status of the inference experiment is `Running`, then you can update only the end date.

Type: [InferenceExperimentSchedule](#) object

Required: No

### ShadowModeConfig

The configuration of ShadowMode inference experiment type. Use this field to specify a production variant which takes all the inference requests, and a shadow variant to which Amazon SageMaker replicates a percentage of the inference requests. For the shadow variant also specify the percentage of requests that Amazon SageMaker replicates.

Type: [ShadowModeConfig](#) object

Required: No

## Response Syntax

```
{
  "InferenceExperimentArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### InferenceExperimentArn

The ARN of the updated inference experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:inference-experiment/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# UpdateMlflowTrackingServer

Service: Amazon SageMaker Service

Updates properties of an existing MLflow Tracking Server.

## Request Syntax

```
{
  "ArtifactStoreUri": "string",
  "AutomaticModelRegistration": boolean,
  "TrackingServerName": "string",
  "TrackingServerSize": "string",
  "WeeklyMaintenanceWindowStart": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [ArtifactStoreUri](#)

The new S3 URI for the general purpose bucket to use as the artifact store for the MLflow Tracking Server.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: No

### [AutomaticModelRegistration](#)

Whether to enable or disable automatic registration of new MLflow models to the SageMaker Model Registry. To enable automatic model registration, set this value to `True`. To disable automatic model registration, set this value to `False`. If not specified, `AutomaticModelRegistration` defaults to `False`

Type: Boolean



Required: No

### TrackingServerName

The name of the MLflow Tracking Server to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: Yes

### TrackingServerSize

The new size for the MLflow Tracking Server.

Type: String

Valid Values: Small | Medium | Large

Required: No

### WeeklyMaintenanceWindowStart

The new weekly maintenance window start day and time to update. The maintenance window day and time should be in Coordinated Universal Time (UTC) 24-hour standard time. For example: TUE:03:30.

Type: String

Length Constraints: Maximum length of 9.

Pattern: `(Mon|Tue|Wed|Thu|Fri|Sat|Sun):([01]\d|2[0-3]):([0-5]\d)`

Required: No

## Response Syntax

```
{  
  "TrackingServerArn": "string"
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### TrackingServerArn

The ARN of the updated MLflow Tracking Server.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:mlflow-tracking-server/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateModelCard

Service: Amazon SageMaker Service

Update an Amazon SageMaker Model Card.

## Important

You cannot update both model card content and model card status in a single call.

## Request Syntax

```
{  
  "Content": "string",  
  "ModelCardName": "string",  
  "ModelCardStatus": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Content

The updated model card content. Content must be in [model card JSON schema](#) and provided as a string.

When updating model card content, be sure to include the full content and not just updated content.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100000.

Pattern: .\*

Required: No

### ModelCardName

The name or Amazon Resource Name (ARN) of the model card to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `(arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:model-card/.*)?  
([a-zA-Z0-9](-*[a-zA-Z0-9])){0,62}`

Required: Yes

### ModelCardStatus

The approval status of the model card within your organization. Different organizations might have different criteria for model card review and approval.

- **Draft**: The model card is a work in progress.
- **PendingReview**: The model card is pending review.
- **Approved**: The model card is approved.
- **Archived**: The model card is archived. No more updates should be made to the model card, but it can still be exported.

Type: String

Valid Values: `Draft | PendingReview | Approved | Archived`

Required: No

## Response Syntax

```
{  
  "ModelCardArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ModelCardArn

The Amazon Resource Name (ARN) of the updated model card.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]{9,16}:[\d-]{12}:model-card/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateModelPackage

Service: Amazon SageMaker Service

Updates a versioned model.

## Request Syntax

```
{
  "AdditionalInferenceSpecificationsToAdd": [
    {
      "Containers": [
        {
          "AdditionalS3DataSource": {
            "CompressionType": "string",
            "S3DataType": "string",
            "S3Uri": "string"
          },
          "ContainerHostname": "string",
          "Environment": {
            "string" : "string"
          },
          "Framework": "string",
          "FrameworkVersion": "string",
          "Image": "string",
          "ImageDigest": "string",
          "ModelDataSource": {
            "S3DataSource": {
              "CompressionType": "string",
              "HubAccessConfig": {
                "HubContentArn": "string"
              },
              "ModelAccessConfig": {
                "AcceptEula": boolean
              },
              "S3DataType": "string",
              "S3Uri": "string"
            }
          },
          "ModelDataUrl": "string",
          "ModelInput": {
            "DataInputConfig": "string"
          },
          "NearestModelName": "string",
```



```

        "ProductId": "string"
    }
],
"Description": "string",
"Name": "string",
"SupportedContentTypes": [ "string" ],
"SupportedRealtimeInferenceInstanceTypes": [ "string" ],
"SupportedResponseMIMETypes": [ "string" ],
"SupportedTransformInstanceTypes": [ "string" ]
}
],
"ApprovalDescription": "string",
"CustomerMetadataProperties": {
    "string" : "string"
},
"CustomerMetadataPropertiesToRemove": [ "string" ],
"InferenceSpecification": {
    "Containers": [
        {
            "AdditionalS3DataSource": {
                "CompressionType": "string",
                "S3DataType": "string",
                "S3Uri": "string"
            },
            "ContainerHostname": "string",
            "Environment": {
                "string" : "string"
            },
            "Framework": "string",
            "FrameworkVersion": "string",
            "Image": "string",
            "ImageDigest": "string",
            "ModelDataSource": {
                "S3DataSource": {
                    "CompressionType": "string",
                    "HubAccessConfig": {
                        "HubContentArn": "string"
                    },
                    "ModelAccessConfig": {
                        "AcceptEula": boolean
                    },
                    "S3DataType": "string",
                    "S3Uri": "string"
                }
            }
        }
    ]
}

```

```

    },
    "ModelDataUrl": "string",
    "ModelInput": {
      "DataInputConfig": "string"
    },
    "NearestModelName": "string",
    "ProductId": "string"
  }
],
"SupportedContentTypes": [ "string" ],
"SupportedRealtimeInferenceInstanceTypes": [ "string" ],
"SupportedResponseMIMETypes": [ "string" ],
"SupportedTransformInstanceTypes": [ "string" ]
},
"ModelApprovalStatus": "string",
"ModelCard": {
  "ModelCardContent": "string",
  "ModelCardStatus": "string"
},
"ModelPackageArn": "string",
"SourceUri": "string"
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [AdditionalInferenceSpecificationsToAdd](#)

An array of additional Inference Specification objects to be added to the existing array additional Inference Specification. Total number of additional Inference Specifications can not exceed 15. Each additional Inference Specification specifies artifacts based on this model package that can be used on inference endpoints. Generally used with SageMaker Neo to store the compiled artifacts.

Type: Array of [AdditionalInferenceSpecificationDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 15 items.

Required: No

## ApprovalDescription

A description for the approval status of the model.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

## CustomerMetadataProperties

The metadata properties associated with the model package versions.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern:  $^([\p{L}\p{Z}\p{N}_ : \\/=+\-@]^*)\{1,128\}$

Value Length Constraints: Minimum length of 1. Maximum length of 256.

Value Pattern:  $^([\p{L}\p{Z}\p{N}_ : \\/=+\-@]^*)\{1,256\}$

Required: No

## CustomerMetadataPropertiesToRemove

The metadata properties associated with the model package versions to remove.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern:  $^([\p{L}\p{Z}\p{N}_ : \\/=+\-@]^*)\{1,128\}$

Required: No

## InferenceSpecification

Specifies details about inference jobs that you can run with models based on this model package, including the following information:

- The Amazon ECR paths of containers that contain the inference code and model artifacts.
- The instance types that the model package supports for transform jobs and real-time endpoints used for inference.
- The input and output content formats that the model package supports for inference.

Type: [InferenceSpecification](#) object

Required: No

### [ModelApprovalStatus](#)

The approval status of the model.

Type: String

Valid Values: Approved | Rejected | PendingManualApproval

Required: No

### [ModelCard](#)

The model card associated with the model package. Since `ModelPackageModelCard` is tied to a model package, it is a specific usage of a model card and its schema is simplified compared to the schema of `ModelCard`. The `ModelPackageModelCard` schema does not include `model_package_details`, and `model_overview` is composed of the `model_creator` and `model_artifact` properties. For more information about the model package model card schema, see [Model package model card schema](#). For more information about the model card associated with the model package, see [View the Details of a Model Version](#).

Type: [ModelPackageModelCard](#) object

Required: No

### [ModelPackageArn](#)

The Amazon Resource Name (ARN) of the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:model-package/[\S]{1,2048}$`

Required: Yes

### SourceUri

The URI of the source for the model package.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{N}\p{P}]{0,1024}`

Required: No

## Response Syntax

```
{  
  "ModelPackageArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ModelPackageArn

The Amazon Resource Name (ARN) of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9-]{9,16}:[0-9]{12}:model-package/[\S]{1,2048}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateMonitoringAlert

Service: Amazon SageMaker Service

Update the parameters of a model monitor alert.

## Request Syntax

```
{  
  "DatapointsToAlert": number,  
  "EvaluationPeriod": number,  
  "MonitoringAlertName": "string",  
  "MonitoringScheduleName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DatapointsToAlert

Within `EvaluationPeriod`, how many execution failures will raise an alert.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

### EvaluationPeriod

The number of most recent monitoring executions to consider when evaluating alert status.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

### MonitoringAlertName

The name of a monitoring alert.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### MonitoringScheduleName

The name of a monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{
  "MonitoringAlertName": "string",
  "MonitoringScheduleArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### MonitoringAlertName

The name of a monitoring alert.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`



## MonitoringScheduleArn

The Amazon Resource Name (ARN) of the monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateMonitoringSchedule

Service: Amazon SageMaker Service

Updates a previously created schedule.

## Request Syntax

```
{
  "MonitoringScheduleConfig": {
    "MonitoringJobDefinition": {
      "BaselineConfig": {
        "BaseliningJobName": "string",
        "ConstraintsResource": {
          "S3Uri": "string"
        },
        "StatisticsResource": {
          "S3Uri": "string"
        }
      },
      "Environment": {
        "string": "string"
      },
      "MonitoringAppSpecification": {
        "ContainerArguments": [ "string" ],
        "ContainerEntrypoint": [ "string" ],
        "ImageUri": "string",
        "PostAnalyticsProcessorSourceUri": "string",
        "RecordPreprocessorSourceUri": "string"
      },
      "MonitoringInputs": [
        {
          "BatchTransformInput": {
            "DataCapturedDestinationS3Uri": "string",
            "DatasetFormat": {
              "Csv": {
                "Header": boolean
              },
              "Json": {
                "Line": boolean
              },
              "Parquet": {
            }
          }
        },

```

```

    "EndTimeOffset": "string",
    "ExcludeFeaturesAttribute": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  },
  "EndpointInput": {
    "EndpointName": "string",
    "EndTimeOffset": "string",
    "ExcludeFeaturesAttribute": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
  }
},
],
"MonitoringOutputConfig": {
  "KmsKeyId": "string",
  "MonitoringOutputs": [
    {
      "S3Output": {
        "LocalPath": "string",
        "S3UploadMode": "string",
        "S3Uri": "string"
      }
    }
  ]
},
"MonitoringResources": {
  "ClusterConfig": {
    "InstanceCount": number,
    "InstanceType": "string",
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
  }
}

```

```

    }
  },
  "NetworkConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
      "SecurityGroupIds": [ string ],
      "Subnets": [ string ]
    }
  },
  "RoleArn": string,
  "StoppingCondition": {
    "MaxRuntimeInSeconds": number
  }
},
"MonitoringJobDefinitionName": string,
"MonitoringType": string,
"ScheduleConfig": {
  "DataAnalysisEndTime": string,
  "DataAnalysisStartTime": string,
  "ScheduleExpression": string
}
},
"MonitoringScheduleName": string
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [MonitoringScheduleConfig](#)

The configuration object that specifies the monitoring schedule and defines the monitoring job.

Type: [MonitoringScheduleConfig](#) object

Required: Yes

### [MonitoringScheduleName](#)

The name of the monitoring schedule. The name must be unique within an AWS Region within an AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## Response Syntax

```
{
  "MonitoringScheduleArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### MonitoringScheduleArn

The Amazon Resource Name (ARN) of the monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateNotebookInstance

Service: Amazon SageMaker Service

Updates a notebook instance. NotebookInstance updates include upgrading or downgrading the ML compute instance used for your notebook instance to accommodate changes in your workload requirements.

## Request Syntax

```
{
  "AcceleratorTypes": [ "string" ],
  "AdditionalCodeRepositories": [ "string" ],
  "DefaultCodeRepository": "string",
  "DisassociateAcceleratorTypes": boolean,
  "DisassociateAdditionalCodeRepositories": boolean,
  "DisassociateDefaultCodeRepository": boolean,
  "DisassociateLifecycleConfig": boolean,
  "InstanceMetadataServiceConfiguration": {
    "MinimumInstanceMetadataServiceVersion": "string"
  },
  "InstanceType": "string",
  "LifecycleConfigName": "string",
  "NotebookInstanceName": "string",
  "RoleArn": "string",
  "RootAccess": "string",
  "VolumeSizeInGB": number
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AcceleratorTypes

A list of the Elastic Inference (EI) instance types to associate with this notebook instance. Currently only one EI instance type can be associated with a notebook instance. For more information, see [Using Elastic Inference in Amazon SageMaker](#).

Type: Array of strings



Valid Values: ml.eia1.medium | ml.eia1.large | ml.eia1.xlarge | ml.eia2.medium | ml.eia2.large | ml.eia2.xlarge

Required: No

### AdditionalCodeRepositories

An array of up to three Git repositories to associate with the notebook instance. These can be either the names of Git repositories stored as resources in your account, or the URL of Git repositories in [AWS CodeCommit](#) or in any other Git repository. These repositories are cloned at the same level as the default repository of your notebook instance. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: Array of strings

Array Members: Maximum number of 3 items.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^https://(?:[^\s/]+)?(?:.*)$|^([a-zA-Z0-9])(-*[a-zA-Z0-9])*`

Required: No

### DefaultCodeRepository

The Git repository to associate with the notebook instance as its default code repository. This can be either the name of a Git repository stored as a resource in your account, or the URL of a Git repository in [AWS CodeCommit](#) or in any other Git repository. When you open a notebook instance, it opens in the directory that contains this repository. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^https://(?:[^\s/]+)?(?:.*)$|^([a-zA-Z0-9])(-*[a-zA-Z0-9])*`

Required: No

### DisassociateAcceleratorTypes

A list of the Elastic Inference (EI) instance types to remove from this notebook instance. This operation is idempotent. If you specify an accelerator type that is not associated with the notebook instance when you call this method, it does not throw an error.

Type: Boolean

Required: No

### [DisassociateAdditionalCodeRepositories](#)

A list of names or URLs of the default Git repositories to remove from this notebook instance. This operation is idempotent. If you specify a Git repository that is not associated with the notebook instance when you call this method, it does not throw an error.

Type: Boolean

Required: No

### [DisassociateDefaultCodeRepository](#)

The name or URL of the default Git repository to remove from this notebook instance. This operation is idempotent. If you specify a Git repository that is not associated with the notebook instance when you call this method, it does not throw an error.

Type: Boolean

Required: No

### [DisassociateLifecycleConfig](#)

Set to `true` to remove the notebook instance lifecycle configuration currently associated with the notebook instance. This operation is idempotent. If you specify a lifecycle configuration that is not associated with the notebook instance when you call this method, it does not throw an error.

Type: Boolean

Required: No

### [InstanceMetadataServiceConfiguration](#)

Information on the IMDS configuration of the notebook instance

Type: [InstanceMetadataServiceConfiguration](#) object

Required: No

### [InstanceType](#)

The Amazon ML compute instance type.

**Type:** String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.8xlarge | ml.m5d.12xlarge | ml.m5d.16xlarge | ml.m5d.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.inf1.xlarge | ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge | ml.p4d.24xlarge | ml.p4de.24xlarge | ml.p5.48xlarge | ml.m6i.large | ml.m6i.xlarge | ml.m6i.2xlarge | ml.m6i.4xlarge | ml.m6i.8xlarge | ml.m6i.12xlarge | ml.m6i.16xlarge | ml.m6i.24xlarge | ml.m6i.32xlarge | ml.m7i.large | ml.m7i.xlarge | ml.m7i.2xlarge | ml.m7i.4xlarge | ml.m7i.8xlarge | ml.m7i.12xlarge | ml.m7i.16xlarge | ml.m7i.24xlarge | ml.m7i.48xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge | ml.c7i.large | ml.c7i.xlarge | ml.c7i.2xlarge | ml.c7i.4xlarge | ml.c7i.8xlarge | ml.c7i.12xlarge | ml.c7i.16xlarge | ml.c7i.24xlarge | ml.c7i.48xlarge | ml.r6i.large | ml.r6i.xlarge | ml.r6i.2xlarge | ml.r6i.4xlarge | ml.r6i.8xlarge | ml.r6i.12xlarge | ml.r6i.16xlarge | ml.r6i.24xlarge | ml.r6i.32xlarge | ml.r7i.large | ml.r7i.xlarge | ml.r7i.2xlarge | ml.r7i.4xlarge | ml.r7i.8xlarge | ml.r7i.12xlarge | ml.r7i.16xlarge | ml.r7i.24xlarge | ml.r7i.48xlarge | ml.m6id.large | ml.m6id.xlarge | ml.m6id.2xlarge | ml.m6id.4xlarge | ml.m6id.8xlarge | ml.m6id.12xlarge | ml.m6id.16xlarge | ml.m6id.24xlarge | ml.m6id.32xlarge | ml.c6id.large | ml.c6id.xlarge

| ml.c6id.2xlarge | ml.c6id.4xlarge | ml.c6id.8xlarge | ml.c6id.12xlarge  
| ml.c6id.16xlarge | ml.c6id.24xlarge | ml.c6id.32xlarge |  
ml.r6id.large | ml.r6id.xlarge | ml.r6id.2xlarge | ml.r6id.4xlarge |  
ml.r6id.8xlarge | ml.r6id.12xlarge | ml.r6id.16xlarge | ml.r6id.24xlarge  
| ml.r6id.32xlarge | ml.g6.xlarge | ml.g6.2xlarge | ml.g6.4xlarge |  
ml.g6.8xlarge | ml.g6.12xlarge | ml.g6.16xlarge | ml.g6.24xlarge |  
ml.g6.48xlarge

Required: No

### LifecycleConfigName

The name of a lifecycle configuration to associate with the notebook instance. For information about lifestyle configurations, see [Step 2.1: \(Optional\) Customize a Notebook Instance](#).

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: No

### NotebookInstanceName

The name of the notebook instance to update.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

### RoleArn

The Amazon Resource Name (ARN) of the IAM role that SageMaker can assume to access the notebook instance. For more information, see [SageMaker Roles](#).

#### **Note**

To be able to pass this role to SageMaker, the caller of this API must have the `iam:PassRole` permission.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: No

### RootAccess

Whether root access is enabled or disabled for users of the notebook instance. The default value is Enabled.

#### Note

If you set this to Disabled, users don't have root access on the notebook instance, but lifecycle configuration scripts still run with root permissions.

Type: String

Valid Values: Enabled | Disabled

Required: No

### VolumeSizeInGB

The size, in GB, of the ML storage volume to attach to the notebook instance. The default value is 5 GB. ML storage volumes are encrypted, so SageMaker can't determine the amount of available free space on the volume. Because of this, you can increase the volume size when you update a notebook instance, but you can't decrease the volume size. If you want to decrease the size of the ML storage volume in use, create a new notebook instance with the desired size.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 16384.

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateNotebookInstanceLifecycleConfig

Service: Amazon SageMaker Service

Updates a notebook instance lifecycle configuration created with the [CreateNotebookInstanceLifecycleConfig](#) API.

## Request Syntax

```
{
  "NotebookInstanceLifecycleConfigName": "string",
  "OnCreate": [
    {
      "Content": "string"
    }
  ],
  "OnStart": [
    {
      "Content": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [NotebookInstanceLifecycleConfigName](#)

The name of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

### [OnCreate](#)

The shell script that runs only once, when you create a notebook instance. The shell script must be a base64-encoded string.

Type: Array of [NotebookInstanceLifecycleHook](#) objects

Array Members: Maximum number of 1 item.

Required: No

### **OnStart**

The shell script that runs every time you start a notebook instance, including when you create the notebook instance. The shell script must be a base64-encoded string.

Type: Array of [NotebookInstanceLifecycleHook](#) objects

Array Members: Maximum number of 1 item.

Required: No

## **Response Elements**

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)



- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdatePipeline

Service: Amazon SageMaker Service

Updates a pipeline.

## Request Syntax

```
{
  "ParallelismConfiguration": {
    "MaxParallelExecutionSteps": number
  },
  "PipelineDefinition": "string",
  "PipelineDefinitionS3Location": {
    "Bucket": "string",
    "ObjectKey": "string",
    "VersionId": "string"
  },
  "PipelineDescription": "string",
  "PipelineDisplayName": "string",
  "PipelineName": "string",
  "RoleArn": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ParallelismConfiguration

If specified, it applies to all executions of this pipeline by default.

Type: [ParallelismConfiguration](#) object

Required: No

### PipelineDefinition

The JSON pipeline definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1048576.

Pattern: `.*(?:[ \r\n\t].*)*`

Required: No

### PipelineDefinitionS3Location

The location of the pipeline definition stored in Amazon S3. If specified, SageMaker will retrieve the pipeline definition from this location.

Type: [PipelineDefinitionS3Location](#) object

Required: No

### PipelineDescription

The description of the pipeline.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: `.*`

Required: No

### PipelineDisplayName

The display name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: No

### PipelineName

The name of the pipeline to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: Yes

### [RoleArn](#)

The Amazon Resource Name (ARN) that the pipeline uses to execute.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: No

## Response Syntax

```
{
  "PipelineArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [PipelineArn](#)

The Amazon Resource Name (ARN) of the updated pipeline.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*:sagemaker:[a-z0-9\-*:][0-9]{12}:pipeline/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

## ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdatePipelineExecution

Service: Amazon SageMaker Service

Updates a pipeline execution.

## Request Syntax

```
{
  "ParallelismConfiguration": {
    "MaxParallelExecutionSteps": number
  },
  "PipelineExecutionArn": "string",
  "PipelineExecutionDescription": "string",
  "PipelineExecutionDisplayName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ParallelismConfiguration

This configuration, if specified, overrides the parallelism configuration of the parent pipeline for this specific run.

Type: [ParallelismConfiguration](#) object

Required: No

### PipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:pipeline\./.*\./execution\./.*$`

Required: Yes

### PipelineExecutionDescription

The description of the pipeline execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: .\*

Required: No

### PipelineExecutionDisplayName

The display name of the pipeline execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,81}`

Required: No

## Response Syntax

```
{
  "PipelineExecutionArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### PipelineExecutionArn

The Amazon Resource Name (ARN) of the updated pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:pipeline\./.\*\./execution\./.\*\$

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# UpdateProject

Service: Amazon SageMaker Service

Updates a machine learning (ML) project that is created from a template that sets up an ML pipeline from training to deploying an approved model.

## Note

You must not update a project that is in use. If you update the `ServiceCatalogProvisioningUpdateDetails` of a project that is active or being created, or updated, you may lose resources already created by the project.

## Request Syntax

```
{
  "ProjectDescription": "string",
  "ProjectName": "string",
  "ServiceCatalogProvisioningUpdateDetails": {
    "ProvisioningArtifactId": "string",
    "ProvisioningParameters": [
      {
        "Key": "string",
        "Value": "string"
      }
    ]
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## ProjectDescription

The description for the project.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

## ProjectName

The name of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

## ServiceCatalogProvisioningUpdateDetails

The product ID and provisioning artifact ID to provision a service catalog. The provisioning artifact ID will default to the latest provisioning artifact ID of the product, if you don't provide the provisioning artifact ID. For more information, see [What is AWS Service Catalog](#).

Type: [ServiceCatalogProvisioningUpdateDetails](#) object

Required: No

## Tags

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#). In addition, the project must have tag update constraints set in order to include this parameter in the request. For more information, see [AWS Service Catalog Tag Update Constraints](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{
  "ProjectArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ProjectArn](#)

The Amazon Resource Name (ARN) of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:project/[\S]{1,2048}$`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateSpace

Service: Amazon SageMaker Service

Updates the settings of a space.

## Request Syntax

```
{
  "DomainId": "string",
  "SpaceDisplayName": "string",
  "SpaceName": "string",
  "SpaceSettings": {
    "AppType": "string",
    "CodeEditorAppSettings": {
      "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionAlias": "string",
        "SageMakerImageVersionArn": "string"
      }
    },
    "CustomFileSystems": [
      { ... }
    ],
    "JupyterLabAppSettings": {
      "CodeRepositories": [
        {
          "RepositoryUrl": "string"
        }
      ]
    },
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    }
  },
  "JupyterServerAppSettings": {
    "CodeRepositories": [
      {
        "RepositoryUrl": "string"
      }
    ]
  }
}
```

```

    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"KernelGatewayAppSettings": {
  "CustomImages": [
    {
      "AppImageConfigName": "string",
      "ImageName": "string",
      "ImageVersionNumber": number
    }
  ],
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  },
  "LifecycleConfigArns": [ "string" ]
},
"SpaceStorageSettings": {
  "EbsStorageSettings": {
    "EbsVolumeSizeInGb": number
  }
}
}
}
}
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## DomainId

The ID of the associated domain.

Type: String

Length Constraints: Maximum length of 63.

Pattern:  $^d-(-*[a-z0-9]){1,61}$

Required: Yes

## SpaceDisplayName

The name of the space that appears in the Amazon SageMaker Studio UI.

Type: String

Length Constraints: Maximum length of 64.

Pattern:  $^(?!\\s*$).+$

Required: No

## SpaceName

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern:  $^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$

Required: Yes

## SpaceSettings

A collection of space settings.

Type: [SpaceSettings](#) object

Required: No

## Response Syntax

```
{
  "SpaceArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### SpaceArn

The space's Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:space/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.



## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateTrainingJob

Service: Amazon SageMaker Service

Update a model training job to request a new Debugger profiling configuration or to change warm pool retention length.

## Request Syntax

```
{
  "ProfilerConfig": {
    "DisableProfiler": boolean,
    "ProfilingIntervalInMilliseconds": number,
    "ProfilingParameters": {
      "string" : "string"
    },
    "S3OutputPath": "string"
  },
  "ProfilerRuleConfigurations": [
    {
      "InstanceType": "string",
      "LocalPath": "string",
      "RuleConfigurationName": "string",
      "RuleEvaluatorImage": "string",
      "RuleParameters": {
        "string" : "string"
      },
      "S3OutputPath": "string",
      "VolumeSizeInGB": number
    }
  ],
  "RemoteDebugConfig": {
    "EnableRemoteDebug": boolean
  },
  "ResourceConfig": {
    "KeepAlivePeriodInSeconds": number
  },
  "TrainingJobName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ProfilerConfig

Configuration information for Amazon SageMaker Debugger system monitoring, framework profiling, and storage paths.

Type: [ProfilerConfigForUpdate](#) object

Required: No

### ProfilerRuleConfigurations

Configuration information for Amazon SageMaker Debugger rules for profiling system and framework metrics.

Type: Array of [ProfilerRuleConfiguration](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

### RemoteDebugConfig

Configuration for remote debugging while the training job is running. You can update the remote debugging configuration when the `SecondaryStatus` of the job is `Downloading` or `Training`. To learn more about the remote debugging functionality of SageMaker, see [Access a training container through AWS Systems Manager \(SSM\) for remote debugging](#).

Type: [RemoteDebugConfigForUpdate](#) object

Required: No

### ResourceConfig

The training job `ResourceConfig` to update warm pool retention length.

Type: [ResourceConfigForUpdate](#) object

Required: No

### TrainingJobName

The name of a training job to update the Debugger profiling configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{
  "TrainingJobArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### TrainingJobArn

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:training-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

## HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateTrial

Service: Amazon SageMaker Service

Updates the display name of a trial.

## Request Syntax

```
{
  "DisplayName": "string",
  "TrialName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DisplayName

The name of the trial as displayed. The name doesn't need to be unique. If `DisplayName` isn't specified, `TrialName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### TrialName

The name of the trial to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{  
  "TrialArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### TrialArn

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# UpdateTrialComponent

Service: Amazon SageMaker Service

Updates one or more properties of a trial component.

## Request Syntax

```
{
  "DisplayName": "string",
  "EndTime": number,
  "InputArtifacts": {
    "string" : {
      "MediaType": "string",
      "Value": "string"
    }
  },
  "InputArtifactsToRemove": [ "string" ],
  "OutputArtifacts": {
    "string" : {
      "MediaType": "string",
      "Value": "string"
    }
  },
  "OutputArtifactsToRemove": [ "string" ],
  "Parameters": {
    "string" : {
      "NumberValue": number,
      "StringValue": "string"
    }
  },
  "ParametersToRemove": [ "string" ],
  "StartTime": number,
  "Status": {
    "Message": "string",
    "PrimaryStatus": "string"
  },
  "TrialComponentName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### DisplayName

The name of the component as displayed. The name doesn't need to be unique. If `DisplayName` isn't specified, `TrialComponentName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### EndTime

When the component ended.

Type: Timestamp

Required: No

### InputArtifacts

Replaces all of the component's input artifacts with the specified artifacts or adds new input artifacts. Existing input artifacts are replaced if the trial component is updated with an identical input artifact key.

Type: String to [TrialComponentArtifact](#) object map

Map Entries: Maximum number of 60 items.

Key Length Constraints: Maximum length of 128.

Key Pattern: `.*`

Required: No

### InputArtifactsToRemove

The input artifacts to remove from the component.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### OutputArtifacts

Replaces all of the component's output artifacts with the specified artifacts or adds new output artifacts. Existing output artifacts are replaced if the trial component is updated with an identical output artifact key.

Type: String to [TrialComponentArtifact](#) object map

Map Entries: Maximum number of 60 items.

Key Length Constraints: Maximum length of 128.

Key Pattern: .\*

Required: No

### OutputArtifactsToRemove

The output artifacts to remove from the component.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### Parameters

Replaces all of the component's hyperparameters with the specified hyperparameters or add new hyperparameters. Existing hyperparameters are replaced if the trial component is updated with an identical hyperparameter key.

Type: String to [TrialComponentParameterValue](#) object map

Map Entries: Maximum number of 300 items.

Key Length Constraints: Maximum length of 320.

Key Pattern: .\*

Required: No

### ParametersToRemove

The hyperparameters to remove from the component.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### StartTime

When the component started.

Type: Timestamp

Required: No

### Status

The new status of the component.

Type: [TrialComponentStatus](#) object

Required: No

### TrialComponentName

The name of the component to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
{
```

```
"TrialComponentArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### TrialComponentArn

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial-component/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateUserProfile

Service: Amazon SageMaker Service

Updates a user profile.

## Request Syntax

```
{
  "DomainId": "string",
  "UserProfileName": "string",
  "UserSettings": {
    "CanvasAppSettings": {
      "DirectDeploySettings": {
        "Status": "string"
      },
      "GenerativeAiSettings": {
        "AmazonBedrockRoleArn": "string"
      },
      "IdentityProvider0AuthSettings": [
        {
          "DataSourceName": "string",
          "SecretArn": "string",
          "Status": "string"
        }
      ],
      "KendraSettings": {
        "Status": "string"
      },
      "ModelRegisterSettings": {
        "CrossAccountModelRegisterRoleArn": "string",
        "Status": "string"
      },
      "TimeSeriesForecastingSettings": {
        "AmazonForecastRoleArn": "string",
        "Status": "string"
      },
      "WorkspaceSettings": {
        "S3ArtifactPath": "string",
        "S3KmsKeyId": "string"
      }
    },
    "CodeEditorAppSettings": {
      "CustomImages": [
```

```
{
  "AppImageConfigName": "string",
  "ImageName": "string",
  "ImageVersionNumber": number
},
],
"DefaultResourceSpec": {
  "InstanceType": "string",
  "LifecycleConfigArn": "string",
  "SageMakerImageArn": "string",
  "SageMakerImageVersionAlias": "string",
  "SageMakerImageVersionArn": "string"
},
"LifecycleConfigArns": [ "string" ]
},
"CustomFileSystemConfigs": [
  { ... }
],
"CustomPosixUserConfig": {
  "Gid": number,
  "Uid": number
},
"DefaultLandingUri": "string",
"ExecutionRole": "string",
"JupyterLabAppSettings": {
  "CodeRepositories": [
    {
      "RepositoryUrl": "string"
    }
  ],
"CustomImages": [
  {
    "AppImageConfigName": "string",
    "ImageName": "string",
    "ImageVersionNumber": number
  }
],
"DefaultResourceSpec": {
  "InstanceType": "string",
  "LifecycleConfigArn": "string",
  "SageMakerImageArn": "string",
  "SageMakerImageVersionAlias": "string",
  "SageMakerImageVersionArn": "string"
},
}
```



```

    "LifecycleConfigArns": [ "string" ]
  },
  "JupyterServerAppSettings": {
    "CodeRepositories": [
      {
        "RepositoryUrl": "string"
      }
    ],
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
  },
  "KernelGatewayAppSettings": {
    "CustomImages": [
      {
        "AppImageConfigName": "string",
        "ImageName": "string",
        "ImageVersionNumber": number
      }
    ],
    "DefaultResourceSpec": {
      "InstanceType": "string",
      "LifecycleConfigArn": "string",
      "SageMakerImageArn": "string",
      "SageMakerImageVersionAlias": "string",
      "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
  },
  "RSessionAppSettings": {
    "CustomImages": [
      {
        "AppImageConfigName": "string",
        "ImageName": "string",
        "ImageVersionNumber": number
      }
    ],
    "DefaultResourceSpec": {
      "InstanceType": "string",

```

```

    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  }
},
"RStudioServerProAppSettings": {
  "AccessStatus": "string",
  "UserGroup": "string"
},
"SecurityGroups": [ "string" ],
"SharingSettings": {
  "NotebookOutputOption": "string",
  "S3KmsKeyId": "string",
  "S3OutputPath": "string"
},
"SpaceStorageSettings": {
  "DefaultEbsStorageSettings": {
    "DefaultEbsVolumeSizeInGb": number,
    "MaximumEbsVolumeSizeInGb": number
  }
},
"StudioWebPortal": "string",
"StudioWebPortalSettings": {
  "HiddenAppTypes": [ "string" ],
  "HiddenMLTools": [ "string" ]
},
"TensorBoardAppSettings": {
  "DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionAlias": "string",
    "SageMakerImageVersionArn": "string"
  }
}
}
}
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-( -*[a-z0-9]){1,61}`

Required: Yes

## UserProfileName

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( -*[a-zA-Z0-9]){0,62}`

Required: Yes

## UserSettings

A collection of settings.

Type: [UserSettings](#) object

Required: No

## Response Syntax

```
{  
  "UserProfileArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## UserProfileArn

The user profile Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:user-profile/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateWorkforce

Service: Amazon SageMaker Service

Use this operation to update your workforce. You can use this operation to require that workers use specific IP addresses to work on tasks and to update your OpenID Connect (OIDC) Identity Provider (IdP) workforce configuration.

The worker portal is now supported in VPC and public internet.

Use `SourceIpConfig` to restrict worker access to tasks to a specific range of IP addresses. You specify allowed IP addresses by creating a list of up to ten [CIDRs](#). By default, a workforce isn't restricted to specific IP addresses. If you specify a range of IP addresses, workers who attempt to access tasks using any IP address outside the specified range are denied and get a Not Found error message on the worker portal.

To restrict access to all the workers in public internet, add the `SourceIpConfig` CIDR value as "10.0.0.0/16".

## Important

Amazon SageMaker does not support Source Ip restriction for worker portals in VPC.

Use `OidcConfig` to update the configuration of a workforce created using your own OIDC IdP.

## Important

You can only update your OIDC IdP configuration when there are no work teams associated with your workforce. You can delete work teams using the [DeleteWorkteam](#) operation.

After restricting access to a range of IP addresses or updating your OIDC IdP configuration with this operation, you can view details about your update workforce using the [DescribeWorkforce](#) operation.

## Important

This operation only applies to private workforces.

## Request Syntax

```
{
  "OidcConfig": {
    "AuthenticationRequestExtraParams": {
      "string" : "string"
    },
    "AuthorizationEndpoint": "string",
    "ClientId": "string",
    "ClientSecret": "string",
    "Issuer": "string",
    "JwksUri": "string",
    "LogoutEndpoint": "string",
    "Scope": "string",
    "TokenEndpoint": "string",
    "UserInfoEndpoint": "string"
  },
  "SourceIpConfig": {
    "Cidrs": [ "string" ]
  },
  "WorkforceName": "string",
  "WorkforceVpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ],
    "VpcId": "string"
  }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [OidcConfig](#)

Use this parameter to update your OIDC Identity Provider (IdP) configuration for a workforce made using your own IdP.

Type: [OidcConfig](#) object

Required: No

## SourceIpConfig

A list of one to ten worker IP address ranges ([CIDRs](#)) that can be used to access tasks assigned to this workforce.

Maximum: Ten CIDR values

Type: [SourceIpConfig](#) object

Required: No

## WorkforceName

The name of the private workforce that you want to update. You can find your workforce name by using the [ListWorkforces](#) operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([a-zA-Z0-9\-\-]){0,62}$`

Required: Yes

## WorkforceVpcConfig

Use this parameter to update your VPC configuration for a workforce.

Type: [WorkforceVpcConfigRequest](#) object

Required: No

## Response Syntax

```
{
  "Workforce": {
    "CognitoConfig": {
      "ClientId": "string",
      "UserPool": "string"
    },
    "CreateDate": number,
    "FailureReason": "string",
    "LastUpdatedDate": number,
  }
}
```



```

    "OidcConfig": {
      "AuthenticationRequestExtraParams": {
        "string" : "string"
      },
      "AuthorizationEndpoint": "string",
      "ClientId": "string",
      "Issuer": "string",
      "JwksUri": "string",
      "LogoutEndpoint": "string",
      "Scope": "string",
      "TokenEndpoint": "string",
      "UserInfoEndpoint": "string"
    },
    "SourceIpConfig": {
      "Cidrs": [ "string" ]
    },
    "Status": "string",
    "SubDomain": "string",
    "WorkforceArn": "string",
    "WorkforceName": "string",
    "WorkforceVpcConfig": {
      "SecurityGroupIds": [ "string" ],
      "Subnets": [ "string" ],
      "VpcEndpointId": "string",
      "VpcId": "string"
    }
  }
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Workforce

A single private workforce. You can create one private work force in each AWS Region. By default, any workforce-related API operation used in a specific region will apply to the workforce created in that region. To learn how to create a private workforce, see [Create a Private Workforce](#).

Type: [Workforce](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateWorkteam

Service: Amazon SageMaker Service

Updates an existing work team with new member definitions or description.

## Request Syntax

```
{
  "Description": "string",
  "MemberDefinitions": [
    {
      "CognitoMemberDefinition": {
        "ClientId": "string",
        "UserGroup": "string",
        "UserPool": "string"
      },
      "OidcMemberDefinition": {
        "Groups": [ "string" ]
      }
    }
  ],
  "NotificationConfiguration": {
    "NotificationTopicArn": "string"
  },
  "WorkerAccessConfiguration": {
    "S3Presign": {
      "IamPolicyConstraints": {
        "SourceIp": "string",
        "VpcSourceIp": "string"
      }
    }
  },
  "WorkteamName": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

## Description

An updated description for the work team.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: . +

Required: No

## MemberDefinitions

A list of `MemberDefinition` objects that contains objects that identify the workers that make up the work team.

Workforces can be created using Amazon Cognito or your own OIDC Identity Provider (IdP). For private workforces created using Amazon Cognito use `CognitoMemberDefinition`. For workforces created using your own OIDC identity provider (IdP) use `OidcMemberDefinition`. You should not provide input for both of these parameters in a single request.

For workforces created using Amazon Cognito, private work teams correspond to Amazon Cognito *user groups* within the user pool used to create a workforce. All of the `CognitoMemberDefinition` objects that make up the member definition must have the same `ClientId` and `UserPool` values. To add a Amazon Cognito user group to an existing worker pool, see [Adding groups to a User Pool](#). For more information about user pools, see [Amazon Cognito User Pools](#).

For workforces created using your own OIDC IdP, specify the user groups that you want to include in your private work team in `OidcMemberDefinition` by listing those groups in `Groups`. Be aware that user groups that are already in the work team must also be listed in `Groups` when you make this request to remain on the work team. If you do not include these user groups, they will no longer be associated with the work team you update.

Type: Array of [MemberDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

## NotificationConfiguration

Configures SNS topic notifications for available or expiring work items

Type: [NotificationConfiguration](#) object

Required: No

### [WorkerAccessConfiguration](#)

Use this optional parameter to constrain access to an Amazon S3 resource based on the IP address using supported IAM global condition keys. The Amazon S3 resource is accessed in the worker portal using a Amazon S3 presigned URL.

Type: [WorkerAccessConfiguration](#) object

Required: No

### [WorkteamName](#)

The name of the work team to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## Response Syntax

```
{
  "Workteam": {
    "CreateDate": number,
    "Description": "string",
    "LastUpdatedDate": number,
    "MemberDefinitions": [
      {
        "CognitoMemberDefinition": {
          "ClientId": "string",
          "UserGroup": "string",
          "UserPool": "string"
        },
        "OidcMemberDefinition": {
          "Groups": [ "string " ]
        }
      }
    ]
  }
}
```

```

    ],
    "NotificationConfiguration": {
      "NotificationTopicArn": "string"
    },
    "ProductListingIds": [ "string" ],
    "SubDomain": "string",
    "WorkerAccessConfiguration": {
      "S3Presign": {
        "IamPolicyConstraints": {
          "SourceIp": "string",
          "VpcSourceIp": "string"
        }
      }
    },
    "WorkforceArn": "string",
    "WorkteamArn": "string",
    "WorkteamName": "string"
  }
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Workteam

A Workteam object that describes the updated work team.

Type: [Workteam](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## Amazon SageMaker Runtime

The following actions are supported by Amazon SageMaker Runtime:

- [InvokeEndpoint](#)
- [InvokeEndpointAsync](#)
- [InvokeEndpointWithResponseStream](#)

# InvokeEndpoint

Service: Amazon SageMaker Runtime

After you deploy a model into production using Amazon SageMaker hosting services, your client applications use this API to get inferences from the model hosted at the specified endpoint.

For an overview of Amazon SageMaker, see [How It Works](#).

Amazon SageMaker strips all POST headers except those supported by the API. Amazon SageMaker might add additional headers. You should not rely on the behavior of headers outside those enumerated in the request syntax.

Calls to `InvokeEndpoint` are authenticated by using AWS Signature Version 4. For information, see [Authenticating Requests \(AWS Signature Version 4\)](#) in the *Amazon S3 API Reference*.

A customer's model containers must respond to requests within 60 seconds. The model itself can have a maximum processing time of 60 seconds before responding to invocations. If your model is going to take 50-60 seconds of processing time, the SDK socket timeout should be set to be 70 seconds.

## Note

Endpoints are scoped to an individual account, and are not public. The URL does not contain the account ID, but Amazon SageMaker determines the account ID from the authentication token that is supplied by the caller.

## Request Syntax

```
POST /endpoints/EndpointName/invocations HTTP/1.1
Content-Type: ContentType
Accept: Accept
X-Amzn-SageMaker-Custom-Attributes: CustomAttributes
X-Amzn-SageMaker-Target-Model: TargetModel
X-Amzn-SageMaker-Target-Variant: TargetVariant
X-Amzn-SageMaker-Target-Container-Hostname: TargetContainerHostname
X-Amzn-SageMaker-Inference-Id: InferenceId
X-Amzn-SageMaker-Enable-Explanations: EnableExplanations
X-Amzn-SageMaker-Inference-Component: InferenceComponentName
```



*Body*

## URI Request Parameters

The request uses the following URI parameters.

### Accept

The desired MIME type of the inference response from the model container.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

### ContentType

The MIME type of the input data in the request body.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

### CustomAttributes

Provides additional information about a request for an inference submitted to a model hosted at an Amazon SageMaker endpoint. The information is an opaque value that is forwarded verbatim. You could use this value, for example, to provide an ID that you can use to track a request or to provide other metadata that a service endpoint was programmed to process. The value must consist of no more than 1024 visible US-ASCII characters as specified in [Section 3.3.6. Field Value Components](#) of the Hypertext Transfer Protocol (HTTP/1.1).

The code in your model is responsible for setting or updating any custom attributes in the response. If your code does not set this value in the response, an empty value is returned. For example, if a custom attribute represents the trace ID, your model can prepend the custom attribute with `Trace ID:` in your post-processing function.

This feature is currently supported in the AWS SDKs but not in the Amazon SageMaker Python SDK.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

## EnableExplanations

An optional JMESPath expression used to override the `EnableExplanations` parameter of the `ClarifyExplainerConfig` API. See the [EnableExplanations](#) section in the developer guide for more information.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `.*`

## EndpointName

The name of the endpoint that you specified when you created the endpoint using the [CreateEndpoint](#) API.

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

## InferenceComponentName

If the endpoint hosts one or more inference components, this parameter specifies the name of inference component to invoke.

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\ -a-zA-Z0-9 ]*[a-zA-Z0-9] )? $`

## InferenceId

If you provide a value, it is added to the captured data when you enable data capture on the endpoint. For information about data capture, see [Capture Data](#).

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `\A\S[\p{Print}]*\z`

## TargetContainerHostname

If the endpoint hosts multiple containers and is configured to use direct invocation, this parameter specifies the host name of the container to invoke.

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

### TargetModel

The model to request for inference when invoking a multi-model endpoint.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `\A\S[\p{Print}]*\z`

### TargetVariant

Specify the production variant to send the inference request to when invoking an endpoint that is running two or more variants. Note that this parameter overrides the default behavior for the endpoint, which is to distribute the invocation traffic based on the variant weights.

For information about how to use variant targeting to perform a/b testing, see [Test models in production](#)

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

## Request Body

The request accepts the following binary data.

### Body

Provides input data, in the format specified in the `ContentType` request header. Amazon SageMaker passes all of the data in the body to the model.

For information about the format of the request body, see [Common Data Formats-Inference](#).

Length Constraints: Maximum length of 6291456.

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-Type: ContentType
```

```
x-Amzn-Invoked-Production-Variant: InvokedProductionVariant  
X-Amzn-SageMaker-Custom-Attributes: CustomAttributes
```

*Body*

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The response returns the following HTTP headers.

### ContentType

The MIME type of the inference returned from the model container.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

### CustomAttributes

Provides additional information in the response about the inference returned by a model hosted at an Amazon SageMaker endpoint. The information is an opaque value that is forwarded verbatim. You could use this value, for example, to return an ID received in the `CustomAttributes` header of a request or other metadata that a service endpoint was programmed to produce. The value must consist of no more than 1024 visible US-ASCII characters as specified in [Section 3.3.6. Field Value Components](#) of the Hypertext Transfer Protocol (HTTP/1.1). If the customer wants the custom attribute returned, the model must set the custom attribute to be included on the way back.

The code in your model is responsible for setting or updating any custom attributes in the response. If your code does not set this value in the response, an empty value is returned. For example, if a custom attribute represents the trace ID, your model can prepend the custom attribute with `Trace ID:` in your post-processing function.

This feature is currently supported in the AWS SDKs but not in the Amazon SageMaker Python SDK.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

## InvokedProductionVariant

Identifies the production variant that was invoked.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

The response returns the following as the HTTP body.

## Body

Includes the inference provided by the model.

For information about the format of the response body, see [Common Data Formats-Inference](#).

If the explainer is activated, the body includes the explanations provided by the model. For more information, see the **Response section** under [Invoke the Endpoint](#) in the Developer Guide.

Length Constraints: Maximum length of 6291456.

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalDependencyException**

Your request caused an exception with an internal dependency. Contact customer support.

HTTP Status Code: 530

### **InternalFailure**

An internal failure occurred.

HTTP Status Code: 500

### **ModelError**

Model (owned by the customer in the container) returned 4xx or 5xx error code.

HTTP Status Code: 424

## ModelNotReadyException

Either a serverless endpoint variant's resources are still being provisioned, or a multi-model endpoint is still downloading or loading the target model. Wait and try your request again.

HTTP Status Code: 429

## ServiceUnavailable

The service is unavailable. Try your call again.

HTTP Status Code: 503

## ValidationError

Inspect your request and try again.

HTTP Status Code: 400

## Examples

**Pass a trace ID in the CustomAttribute of a request and return it in the CustomAttribute of the response.**

In this example a trace ID is passed to the service endpoint in the CustomAttributes header of the request and then retrieved and returned in the CustomAttributes header of the response.

### Sample Request

```
import boto3

client = boto3.client('sagemaker-runtime')

custom_attributes = "c000b4f9-df62-4c85-a0bf-7c525f9104a4" # An example of a trace ID.
endpoint_name = "..." # Your endpoint name.
content_type = "..." # The MIME type of the
input data in the request body.
accept = "..." # The desired MIME type of
the inference in the response.
payload = "..." # Payload for inference.
response = client.invoke_endpoint(
    EndpointName=endpoint_name,
    CustomAttributes=custom_attributes,
```

```
    ContentType=content_type,  
    Accept=accept,  
    Body=payload  
  )  
  
print(response['CustomAttributes'])           # If model receives and  
  updates the custom_attributes header      # by adding "Trace id: " in  
  
  front of custom_attributes in the request, # custom_attributes in  
  
  response becomes                          # "Trace ID: c000b4f9-  
df62-4c85-a0bf-7c525f9104a4"
```

## Sample Response

```
Trace ID: c000b4f9-df62-4c85-a0bf-7c525f9104a4
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## InvokeEndpointAsync

Service: Amazon SageMaker Runtime

After you deploy a model into production using Amazon SageMaker hosting services, your client applications use this API to get inferences from the model hosted at the specified endpoint in an asynchronous manner.

Inference requests sent to this API are enqueued for asynchronous processing. The processing of the inference request may or may not complete before you receive a response from this API. The response from this API will not contain the result of the inference request but contain information about where you can locate it.

Amazon SageMaker strips all POST headers except those supported by the API. Amazon SageMaker might add additional headers. You should not rely on the behavior of headers outside those enumerated in the request syntax.

Calls to `InvokeEndpointAsync` are authenticated by using AWS Signature Version 4. For information, see [Authenticating Requests \(AWS Signature Version 4\)](#) in the *Amazon S3 API Reference*.

### Request Syntax

```
POST /endpoints/EndpointName/async-invocations HTTP/1.1
X-Amzn-SageMaker-Content-Type: ContentType
X-Amzn-SageMaker-Accept: Accept
X-Amzn-SageMaker-Custom-Attributes: CustomAttributes
X-Amzn-SageMaker-Inference-Id: InferenceId
X-Amzn-SageMaker-InputLocation: InputLocation
X-Amzn-SageMaker-RequestTTLSeconds: RequestTTLSeconds
X-Amzn-SageMaker-InvocationTimeoutSeconds: InvocationTimeoutSeconds
```

### URI Request Parameters

The request uses the following URI parameters.

#### [Accept](#)

The desired MIME type of the inference response from the model container.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`



## ContentType

The MIME type of the input data in the request body.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

## CustomAttributes

Provides additional information about a request for an inference submitted to a model hosted at an Amazon SageMaker endpoint. The information is an opaque value that is forwarded verbatim. You could use this value, for example, to provide an ID that you can use to track a request or to provide other metadata that a service endpoint was programmed to process. The value must consist of no more than 1024 visible US-ASCII characters as specified in [Section 3.3.6. Field Value Components](#) of the Hypertext Transfer Protocol (HTTP/1.1).

The code in your model is responsible for setting or updating any custom attributes in the response. If your code does not set this value in the response, an empty value is returned. For example, if a custom attribute represents the trace ID, your model can prepend the custom attribute with `Trace ID:` in your post-processing function.

This feature is currently supported in the AWS SDKs but not in the Amazon SageMaker Python SDK.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

## EndpointName

The name of the endpoint that you specified when you created the endpoint using the [CreateEndpoint](#) API.

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

## InferenceId

The identifier for the inference request. Amazon SageMaker will generate an identifier for you if none is specified.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `\A\S[\p{Print}]*\z`

### InputLocation

The Amazon S3 URI where the inference request payload is stored.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^(https|s3):\/\/([\^\/]+)\/?(.*)$`

Required: Yes

### InvocationTimeoutSeconds

Maximum amount of time in seconds a request can be processed before it is marked as expired. The default is 15 minutes, or 900 seconds.

Valid Range: Minimum value of 1. Maximum value of 3600.

### RequestTTLSeconds

Maximum age in seconds a request can be in the queue before it is marked as expired. The default is 6 hours, or 21,600 seconds.

Valid Range: Minimum value of 60. Maximum value of 21600.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 202
X-Amzn-SageMaker-OutputLocation: OutputLocation
X-Amzn-SageMaker-FailureLocation: FailureLocation
Content-type: application/json

{
  "InferenceId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 202 response.

The response returns the following HTTP headers.

### FailureLocation

The Amazon S3 URI where the inference failure response payload is stored.

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}\*

### OutputLocation

The Amazon S3 URI where the inference response payload is stored.

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}\*

The following data is returned in JSON format by the service.

### InferenceId

Identifier for an inference request. This will be the same as the InferenceId specified in the input. Amazon SageMaker will generate an identifier for you if you do not specify one.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}\*

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **InternalFailure**

An internal failure occurred.

HTTP Status Code: 500

### **ServiceUnavailable**

The service is unavailable. Try your call again.

HTTP Status Code: 503

### **ValidationError**

Inspect your request and try again.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# InvokeEndpointWithResponseStream

Service: Amazon SageMaker Runtime

Invokes a model at the specified endpoint to return the inference response as a stream. The inference stream provides the response payload incrementally as a series of parts. Before you can get an inference stream, you must have access to a model that's deployed using Amazon SageMaker hosting services, and the container for that model must support inference streaming.

For more information that can help you use this API, see the following sections in the *Amazon SageMaker Developer Guide*:

- For information about how to add streaming support to a model, see [How Containers Serve Requests](#).
- For information about how to process the streaming response, see [Invoke real-time endpoints](#).

Before you can use this operation, your IAM permissions must allow the `sagemaker:InvokeEndpoint` action. For more information about Amazon SageMaker actions for IAM policies, see [Actions, resources, and condition keys for Amazon SageMaker](#) in the *IAM Service Authorization Reference*.

Amazon SageMaker strips all POST headers except those supported by the API. Amazon SageMaker might add additional headers. You should not rely on the behavior of headers outside those enumerated in the request syntax.

Calls to `InvokeEndpointWithResponseStream` are authenticated by using AWS Signature Version 4. For information, see [Authenticating Requests \(AWS Signature Version 4\)](#) in the *Amazon S3 API Reference*.

## Request Syntax

```
POST /endpoints/EndpointName/invocations-response-stream HTTP/1.1
Content-Type: ContentType
X-Amzn-SageMaker-Accept: Accept
X-Amzn-SageMaker-Custom-Attributes: CustomAttributes
X-Amzn-SageMaker-Target-Variant: TargetVariant
X-Amzn-SageMaker-Target-Container-Hostname: TargetContainerHostname
X-Amzn-SageMaker-Inference-Id: InferenceId
X-Amzn-SageMaker-Inference-Component: InferenceComponentName
```

**Body**

## URI Request Parameters

The request uses the following URI parameters.

### Accept

The desired MIME type of the inference response from the model container.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

### ContentType

The MIME type of the input data in the request body.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

### CustomAttributes

Provides additional information about a request for an inference submitted to a model hosted at an Amazon SageMaker endpoint. The information is an opaque value that is forwarded verbatim. You could use this value, for example, to provide an ID that you can use to track a request or to provide other metadata that a service endpoint was programmed to process. The value must consist of no more than 1024 visible US-ASCII characters as specified in [Section 3.3.6. Field Value Components](#) of the Hypertext Transfer Protocol (HTTP/1.1).

The code in your model is responsible for setting or updating any custom attributes in the response. If your code does not set this value in the response, an empty value is returned. For example, if a custom attribute represents the trace ID, your model can prepend the custom attribute with `Trace ID:` in your post-processing function.

This feature is currently supported in the AWS SDKs but not in the Amazon SageMaker Python SDK.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

## EndpointName

The name of the endpoint that you specified when you created the endpoint using the [CreateEndpoint](#) API.

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

## InferenceComponentName

If the endpoint hosts one or more inference components, this parameter specifies the name of inference component to invoke for a streaming response.

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\ -a-zA-Z0-9 ]*[a-zA-Z0-9] )? $`

## InferenceId

An identifier that you assign to your request.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `\A\S[\p{Print}]*\z`

## TargetContainerHostname

If the endpoint hosts multiple containers and is configured to use direct invocation, this parameter specifies the host name of the container to invoke.

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

## TargetVariant

Specify the production variant to send the inference request to when invoking an endpoint that is running two or more variants. Note that this parameter overrides the default behavior for the endpoint, which is to distribute the invocation traffic based on the variant weights.

For information about how to use variant targeting to perform a/b testing, see [Test models in production](#)

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

## Request Body

The request accepts the following binary data.

### Body

Provides input data, in the format specified in the `ContentType` request header. Amazon SageMaker passes all of the data in the body to the model.

For information about the format of the request body, see [Common Data Formats-Inference](#).

Length Constraints: Maximum length of 6291456.

Required: Yes

## Response Syntax

```
HTTP/1.1 200
X-Amzn-SageMaker-Content-Type: ContentType
x-Amzn-Invoked-Production-Variant: InvokedProductionVariant
X-Amzn-SageMaker-Custom-Attributes: CustomAttributes
Content-type: application/json

{
  "InternalStreamFailure": {
  },
  "ModelStreamError": {
  },
  "PayloadPart": {
    "Bytes": blob
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.



The response returns the following HTTP headers.

### ContentType

The MIME type of the inference returned from the model container.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

### CustomAttributes

Provides additional information in the response about the inference returned by a model hosted at an Amazon SageMaker endpoint. The information is an opaque value that is forwarded verbatim. You could use this value, for example, to return an ID received in the `CustomAttributes` header of a request or other metadata that a service endpoint was programmed to produce. The value must consist of no more than 1024 visible US-ASCII characters as specified in [Section 3.3.6. Field Value Components](#) of the Hypertext Transfer Protocol (HTTP/1.1). If the customer wants the custom attribute returned, the model must set the custom attribute to be included on the way back.

The code in your model is responsible for setting or updating any custom attributes in the response. If your code does not set this value in the response, an empty value is returned. For example, if a custom attribute represents the trace ID, your model can prepend the custom attribute with `Trace ID:` in your post-processing function.

This feature is currently supported in the AWS SDKs but not in the Amazon SageMaker Python SDK.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

### InvokedProductionVariant

Identifies the production variant that was invoked.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

The following data is returned in JSON format by the service.

## InternalStreamFailure

The stream processing failed because of an unknown error, exception or failure. Try your request again.

Type: Exception

HTTP Status Code:

## ModelStreamError

An error occurred while streaming the response body. This error can have the following error codes:

`ModelInvocationTimeExceeded`

The model failed to finish sending the response within the timeout period allowed by Amazon SageMaker.

`StreamBroken`

The Transmission Control Protocol (TCP) connection between the client and the model was reset or closed.

Type: Exception

HTTP Status Code:

## PayloadPart

A wrapper for pieces of the payload that's returned in response to a streaming inference request. A streaming inference response consists of one or more payload parts.

Type: [PayloadPart](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## InternalFailure

An internal failure occurred.

HTTP Status Code: 500

## InternalStreamFailure

The stream processing failed because of an unknown error, exception or failure. Try your request again.

HTTP Status Code: 500

## ModelError

Model (owned by the customer in the container) returned 4xx or 5xx error code.

HTTP Status Code: 424

## ModelStreamError

An error occurred while streaming the response body. This error can have the following error codes:

`ModelInvocationTimeExceeded`

The model failed to finish sending the response within the timeout period allowed by Amazon SageMaker.

`StreamBroken`

The Transmission Control Protocol (TCP) connection between the client and the model was reset or closed.

HTTP Status Code: 400

## ServiceUnavailable

The service is unavailable. Try your call again.

HTTP Status Code: 503

## ValidationError

Inspect your request and try again.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## Amazon Sagemaker Edge Manager

The following actions are supported by Amazon Sagemaker Edge Manager:

- [GetDeployments](#)
- [GetDeviceRegistration](#)
- [SendHeartbeat](#)

# GetDeployments

Service: Amazon Sagemaker Edge Manager

Use to get the active deployments from a device.

## Request Syntax

```
POST /GetDeployments HTTP/1.1
Content-type: application/json

{
  "DeviceFleetName": "string",
  "DeviceName": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### [DeviceFleetName](#)

The name of the fleet to which the device belongs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*_*[a-zA-Z0-9])*$`

Required: Yes

### [DeviceName](#)

The unique name of the device from which you want to get the configuration of active deployments.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*_*[a-zA-Z0-9])*$`

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "Deployments": [
    {
      "Definitions": [
        {
          "Checksum": {
            "Sum": "string",
            "Type": "string"
          },
          "ModelHandle": "string",
          "S3Url": "string",
          "State": "string"
        }
      ],
      "DeploymentName": "string",
      "FailureHandlingPolicy": "string",
      "Type": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Deployments

Returns a list of the configurations of the active deployments on the device.

Type: Array of [EdgeDeployment](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### InternalServerErrorException

An internal failure occurred. Try your request again. If the problem persists, contact AWS customer support.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetDeviceRegistration

Service: Amazon Sagemaker Edge Manager

Use to check if a device is registered with SageMaker Edge Manager.

## Request Syntax

```
POST /GetDeviceRegistration HTTP/1.1
Content-type: application/json

{
  "DeviceFleetName": "string",
  "DeviceName": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### DeviceFleetName

The name of the fleet to which the device belongs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*_*[a-zA-Z0-9])*$`

Required: Yes

### DeviceName

The unique name of the device from which you want to get the registration status.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.



Pattern: `^[a-zA-Z0-9](-|_)*[a-zA-Z0-9]*$`

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "CacheTTL": "string",
  "DeviceRegistration": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### CacheTTL

The amount of time, in seconds, that the registration status is stored on the device's cache before it is refreshed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

### DeviceRegistration

Describes if the device is currently registered with SageMaker Edge Manager.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## InternalServiceException

An internal failure occurred. Try your request again. If the problem persists, contact AWS customer support.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# SendHeartbeat

Service: Amazon SageMaker Edge Manager

Use to get the current status of devices registered on SageMaker Edge Manager.

## Request Syntax

```
POST /SendHeartbeat HTTP/1.1
Content-type: application/json

{
  "AgentMetrics": [
    {
      "Dimension": "string",
      "MetricName": "string",
      "Timestamp": number,
      "Value": number
    }
  ],
  "AgentVersion": "string",
  "DeploymentResult": {
    "DeploymentEndTime": number,
    "DeploymentModels": [
      {
        "DesiredState": "string",
        "ModelHandle": "string",
        "ModelName": "string",
        "ModelVersion": "string",
        "RollbackFailureReason": "string",
        "State": "string",
        "Status": "string",
        "StatusReason": "string"
      }
    ],
    "DeploymentName": "string",
    "DeploymentStartTime": number,
    "DeploymentStatus": "string",
    "DeploymentStatusMessage": "string"
  },
  "DeviceFleetName": "string",
  "DeviceName": "string",
  "Models": [
    {
```

```
    "LatestInference": number,
    "LatestSampleTime": number,
    "ModelMetrics": [
      {
        "Dimension": "string",
        "MetricName": "string",
        "Timestamp": number,
        "Value": number
      }
    ],
    "ModelName": "string",
    "ModelVersion": "string"
  }
]
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### AgentMetrics

For internal use. Returns a list of SageMaker Edge Manager agent operating metrics.

Type: Array of [EdgeMetric](#) objects

Required: No

### AgentVersion

Returns the version of the agent.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: [a-zA-Z0-9\ \\_\.]+

Required: Yes

## DeploymentResult

Returns the result of a deployment on the device.

Type: [DeploymentResult](#) object

Required: No

## DeviceFleetName

The name of the fleet to which the device belongs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*_*[a-zA-Z0-9])*$`

Required: Yes

## DeviceName

The unique name of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*_*[a-zA-Z0-9])*$`

Required: Yes

## Models

Returns a list of models deployed on the the device.

Type: Array of [Model](#) objects

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### InternalServerErrorException

An internal failure occurred. Try your request again. If the problem persists, contact AWS customer support.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## Amazon SageMaker Feature Store Runtime

The following actions are supported by Amazon SageMaker Feature Store Runtime:

- [BatchGetRecord](#)
- [DeleteRecord](#)

- [GetRecord](#)
- [PutRecord](#)

# BatchGetRecord

Service: Amazon SageMaker Feature Store Runtime

Retrieves a batch of Records from a FeatureGroup.

## Request Syntax

```
POST /BatchGetRecord HTTP/1.1
Content-type: application/json

{
  "ExpirationTimeResponse": "string",
  "Identifiers": [
    {
      "FeatureGroupName": "string",
      "FeatureNames": [ "string" ],
      "RecordIdentifiersValueAsString": [ "string" ]
    }
  ]
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### ExpirationTimeResponse

Parameter to request ExpiresAt in response. If Enabled, BatchGetRecord will return the value of ExpiresAt, if it is not null. If Disabled and null, BatchGetRecord will return null.

Type: String

Valid Values: Enabled | Disabled

Required: No



## Identifiers

A list containing the name or Amazon Resource Name (ARN) of the FeatureGroup, the list of names of Features to be retrieved, and the corresponding RecordIdentifier values as strings.

Type: Array of [BatchGetRecordIdentifier](#) objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "Errors": [
    {
      "ErrorCode": "string",
      "ErrorMessage": "string",
      "FeatureGroupName": "string",
      "RecordIdentifierValueAsString": "string"
    }
  ],
  "Records": [
    {
      "ExpiresAt": "string",
      "FeatureGroupName": "string",
      "Record": [
        {
          "FeatureName": "string",
          "ValueAsString": "string",
          "ValueAsStringList": [ "string" ]
        }
      ],
      "RecordIdentifierValueAsString": "string"
    }
  ],
  "UnprocessedIdentifiers": [
    {
      "FeatureGroupName": "string",
```

```
    "FeatureNames": [ "string" ],
    "RecordIdentifiersValueAsString": [ "string" ]
  }
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Errors

A list of errors that have occurred when retrieving a batch of Records.

Type: Array of [BatchGetRecordError](#) objects

Array Members: Minimum number of 0 items.

### Records

A list of Records you requested to be retrieved in batch.

Type: Array of [BatchGetRecordResultDetail](#) objects

Array Members: Minimum number of 0 items.

### UnprocessedIdentifiers

A unprocessed list of FeatureGroup names, with their corresponding RecordIdentifier value, and Feature name.

Type: Array of [BatchGetRecordIdentifier](#) objects

Array Members: Minimum number of 0 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessForbidden

You do not have permission to perform an action.

HTTP Status Code: 403

### **InternalFailure**

An internal failure occurred. Try your request again. If the problem persists, contact AWS customer support.

HTTP Status Code: 500

### **ServiceUnavailable**

The service is currently unavailable.

HTTP Status Code: 503

### **ValidationError**

There was an error validating your request.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteRecord

Service: Amazon SageMaker Feature Store Runtime

Deletes a Record from a FeatureGroup in the OnlineStore. Feature Store supports both SoftDelete and HardDelete. For SoftDelete (default), feature columns are set to null and the record is no longer retrievable by GetRecord or BatchGetRecord. For HardDelete, the complete Record is removed from the OnlineStore. In both cases, Feature Store appends the deleted record marker to the OfflineStore. The deleted record marker is a record with the same RecordIdentifier as the original, but with is\_deleted value set to True, EventTime set to the delete input EventTime, and other feature values set to null.

Note that the EventTime specified in DeleteRecord should be set later than the EventTime of the existing record in the OnlineStore for that RecordIdentifier. If it is not, the deletion does not occur:

- For SoftDelete, the existing (not deleted) record remains in the OnlineStore, though the delete record marker is still written to the OfflineStore.
- HardDelete returns EventTime: 400 ValidationException to indicate that the delete operation failed. No delete record marker is written to the OfflineStore.

When a record is deleted from the OnlineStore, the deleted record marker is appended to the OfflineStore. If you have the Iceberg table format enabled for your OfflineStore, you can remove all history of a record from the OfflineStore using Amazon Athena or Apache Spark. For information on how to hard delete a record from the OfflineStore with the Iceberg table format enabled, see [Delete records from the offline store](#).

## Request Syntax

```
DELETE /FeatureGroup/FeatureGroupName?
DeletionMode=DeletionMode&EventTime=EventTime&RecordIdentifierValueAsString=RecordIdentifierVal
HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

## DeletionMode

The name of the deletion mode for deleting the record. By default, the deletion mode is set to `SoftDelete`.

Valid Values: `SoftDelete` | `HardDelete`

## EventTime

Timestamp indicating when the deletion event occurred. `EventTime` can be used to query data at a certain point in time.

Length Constraints: Maximum length of 358400.

Pattern: `.*`

Required: Yes

## FeatureGroupName

The name or Amazon Resource Name (ARN) of the feature group to delete the record from.

Length Constraints: Minimum length of 1. Maximum length of 150.

Pattern: `(arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:feature-group/)?([a-zA-Z0-9]([-_]*[a-zA-Z0-9])){0,63}`

Required: Yes

## RecordIdentifierValueAsString

The value for the `RecordIdentifier` that uniquely identifies the record, in string format.

Length Constraints: Maximum length of 358400.

Pattern: `.*`

Required: Yes

## TargetStores

A list of stores from which you're deleting the record. By default, Feature Store deletes the record from all of the stores that you're using for the `FeatureGroup`.

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Valid Values: OnlineStore | OfflineStore

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessForbidden

You do not have permission to perform an action.

HTTP Status Code: 403

### InternalFailure

An internal failure occurred. Try your request again. If the problem persists, contact AWS customer support.

HTTP Status Code: 500

### ServiceUnavailable

The service is currently unavailable.

HTTP Status Code: 503

### ValidationError

There was an error validating your request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetRecord

Service: Amazon SageMaker Feature Store Runtime

Use for OnlineStore serving from a FeatureStore. Only the latest records stored in the OnlineStore can be retrieved. If no Record with RecordIdentifierValue is found, then an empty result is returned.

## Request Syntax

```
GET /FeatureGroup/FeatureGroupName?
ExpirationTimeResponse=ExpirationTimeResponse&FeatureName=FeatureNames&RecordIdentifierValueAsS
HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### ExpirationTimeResponse

Parameter to request ExpiresAt in response. If Enabled, GetRecord will return the value of ExpiresAt, if it is not null. If Disabled and null, GetRecord will return null.

Valid Values: Enabled | Disabled

### FeatureGroupName

The name or Amazon Resource Name (ARN) of the feature group from which you want to retrieve a record.

Length Constraints: Minimum length of 1. Maximum length of 150.

Pattern: (arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:feature-group/)? ([a-zA-Z0-9]([-\_]\*[a-zA-Z0-9])){0,63}

Required: Yes

### FeatureNames

List of names of Features to be retrieved. If not specified, the latest value for all the Features are returned.

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 64.



Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,63}`

### RecordIdentifierValueAsString

The value that corresponds to `RecordIdentifier` type and uniquely identifies the record in the `FeatureGroup`.

Length Constraints: Maximum length of 358400.

Pattern: `.*`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "ExpiresAt": "string",
  "Record": [
    {
      "FeatureName": "string",
      "ValueAsString": "string",
      "ValueAsStringList": [ "string" ]
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ExpiresAt

The `ExpiresAt` ISO string of the requested record.

Type: String

## **Record**

The record you requested. A list of FeatureValues.

Type: Array of [FeatureValue](#) objects

Array Members: Minimum number of 1 item.

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessForbidden**

You do not have permission to perform an action.

HTTP Status Code: 403

### **InternalFailure**

An internal failure occurred. Try your request again. If the problem persists, contact AWS customer support.

HTTP Status Code: 500

### **ResourceNotFound**

A resource that is required to perform an action was not found.

HTTP Status Code: 404

### **ServiceUnavailable**

The service is currently unavailable.

HTTP Status Code: 503

### **ValidationError**

There was an error validating your request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## PutRecord

Service: Amazon SageMaker Feature Store Runtime

The PutRecord API is used to ingest a list of Records into your feature group.

If a new record's EventTime is greater, the new record is written to both the OnlineStore and OfflineStore. Otherwise, the record is a historic record and it is written only to the OfflineStore.

You can specify the ingestion to be applied to the OnlineStore, OfflineStore, or both by using the TargetStores request parameter.

You can set the ingested record to expire at a given time to live (TTL) duration after the record's event time, ExpiresAt = EventTime + TtlDuration, by specifying the TtlDuration parameter. A record level TtlDuration is set when specifying the TtlDuration parameter using the PutRecord API call. If the input TtlDuration is null or unspecified, TtlDuration is set to the default feature group level TtlDuration. A record level TtlDuration supersedes the group level TtlDuration.

### Request Syntax

```
PUT /FeatureGroup/FeatureGroupName HTTP/1.1
```

```
Content-type: application/json
```

```
{
  "Record": [
    {
      "FeatureName": "string",
      "ValueAsString": "string",
      "ValueAsStringList": [ "string" ]
    }
  ],
  "TargetStores": [ "string" ],
  "TtlDuration": {
    "Unit": "string",
    "Value": number
  }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### FeatureGroupName

The name or Amazon Resource Name (ARN) of the feature group that you want to insert the record into.

Length Constraints: Minimum length of 1. Maximum length of 150.

Pattern: `(arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:feature-group/)?([a-zA-Z0-9]([-_])*[a-zA-Z0-9]){0,63}`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### Record

List of FeatureValues to be inserted. This will be a full over-write. If you only want to update few of the feature values, do the following:

- Use `GetRecord` to retrieve the latest record.
- Update the record returned from `GetRecord`.
- Use `PutRecord` to update feature values.

Type: Array of [FeatureValue](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

### TargetStores

A list of stores to which you're adding the record. By default, Feature Store adds the record to all of the stores that you're using for the FeatureGroup.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Valid Values: OnlineStore | OfflineStore

Required: No

### TtlDuration

Time to live duration, where the record is hard deleted after the expiration time is reached; ExpiresAt = EventTime + TtlDuration. For information on HardDelete, see the [DeleteRecord](#) API in the Amazon SageMaker API Reference guide.

Type: [TtlDuration](#) object

Required: No

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessForbidden

You do not have permission to perform an action.

HTTP Status Code: 403

### InternalFailure

An internal failure occurred. Try your request again. If the problem persists, contact AWS customer support.

HTTP Status Code: 500

### ServiceUnavailable

The service is currently unavailable.

HTTP Status Code: 503

## ValidationError

There was an error validating your request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## Amazon SageMaker geospatial capabilities

The following actions are supported by Amazon SageMaker geospatial capabilities:

- [DeleteEarthObservationJob](#)
- [DeleteVectorEnrichmentJob](#)
- [ExportEarthObservationJob](#)
- [ExportVectorEnrichmentJob](#)
- [GetEarthObservationJob](#)
- [GetRasterDataCollection](#)
- [GetTile](#)
- [GetVectorEnrichmentJob](#)

- [ListEarthObservationJobs](#)
- [ListRasterDataCollections](#)
- [ListTagsForResource](#)
- [ListVectorEnrichmentJobs](#)
- [SearchRasterDataCollection](#)
- [StartEarthObservationJob](#)
- [StartVectorEnrichmentJob](#)
- [StopEarthObservationJob](#)
- [StopVectorEnrichmentJob](#)
- [TagResource](#)
- [UntagResource](#)



## DeleteEarthObservationJob

Service: Amazon SageMaker geospatial capabilities

Use this operation to delete an Earth Observation job.

### Request Syntax

```
DELETE /earth-observation-jobs/Arn HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### Arn

The Amazon Resource Name (ARN) of the Earth Observation job being deleted.

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:earth-observation-job/[a-z0-9]{12,}$`

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors](#).

#### AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **ConflictException**

Updating or deleting a resource can cause an inconsistent state.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

The request references a resource which does not exist.

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteVectorEnrichmentJob

Service: Amazon SageMaker geospatial capabilities

Use this operation to delete a Vector Enrichment job.

## Request Syntax

```
DELETE /vector-enrichment-jobs/Arn HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### Arn

The Amazon Resource Name (ARN) of the Vector Enrichment job being deleted.

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:vector-enrichment-job/[a-z0-9]{12,}$`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **ConflictException**

Updating or deleting a resource can cause an inconsistent state.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

The request references a resource which does not exist.

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ExportEarthObservationJob

Service: Amazon SageMaker geospatial capabilities

Use this operation to export results of an Earth Observation job and optionally source images used as input to the EOJ to an Amazon S3 location.

## Request Syntax

```
POST /export-earth-observation-job HTTP/1.1
Content-type: application/json
```

```
{
  "Arn": "string",
  "ClientToken": "string",
  "ExecutionRoleArn": "string",
  "ExportSourceImages": boolean,
  "OutputConfig": {
    "S3Data": {
      "KmsKeyId": "string",
      "S3Uri": "string"
    }
  }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### Arn

The input Amazon Resource Name (ARN) of the Earth Observation job being exported.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:earth-observation-job/[a-z0-9]{12,}$`

Required: Yes

## ClientToken

A unique token that guarantees that the call to this API is idempotent.

Type: String

Length Constraints: Minimum length of 36. Maximum length of 64.

Required: No

## ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:(aws[a-z-]*):iam::([0-9]{12}):role/[a-zA-Z0-9+=,._@/_-]+$`

Required: Yes

## ExportSourceImages

The source images provided to the Earth Observation job being exported.

Type: Boolean

Required: No

## OutputConfig

An object containing information about the output file.

Type: [OutputConfigInput](#) object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "Arn": "string",
```



```

"CreationTime": "string",
"ExecutionRoleArn": "string",
"ExportSourceImages": boolean,
"ExportStatus": "string",
"OutputConfig": {
  "S3Data": {
    "KmsKeyId": "string",
    "S3Uri": "string"
  }
}
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Arn

The output Amazon Resource Name (ARN) of the Earth Observation job being exported.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:earth-observation-job/[a-z0-9]{12,}$`

### CreationTime

The creation time.

Type: Timestamp

### ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:(aws[a-z-]*):iam::([0-9]{12}):role/[a-zA-Z0-9+ =, .@_/-]+$`

### ExportSourceImages

The source images provided to the Earth Observation job being exported.

Type: Boolean

### **ExportStatus**

The status of the results of the Earth Observation job being exported.

Type: String

Valid Values: IN\_PROGRESS | SUCCEEDED | FAILED

### **OutputConfig**

An object containing information about the output file.

Type: [OutputConfigInput](#) object

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **ConflictException**

Updating or deleting a resource can cause an inconsistent state.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

The request references a resource which does not exist.

HTTP Status Code: 404

### **ServiceQuotaExceededException**

You have exceeded the service quota.

HTTP Status Code: 402

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ExportVectorEnrichmentJob

Service: Amazon SageMaker geospatial capabilities

Use this operation to copy results of a Vector Enrichment job to an Amazon S3 location.

## Request Syntax

```
POST /export-vector-enrichment-jobs HTTP/1.1
```

```
Content-type: application/json
```

```
{
  "Arn": "string",
  "ClientToken": "string",
  "ExecutionRoleArn": "string",
  "OutputConfig": {
    "S3Data": {
      "KmsKeyId": "string",
      "S3Uri": "string"
    }
  }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### Arn

The Amazon Resource Name (ARN) of the Vector Enrichment job.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:vector-enrichment-job/[a-z0-9]{12,}$`

Required: Yes

### ClientToken

A unique token that guarantees that the call to this API is idempotent.

Type: String

Length Constraints: Minimum length of 36. Maximum length of 64.

Required: No

### ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role with permission to upload to the location in OutputConfig.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:(aws[a-z-]*):iam::([0-9]{12}):role/[a-zA-Z0-9+=,._@/_-]+$`

Required: Yes

### OutputConfig

Output location information for exporting Vector Enrichment Job results.

Type: [ExportVectorEnrichmentJobOutputConfig](#) object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "Arn": "string",
  "CreationTime": "string",
  "ExecutionRoleArn": "string",
  "ExportStatus": "string",
  "OutputConfig": {
    "S3Data": {
      "KmsKeyId": "string",
      "S3Uri": "string"
    }
  }
}
```

```
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Arn

The Amazon Resource Name (ARN) of the Vector Enrichment job being exported.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[\0-9]{12}:vector-enrichment-job/[a-z0-9]{12,}$`

### CreationTime

The creation time.

Type: Timestamp

### ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role with permission to upload to the location in OutputConfig.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:(aws[a-z-]*):iam::([\0-9]{12}):role/[a-zA-Z0-9+=,.\@/_-]+$`

### ExportStatus

The status of the results the Vector Enrichment job being exported.

Type: String

Valid Values: IN\_PROGRESS | SUCCEEDED | FAILED

### OutputConfig

Output location information for exporting Vector Enrichment Job results.

Type: [ExportVectorEnrichmentJobOutputConfig](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### ConflictException

Updating or deleting a resource can cause an inconsistent state.

HTTP Status Code: 409

### InternalServerErrorException

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### ResourceNotFoundException

The request references a resource which does not exist.

HTTP Status Code: 404

### ServiceQuotaExceededException

You have exceeded the service quota.

HTTP Status Code: 402

### ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

### ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# GetEarthObservationJob

Service: Amazon SageMaker geospatial capabilities

Get the details for a previously initiated Earth Observation job.

## Request Syntax

```
GET /earth-observation-jobs/Arn HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### Arn

The Amazon Resource Name (ARN) of the Earth Observation job.

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:earth-observation-job/[a-z0-9]{12,}$`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "Arn": "string",
  "CreationTime": "string",
  "DurationInSeconds": number,
  "ErrorDetails": {
    "Message": "string",
    "Type": "string"
  },
  "ExecutionRoleArn": "string",
  "ExportErrorDetails": {
    "ExportResults": {
```

```

    "Message": "string",
    "Type": "string"
  },
  "ExportSourceImages": {
    "Message": "string",
    "Type": "string"
  }
},
"ExportStatus": "string",
"InputConfig": {
  "PreviousEarthObservationJobArn": "string",
  "RasterDataCollectionQuery": {
    "AreaOfInterest": { ... },
    "PropertyFilters": {
      "LogicalOperator": "string",
      "Properties": [
        {
          "Property": { ... }
        }
      ]
    }
  },
  "RasterDataCollectionArn": "string",
  "RasterDataCollectionName": "string",
  "TimeRangeFilter": {
    "EndTime": "string",
    "StartTime": "string"
  }
}
},
"JobConfig": { ... },
"KmsKeyId": "string",
"Name": "string",
"OutputBands": [
  {
    "BandName": "string",
    "OutputDataType": "string"
  }
],
"Status": "string",
"Tags": {
  "string" : "string"
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Arn

The Amazon Resource Name (ARN) of the Earth Observation job.

Type: String

### CreationTime

The creation time of the initiated Earth Observation job.

Type: Timestamp

### DurationInSeconds

The duration of Earth Observation job, in seconds.

Type: Integer

### ErrorDetails

Details about the errors generated during the Earth Observation job.

Type: [EarthObservationJobErrorDetails](#) object

### ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:(aws[a-z-]*):iam::([0-9]{12}):role/[a-zA-Z0-9+=,._@/_-]+$`

### ExportErrorDetails

Details about the errors generated during `ExportEarthObservationJob`.

Type: [ExportErrorDetails](#) object

### ExportStatus

The status of the Earth Observation job.

Type: String

Valid Values: IN\_PROGRESS | SUCCEEDED | FAILED

### InputConfig

Input data for the Earth Observation job.

Type: [InputConfigOutput](#) object

### JobConfig

An object containing information about the job configuration.

Type: [JobConfigInput](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

### KmsKeyId

The Key Management Service key ID for server-side encryption.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

### Name

The name of the Earth Observation job.

Type: String

### OutputBands

Bands available in the output of an operation.

Type: Array of [OutputBand](#) objects

### Status

The status of a previously initiated Earth Observation job.

Type: String

Valid Values: INITIALIZING | IN\_PROGRESS | STOPPING | COMPLETED | STOPPED | FAILED | DELETING | DELETED

## Tags

Each tag consists of a key and a value.

Type: String to string map

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerError**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

The request references a resource which does not exist.

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetRasterDataCollection

Service: Amazon SageMaker geospatial capabilities

Use this operation to get details of a specific raster data collection.

## Request Syntax

```
GET /raster-data-collection/Arn HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### Arn

The Amazon Resource Name (ARN) of the raster data collection.

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:raster-data-collection/(public|premium|user)/[a-z0-9]{12,}$`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "Arn": "string",
  "Description": "string",
  "DescriptionPageUrl": "string",
  "ImageSourceBands": [ "string" ],
  "Name": "string",
  "SupportedFilters": [
    {
      "Maximum": number,
      "Minimum": number,

```

```
    "Name": "string",
    "Type": "string"
  }
],
"Tags": {
  "string" : "string"
},
"Type": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Arn

The Amazon Resource Name (ARN) of the raster data collection.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:raster-data-collection/(public|premium|user)/[a-z0-9]{12,}$`

### Description

A description of the raster data collection.

Type: String

### DescriptionPageUrl

The URL of the description page.

Type: String

### ImageSourceBands

The list of image source bands in the raster data collection.

Type: Array of strings

### Name

The name of the raster data collection.



Type: String

### SupportedFilters

The filters supported by the raster data collection.

Type: Array of [Filter](#) objects

### Tags

Each tag consists of a key and a value.

Type: String to string map

### Type

The raster data collection type.

Type: String

Valid Values: PUBLIC | PREMIUM | USER

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

The request references a resource which does not exist.

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

## ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetTile

Service: Amazon SageMaker geospatial capabilities

Gets a web mercator tile for the given Earth Observation job.

## Request Syntax

```
GET /tile/z/x/y?  
Arn=Arn&ExecutionRoleArn=ExecutionRoleArn&ImageAssets=ImageAssets&ImageMask=ImageMask&OutputDataFormat=OutputDataFormat  
HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### Arn

The Amazon Resource Name (ARN) of the tile operation.

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:earth-observation-job/[a-z0-9]{12,}$`

Required: Yes

### ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role that you specify.

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:(aws[a-z-]*):iam::([0-9]{12}):role/[a-zA-Z0-9+ =, .@/_-]+$`

### ImageAssets

The particular assets or bands to tile.

Array Members: Minimum number of 1 item.

Required: Yes

### ImageMask

Determines whether or not to return a valid data mask.

## OutputDataType

The output data type of the tile operation.

Valid Values: INT32 | FLOAT32 | INT16 | FLOAT64 | UINT16

## OutputFormat

The data format of the output tile. The formats include .npy, .png and .jpg.

## PropertyFilters

Property filters for the imagery to tile.

## Target

Determines what part of the Earth Observation job to tile. 'INPUT' or 'OUTPUT' are the valid options.

Valid Values: INPUT | OUTPUT

Required: Yes

## TimeRangeFilter

Time range filter applied to imagery to find the images to tile.

### x

The x coordinate of the tile input.

Required: Yes

### y

The y coordinate of the tile input.

Required: Yes

### z

The z coordinate of the tile input.

Required: Yes

## **Request Body**

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
BinaryFile
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The response returns the following as the HTTP body.

### BinaryFile

The output binary file.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

The request references a resource which does not exist.

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

## ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetVectorEnrichmentJob

Service: Amazon SageMaker geospatial capabilities

Retrieves details of a Vector Enrichment Job for a given job Amazon Resource Name (ARN).

## Request Syntax

```
GET /vector-enrichment-jobs/Arn HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### Arn

The Amazon Resource Name (ARN) of the Vector Enrichment job.

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:vector-enrichment-job/[a-z0-9]{12,}$`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "Arn": "string",
  "CreationTime": "string",
  "DurationInSeconds": number,
  "ErrorDetails": {
    "ErrorMessage": "string",
    "ErrorType": "string"
  },
  "ExecutionRoleArn": "string",
  "ExportErrorDetails": {
```

```
    "Message": "string",
    "Type": "string"
  },
  "ExportStatus": "string",
  "InputConfig": {
    "DataSourceConfig": { ... },
    "DocumentType": "string"
  },
  "JobConfig": { ... },
  "KmsKeyId": "string",
  "Name": "string",
  "Status": "string",
  "Tags": {
    "string" : "string"
  },
  "Type": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Arn

The Amazon Resource Name (ARN) of the Vector Enrichment job.

Type: String

### CreationTime

The creation time.

Type: Timestamp

### DurationInSeconds

The duration of the Vector Enrichment job, in seconds.

Type: Integer

### ErrorDetails

Details about the errors generated during the Vector Enrichment job.



Type: [VectorEnrichmentJobErrorDetails](#) object

### [ExecutionRoleArn](#)

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:(aws[a-z-]*):iam::([0-9]{12}):role/[a-zA-Z0-9+=,._@/_-]+$`

### [ExportErrorDetails](#)

Details about the errors generated during the `ExportVectorEnrichmentJob`.

Type: [VectorEnrichmentJobExportErrorDetails](#) object

### [ExportStatus](#)

The export status of the Vector Enrichment job being initiated.

Type: String

Valid Values: IN\_PROGRESS | SUCCEEDED | FAILED

### [InputConfig](#)

Input configuration information for the Vector Enrichment job.

Type: [VectorEnrichmentJobInputConfig](#) object

### [JobConfig](#)

An object containing information about the job configuration.

Type: [VectorEnrichmentJobConfig](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

### [KmsKeyId](#)

The Key Management Service key ID for server-side encryption.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

## Name

The name of the Vector Enrichment job.

Type: String

## Status

The status of the initiated Vector Enrichment job.

Type: String

Valid Values: INITIALIZING | IN\_PROGRESS | STOPPING | STOPPED | COMPLETED | FAILED | DELETING | DELETED

## Tags

Each tag consists of a key and a value.

Type: String to string map

## Type

The type of the Vector Enrichment job being initiated.

Type: String

Valid Values: REVERSE\_GEOCODING | MAP\_MATCHING

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

## ResourceNotFoundException

The request references a resource which does not exist.

HTTP Status Code: 404

## ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

## ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListEarthObservationJobs

Service: Amazon SageMaker geospatial capabilities

Use this operation to get a list of the Earth Observation jobs associated with the calling AWS account.

## Request Syntax

```
POST /list-earth-observation-jobs HTTP/1.1
Content-type: application/json
```

```
{
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### MaxResults

The total number of items to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 20.

Required: No

### NextToken

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Required: No

### SortBy

The parameter by which to sort the results.

Type: String

Required: No

### SortOrder

An optional value that specifies whether you want the results sorted in Ascending or Descending order.

Type: String

Valid Values: ASCENDING | DESCENDING

Required: No

### StatusEquals

A filter that retrieves only jobs with a specific status.

Type: String

Valid Values: INITIALIZING | IN\_PROGRESS | STOPPING | COMPLETED | STOPPED | FAILED | DELETING | DELETED

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "EarthObservationJobSummaries": [
    {
      "Arn": "string",
```

```
    "CreationTime": "string",
    "DurationInSeconds": number,
    "Name": "string",
    "OperationType": "string",
    "Status": "string",
    "Tags": {
      "string" : "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### EarthObservationJobSummaries

Contains summary information about the Earth Observation jobs.

Type: Array of [ListEarthObservationJobOutputConfig](#) objects

### NextToken

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

## InternalServerErrorException

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

## ResourceNotFoundException

The request references a resource which does not exist.

HTTP Status Code: 404

## ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

## ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListRasterDataCollections

Service: Amazon SageMaker geospatial capabilities

Use this operation to get raster data collections.

## Request Syntax

```
GET /raster-data-collections?MaxResults=MaxResults&NextToken=NextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### MaxResults

The total number of items to return.

Valid Range: Minimum value of 1. Maximum value of 20.

### NextToken

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Length Constraints: Minimum length of 0. Maximum length of 8192.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "NextToken": "string",
  "RasterDataCollectionSummaries": [
    {
      "Arn": "string",
      "Description": "string",
```



```
"DescriptionPageUrl": "string",
"Name": "string",
"SupportedFilters": [
  {
    "Maximum": number,
    "Minimum": number,
    "Name": "string",
    "Type": "string"
  }
],
"Tags": {
  "string" : "string"
},
"Type": "string"
}
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

### RasterDataCollectionSummaries

Contains summary information about the raster data collection.

Type: Array of [RasterDataCollectionMetadata](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

## **InternalServerErrorException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

## **ResourceNotFoundException**

The request references a resource which does not exist.

HTTP Status Code: 404

## **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

## **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListTagsForResource

Service: Amazon SageMaker geospatial capabilities

Lists the tags attached to the resource.

### Request Syntax

```
GET /tags/ResourceArn HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### ResourceArn

The Amazon Resource Name (ARN) of the resource you want to tag.

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "Tags": {
    "string" : "string"
  }
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## Tags

Each tag consists of a key and a value.

Type: String to string map

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerError**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

The request references a resource which does not exist.

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListVectorEnrichmentJobs

Service: Amazon SageMaker geospatial capabilities

Retrieves a list of vector enrichment jobs.

## Request Syntax

```
POST /list-vector-enrichment-jobs HTTP/1.1
Content-type: application/json
```

```
{
  "MaxResults": number,
  "NextToken": "string",
  "SortBy": "string",
  "SortOrder": "string",
  "StatusEquals": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### MaxResults

The maximum number of items to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 20.

Required: No

### NextToken

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Required: No

### SortBy

The parameter by which to sort the results.

Type: String

Required: No

### SortOrder

An optional value that specifies whether you want the results sorted in Ascending or Descending order.

Type: String

Valid Values: ASCENDING | DESCENDING

Required: No

### StatusEquals

A filter that retrieves only jobs with a specific status.

Type: String

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "NextToken": "string",
  "VectorEnrichmentJobSummaries": [
    {
      "Arn": "string",
      "CreationTime": "string",
      "DurationInSeconds": number,
      "Name": "string",
```



```
    "Status": "string",
    "Tags": {
      "string" : "string"
    },
    "Type": "string"
  }
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

### VectorEnrichmentJobSummaries

Contains summary information about the Vector Enrichment jobs.

Type: Array of [ListVectorEnrichmentJobOutputConfig](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerError**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

The request references a resource which does not exist.

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# SearchRasterDataCollection

Service: Amazon SageMaker geospatial capabilities

Allows you run image query on a specific raster data collection to get a list of the satellite imagery matching the selected filters.

## Request Syntax

```
POST /search-raster-data-collection HTTP/1.1
```

```
Content-type: application/json
```

```
{
  "Arn": "string",
  "NextToken": "string",
  "RasterDataCollectionQuery": {
    "AreaOfInterest": { ... },
    "BandFilter": [ "string" ],
    "PropertyFilters": {
      "LogicalOperator": "string",
      "Properties": [
        {
          "Property": { ... }
        }
      ]
    },
    "TimeRangeFilter": {
      "EndTime": number,
      "StartTime": number
    }
  }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### Arn

The Amazon Resource Name (ARN) of the raster data collection.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:raster-data-collection/(public|premium|user)/[a-z0-9]{12,}$`

Required: Yes

### NextToken

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Required: No

### RasterDataCollectionQuery

RasterDataCollectionQuery consisting of [AreaOfInterest\(AOI\)](#), [PropertyFilters](#) and [TimeRangeFilterInput](#) used in [SearchRasterDataCollection](#).

Type: [RasterDataCollectionQueryWithBandFilterInput](#) object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "ApproximateResultCount": number,
  "Items": [
    {
      "Assets": {
        "string": {
          "Href": "string"
        }
      },
      "DateTime": number,
      "Geometry": {
```

```

    "Coordinates": [
      [
        [ number ]
      ]
    ],
    "Type": "string"
  },
  "Id": "string",
  "Properties": {
    "EoCloudCover": number,
    "LandsatCloudCoverLand": number,
    "Platform": "string",
    "ViewOffNadir": number,
    "ViewSunAzimuth": number,
    "ViewSunElevation": number
  }
}
],
"NextToken": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ApproximateResultCount

Approximate number of results in the response.

Type: Integer

### Items

List of items matching the Raster DataCollectionQuery.

Type: Array of [ItemSource](#) objects

### NextToken

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### InternalServerError

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### ResourceNotFoundException

The request references a resource which does not exist.

HTTP Status Code: 404

### ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

### ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartEarthObservationJob

Service: Amazon SageMaker geospatial capabilities

Use this operation to create an Earth observation job.

## Request Syntax

```
POST /earth-observation-jobs HTTP/1.1
Content-type: application/json

{
  "ClientToken": "string",
  "ExecutionRoleArn": "string",
  "InputConfig": {
    "PreviousEarthObservationJobArn": "string",
    "RasterDataCollectionQuery": {
      "AreaOfInterest": { ... },
      "PropertyFilters": {
        "LogicalOperator": "string",
        "Properties": [
          {
            "Property": { ... }
          }
        ]
      },
    },
    "RasterDataCollectionArn": "string",
    "TimeRangeFilter": {
      "EndTime": number,
      "StartTime": number
    }
  },
  "JobConfig": { ... },
  "KmsKeyId": "string",
  "Name": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## URI Request Parameters

The request does not use any URI parameters.



## Request Body

The request accepts the following data in JSON format.

### ClientToken

A unique token that guarantees that the call to this API is idempotent.

Type: String

Length Constraints: Minimum length of 36. Maximum length of 64.

Required: No

### ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:(aws[a-z-]*):iam::([0-9]{12}):role/[a-zA-Z0-9+=,._@/_-]+$`

Required: Yes

### InputConfig

Input configuration information for the Earth Observation job.

Type: [InputConfigInput](#) object

Required: Yes

### JobConfig

An object containing information about the job configuration.

Type: [JobConfigInput](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

### KmsKeyId

The Key Management Service key ID for server-side encryption.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Required: No

### Name

The name of the Earth Observation job.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 200.

Required: Yes

### Tags

Each tag consists of a key and a value.

Type: String to string map

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "Arn": "string",
  "CreationTime": "string",
  "DurationInSeconds": number,
  "ExecutionRoleArn": "string",
  "InputConfig": {
    "PreviousEarthObservationJobArn": "string",
    "RasterDataCollectionQuery": {
      "AreaOfInterest": { ... },
      "PropertyFilters": {
        "LogicalOperator": "string",
        "Properties": [
          {
            "Property": { ... }
          }
        ]
      }
    }
  }
}
```

```

    ]
  },
  "RasterDataCollectionArn": "string",
  "RasterDataCollectionName": "string",
  "TimeRangeFilter": {
    "EndTime": "string",
    "StartTime": "string"
  }
}
},
"JobConfig": { ... },
"KmsKeyId": "string",
"Name": "string",
"Status": "string",
"Tags": {
  "string" : "string"
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Arn

The Amazon Resource Name (ARN) of the Earth Observation job.

Type: String

### CreationTime

The creation time.

Type: Timestamp

### DurationInSeconds

The duration of the session, in seconds.

Type: Integer

### ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:(aws[a-z-]*):iam::([0-9]{12}):role/[a-zA-Z0-9+=,._@/_-]+$`

### InputConfig

Input configuration information for the Earth Observation job.

Type: [InputConfigOutput](#) object

### JobConfig

An object containing information about the job configuration.

Type: [JobConfigInput](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

### KmsKeyId

The Key Management Service key ID for server-side encryption.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

### Name

The name of the Earth Observation job.

Type: String

### Status

The status of the Earth Observation job.

Type: String

Valid Values: INITIALIZING | IN\_PROGRESS | STOPPING | COMPLETED | STOPPED | FAILED | DELETING | DELETED

### Tags

Each tag consists of a key and a value.

Type: String to string map

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **ConflictException**

Updating or deleting a resource can cause an inconsistent state.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

The request references a resource which does not exist.

HTTP Status Code: 404

### **ServiceQuotaExceededException**

You have exceeded the service quota.

HTTP Status Code: 402

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartVectorEnrichmentJob

Service: Amazon SageMaker geospatial capabilities

Creates a Vector Enrichment job for the supplied job type. Currently, there are two supported job types: reverse geocoding and map matching.

## Request Syntax

```
POST /vector-enrichment-jobs HTTP/1.1
Content-type: application/json
```

```
{
  "ClientToken": "string",
  "ExecutionRoleArn": "string",
  "InputConfig": {
    "DataSourceConfig": { ... },
    "DocumentType": "string"
  },
  "JobConfig": { ... },
  "KmsKeyId": "string",
  "Name": "string",
  "Tags": {
    "string" : "string"
  }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### ClientToken

A unique token that guarantees that the call to this API is idempotent.

Type: String

Length Constraints: Minimum length of 36. Maximum length of 64.

Required: No

## ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:(aws[a-z-]*):iam::([0-9]{12}):role/[a-zA-Z0-9+=, .@_/-]+$`

Required: Yes

## InputConfig

Input configuration information for the Vector Enrichment job.

Type: [VectorEnrichmentJobInputConfig](#) object

Required: Yes

## JobConfig

An object containing information about the job configuration.

Type: [VectorEnrichmentJobConfig](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

## KmsKeyId

The Key Management Service key ID for server-side encryption.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Required: No

## Name

The name of the Vector Enrichment job.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 200.



Required: Yes

## Tags

Each tag consists of a key and a value.

Type: String to string map

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "Arn": "string",
  "CreationTime": "string",
  "DurationInSeconds": number,
  "ExecutionRoleArn": "string",
  "InputConfig": {
    "DataSourceConfig": { ... },
    "DocumentType": "string"
  },
  "JobConfig": { ... },
  "KmsKeyId": "string",
  "Name": "string",
  "Status": "string",
  "Tags": {
    "string" : "string"
  },
  "Type": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Arn

The Amazon Resource Name (ARN) of the Vector Enrichment job.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:vector-enrichment-job/[a-z0-9]{12,}$`

### CreationTime

The creation time.

Type: Timestamp

### DurationInSeconds

The duration of the Vector Enrichment job, in seconds.

Type: Integer

### ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:(aws[a-z-]*):iam::([0-9]{12}):role/[a-zA-Z0-9+=, .@/_-]+$`

### InputConfig

Input configuration information for starting the Vector Enrichment job.

Type: [VectorEnrichmentJobInputConfig](#) object

### JobConfig

An object containing information about the job configuration.

Type: [VectorEnrichmentJobConfig](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

### KmsKeyId

The Key Management Service key ID for server-side encryption.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

### Name

The name of the Vector Enrichment job.

Type: String

### Status

The status of the Vector Enrichment job being started.

Type: String

Valid Values: INITIALIZING | IN\_PROGRESS | STOPPING | STOPPED | COMPLETED | FAILED | DELETING | DELETED

### Tags

Each tag consists of a key and a value.

Type: String to string map

### Type

The type of the Vector Enrichment job.

Type: String

Valid Values: REVERSE\_GEOCODING | MAP\_MATCHING

## **Errors**

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **ConflictException**

Updating or deleting a resource can cause an inconsistent state.

HTTP Status Code: 409

## InternalServerErrorException

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

## ResourceNotFoundException

The request references a resource which does not exist.

HTTP Status Code: 404

## ServiceQuotaExceededException

You have exceeded the service quota.

HTTP Status Code: 402

## ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

## ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopEarthObservationJob

Service: Amazon SageMaker geospatial capabilities

Use this operation to stop an existing earth observation job.

## Request Syntax

```
POST /earth-observation-jobs/stop HTTP/1.1
Content-type: application/json
```

```
{
  "Arn": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### Arn

The Amazon Resource Name (ARN) of the Earth Observation job being stopped.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:earth-observation-job/[a-z0-9]{12,}$`

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### ConflictException

Updating or deleting a resource can cause an inconsistent state.

HTTP Status Code: 409

### InternalServerError

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### ResourceNotFoundException

The request references a resource which does not exist.

HTTP Status Code: 404

### ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

### ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# StopVectorEnrichmentJob

Service: Amazon SageMaker geospatial capabilities

Stops the Vector Enrichment job for a given job ARN.

## Request Syntax

```
POST /vector-enrichment-jobs/stop HTTP/1.1
Content-type: application/json
```

```
{
  "Arn": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### Arn

The Amazon Resource Name (ARN) of the Vector Enrichment job.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:vector-enrichment-job/[a-z0-9]{12,}$`

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### ConflictException

Updating or deleting a resource can cause an inconsistent state.

HTTP Status Code: 409

### InternalServerError

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### ResourceNotFoundException

The request references a resource which does not exist.

HTTP Status Code: 404

### ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

### ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# TagResource

Service: Amazon SageMaker geospatial capabilities

The resource you want to tag.

## Request Syntax

```
PUT /tags/ResourceArn HTTP/1.1
Content-type: application/json

{
  "Tags": {
    "string" : "string"
  }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### ResourceArn

The Amazon Resource Name (ARN) of the resource you want to tag.

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### Tags

Each tag consists of a key and a value.

Type: String to string map

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

The request references a resource which does not exist.

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UntagResource

Service: Amazon SageMaker geospatial capabilities

The resource you want to untag.

## Request Syntax

```
DELETE /tags/ResourceArn?tagKeys=TagKeys HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### ResourceArn

The Amazon Resource Name (ARN) of the resource you want to untag.

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: Yes

### TagKeys

Keys of the tags you want to remove.

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### InternalServerError

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### ResourceNotFoundException

The request references a resource which does not exist.

HTTP Status Code: 404

### ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

### ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)



- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## Amazon SageMaker Metrics Service

The following actions are supported by Amazon SageMaker Metrics Service:

- [BatchPutMetrics](#)

# BatchPutMetrics

Service: Amazon SageMaker Metrics Service

Used to ingest training metrics into SageMaker. These metrics can be visualized in SageMaker Studio.

## Request Syntax

```
PUT /BatchPutMetrics HTTP/1.1
Content-type: application/json

{
  "MetricData": [
    {
      "MetricName": "string",
      "Step": number,
      "Timestamp": number,
      "Value": number
    }
  ],
  "TrialComponentName": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### MetricData

A list of raw metric values to put.

Type: Array of [RawMetricData](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

## TrialComponentName

The name of the Trial Component to associate with the metrics. The Trial Component name must be entirely lowercase.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "Errors": [
    {
      "Code": "string",
      "MetricIndex": number
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Errors

Lists any errors that occur when inserting metric data.

Type: Array of [BatchPutMetricsError](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# Data Types

The following data types are supported by Amazon SageMaker Service:

- [ActionSource](#)
- [ActionSummary](#)
- [AdditionalInferenceSpecificationDefinition](#)
- [AdditionalS3DataSource](#)
- [AgentVersion](#)
- [Alarm](#)
- [AlgorithmSpecification](#)
- [AlgorithmStatusDetails](#)
- [AlgorithmStatusItem](#)
- [AlgorithmSummary](#)
- [AlgorithmValidationProfile](#)
- [AlgorithmValidationSpecification](#)
- [AnnotationConsolidationConfig](#)
- [AppDetails](#)
- [AppImageConfigDetails](#)
- [AppSpecification](#)
- [ArtifactSource](#)
- [ArtifactSourceType](#)
- [ArtifactSummary](#)
- [AssociationSummary](#)
- [AsyncInferenceClientConfig](#)
- [AsyncInferenceConfig](#)
- [AsyncInferenceNotificationConfig](#)
- [AsyncInferenceOutputConfig](#)
- [AthenaDatasetDefinition](#)
- [AutoMLAlgorithmConfig](#)
- [AutoMLCandidate](#)

- [AutoMLCandidateGenerationConfig](#)
- [AutoMLCandidateStep](#)
- [AutoMLChannel](#)
- [AutoMLContainerDefinition](#)
- [AutoMLDataSource](#)
- [AutoMLDataSplitConfig](#)
- [AutoMLJobArtifacts](#)
- [AutoMLJobChannel](#)
- [AutoMLJobCompletionCriteria](#)
- [AutoMLJobConfig](#)
- [AutoMLJobObjective](#)
- [AutoMLJobStepMetadata](#)
- [AutoMLJobSummary](#)
- [AutoMLOutputDataConfig](#)
- [AutoMLPartialFailureReason](#)
- [AutoMLProblemTypeConfig](#)
- [AutoMLProblemTypeResolvedAttributes](#)
- [AutoMLResolvedAttributes](#)
- [AutoMLS3DataSource](#)
- [AutoMLSecurityConfig](#)
- [AutoParameter](#)
- [AutoRollbackConfig](#)
- [Autotune](#)
- [BatchDataCaptureConfig](#)
- [BatchDescribeModelPackageError](#)
- [BatchDescribeModelPackageSummary](#)
- [BatchTransformInput](#)
- [BestObjectiveNotImproving](#)
- [Bias](#)
- [BlueGreenUpdatePolicy](#)

- [CacheHitResult](#)
- [CallbackStepMetadata](#)
- [CandidateArtifactLocations](#)
- [CandidateGenerationConfig](#)
- [CandidateProperties](#)
- [CanvasAppSettings](#)
- [CapacitySize](#)
- [CaptureContentTypeHeader](#)
- [CaptureOption](#)
- [CategoricalParameter](#)
- [CategoricalParameterRange](#)
- [CategoricalParameterRangeSpecification](#)
- [Channel](#)
- [ChannelSpecification](#)
- [CheckpointConfig](#)
- [ClarifyCheckStepMetadata](#)
- [ClarifyExplainerConfig](#)
- [ClarifyInferenceConfig](#)
- [ClarifyShapBaselineConfig](#)
- [ClarifyShapConfig](#)
- [ClarifyTextConfig](#)
- [ClusterEbsVolumeConfig](#)
- [ClusterInstanceGroupDetails](#)
- [ClusterInstanceGroupSpecification](#)
- [ClusterInstancePlacement](#)
- [ClusterInstanceStatusDetails](#)
- [ClusterInstanceStorageConfig](#)
- [ClusterLifeCycleConfig](#)
- [ClusterNodeDetails](#)
- [ClusterNodeSummary](#)

- [ClusterSummary](#)
- [CodeEditorAppImageConfig](#)
- [CodeEditorAppSettings](#)
- [CodeRepository](#)
- [CodeRepositorySummary](#)
- [CognitoConfig](#)
- [CognitoMemberDefinition](#)
- [CollectionConfig](#)
- [CollectionConfiguration](#)
- [CompilationJobSummary](#)
- [ConditionStepMetadata](#)
- [ContainerConfig](#)
- [ContainerDefinition](#)
- [ContextSource](#)
- [ContextSummary](#)
- [ContinuousParameterRange](#)
- [ContinuousParameterRangeSpecification](#)
- [ConvergenceDetected](#)
- [CustomFileSystem](#)
- [CustomFileSystemConfig](#)
- [CustomImage](#)
- [CustomizedMetricSpecification](#)
- [CustomPosixUserConfig](#)
- [DataCaptureConfig](#)
- [DataCaptureConfigSummary](#)
- [DataCatalogConfig](#)
- [DataProcessing](#)
- [DataQualityAppSpecification](#)
- [DataQualityBaselineConfig](#)
- [DataQualityJobInput](#)



- [DatasetDefinition](#)
- [DataSource](#)
- [DebugHookConfig](#)
- [DebugRuleConfiguration](#)
- [DebugRuleEvaluationStatus](#)
- [DefaultEbsStorageSettings](#)
- [DefaultSpaceSettings](#)
- [DefaultSpaceStorageSettings](#)
- [DeployedImage](#)
- [DeploymentConfig](#)
- [DeploymentRecommendation](#)
- [DeploymentStage](#)
- [DeploymentStageStatusSummary](#)
- [DerivedInformation](#)
- [DesiredWeightAndCapacity](#)
- [Device](#)
- [DeviceDeploymentSummary](#)
- [DeviceFleetSummary](#)
- [DeviceSelectionConfig](#)
- [DeviceStats](#)
- [DeviceSummary](#)
- [DirectDeploySettings](#)
- [DockerSettings](#)
- [DomainDetails](#)
- [DomainSettings](#)
- [DomainSettingsForUpdate](#)
- [DriftCheckBaselines](#)
- [DriftCheckBias](#)
- [DriftCheckExplainability](#)
- [DriftCheckModelDataQuality](#)

- [DriftCheckModelQuality](#)
- [DynamicScalingConfiguration](#)
- [EbsStorageSettings](#)
- [Edge](#)
- [EdgeDeploymentConfig](#)
- [EdgeDeploymentModelConfig](#)
- [EdgeDeploymentPlanSummary](#)
- [EdgeDeploymentStatus](#)
- [EdgeModel](#)
- [EdgeModelStat](#)
- [EdgeModelSummary](#)
- [EdgeOutputConfig](#)
- [EdgePackagingJobSummary](#)
- [EdgePresetDeploymentOutput](#)
- [EFSFileSystem](#)
- [EFSFileSystemConfig](#)
- [EMRStepMetadata](#)
- [Endpoint](#)
- [EndpointConfigSummary](#)
- [EndpointInfo](#)
- [EndpointInput](#)
- [EndpointInputConfiguration](#)
- [EndpointMetadata](#)
- [EndpointOutputConfiguration](#)
- [EndpointPerformance](#)
- [EndpointSummary](#)
- [EnvironmentParameter](#)
- [EnvironmentParameterRanges](#)
- [Experiment](#)
- [ExperimentConfig](#)

- [ExperimentSource](#)
- [ExperimentSummary](#)
- [Explainability](#)
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- [RecommendationJobCompiledOutputConfig](#)
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- [RecommendationJobInputConfig](#)
- [RecommendationJobOutputConfig](#)

- [RecommendationJobPayloadConfig](#)
- [RecommendationJobResourceLimit](#)
- [RecommendationJobStoppingConditions](#)
- [RecommendationJobVpcConfig](#)
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- [RegisterModelStepMetadata](#)
- [RemoteDebugConfig](#)
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- [TextGenerationJobConfig](#)
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- [WorkerAccessConfiguration](#)
- [Workforce](#)
- [WorkforceVpcConfigRequest](#)
- [WorkforceVpcConfigResponse](#)
- [WorkspaceSettings](#)
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The following data types are supported by Amazon SageMaker Runtime:

- [PayloadPart](#)
- [ResponseStream](#)

The following data types are supported by Amazon Sagemaker Edge Manager:

- [Checksum](#)
- [Definition](#)
- [DeploymentModel](#)
- [DeploymentResult](#)
- [EdgeDeployment](#)
- [EdgeMetric](#)
- [Model](#)

The following data types are supported by Amazon SageMaker Feature Store Runtime:



- [BatchGetRecordError](#)
- [BatchGetRecordIdentifier](#)
- [BatchGetRecordResultDetail](#)
- [FeatureValue](#)
- [TtlDuration](#)

The following data types are supported by Amazon SageMaker geospatial capabilities:

- [AreaOfInterest](#)
- [AreaOfInterestGeometry](#)
- [AssetValue](#)
- [BandMathConfigInput](#)
- [CloudMaskingConfigInput](#)
- [CloudRemovalConfigInput](#)
- [CustomIndicesInput](#)
- [EarthObservationJobErrorDetails](#)
- [EoCloudCoverInput](#)
- [ExportErrorDetails](#)
- [ExportErrorDetailsOutput](#)
- [ExportS3DataInput](#)
- [ExportVectorEnrichmentJobOutputConfig](#)
- [Filter](#)
- [Geometry](#)
- [GeoMosaicConfigInput](#)
- [InputConfigInput](#)
- [InputConfigOutput](#)
- [ItemSource](#)
- [JobConfigInput](#)
- [LandCoverSegmentationConfigInput](#)
- [LandsatCloudCoverLandInput](#)
- [ListEarthObservationJobOutputConfig](#)

- [ListVectorEnrichmentJobOutputConfig](#)
- [MapMatchingConfig](#)
- [MultiPolygonGeometryInput](#)
- [Operation](#)
- [OutputBand](#)
- [OutputConfigInput](#)
- [OutputResolutionResamplingInput](#)
- [OutputResolutionStackInput](#)
- [PlatformInput](#)
- [PolygonGeometryInput](#)
- [Properties](#)
- [Property](#)
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- [RasterDataCollectionMetadata](#)
- [RasterDataCollectionQueryInput](#)
- [RasterDataCollectionQueryOutput](#)
- [RasterDataCollectionQueryWithBandFilterInput](#)
- [ResamplingConfigInput](#)
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- [StackConfigInput](#)
- [TemporalStatisticsConfigInput](#)
- [TimeRangeFilterInput](#)
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- [UserDefined](#)
- [VectorEnrichmentJobConfig](#)
- [VectorEnrichmentJobDataSourceConfigInput](#)
- [VectorEnrichmentJobErrorDetails](#)
- [VectorEnrichmentJobExportErrorDetails](#)
- [VectorEnrichmentJobInputConfig](#)

- [VectorEnrichmentJobS3Data](#)
- [ViewOffNadirInput](#)
- [ViewSunAzimuthInput](#)
- [ViewSunElevationInput](#)
- [ZonalStatisticsConfigInput](#)

The following data types are supported by Amazon SageMaker Metrics Service:

- [BatchPutMetricsError](#)
- [RawMetricData](#)

## Amazon SageMaker Service

The following data types are supported by Amazon SageMaker Service:

- [ActionSource](#)
- [ActionSummary](#)
- [AdditionalInferenceSpecificationDefinition](#)
- [AdditionalS3DataSource](#)
- [AgentVersion](#)
- [Alarm](#)
- [AlgorithmSpecification](#)
- [AlgorithmStatusDetails](#)
- [AlgorithmStatusItem](#)
- [AlgorithmSummary](#)
- [AlgorithmValidationProfile](#)
- [AlgorithmValidationSpecification](#)
- [AnnotationConsolidationConfig](#)
- [AppDetails](#)
- [AppImageConfigDetails](#)
- [AppSpecification](#)
- [ArtifactSource](#)

- [ArtifactSourceType](#)
- [ArtifactSummary](#)
- [AssociationSummary](#)
- [AsyncInferenceClientConfig](#)
- [AsyncInferenceConfig](#)
- [AsyncInferenceNotificationConfig](#)
- [AsyncInferenceOutputConfig](#)
- [AthenaDatasetDefinition](#)
- [AutoMLAlgorithmConfig](#)
- [AutoMLCandidate](#)
- [AutoMLCandidateGenerationConfig](#)
- [AutoMLCandidateStep](#)
- [AutoMLChannel](#)
- [AutoMLContainerDefinition](#)
- [AutoMLDataSource](#)
- [AutoMLDataSplitConfig](#)
- [AutoMLJobArtifacts](#)
- [AutoMLJobChannel](#)
- [AutoMLJobCompletionCriteria](#)
- [AutoMLJobConfig](#)
- [AutoMLJobObjective](#)
- [AutoMLJobStepMetadata](#)
- [AutoMLJobSummary](#)
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- [BatchDescribeModelPackageSummary](#)
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- [BlueGreenUpdatePolicy](#)
- [CacheHitResult](#)
- [CallbackStepMetadata](#)
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- [CanvasAppSettings](#)
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- [CategoricalParameterRange](#)
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- [ChannelSpecification](#)
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- [ClusterInstanceStatusDetails](#)
- [ClusterInstanceStorageConfig](#)
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- [ClusterNodeDetails](#)
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- [CodeRepositorySummary](#)
- [CognitoConfig](#)
- [CognitoMemberDefinition](#)
- [CollectionConfig](#)
- [CollectionConfiguration](#)
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- [ConditionStepMetadata](#)
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- [MonitoringAppSpecification](#)
- [MonitoringBaselineConfig](#)

- [MonitoringClusterConfig](#)
- [MonitoringConstraintsResource](#)
- [MonitoringCsvDatasetFormat](#)
- [MonitoringDatasetFormat](#)
- [MonitoringExecutionSummary](#)
- [MonitoringGroundTruthS3Input](#)
- [MonitoringInput](#)
- [MonitoringJobDefinition](#)
- [MonitoringJobDefinitionSummary](#)
- [MonitoringJsonDatasetFormat](#)
- [MonitoringNetworkConfig](#)
- [MonitoringOutput](#)
- [MonitoringOutputConfig](#)
- [MonitoringParquetDatasetFormat](#)
- [MonitoringResources](#)
- [MonitoringS3Output](#)
- [MonitoringSchedule](#)
- [MonitoringScheduleConfig](#)
- [MonitoringScheduleSummary](#)
- [MonitoringStatisticsResource](#)
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- [WorkerAccessConfiguration](#)
- [Workforce](#)
- [WorkforceVpcConfigRequest](#)
- [WorkforceVpcConfigResponse](#)
- [WorkspaceSettings](#)
- [Workteam](#)

## ActionSource

Service: Amazon SageMaker Service

A structure describing the source of an action.

### Contents

#### SourceUri

The URI of the source.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: .\*

Required: Yes

#### SourceId

The ID of the source.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### SourceType

The type of the source.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



## ActionSummary

Service: Amazon SageMaker Service

Lists the properties of an *action*. An action represents an action or activity. Some examples are a workflow step and a model deployment. Generally, an action involves at least one input artifact or output artifact.

### Contents

#### ActionArn

The Amazon Resource Name (ARN) of the action.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:action/.*`

Required: No

#### ActionName

The name of the action.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

#### ActionType

The type of the action.

Type: String

Length Constraints: Maximum length of 64.

Required: No

#### CreationTime

When the action was created.

Type: Timestamp

Required: No

### **LastModifiedTime**

When the action was last modified.

Type: Timestamp

Required: No

### **Source**

The source of the action.

Type: [ActionSource](#) object

Required: No

### **Status**

The status of the action.

Type: String

Valid Values: Unknown | InProgress | Completed | Failed | Stopping | Stopped

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AdditionalInferenceSpecificationDefinition

Service: Amazon SageMaker Service

A structure of additional Inference Specification. Additional Inference Specification specifies details about inference jobs that can be run with models based on this model package

## Contents

### Containers

The Amazon ECR registry path of the Docker image that contains the inference code.

Type: Array of [ModelPackageContainerDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 15 items.

Required: Yes

### Name

A unique name to identify the additional inference specification. The name must be unique within the list of your additional inference specifications for a particular model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### Description

A description of the additional Inference specification

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

### SupportedContentTypes

The supported MIME types for the input data.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

## SupportedRealtimeInferenceInstanceTypes

A list of the instance types that are used to generate inferences in real-time.

Type: Array of strings

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.12xlarge | ml.m5d.24xlarge | ml.c4.large | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.large | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.12xlarge | ml.r5.24xlarge | ml.r5d.large | ml.r5d.xlarge | ml.r5d.2xlarge | ml.r5d.4xlarge | ml.r5d.12xlarge | ml.r5d.24xlarge | ml.inf1.xlarge | ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge | ml.d11.24xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.g6.xlarge | ml.g6.2xlarge | ml.g6.4xlarge | ml.g6.8xlarge | ml.g6.12xlarge | ml.g6.16xlarge | ml.g6.24xlarge | ml.g6.48xlarge | ml.p4d.24xlarge | ml.c7g.large | ml.c7g.xlarge | ml.c7g.2xlarge | ml.c7g.4xlarge | ml.c7g.8xlarge | ml.c7g.12xlarge | ml.c7g.16xlarge

| ml.m6g.large | ml.m6g.xlarge | ml.m6g.2xlarge | ml.m6g.4xlarge |  
 ml.m6g.8xlarge | ml.m6g.12xlarge | ml.m6g.16xlarge | ml.m6gd.large |  
 ml.m6gd.xlarge | ml.m6gd.2xlarge | ml.m6gd.4xlarge | ml.m6gd.8xlarge  
 | ml.m6gd.12xlarge | ml.m6gd.16xlarge | ml.c6g.large | ml.c6g.xlarge  
 | ml.c6g.2xlarge | ml.c6g.4xlarge | ml.c6g.8xlarge | ml.c6g.12xlarge  
 | ml.c6g.16xlarge | ml.c6gd.large | ml.c6gd.xlarge | ml.c6gd.2xlarge |  
 ml.c6gd.4xlarge | ml.c6gd.8xlarge | ml.c6gd.12xlarge | ml.c6gd.16xlarge  
 | ml.c6gn.large | ml.c6gn.xlarge | ml.c6gn.2xlarge | ml.c6gn.4xlarge  
 | ml.c6gn.8xlarge | ml.c6gn.12xlarge | ml.c6gn.16xlarge | ml.r6g.large  
 | ml.r6g.xlarge | ml.r6g.2xlarge | ml.r6g.4xlarge | ml.r6g.8xlarge |  
 ml.r6g.12xlarge | ml.r6g.16xlarge | ml.r6gd.large | ml.r6gd.xlarge |  
 ml.r6gd.2xlarge | ml.r6gd.4xlarge | ml.r6gd.8xlarge | ml.r6gd.12xlarge  
 | ml.r6gd.16xlarge | ml.p4de.24xlarge | ml.trn1.2xlarge |  
 ml.trn1.32xlarge | ml.trn1n.32xlarge | ml.inf2.xlarge | ml.inf2.8xlarge  
 | ml.inf2.24xlarge | ml.inf2.48xlarge | ml.p5.48xlarge | ml.m7i.large  
 | ml.m7i.xlarge | ml.m7i.2xlarge | ml.m7i.4xlarge | ml.m7i.8xlarge |  
 ml.m7i.12xlarge | ml.m7i.16xlarge | ml.m7i.24xlarge | ml.m7i.48xlarge  
 | ml.c7i.large | ml.c7i.xlarge | ml.c7i.2xlarge | ml.c7i.4xlarge |  
 ml.c7i.8xlarge | ml.c7i.12xlarge | ml.c7i.16xlarge | ml.c7i.24xlarge  
 | ml.c7i.48xlarge | ml.r7i.large | ml.r7i.xlarge | ml.r7i.2xlarge |  
 ml.r7i.4xlarge | ml.r7i.8xlarge | ml.r7i.12xlarge | ml.r7i.16xlarge |  
 ml.r7i.24xlarge | ml.r7i.48xlarge

Required: No

### SupportedResponseMIMETypes

The supported MIME types for the output data.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Pattern: `^[ -\w]+\/.+`

Required: No

### SupportedTransformInstanceTypes

A list of the instance types on which a transformation job can be run or on which an endpoint can be deployed.

Type: Array of strings

Array Members: Minimum number of 1 item.

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge  
| ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge  
| ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge  
| ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge  
| ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge  
| ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge |  
ml.m5.12xlarge | ml.m5.24xlarge | ml.m6i.large | ml.m6i.xlarge |  
ml.m6i.2xlarge | ml.m6i.4xlarge | ml.m6i.8xlarge | ml.m6i.12xlarge  
| ml.m6i.16xlarge | ml.m6i.24xlarge | ml.m6i.32xlarge | ml.c6i.large  
| ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge |  
ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge  
| ml.r6i.large | ml.r6i.xlarge | ml.r6i.2xlarge | ml.r6i.4xlarge |  
ml.r6i.8xlarge | ml.r6i.12xlarge | ml.r6i.16xlarge | ml.r6i.24xlarge  
| ml.r6i.32xlarge | ml.m7i.large | ml.m7i.xlarge | ml.m7i.2xlarge |  
ml.m7i.4xlarge | ml.m7i.8xlarge | ml.m7i.12xlarge | ml.m7i.16xlarge  
| ml.m7i.24xlarge | ml.m7i.48xlarge | ml.c7i.large | ml.c7i.xlarge  
| ml.c7i.2xlarge | ml.c7i.4xlarge | ml.c7i.8xlarge | ml.c7i.12xlarge  
| ml.c7i.16xlarge | ml.c7i.24xlarge | ml.c7i.48xlarge | ml.r7i.large  
| ml.r7i.xlarge | ml.r7i.2xlarge | ml.r7i.4xlarge | ml.r7i.8xlarge |  
ml.r7i.12xlarge | ml.r7i.16xlarge | ml.r7i.24xlarge | ml.r7i.48xlarge  
| ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge  
| ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.g5.xlarge | ml.g5.2xlarge  
| ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.12xlarge | ml.g5.16xlarge |  
ml.g5.24xlarge | ml.g5.48xlarge

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

## AdditionalS3DataSource

Service: Amazon SageMaker Service

A data source used for training or inference that is in addition to the input dataset or model data.

### Contents

#### S3DataType

The data type of the additional data source that you specify for use in inference or training.

Type: String

Valid Values: S3Object | S3Prefix

Required: Yes

#### S3Uri

The uniform resource identifier (URI) used to identify an additional data source used in inference or training.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: Yes

#### CompressionType

The type of compression used for an additional data source used in inference or training. Specify None if your additional data source is not compressed.

Type: String

Valid Values: None | Gzip

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AgentVersion

Service: Amazon SageMaker Service

Edge Manager agent version.

## Contents

### AgentCount

The number of Edge Manager agents.

Type: Long

Required: Yes

### Version

Version of the agent.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: [a-zA-Z0-9\ \\_\.]+

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Alarm

Service: Amazon SageMaker Service

An Amazon CloudWatch alarm configured to monitor metrics on an endpoint.

## Contents

### AlarmName

The name of a CloudWatch alarm in your account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^(?!\\s*$)\\.+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AlgorithmSpecification

Service: Amazon SageMaker Service

Specifies the training algorithm to use in a [CreateTrainingJob](#) request.

For more information about algorithms provided by SageMaker, see [Algorithms](#). For information about using your own algorithms, see [Using Your Own Algorithms with Amazon SageMaker](#).

## Contents

### TrainingInputMode

The training input mode that the algorithm supports. For more information about input modes, see [Algorithms](#).

#### Pipe mode

If an algorithm supports Pipe mode, Amazon SageMaker streams data directly from Amazon S3 to the container.

#### File mode

If an algorithm supports File mode, SageMaker downloads the training data from S3 to the provisioned ML storage volume, and mounts the directory to the Docker volume for the training container.

You must provision the ML storage volume with sufficient capacity to accommodate the data downloaded from S3. In addition to the training data, the ML storage volume also stores the output model. The algorithm container uses the ML storage volume to also store intermediate information, if any.

For distributed algorithms, training data is distributed uniformly. Your training duration is predictable if the input data objects sizes are approximately the same. SageMaker does not split the files any further for model training. If the object sizes are skewed, training won't be optimal as the data distribution is also skewed when one host in a training cluster is overloaded, thus becoming a bottleneck in training.

#### FastFile mode

If an algorithm supports FastFile mode, SageMaker streams data directly from S3 to the container with no code changes, and provides file system access to the data. Users can author their training script to interact with these files as if they were stored on disk.

FastFile mode works best when the data is read sequentially. Augmented manifest files aren't supported. The startup time is lower when there are fewer files in the S3 bucket provided.

Type: String

Valid Values: Pipe | File | FastFile

Required: Yes

### AlgorithmName

The name of the algorithm resource to use for the training job. This must be an algorithm resource that you created or subscribe to on AWS Marketplace.

#### Note

You must specify either the algorithm name to the `AlgorithmName` parameter or the image URI of the algorithm container to the `TrainingImage` parameter.

Note that the `AlgorithmName` parameter is mutually exclusive with the `TrainingImage` parameter. If you specify a value for the `AlgorithmName` parameter, you can't specify a value for `TrainingImage`, and vice versa.

If you specify values for both parameters, the training job might break; if you don't specify any value for both parameters, the training job might raise a null error.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: `(arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:[a-z\-\]*\/*)?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!--)$`

Required: No

### ContainerArguments

The arguments for a container used to run a training job. See [How Amazon SageMaker Runs Your Training Image](#) for additional information.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### ContainerEntrypoint

The [entrypoint script for a Docker container](#) used to run a training job. This script takes precedence over the default train processing instructions. See [How Amazon SageMaker Runs Your Training Image](#) for more information.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### EnableSageMakerMetricsTimeSeries

To generate and save time-series metrics during training, set to `true`. The default is `false` and time-series metrics aren't generated except in the following cases:

- You use one of the SageMaker built-in algorithms
- You use one of the following [Prebuilt SageMaker Docker Images](#):
  - Tensorflow (version  $\geq 1.15$ )
  - MXNet (version  $\geq 1.6$ )
  - PyTorch (version  $\geq 1.3$ )
- You specify at least one [MetricDefinition](#)

Type: Boolean

Required: No

### MetricDefinitions

A list of metric definition objects. Each object specifies the metric name and regular expressions used to parse algorithm logs. SageMaker publishes each metric to Amazon CloudWatch.

Type: Array of [MetricDefinition](#) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

Required: No

### TrainingImage

The registry path of the Docker image that contains the training algorithm. For information about docker registry paths for SageMaker built-in algorithms, see [Docker Registry Paths and Example Code](#) in the *Amazon SageMaker developer guide*. SageMaker supports both `registry/repository[:tag]` and `registry/repository[@digest]` image path formats. For more information about using your custom training container, see [Using Your Own Algorithms with Amazon SageMaker](#).

#### Note

You must specify either the algorithm name to the `AlgorithmName` parameter or the image URI of the algorithm container to the `TrainingImage` parameter. For more information, see the note in the `AlgorithmName` parameter description.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: No

### TrainingImageConfig

The configuration to use an image from a private Docker registry for a training job.

Type: [TrainingImageConfig](#) object

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# AlgorithmStatusDetails

Service: Amazon SageMaker Service

Specifies the validation and image scan statuses of the algorithm.

## Contents

### ImageScanStatuses

The status of the scan of the algorithm's Docker image container.

Type: Array of [AlgorithmStatusItem](#) objects

Required: No

### ValidationStatuses

The status of algorithm validation.

Type: Array of [AlgorithmStatusItem](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AlgorithmStatusItem

Service: Amazon SageMaker Service

Represents the overall status of an algorithm.

## Contents

### Name

The name of the algorithm for which the overall status is being reported.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### Status

The current status.

Type: String

Valid Values: `NotStarted` | `InProgress` | `Completed` | `Failed`

Required: Yes

### FailureReason

if the overall status is `Failed`, the reason for the failure.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AlgorithmSummary

Service: Amazon SageMaker Service

Provides summary information about an algorithm.

## Contents

### AlgorithmArn

The Amazon Resource Name (ARN) of the algorithm.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\_]{9,16}:[0-9]{12}:algorithm/[\S]{1,2048}$`

Required: Yes

### AlgorithmName

The name of the algorithm that is described by the summary.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### AlgorithmStatus

The overall status of the algorithm.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting

Required: Yes

### CreationTime

A timestamp that shows when the algorithm was created.

Type: Timestamp

Required: Yes

### AlgorithmDescription

A brief description of the algorithm.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AlgorithmValidationProfile

Service: Amazon SageMaker Service

Defines a training job and a batch transform job that SageMaker runs to validate your algorithm.

The data provided in the validation profile is made available to your buyers on AWS Marketplace.

## Contents

### ProfileName

The name of the profile for the algorithm. The name must have 1 to 63 characters. Valid characters are a-z, A-Z, 0-9, and - (hyphen).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### TrainingJobDefinition

The `TrainingJobDefinition` object that describes the training job that SageMaker runs to validate your algorithm.

Type: [TrainingJobDefinition](#) object

Required: Yes

### TransformJobDefinition

The `TransformJobDefinition` object that describes the transform job that SageMaker runs to validate your algorithm.

Type: [TransformJobDefinition](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AlgorithmValidationSpecification

Service: Amazon SageMaker Service

Specifies configurations for one or more training jobs that SageMaker runs to test the algorithm.

## Contents

### ValidationProfiles

An array of `AlgorithmValidationProfile` objects, each of which specifies a training job and batch transform job that SageMaker runs to validate your algorithm.

Type: Array of [AlgorithmValidationProfile](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

### ValidationRole

The IAM roles that SageMaker uses to run the training jobs.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# AnnotationConsolidationConfig

Service: Amazon SageMaker Service

Configures how labels are consolidated across human workers and processes output data.

## Contents

### AnnotationConsolidationLambdaArn

The Amazon Resource Name (ARN) of a Lambda function implements the logic for [annotation consolidation](#) and to process output data.

This parameter is required for all labeling jobs. For [built-in task types](#), use one of the following Amazon SageMaker Ground Truth Lambda function ARNs for AnnotationConsolidationLambdaArn. For custom labeling workflows, see [Post-annotation Lambda](#).

**Bounding box** - Finds the most similar boxes from different workers based on the Jaccard index of the boxes.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-BoundingBox`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-BoundingBox`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-BoundingBox`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-BoundingBox`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-BoundingBox`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-BoundingBox`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-BoundingBox`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-BoundingBox`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-BoundingBox`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-BoundingBox`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-BoundingBox`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-BoundingBox`

**Image classification** - Uses a variant of the Expectation Maximization approach to estimate the true class of an image based on annotations from individual workers.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-ImageMultiClass`

- `arn:aws:lambda:us-east-2:266458841044:function:ACS-ImageMultiClass`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-ImageMultiClass`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-ImageMultiClass`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-ImageMultiClass`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-ImageMultiClass`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-ImageMultiClass`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-ImageMultiClass`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-ImageMultiClass`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-ImageMultiClass`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-ImageMultiClass`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-ImageMultiClass`

**Multi-label image classification** - Uses a variant of the Expectation Maximization approach to estimate the true classes of an image based on annotations from individual workers.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-ImageMultiClassMultiLabel`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-ImageMultiClassMultiLabel`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-ImageMultiClassMultiLabel`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-ImageMultiClassMultiLabel`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-ImageMultiClassMultiLabel`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-ImageMultiClassMultiLabel`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-ImageMultiClassMultiLabel`

- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-ImageMultiClassMultiLabel`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-ImageMultiClassMultiLabel`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-ImageMultiClassMultiLabel`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-ImageMultiClassMultiLabel`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-ImageMultiClassMultiLabel`

**Semantic segmentation** - Treats each pixel in an image as a multi-class classification and treats pixel annotations from workers as "votes" for the correct label.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-SemanticSegmentation`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-SemanticSegmentation`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-SemanticSegmentation`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-SemanticSegmentation`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-SemanticSegmentation`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-SemanticSegmentation`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-SemanticSegmentation`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-SemanticSegmentation`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-SemanticSegmentation`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-SemanticSegmentation`

- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-SemanticSegmentation`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-SemanticSegmentation`

**Text classification** - Uses a variant of the Expectation Maximization approach to estimate the true class of text based on annotations from individual workers.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-TextMultiClass`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-TextMultiClass`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-TextMultiClass`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-TextMultiClass`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-TextMultiClass`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-TextMultiClass`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-TextMultiClass`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-TextMultiClass`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-TextMultiClass`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-TextMultiClass`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-TextMultiClass`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-TextMultiClass`

**Multi-label text classification** - Uses a variant of the Expectation Maximization approach to estimate the true classes of text based on annotations from individual workers.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-TextMultiClassMultiLabel`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-TextMultiClassMultiLabel`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-TextMultiClassMultiLabel`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-TextMultiClassMultiLabel`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-TextMultiClassMultiLabel`

- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-TextMultiClassMultiLabel`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-TextMultiClassMultiLabel`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-TextMultiClassMultiLabel`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-TextMultiClassMultiLabel`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-TextMultiClassMultiLabel`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-TextMultiClassMultiLabel`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-TextMultiClassMultiLabel`

**Named entity recognition** - Groups similar selections and calculates aggregate boundaries, resolving to most-assigned label.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-NamedEntityRecognition`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-NamedEntityRecognition`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-NamedEntityRecognition`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-NamedEntityRecognition`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-NamedEntityRecognition`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-NamedEntityRecognition`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-NamedEntityRecognition`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-NamedEntityRecognition`

- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-NamedEntityRecognition`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-NamedEntityRecognition`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-NamedEntityRecognition`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-NamedEntityRecognition`

**Video Classification** - Use this task type when you need workers to classify videos using predefined labels that you specify. Workers are shown videos and are asked to choose one label for each video.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-VideoMultiClass`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-VideoMultiClass`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-VideoMultiClass`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-VideoMultiClass`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-VideoMultiClass`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-VideoMultiClass`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-VideoMultiClass`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-VideoMultiClass`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-VideoMultiClass`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-VideoMultiClass`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-VideoMultiClass`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-VideoMultiClass`

**Video Frame Object Detection** - Use this task type to have workers identify and locate objects in a sequence of video frames (images extracted from a video) using bounding boxes. For example, you can use this task to ask workers to identify and localize various objects in a series of video frames, such as cars, bikes, and pedestrians.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-VideoObjectDetection`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-VideoObjectDetection`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-VideoObjectDetection`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-VideoObjectDetection`
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- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-VideoObjectDetection`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-VideoObjectDetection`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-VideoObjectDetection`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-VideoObjectDetection`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-VideoObjectDetection`

**Video Frame Object Tracking** - Use this task type to have workers track the movement of objects in a sequence of video frames (images extracted from a video) using bounding boxes. For example, you can use this task to ask workers to track the movement of objects, such as cars, bikes, and pedestrians.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-VideoObjectTracking`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-VideoObjectTracking`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-VideoObjectTracking`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-VideoObjectTracking`

- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-VideoObjectTracking`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-VideoObjectTracking`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-VideoObjectTracking`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-VideoObjectTracking`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-VideoObjectTracking`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-VideoObjectTracking`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-VideoObjectTracking`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-VideoObjectTracking`

**3D Point Cloud Object Detection** - Use this task type when you want workers to classify objects in a 3D point cloud by drawing 3D cuboids around objects. For example, you can use this task type to ask workers to identify different types of objects in a point cloud, such as cars, bikes, and pedestrians.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-3DPointCloudObjectDetection`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-3DPointCloudObjectDetection`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-3DPointCloudObjectDetection`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-3DPointCloudObjectDetection`



- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-3DPointCloudObjectDetection`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-3DPointCloudObjectDetection`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-3DPointCloudObjectDetection`

**3D Point Cloud Object Tracking** - Use this task type when you want workers to draw 3D cuboids around objects that appear in a sequence of 3D point cloud frames. For example, you can use this task type to ask workers to track the movement of vehicles across multiple point cloud frames.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-3DPointCloudObjectTracking`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-3DPointCloudObjectTracking`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-3DPointCloudObjectTracking`
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- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-3DPointCloudObjectTracking`

- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-3DPointCloudObjectTracking`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-3DPointCloudObjectTracking`

**3D Point Cloud Semantic Segmentation** - Use this task type when you want workers to create a point-level semantic segmentation masks by painting objects in a 3D point cloud using different colors where each color is assigned to one of the classes you specify.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-3DPointCloudSemanticSegmentation`

## Use the following ARNs for Label Verification and Adjustment Jobs

Use label verification and adjustment jobs to review and adjust labels. To learn more, see [Verify and Adjust Labels](#).

**Semantic Segmentation Adjustment** - Treats each pixel in an image as a multi-class classification and treats pixel adjusted annotations from workers as "votes" for the correct label.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-AdjustmentSemanticSegmentation`

**Semantic Segmentation Verification** - Uses a variant of the Expectation Maximization approach to estimate the true class of verification judgment for semantic segmentation labels based on annotations from individual workers.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-VerificationSemanticSegmentation`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-VerificationSemanticSegmentation`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-VerificationSemanticSegmentation`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-VerificationSemanticSegmentation`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-VerificationSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-VerificationSemanticSegmentation`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-VerificationSemanticSegmentation`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-VerificationSemanticSegmentation`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-VerificationSemanticSegmentation`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-VerificationSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-VerificationSemanticSegmentation`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-VerificationSemanticSegmentation`

**Bounding Box Adjustment** - Finds the most similar boxes from different workers based on the Jaccard index of the adjusted annotations.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-AdjustmentBoundingBox`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-AdjustmentBoundingBox`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-AdjustmentBoundingBox`

- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-AdjustmentBoundingBox`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-AdjustmentBoundingBox`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-AdjustmentBoundingBox`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-AdjustmentBoundingBox`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-AdjustmentBoundingBox`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-AdjustmentBoundingBox`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-AdjustmentBoundingBox`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-AdjustmentBoundingBox`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-AdjustmentBoundingBox`

**Bounding Box Verification** - Uses a variant of the Expectation Maximization approach to estimate the true class of verification judgement for bounding box labels based on annotations from individual workers.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-VerificationBoundingBox`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-VerificationBoundingBox`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-VerificationBoundingBox`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-VerificationBoundingBox`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-VerificationBoundingBox`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-VerificationBoundingBox`

- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-VerificationBoundingBox`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-VerificationBoundingBox`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-VerificationBoundingBox`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-VerificationBoundingBox`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-VerificationBoundingBox`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-VerificationBoundingBox`

**Video Frame Object Detection Adjustment** - Use this task type when you want workers to adjust bounding boxes that workers have added to video frames to classify and localize objects in a sequence of video frames.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-AdjustmentVideoObjectDetection`

- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-AdjustmentVideoObjectDetection`

**Video Frame Object Tracking Adjustment** - Use this task type when you want workers to adjust bounding boxes that workers have added to video frames to track object movement across a sequence of video frames.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-AdjustmentVideoObjectTracking`

**3D Point Cloud Object Detection Adjustment** - Use this task type when you want workers to adjust 3D cuboids around objects in a 3D point cloud.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-Adjustment3DPointCloudObjectDetection`

**3D Point Cloud Object Tracking Adjustment** - Use this task type when you want workers to adjust 3D cuboids around objects that appear in a sequence of 3D point cloud frames.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-Adjustment3DPointCloudObjectTracking`



- `arn:aws:lambda:us-west-2:081040173940:function:ACS-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-Adjustment3DPointCloudObjectTracking`

**3D Point Cloud Semantic Segmentation Adjustment** - Use this task type when you want workers to adjust a point-level semantic segmentation masks using a paint tool.

- `arn:aws:lambda:us-east-1:432418664414:function:ACS-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:us-east-1:432418664414:function:ACS-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:us-east-2:266458841044:function:ACS-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:us-west-2:081040173940:function:ACS-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:eu-west-1:568282634449:function:ACS-Adjustment3DPointCloudSemanticSegmentation`

- `arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-south-1:565803892007:function:ACS-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:eu-central-1:203001061592:function:ACS-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:eu-west-2:487402164563:function:ACS-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ca-central-1:918755190332:function:ACS-Adjustment3DPointCloudSemanticSegmentation`

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*:lambda:[a-z0-9\-*:[0-9]{12}:function:.*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## AppDetails

Service: Amazon SageMaker Service

Details about an Amazon SageMaker app.

### Contents

#### AppName

The name of the app.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

#### AppType

The type of app.

Type: String

Valid Values: `JupyterServer` | `KernelGateway` | `DetailedProfiler` | `TensorBoard` | `CodeEditor` | `JupyterLab` | `RStudioServerPro` | `RSessionGateway` | `Canvas`

Required: No

#### CreationTime

The creation time.

Type: Timestamp

Required: No

#### DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-( -*[a-z0-9]){1,61}`

Required: No

### ResourceSpec

Specifies the ARN's of a SageMaker image and SageMaker image version, and the instance type that the version runs on.

Type: [ResourceSpec](#) object

Required: No

### SpaceName

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( -*[a-zA-Z0-9]){0,62}`

Required: No

### Status

The status.

Type: String

Valid Values: Deleted | Deleting | Failed | InService | Pending

Required: No

### UserProfileName

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( -*[a-zA-Z0-9]){0,62}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AppImageConfigDetails

Service: Amazon SageMaker Service

The configuration for running a SageMaker image as a KernelGateway app.

## Contents

### AppImageConfigArn

The ARN of the AppImageConfig.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:app-image-config/.*`

Required: No

### AppImageConfigName

The name of the AppImageConfig. Must be unique to your account.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### CodeEditorAppImageConfig

The configuration for the file system and the runtime, such as the environment variables and entry point.

Type: [CodeEditorAppImageConfig](#) object

Required: No

### CreationTime

When the AppImageConfig was created.

Type: Timestamp

Required: No

### **JupyterLabAppImageConfig**

The configuration for the file system and the runtime, such as the environment variables and entry point.

Type: [JupyterLabAppImageConfig](#) object

Required: No

### **KernelGatewayImageConfig**

The configuration for the file system and kernels in the SageMaker image.

Type: [KernelGatewayImageConfig](#) object

Required: No

### **LastModifiedTime**

When the AppImageConfig was last modified.

Type: Timestamp

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AppSpecification

Service: Amazon SageMaker Service

Configuration to run a processing job in a specified container image.

## Contents

### ImageUri

The container image to be run by the processing job.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

### ContainerArguments

The arguments for a container used to run a processing job.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### ContainerEntrypoint

The entrypoint for a container used to run a processing job.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 256.

Pattern: .\*



Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ArtifactSource

Service: Amazon SageMaker Service

A structure describing the source of an artifact.

## Contents

### SourceUri

The URI of the source.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: .\*

Required: Yes

### SourceTypes

A list of source types.

Type: Array of [ArtifactSourceType](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ArtifactSourceType

Service: Amazon SageMaker Service

The ID and ID type of an artifact source.

## Contents

### SourceIdType

The type of ID.

Type: String

Valid Values: MD5Hash | S3ETag | S3Version | Custom

Required: Yes

### Value

The ID.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ArtifactSummary

Service: Amazon SageMaker Service

Lists a summary of the properties of an artifact. An artifact represents a URI addressable object or data. Some examples are a dataset and a model.

## Contents

### ArtifactArn

The Amazon Resource Name (ARN) of the artifact.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:artifact/.*`

Required: No

### ArtifactName

The name of the artifact.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### ArtifactType

The type of the artifact.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### CreationTime

When the artifact was created.

Type: Timestamp

Required: No

### **LastModifiedTime**

When the artifact was last modified.

Type: Timestamp

Required: No

### **Source**

The source of the artifact.

Type: [ArtifactSource](#) object

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AssociationSummary

Service: Amazon SageMaker Service

Lists a summary of the properties of an association. An association is an entity that links other lineage or experiment entities. An example would be an association between a training job and a model.

## Contents

### AssociationType

The type of the association.

Type: String

Valid Values: ContributedTo | AssociatedWith | DerivedFrom | Produced | SameAs

Required: No

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

### CreationTime

When the association was created.

Type: Timestamp

Required: No

### DestinationArn

The Amazon Resource Name (ARN) of the destination.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

Required: No

### **DestinationName**

The name of the destination.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### **DestinationType**

The destination type.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### **SourceArn**

The ARN of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

Required: No

### **SourceName**

The name of the source.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### SourceType

The source type.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# AsyncInferenceClientConfig

Service: Amazon SageMaker Service

Configures the behavior of the client used by SageMaker to interact with the model container during asynchronous inference.

## Contents

### MaxConcurrentInvocationsPerInstance

The maximum number of concurrent requests sent by the SageMaker client to the model container. If no value is provided, SageMaker chooses an optimal value.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AsyncInferenceConfig

Service: Amazon SageMaker Service

Specifies configuration for how an endpoint performs asynchronous inference.

## Contents

### OutputConfig

Specifies the configuration for asynchronous inference invocation outputs.

Type: [AsyncInferenceOutputConfig](#) object

Required: Yes

### ClientConfig

Configures the behavior of the client used by SageMaker to interact with the model container during asynchronous inference.

Type: [AsyncInferenceClientConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AsyncInferenceNotificationConfig

Service: Amazon SageMaker Service

Specifies the configuration for notifications of inference results for asynchronous inference.

## Contents

### ErrorTopic

Amazon SNS topic to post a notification to when inference fails. If no topic is provided, no notification is sent on failure.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sns:[a-z0-9\-*]:[0-9]{12}:[a-zA-Z0-9_.-]+`

Required: No

### IncludeInferenceResponseIn

The Amazon SNS topics where you want the inference response to be included.

#### Note

The inference response is included only if the response size is less than or equal to 128 KB.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 2 items.

Valid Values: `SUCCESS_NOTIFICATION_TOPIC` | `ERROR_NOTIFICATION_TOPIC`

Required: No

### SuccessTopic

Amazon SNS topic to post a notification to when inference completes successfully. If no topic is provided, no notification is sent on success.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: arn:aws[a-z\-\*]:sns:[a-z0-9\-\*]:[0-9]{12}:[a-zA-Z0-9\_.-]+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AsyncInferenceOutputConfig

Service: Amazon SageMaker Service

Specifies the configuration for asynchronous inference invocation outputs.

## Contents

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that SageMaker uses to encrypt the asynchronous inference output in Amazon S3.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

### NotificationConfig

Specifies the configuration for notifications of inference results for asynchronous inference.

Type: [AsyncInferenceNotificationConfig](#) object

Required: No

### S3FailurePath

The Amazon S3 location to upload failure inference responses to.

Type: String

Length Constraints: Maximum length of 512.

Pattern: `^(https|s3)://[^(/)]/?(.*)$`

Required: No

### S3OutputPath

The Amazon S3 location to upload inference responses to.

Type: String

Length Constraints: Maximum length of 512.

Pattern: `^(https|s3):\/\/([^\.]\/)?(.* )$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AthenaDatasetDefinition

Service: Amazon SageMaker Service

Configuration for Athena Dataset Definition input.

## Contents

### Catalog

The name of the data catalog used in Athena query execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Database

The name of the database used in the Athena query execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `.*`

Required: Yes

### OutputFormat

The data storage format for Athena query results.

Type: String

Valid Values: PARQUET | ORC | AVRO | JSON | TEXTFILE

Required: Yes

### OutputS3Uri

The location in Amazon S3 where Athena query results are stored.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\s/]+)?/?(.*)$`

Required: Yes

### **QueryString**

The SQL query statements, to be executed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 4096.

Pattern: `[\s\S]+`

Required: Yes

### **KmsKeyId**

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data generated from an Athena query execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

### **OutputCompression**

The compression used for Athena query results.

Type: String

Valid Values: GZIP | SNAPPY | ZLIB

Required: No

### **WorkGroup**

The name of the workgroup in which the Athena query is being started.



Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: [a-zA-Z0-9.\_-]+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLAlgorithmConfig

Service: Amazon SageMaker Service

The selection of algorithms trained on your dataset to generate the model candidates for an Autopilot job.

## Contents

### AutoMLAlgorithms

The selection of algorithms trained on your dataset to generate the model candidates for an Autopilot job.

- **For the tabular problem type `TabularJobConfig`:**

#### Note

Selected algorithms must belong to the list corresponding to the training mode set in [AutoMLJobConfig.Mode](#) (ENSEMBLING or HYPERPARAMETER\_TUNING). Choose a minimum of 1 algorithm.

- In ENSEMBLING mode:
  - "catboost"
  - "extra-trees"
  - "fastai"
  - "lightgbm"
  - "linear-learner"
  - "nn-torch"
  - "randomforest"
  - "xgboost"
- In HYPERPARAMETER\_TUNING mode:
  - "linear-learner"
  - "mlp"
  - "xgboost"

- **For the time-series forecasting problem type `TimeSeriesForecastingJobConfig`:**

- Choose your algorithms from this list.
  - "cnn-qr"
  - "deepar"
  - "prophet"
  - "arima"
  - "npts"
  - "ets"

Type: Array of strings

Array Members: Maximum number of 11 items.

Valid Values: `xgboost` | `linear-learner` | `mlp` | `lightgbm` | `catboost` | `randomforest` | `extra-trees` | `nn-torch` | `fastai` | `cnn-qr` | `deepar` | `prophet` | `npts` | `arima` | `ets`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLCandidate

Service: Amazon SageMaker Service

Information about a candidate produced by an AutoML training job, including its status, steps, and other properties.

## Contents

### CandidateName

The name of the candidate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: Yes

### CandidateStatus

The candidate's status.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

Required: Yes

### CandidateSteps

Information about the candidate's steps.

Type: Array of [AutoMLCandidateStep](#) objects

Required: Yes

### CreationTime

The creation time.

Type: Timestamp

Required: Yes

### LastModifiedTime

The last modified time.

Type: Timestamp

Required: Yes

### **ObjectiveStatus**

The objective's status.

Type: String

Valid Values: Succeeded | Pending | Failed

Required: Yes

### **CandidateProperties**

The properties of an AutoML candidate job.

Type: [CandidateProperties](#) object

Required: No

### **EndTime**

The end time.

Type: Timestamp

Required: No

### **FailureReason**

The failure reason.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **FinalAutoMLJobObjectiveMetric**

The best candidate result from an AutoML training job.

Type: [FinalAutoMLJobObjectiveMetric](#) object

Required: No

## InferenceContainerDefinitions

The mapping of all supported processing unit (CPU, GPU, etc...) to inference container definitions for the candidate. This field is populated for the AutoML jobs V2 (for example, for jobs created by calling `CreateAutoMLJobV2`) related to image or text classification problem types only.

Type: String to array of [AutoMLContainerDefinition](#) objects map

Map Entries: Maximum number of 2 items.

Valid Keys: CPU | GPU

Array Members: Maximum number of 5 items.

Required: No

## InferenceContainers

Information about the recommended inference container definitions.

Type: Array of [AutoMLContainerDefinition](#) objects

Array Members: Maximum number of 5 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLCandidateGenerationConfig

Service: Amazon SageMaker Service

Stores the configuration information for how a candidate is generated (optional).

## Contents

### AlgorithmsConfig

Stores the configuration information for the selection of algorithms trained on tabular data.

The list of available algorithms to choose from depends on the training mode set in [TabularJobConfig.Mode](#).

- AlgorithmsConfig should not be set if the training mode is set on AUTO.
- When AlgorithmsConfig is provided, one AutoMLAlgorithms attribute must be set and one only.

If the list of algorithms provided as values for AutoMLAlgorithms is empty, CandidateGenerationConfig uses the full set of algorithms for the given training mode.

- When AlgorithmsConfig is not provided, CandidateGenerationConfig uses the full set of algorithms for the given training mode.

For the list of all algorithms per problem type and training mode, see [AutoMLAlgorithmConfig](#).

For more information on each algorithm, see the [Algorithm support](#) section in Autopilot developer guide.

Type: Array of [AutoMLAlgorithmConfig](#) objects

Array Members: Maximum number of 1 item.

Required: No

### FeatureSpecificationS3Uri

A URL to the Amazon S3 data source containing selected features from the input data source to run an Autopilot job. You can input FeatureAttributeNames (optional) in JSON format as shown below:

```
{ "FeatureAttributeNames":["col1", "col2", ...] }
```

You can also specify the data type of the feature (optional) in the format shown below:

```
{ "FeatureDataTypes":{"col1":"numeric", "col2":"categorical" ... } }
```

**Note**

These column keys may not include the target column.

In ensembling mode, Autopilot only supports the following data types: `numeric`, `categorical`, `text`, and `datetime`. In HPO mode, Autopilot can support `numeric`, `categorical`, `text`, `datetime`, and `sequence`.

If only `FeatureDataTypes` is provided, the column keys (`col1`, `col2`,..) should be a subset of the column names in the input data.

If both `FeatureDataTypes` and `FeatureAttributeNames` are provided, then the column keys should be a subset of the column names provided in `FeatureAttributeNames`.

The key name `FeatureAttributeNames` is fixed. The values listed in [`"col1"`, `"col2"`, ...] are case sensitive and should be a list of strings containing unique values that are a subset of the column names in the input data. The list of columns provided must not include the target column.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)





# AutoMLCandidateStep

Service: Amazon SageMaker Service

Information about the steps for a candidate and what step it is working on.

## Contents

### CandidateStepArn

The ARN for the candidate's step.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:.*/*.*`

Required: Yes

### CandidateStepName

The name for the candidate's step.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: Yes

### CandidateStepType

Whether the candidate is at the transform, training, or processing step.

Type: String

Valid Values: `AWS::SageMaker::TrainingJob` | `AWS::SageMaker::TransformJob` | `AWS::SageMaker::ProcessingJob`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLChannel

Service: Amazon SageMaker Service

A channel is a named input source that training algorithms can consume. The validation dataset size is limited to less than 2 GB. The training dataset size must be less than 100 GB. For more information, see [Channel](#).

## Note

A validation dataset must contain the same headers as the training dataset.

## Contents

### TargetAttributeName

The name of the target variable in supervised learning, usually represented by 'y'.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

### ChannelType

The channel type (optional) is an enum string. The default value is `training`. Channels for training and validation must share the same `ContentType` and `TargetAttributeName`. For information on specifying training and validation channel types, see [How to specify training and validation datasets](#).

Type: String

Valid Values: `training` | `validation`

Required: No

### CompressionType

You can use `Gzip` or `None`. The default value is `None`.

Type: String

Valid Values: None | Gzip

Required: No

### ContentType

The content type of the data from the input source. You can use `text/csv;header=present` or `x-application/vnd.amazon+parquet`. The default value is `text/csv;header=present`.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### DataSource

The data source for an AutoML channel.

Type: [AutoMLDataSource](#) object

Required: No

### SampleWeightAttributeName

If specified, this column name indicates which column of the dataset should be treated as sample weights for use by the objective metric during the training, evaluation, and the selection of the best model. This column is not considered as a predictive feature. For more information on Autopilot metrics, see [Metrics and validation](#).

Sample weights should be numeric, non-negative, with larger values indicating which rows are more important than others. Data points that have invalid or no weight value are excluded.

Support for sample weights is available in [Ensembling](#) mode only.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9_-]+$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLContainerDefinition

Service: Amazon SageMaker Service

A list of container definitions that describe the different containers that make up an AutoML candidate. For more information, see [ContainerDefinition](#).

## Contents

### Image

The Amazon Elastic Container Registry (Amazon ECR) path of the container. For more information, see [ContainerDefinition](#).

Type: String

Length Constraints: Maximum length of 255.

Pattern: `[\S]+`

Required: Yes

### ModelDataUrl

The location of the model artifacts. For more information, see [ContainerDefinition](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([\^\/]+)\/?(.*)$`

Required: Yes

### Environment

The environment variables to set in the container. For more information, see [ContainerDefinition](#).

Type: String to string map

Map Entries: Maximum number of 100 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 1024.

Value Pattern: `[\S\s]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# AutoMLDataSource

Service: Amazon SageMaker Service

The data source for the Autopilot job.

## Contents

### S3DataSource

The Amazon S3 location of the input data.

Type: [AutoMLS3DataSource](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLDataSplitConfig

Service: Amazon SageMaker Service

This structure specifies how to split the data into train and validation datasets.

The validation and training datasets must contain the same headers. For jobs created by calling `CreateAutoMLJob`, the validation dataset must be less than 2 GB in size.

## Contents

### ValidationFraction

The validation fraction (optional) is a float that specifies the portion of the training dataset to be used for validation. The default value is 0.2, and values must be greater than 0 and less than 1. We recommend setting this value to be less than 0.5.

Type: Float

Valid Range: Minimum value of 0. Maximum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLJobArtifacts

Service: Amazon SageMaker Service

The artifacts that are generated during an AutoML job.

## Contents

### CandidateDefinitionNotebookLocation

The URL of the notebook location.

Type: String

Length Constraints: Minimum length of 1.

Required: No

### DataExplorationNotebookLocation

The URL of the notebook location.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLJobChannel

Service: Amazon SageMaker Service

A channel is a named input source that training algorithms can consume. This channel is used for AutoML jobs V2 (jobs created by calling [CreateAutoMLJobV2](#)).

## Contents

### ChannelType

The type of channel. Defines whether the data are used for training or validation. The default value is `training`. Channels for `training` and `validation` must share the same `ContentType`

#### Note

The type of channel defaults to `training` for the time-series forecasting problem type.

Type: String

Valid Values: `training` | `validation`

Required: No

### CompressionType

The allowed compression types depend on the input format and problem type. We allow the compression type `Gzip` for `S3Prefix` inputs on tabular data only. For all other inputs, the compression type should be `None`. If no compression type is provided, we default to `None`.

Type: String

Valid Values: `None` | `Gzip`

Required: No

### ContentType

The content type of the data from the input source. The following are the allowed content types for different problems:

- For tabular problem types: `text/csv;header=present` or `x-application/vnd.amazon+parquet`. The default value is `text/csv;header=present`.
- For image classification: `image/png`, `image/jpeg`, or `image/*`. The default value is `image/*`.
- For text classification: `text/csv;header=present` or `x-application/vnd.amazon+parquet`. The default value is `text/csv;header=present`.
- For time-series forecasting: `text/csv;header=present` or `x-application/vnd.amazon+parquet`. The default value is `text/csv;header=present`.
- For text generation (LLMs fine-tuning): `text/csv;header=present` or `x-application/vnd.amazon+parquet`. The default value is `text/csv;header=present`.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `.*`

Required: No

## DataSource

The data source for an AutoML channel (Required).

Type: [AutoMLDataSource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLJobCompletionCriteria

Service: Amazon SageMaker Service

How long a job is allowed to run, or how many candidates a job is allowed to generate.

## Contents

### MaxAutoMLJobRuntimeInSeconds

The maximum runtime, in seconds, an AutoML job has to complete.

If an AutoML job exceeds the maximum runtime, the job is stopped automatically and its processing is ended gracefully. The AutoML job identifies the best model whose training was completed and marks it as the best-performing model. Any unfinished steps of the job, such as automatic one-click Autopilot model deployment, are not completed.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### MaxCandidates

The maximum number of times a training job is allowed to run.

For text and image classification, time-series forecasting, as well as text generation (LLMs fine-tuning) problem types, the supported value is 1. For tabular problem types, the maximum value is 750.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 750.

Required: No

### MaxRuntimePerTrainingJobInSeconds

The maximum time, in seconds, that each training job executed inside hyperparameter tuning is allowed to run as part of a hyperparameter tuning job. For more information, see the [StoppingCondition](#) used by the [CreateHyperParameterTuningJob](#) action.

For job V2s (jobs created by calling `CreateAutoMLJobV2`), this field controls the runtime of the job candidate.

For [TextGenerationJobConfig](#) problem types, the maximum time defaults to 72 hours (259200 seconds).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLJobConfig

Service: Amazon SageMaker Service

A collection of settings used for an AutoML job.

## Contents

### CandidateGenerationConfig

The configuration for generating a candidate for an AutoML job (optional).

Type: [AutoMLCandidateGenerationConfig](#) object

Required: No

### CompletionCriteria

How long an AutoML job is allowed to run, or how many candidates a job is allowed to generate.

Type: [AutoMLJobCompletionCriteria](#) object

Required: No

### DataSplitConfig

The configuration for splitting the input training dataset.

Type: AutoMLDataSplitConfig

Type: [AutoMLDataSplitConfig](#) object

Required: No

### Mode

The method that Autopilot uses to train the data. You can either specify the mode manually or let Autopilot choose for you based on the dataset size by selecting AUTO. In AUTO mode, Autopilot chooses ENSEMBLING for datasets smaller than 100 MB, and HYPERPARAMETER\_TUNING for larger ones.

The ENSEMBLING mode uses a multi-stack ensemble model to predict classification and regression tasks directly from your dataset. This machine learning mode combines several base models to produce an optimal predictive model. It then uses a stacking ensemble method to



combine predictions from contributing members. A multi-stack ensemble model can provide better performance over a single model by combining the predictive capabilities of multiple models. See [Autopilot algorithm support](#) for a list of algorithms supported by ENSEMBLING mode.

The HYPERPARAMETER\_TUNING (HPO) mode uses the best hyperparameters to train the best version of a model. HPO automatically selects an algorithm for the type of problem you want to solve. Then HPO finds the best hyperparameters according to your objective metric. See [Autopilot algorithm support](#) for a list of algorithms supported by HYPERPARAMETER\_TUNING mode.

Type: String

Valid Values: AUTO | ENSEMBLING | HYPERPARAMETER\_TUNING

Required: No

### SecurityConfig

The security configuration for traffic encryption or Amazon VPC settings.

Type: [AutoMLSecurityConfig](#) object

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLJobObjective

Service: Amazon SageMaker Service

Specifies a metric to minimize or maximize as the objective of an AutoML job.

## Contents

### MetricName

The name of the objective metric used to measure the predictive quality of a machine learning system. During training, the model's parameters are updated iteratively to optimize its performance based on the feedback provided by the objective metric when evaluating the model on the validation dataset.

The list of available metrics supported by Autopilot and the default metric applied when you do not specify a metric name explicitly depend on the problem type.

- For tabular problem types:
  - List of available metrics:
    - Regression: MAE, MSE, R2, RMSE
    - Binary classification: Accuracy, AUC, BalancedAccuracy, F1, Precision, Recall
    - Multiclass classification: Accuracy, BalancedAccuracy, F1macro, PrecisionMacro, RecallMacro

For a description of each metric, see [Autopilot metrics for classification and regression](#).

- Default objective metrics:
  - Regression: MSE.
  - Binary classification: F1.
  - Multiclass classification: Accuracy.
- For image or text classification problem types:
  - List of available metrics: Accuracy

For a description of each metric, see [Autopilot metrics for text and image classification](#).

- Default objective metrics: Accuracy
- For time-series forecasting problem types:
  - List of available metrics: RMSE, wQL, Average wQL, MASE, MAPE, WAPE

For a description of each metric, see [Autopilot metrics for time-series forecasting](#).

- Default objective metrics: AverageWeightedQuantileLoss
- For text generation problem types (LLMs fine-tuning): Fine-tuning language models in Autopilot does not require setting the AutoMLJobObjective field. Autopilot fine-tunes LLMs without requiring multiple candidates to be trained and evaluated. Instead, using your dataset, Autopilot directly fine-tunes your target model to enhance a default objective metric, the cross-entropy loss. After fine-tuning a language model, you can evaluate the quality of its generated text using different metrics. For a list of the available metrics, see [Metrics for fine-tuning LLMs in Autopilot](#).

Type: String

Valid Values: Accuracy | MSE | F1 | F1macro | AUC | RMSE | BalancedAccuracy | R2 | Recall | RecallMacro | Precision | PrecisionMacro | MAE | MAPE | MASE | WAPE | AverageWeightedQuantileLoss

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLJobStepMetadata

Service: Amazon SageMaker Service

Metadata for an AutoML job step.

## Contents

### Arn

The Amazon Resource Name (ARN) of the AutoML job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:automl-job/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLJobSummary

Service: Amazon SageMaker Service

Provides a summary about an AutoML job.

## Contents

### AutoMLJobArn

The ARN of the AutoML job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:automl-job/.*`

Required: Yes

### AutoMLJobName

The name of the AutoML job you are requesting.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

### AutoMLJobSecondaryStatus

The secondary status of the AutoML job.

Type: String

Valid Values: Starting | MaxCandidatesReached | Failed | Stopped | MaxAutoMLJobRuntimeReached | Stopping | CandidateDefinitionsGenerated | Completed | ExplainabilityError | DeployingModel | ModelDeploymentError | GeneratingModelInsightsReport | ModelInsightsError | AnalyzingData | FeatureEngineering | ModelTuning | GeneratingExplainabilityReport | TrainingModels | PreTraining

Required: Yes

### **AutoMLJobStatus**

The status of the AutoML job.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

Required: Yes

### **CreationTime**

When the AutoML job was created.

Type: Timestamp

Required: Yes

### **LastModifiedTime**

When the AutoML job was last modified.

Type: Timestamp

Required: Yes

### **EndTime**

The end time of an AutoML job.

Type: Timestamp

Required: No

### **FailureReason**

The failure reason of an AutoML job.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **PartialFailureReasons**

The list of reasons for partial failures within an AutoML job.

Type: Array of [AutoMLPartialFailureReason](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLOutputDataConfig

Service: Amazon SageMaker Service

The output data configuration.

## Contents

### S3OutputPath

The Amazon S3 output path. Must be 128 characters or less.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: Yes

### KmsKeyId

The AWS Key Management Service encryption key ID.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# AutoMLPartialFailureReason

Service: Amazon SageMaker Service

The reason for a partial failure of an AutoML job.

## Contents

### PartialFailureMessage

The message containing the reason for a partial failure of an AutoML job.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLProblemTypeConfig

Service: Amazon SageMaker Service

A collection of settings specific to the problem type used to configure an AutoML job V2. There must be one and only one config of the following type.

## Contents

### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

## ImageClassificationJobConfig

Settings used to configure an AutoML job V2 for the image classification problem type.

Type: [ImageClassificationJobConfig](#) object

Required: No

## TabularJobConfig

Settings used to configure an AutoML job V2 for the tabular problem type (regression, classification).

Type: [TabularJobConfig](#) object

Required: No

## TextClassificationJobConfig

Settings used to configure an AutoML job V2 for the text classification problem type.

Type: [TextClassificationJobConfig](#) object

Required: No

## TextGenerationJobConfig

Settings used to configure an AutoML job V2 for the text generation (LLMs fine-tuning) problem type.

**Note**

The text generation models that support fine-tuning in Autopilot are currently accessible exclusively in regions supported by Canvas. Refer to the documentation of Canvas for the [full list of its supported Regions](#).

Type: [TextGenerationJobConfig](#) object

Required: No

**TimeSeriesForecastingJobConfig**

Settings used to configure an AutoML job V2 for the time-series forecasting problem type.

Type: [TimeSeriesForecastingJobConfig](#) object

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLProblemTypeResolvedAttributes

Service: Amazon SageMaker Service

Stores resolved attributes specific to the problem type of an AutoML job V2.

## Contents

### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

## TabularResolvedAttributes

The resolved attributes for the tabular problem type.

Type: [TabularResolvedAttributes](#) object

Required: No

## TextGenerationResolvedAttributes

The resolved attributes for the text generation problem type.

Type: [TextGenerationResolvedAttributes](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLResolvedAttributes

Service: Amazon SageMaker Service

The resolved attributes used to configure an AutoML job V2.

## Contents

### AutoMLJobObjective

Specifies a metric to minimize or maximize as the objective of an AutoML job.

Type: [AutoMLJobObjective](#) object

Required: No

### AutoMLProblemTypeResolvedAttributes

Defines the resolved attributes specific to a problem type.

Type: [AutoMLProblemTypeResolvedAttributes](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: No

### CompletionCriteria

How long a job is allowed to run, or how many candidates a job is allowed to generate.

Type: [AutoMLJobCompletionCriteria](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLS3DataSource

Service: Amazon SageMaker Service

Describes the Amazon S3 data source.

## Contents

### S3DataType

The data type.

- If you choose `S3Prefix`, `S3Uri` identifies a key name prefix. SageMaker uses all objects that match the specified key name prefix for model training.

The `S3Prefix` should have the following format:

```
s3://DOC-EXAMPLE-BUCKET/DOC-EXAMPLE-FOLDER-OR-FILE
```

- If you choose `ManifestFile`, `S3Uri` identifies an object that is a manifest file containing a list of object keys that you want SageMaker to use for model training.

A `ManifestFile` should have the format shown below:

```
[ {"prefix": "s3://DOC-EXAMPLE-BUCKET/DOC-EXAMPLE-FOLDER/DOC-EXAMPLE-PREFIX/"},  
  
  "DOC-EXAMPLE-RELATIVE-PATH/DOC-EXAMPLE-FOLDER/DATA-1",  
  
  "DOC-EXAMPLE-RELATIVE-PATH/DOC-EXAMPLE-FOLDER/DATA-2",  
  
  ... "DOC-EXAMPLE-RELATIVE-PATH/DOC-EXAMPLE-FOLDER/DATA-N" ]
```

- If you choose `AugmentedManifestFile`, `S3Uri` identifies an object that is an augmented manifest file in JSON lines format. This file contains the data you want to use for model training. `AugmentedManifestFile` is available for V2 API jobs only (for example, for jobs created by calling `CreateAutoMLJobV2`).

Here is a minimal, single-record example of an `AugmentedManifestFile`:

```
{"source-ref": "s3://DOC-EXAMPLE-BUCKET/DOC-EXAMPLE-FOLDER/cats/  
cat.jpg",  
  
  "label-metadata": {"class-name": "cat"}}
```

For more information on AugmentedManifestFile, see [Provide Dataset Metadata to Training Jobs with an Augmented Manifest File](#).

Type: String

Valid Values: ManifestFile | S3Prefix | AugmentedManifestFile

Required: Yes

### S3Uri

The URL to the Amazon S3 data source. The Uri refers to the Amazon S3 prefix or ManifestFile depending on the data type.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://[^(/)]+/?(.*)$`

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLSecurityConfig

Service: Amazon SageMaker Service

Security options.

## Contents

### EnableInterContainerTrafficEncryption

Whether to use traffic encryption between the container layers.

Type: Boolean

Required: No

### VolumeKmsKeyId

The key used to encrypt stored data.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

### VpcConfig

The VPC configuration.

Type: [VpcConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)





# AutoParameter

Service: Amazon SageMaker Service

The name and an example value of the hyperparameter that you want to use in Autotune. If Automatic model tuning (AMT) determines that your hyperparameter is eligible for Autotune, an optimal hyperparameter range is selected for you.

## Contents

### Name

The name of the hyperparameter to optimize using Autotune.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### ValueHint

An example value of the hyperparameter to optimize using Autotune.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# AutoRollbackConfig

Service: Amazon SageMaker Service

Automatic rollback configuration for handling endpoint deployment failures and recovery.

## Contents

### Alarms

List of CloudWatch alarms in your account that are configured to monitor metrics on an endpoint. If any alarms are tripped during a deployment, SageMaker rolls back the deployment.

Type: Array of [Alarm](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Autotune

Service: Amazon SageMaker Service

A flag to indicate if you want to use Autotune to automatically find optimal values for the following fields:

- [ParameterRanges](#): The names and ranges of parameters that a hyperparameter tuning job can optimize.
- [ResourceLimits](#): The maximum resources that can be used for a training job. These resources include the maximum number of training jobs, the maximum runtime of a tuning job, and the maximum number of training jobs to run at the same time.
- [TrainingJobEarlyStoppingType](#): A flag that specifies whether or not to use early stopping for training jobs launched by a hyperparameter tuning job.
- [RetryStrategy](#): The number of times to retry a training job.
- [Strategy](#): Specifies how hyperparameter tuning chooses the combinations of hyperparameter values to use for the training jobs that it launches.
- [ConvergenceDetected](#): A flag to indicate that Automatic model tuning (AMT) has detected model convergence.

## Contents

### Mode

Set Mode to Enabled if you want to use Autotune.

Type: String

Valid Values: Enabled

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchDataCaptureConfig

Service: Amazon SageMaker Service

Configuration to control how SageMaker captures inference data for batch transform jobs.

## Contents

### DestinationS3Uri

The Amazon S3 location being used to capture the data.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

### GenerateInferenceId

Flag that indicates whether to append inference id to the output.

Type: Boolean

Required: No

### KmsKeyId

The Amazon Resource Name (ARN) of a AWS Key Management Service key that SageMaker uses to encrypt data on the storage volume attached to the ML compute instance that hosts the batch transform job.

The KmsKeyId can be any of the following formats:

- Key ID: 1234abcd-12ab-34cd-56ef-1234567890ab
- Key ARN: `arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab`
- Alias name: `alias/ExampleAlias`
- Alias name ARN: `arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias`

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_-]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# BatchDescribeModelPackageError

Service: Amazon SageMaker Service

The error code and error description associated with the resource.

## Contents

### ErrorCode

Type: String

Required: Yes

### ErrorResponse

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchDescribeModelPackageSummary

Service: Amazon SageMaker Service

Provides summary information about the model package.

## Contents

### CreationTime

The creation time of the mortgage package summary.

Type: Timestamp

Required: Yes

### InferenceSpecification

Defines how to perform inference generation after a training job is run.

Type: [InferenceSpecification](#) object

Required: Yes

### ModelPackageArn

The Amazon Resource Name (ARN) of the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:model-package/[\S]{1,2048}$`

Required: Yes

### ModelPackageGroupName

The group name for the model package

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### **ModelPackageStatus**

The status of the mortgage package.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting

Required: Yes

### **ModelApprovalStatus**

The approval status of the model.

Type: String

Valid Values: Approved | Rejected | PendingManualApproval

Required: No

### **ModelPackageDescription**

The description of the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

### **ModelPackageVersion**

The version number of a versioned model.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchTransformInput

Service: Amazon SageMaker Service

Input object for the batch transform job.

## Contents

### DataCapturedDestinationS3Uri

The Amazon S3 location being used to capture the data.

Type: String

Length Constraints: Maximum length of 512.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

### DatasetFormat

The dataset format for your batch transform job.

Type: [MonitoringDatasetFormat](#) object

Required: Yes

### LocalPath

Path to the filesystem where the batch transform data is available to the container.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `.*`

Required: Yes

### EndTimeOffset

If specified, monitoring jobs subtract this time from the end time. For information about using offsets for scheduling monitoring jobs, see [Schedule Model Quality Monitoring Jobs](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 15.

Pattern: `^[.]?P.*`

Required: No

### **ExcludeFeaturesAttribute**

The attributes of the input data to exclude from the analysis.

Type: String

Length Constraints: Maximum length of 100.

Required: No

### **FeaturesAttribute**

The attributes of the input data that are the input features.

Type: String

Required: No

### **InferenceAttribute**

The attribute of the input data that represents the ground truth label.

Type: String

Required: No

### **ProbabilityAttribute**

In a classification problem, the attribute that represents the class probability.

Type: String

Required: No

### **ProbabilityThresholdAttribute**

The threshold for the class probability to be evaluated as a positive result.

Type: Double

Required: No

### **S3DataDistributionType**

Whether input data distributed in Amazon S3 is fully replicated or sharded by an S3 key.

Defaults to FullyReplicated

Type: String

Valid Values: FullyReplicated | ShardedByS3Key

Required: No

### **S3InputMode**

Whether the Pipe or File is used as the input mode for transferring data for the monitoring job. Pipe mode is recommended for large datasets. File mode is useful for small files that fit in memory. Defaults to File.

Type: String

Valid Values: Pipe | File

Required: No

### **StartTimeOffset**

If specified, monitoring jobs subtract this time from the start time. For information about using offsets for scheduling monitoring jobs, see [Schedule Model Quality Monitoring Jobs](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 15.

Pattern: ^.?P.\*

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)



# BestObjectiveNotImproving

Service: Amazon SageMaker Service

A structure that keeps track of which training jobs launched by your hyperparameter tuning job are not improving model performance as evaluated against an objective function.

## Contents

### MaxNumberOfTrainingJobsNotImproving

The number of training jobs that have failed to improve model performance by 1% or greater over prior training jobs as evaluated against an objective function.

Type: Integer

Valid Range: Minimum value of 3.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Bias

Service: Amazon SageMaker Service

Contains bias metrics for a model.

### Contents

#### PostTrainingReport

The post-training bias report for a model.

Type: [MetricsSource](#) object

Required: No

#### PreTrainingReport

The pre-training bias report for a model.

Type: [MetricsSource](#) object

Required: No

#### Report

The bias report for a model

Type: [MetricsSource](#) object

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BlueGreenUpdatePolicy

Service: Amazon SageMaker Service

Update policy for a blue/green deployment. If this update policy is specified, SageMaker creates a new fleet during the deployment while maintaining the old fleet. SageMaker flips traffic to the new fleet according to the specified traffic routing configuration. Only one update policy should be used in the deployment configuration. If no update policy is specified, SageMaker uses a blue/green deployment strategy with all at once traffic shifting by default.

## Contents

### TrafficRoutingConfiguration

Defines the traffic routing strategy to shift traffic from the old fleet to the new fleet during an endpoint deployment.

Type: [TrafficRoutingConfig](#) object

Required: Yes

### MaximumExecutionTimeoutInSeconds

Maximum execution timeout for the deployment. Note that the timeout value should be larger than the total waiting time specified in `TerminationWaitInSeconds` and `WaitIntervalInSeconds`.

Type: Integer

Valid Range: Minimum value of 600. Maximum value of 28800.

Required: No

### TerminationWaitInSeconds

Additional waiting time in seconds after the completion of an endpoint deployment before terminating the old endpoint fleet. Default is 0.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 3600.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CacheHitResult

Service: Amazon SageMaker Service

Details on the cache hit of a pipeline execution step.

## Contents

### SourcePipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:pipeline\./.*\./execution\./.*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CallbackStepMetadata

Service: Amazon SageMaker Service

Metadata about a callback step.

## Contents

### CallbackToken

The pipeline generated token from the Amazon SQS queue.

Type: String

Length Constraints: Fixed length of 10.

Pattern: `^[a-zA-Z0-9]+$`

Required: No

### OutputParameters

A list of the output parameters of the callback step.

Type: Array of [OutputParameter](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### SqsQueueUrl

The URL of the Amazon Simple Queue Service (Amazon SQS) queue used by the callback step.

Type: String

Length Constraints: Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CandidateArtifactLocations

Service: Amazon SageMaker Service

The location of artifacts for an AutoML candidate job.

## Contents

### Explainability

The Amazon S3 prefix to the explainability artifacts generated for the AutoML candidate.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

### BacktestResults

The Amazon S3 prefix to the accuracy metrics and the inference results observed over the testing window. Available only for the time-series forecasting problem type.

Type: String

Length Constraints: Minimum length of 1.

Required: No

### ModelInsights

The Amazon S3 prefix to the model insight artifacts generated for the AutoML candidate.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)



- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CandidateGenerationConfig

Service: Amazon SageMaker Service

Stores the configuration information for how model candidates are generated using an AutoML job V2.

## Contents

### AlgorithmsConfig

Your Autopilot job trains a default set of algorithms on your dataset. For tabular and time-series data, you can customize the algorithm list by selecting a subset of algorithms for your problem type.

AlgorithmsConfig stores the customized selection of algorithms to train on your data.

- **For the tabular problem type `TabularJobConfig`**, the list of available algorithms to choose from depends on the training mode set in [AutoMLJobConfig.Mode](#).
  - AlgorithmsConfig should not be set when the training mode `AutoMLJobConfig.Mode` is set to `AUTO`.
  - When AlgorithmsConfig is provided, one `AutoMLAlgorithms` attribute must be set and one only.

If the list of algorithms provided as values for `AutoMLAlgorithms` is empty, `CandidateGenerationConfig` uses the full set of algorithms for the given training mode.

- When AlgorithmsConfig is not provided, `CandidateGenerationConfig` uses the full set of algorithms for the given training mode.

For the list of all algorithms per training mode, see [AlgorithmConfig](#).

For more information on each algorithm, see the [Algorithm support](#) section in the Autopilot developer guide.

- **For the time-series forecasting problem type `TimeSeriesForecastingJobConfig`**, choose your algorithms from the list provided in [AlgorithmConfig](#).

For more information on each algorithm, see the [Algorithms support for time-series forecasting](#) section in the Autopilot developer guide.

- When `AlgorithmsConfig` is provided, one `AutoMLAlgorithms` attribute must be set and one only.

If the list of algorithms provided as values for `AutoMLAlgorithms` is empty, `CandidateGenerationConfig` uses the full set of algorithms for time-series forecasting.

- When `AlgorithmsConfig` is not provided, `CandidateGenerationConfig` uses the full set of algorithms for time-series forecasting.

Type: Array of [AutoMLAlgorithmConfig](#) objects

Array Members: Maximum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CandidateProperties

Service: Amazon SageMaker Service

The properties of an AutoML candidate job.

## Contents

### CandidateArtifactLocations

The Amazon S3 prefix to the artifacts generated for an AutoML candidate.

Type: [CandidateArtifactLocations](#) object

Required: No

### CandidateMetrics

Information about the candidate metrics for an AutoML job.

Type: Array of [MetricDatum](#) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CanvasAppSettings

Service: Amazon SageMaker Service

The SageMaker Canvas application settings.

## Contents

### DirectDeploySettings

The model deployment settings for the SageMaker Canvas application.

Type: [DirectDeploySettings](#) object

Required: No

### GenerativeAiSettings

The generative AI settings for the SageMaker Canvas application.

Type: [GenerativeAiSettings](#) object

Required: No

### IdentityProviderOAuthSettings

The settings for connecting to an external data source with OAuth.

Type: Array of [IdentityProviderOAuthSetting](#) objects

Array Members: Maximum number of 20 items.

Required: No

### KendraSettings

The settings for document querying.

Type: [KendraSettings](#) object

Required: No

### ModelRegisterSettings

The model registry settings for the SageMaker Canvas application.

Type: [ModelRegisterSettings](#) object

Required: No

### **TimeSeriesForecastingSettings**

Time series forecast settings for the SageMaker Canvas application.

Type: [TimeSeriesForecastingSettings](#) object

Required: No

### **WorkspaceSettings**

The workspace settings for the SageMaker Canvas application.

Type: [WorkspaceSettings](#) object

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CapacitySize

Service: Amazon SageMaker Service

Specifies the type and size of the endpoint capacity to activate for a blue/green deployment, a rolling deployment, or a rollback strategy. You can specify your batches as either instance count or the overall percentage or your fleet.

For a rollback strategy, if you don't specify the fields in this object, or if you set the Value to 100%, then SageMaker uses a blue/green rollback strategy and rolls all traffic back to the blue fleet.

## Contents

### Type

Specifies the endpoint capacity type.

- `INSTANCE_COUNT`: The endpoint activates based on the number of instances.
- `CAPACITY_PERCENT`: The endpoint activates based on the specified percentage of capacity.

Type: String

Valid Values: `INSTANCE_COUNT` | `CAPACITY_PERCENT`

Required: Yes

### Value

Defines the capacity size, either as a number of instances or a capacity percentage.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# CaptureContentTypeHeader

Service: Amazon SageMaker Service

Configuration specifying how to treat different headers. If no headers are specified Amazon SageMaker will by default base64 encode when capturing the data.

## Contents

### CsvContentTypes

The list of all content type headers that Amazon SageMaker will treat as CSV and capture accordingly.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*\|[a-zA-Z0-9](-*[a-zA-Z0-9.])*`

Required: No

### JsonContentTypes

The list of all content type headers that SageMaker will treat as JSON and capture accordingly.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*\|[a-zA-Z0-9](-*[a-zA-Z0-9.])*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CaptureOption

Service: Amazon SageMaker Service

Specifies data Model Monitor will capture.

## Contents

### CaptureMode

Specify the boundary of data to capture.

Type: String

Valid Values: Input | Output | InputAndOutput

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CategoricalParameter

Service: Amazon SageMaker Service

Environment parameters you want to benchmark your load test against.

## Contents

### Name

The Name of the environment variable.

Type: String

Length Constraints: Maximum length of 64.

Required: Yes

### Value

The list of values you can pass.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Length Constraints: Maximum length of 128.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CategoricalParameterRange

Service: Amazon SageMaker Service

A list of categorical hyperparameters to tune.

## Contents

### Name

The name of the categorical hyperparameter to tune.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### Values

A list of the categories for the hyperparameter.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 30 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# CategoricalParameterRangeSpecification

Service: Amazon SageMaker Service

Defines the possible values for a categorical hyperparameter.

## Contents

### Values

The allowed categories for the hyperparameter.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 30 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Channel

Service: Amazon SageMaker Service

A channel is a named input source that training algorithms can consume.

## Contents

### ChannelName

The name of the channel.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: [A-Za-z0-9\.\-\_\+]

Required: Yes

### DataSource

The location of the channel data.

Type: [DataSource](#) object

Required: Yes

### CompressionType

If training data is compressed, the compression type. The default value is None.

CompressionType is used only in Pipe input mode. In File mode, leave this field unset or set it to None.

Type: String

Valid Values: None | Gzip

Required: No

### ContentType

The MIME type of the data.

Type: String



Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

## InputMode

(Optional) The input mode to use for the data channel in a training job. If you don't set a value for InputMode, SageMaker uses the value set for TrainingInputMode. Use this parameter to override the TrainingInputMode setting in a [AlgorithmSpecification](#) request when you have a channel that needs a different input mode from the training job's general setting. To download the data from Amazon Simple Storage Service (Amazon S3) to the provisioned ML storage volume, and mount the directory to a Docker volume, use File input mode. To stream data directly from Amazon S3 to the container, choose Pipe input mode.

To use a model for incremental training, choose File input model.

Type: String

Valid Values: Pipe | File | FastFile

Required: No

## RecordWrapperType

Specify RecordIO as the value when input data is in raw format but the training algorithm requires the RecordIO format. In this case, SageMaker wraps each individual S3 object in a RecordIO record. If the input data is already in RecordIO format, you don't need to set this attribute. For more information, see [Create a Dataset Using RecordIO](#).

In File mode, leave this field unset or set it to None.

Type: String

Valid Values: None | RecordIO

Required: No

## ShuffleConfig

A configuration for a shuffle option for input data in a channel. If you use S3Prefix for S3DataType, this shuffles the results of the S3 key prefix matches. If you use ManifestFile,

the order of the S3 object references in the `ManifestFile` is shuffled. If you use `AugmentedManifestFile`, the order of the JSON lines in the `AugmentedManifestFile` is shuffled. The shuffling order is determined using the `Seed` value.

For Pipe input mode, shuffling is done at the start of every epoch. With large datasets this ensures that the order of the training data is different for each epoch, it helps reduce bias and possible overfitting. In a multi-node training job when `ShuffleConfig` is combined with `S3DataDistributionType` of `ShardedByS3Key`, the data is shuffled across nodes so that the content sent to a particular node on the first epoch might be sent to a different node on the second epoch.

Type: [ShuffleConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ChannelSpecification

Service: Amazon SageMaker Service

Defines a named input source, called a channel, to be used by an algorithm.

## Contents

### Name

The name of the channel.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: [A-Za-z0-9\.\- \_]+

Required: Yes

### SupportedContentTypes

The supported MIME types for the data.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### SupportedInputModes

The allowed input mode, either FILE or PIPE.

In FILE mode, Amazon SageMaker copies the data from the input source onto the local Amazon Elastic Block Store (Amazon EBS) volumes before starting your training algorithm. This is the most commonly used input mode.

In PIPE mode, Amazon SageMaker streams input data from the source directly to your algorithm without using the EBS volume.

Type: Array of strings

Array Members: Minimum number of 1 item.

Valid Values: Pipe | File | FastFile

Required: Yes

### Description

A brief description of the channel.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

### IsRequired

Indicates whether the channel is required by the algorithm.

Type: Boolean

Required: No

### SupportedCompressionTypes

The allowed compression types, if data compression is used.

Type: Array of strings

Valid Values: None | Gzip

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# CheckpointConfig

Service: Amazon SageMaker Service

Contains information about the output location for managed spot training checkpoint data.

## Contents

### S3Uri

Identifies the S3 path where you want SageMaker to store checkpoints. For example, `s3://bucket-name/key-name-prefix`.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

### LocalPath

(Optional) The local directory where checkpoints are written. The default directory is `/opt/ml/checkpoints/`.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: `.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ClarifyCheckStepMetadata

Service: Amazon SageMaker Service

The container for the metadata for the ClarifyCheck step. For more information, see the topic on [ClarifyCheck step](#) in the *Amazon SageMaker Developer Guide*.

## Contents

### BaselineUsedForDriftCheckConstraints

The Amazon S3 URI of baseline constraints file to be used for the drift check.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### CalculatedBaselineConstraints

The Amazon S3 URI of the newly calculated baseline constraints file.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### CheckJobArn

The Amazon Resource Name (ARN) of the check processing job that was run by this step's execution.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### CheckType

The type of the Clarify Check step

Type: String



Length Constraints: Maximum length of 256.

Required: No

### **ModelPackageGroupName**

The model package group name.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### **RegisterNewBaseline**

This flag indicates if a newly calculated baseline can be accessed through step properties `BaselineUsedForDriftCheckConstraints` and `BaselineUsedForDriftCheckStatistics`. If it is set to `False`, the previous baseline of the configured check type must also be available. These can be accessed through the `BaselineUsedForDriftCheckConstraints` property.

Type: Boolean

Required: No

### **SkipCheck**

This flag indicates if the drift check against the previous baseline will be skipped or not. If it is set to `False`, the previous baseline of the configured check type must be available.

Type: Boolean

Required: No

### **ViolationReport**

The Amazon S3 URI of the violation report if violations are detected.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClarifyExplainerConfig

Service: Amazon SageMaker Service

The configuration parameters for the SageMaker Clarify explainer.

## Contents

### ShapConfig

The configuration for SHAP analysis.

Type: [ClarifyShapConfig](#) object

Required: Yes

### EnableExplanations

A JMESPath boolean expression used to filter which records to explain. Explanations are activated by default. See [EnableExplanations](#) for additional information.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\*

Required: No

### InferenceConfig

The inference configuration parameter for the model container.

Type: [ClarifyInferenceConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# ClarifyInferenceConfig

Service: Amazon SageMaker Service

The inference configuration parameter for the model container.

## Contents

### ContentTemplate

A template string used to format a JSON record into an acceptable model container input. For example, a `ContentTemplate` string `'{"myfeatures":$features}'` will format a list of features `[1, 2, 3]` into the record string `'{"myfeatures": [1, 2, 3]}'`. Required only when the model container input is in JSON Lines format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `.*`

Required: No

### FeatureHeaders

The names of the features. If provided, these are included in the endpoint response payload to help readability of the `InvokeEndpoint` output. See the [Response](#) section under **Invoke the endpoint** in the Developer Guide for more information.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 256 items.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `.*`

Required: No

### FeaturesAttribute

Provides the JMESPath expression to extract the features from a model container input in JSON Lines format. For example, if `FeaturesAttribute` is the JMESPath expression

'myfeatures', it extracts a list of features [1, 2, 3] from request data '{"myfeatures": [1, 2, 3]}'.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\*

Required: No

## FeatureTypes

A list of data types of the features (optional). Applicable only to NLP explainability. If provided, FeatureTypes must have at least one 'text' string (for example, ['text']). If FeatureTypes is not provided, the explainer infers the feature types based on the baseline data. The feature types are included in the endpoint response payload. For additional information see the [response](#) section under **Invoke the endpoint** in the Developer Guide for more information.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 256 items.

Valid Values: numerical | categorical | text

Required: No

## LabelAttribute

A JMESPath expression used to locate the list of label headers in the model container output.

**Example:** If the model container output of a batch request is '{"labels": ["cat", "dog", "fish"], "probability": [0.6, 0.3, 0.1]}', then set LabelAttribute to 'labels' to extract the list of label headers ["cat", "dog", "fish"]

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\*

Required: No

## LabelHeaders

For multiclass classification problems, the label headers are the names of the classes. Otherwise, the label header is the name of the predicted label. These are used to help readability for the output of the `InvokeEndpoint` API. See the [response](#) section under **Invoke the endpoint** in the Developer Guide for more information. If there are no label headers in the model container output, provide them manually using this parameter.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\*

Required: No

## LabelIndex

A zero-based index used to extract a label header or list of label headers from model container output in CSV format.

**Example for a multiclass model:** If the model container output consists of label headers followed by probabilities: `"[\ 'cat\ ', \ 'dog\ ', \ 'fish\ ']", "[0.1,0.6,0.3]"`, set `LabelIndex` to `0` to select the label headers `['cat', 'dog', 'fish']`.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## MaxPayloadInMB

The maximum payload size (MB) allowed of a request from the explainer to the model container. Defaults to 6 MB.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

## MaxRecordCount

The maximum number of records in a request that the model container can process when querying the model container for the predictions of a [synthetic dataset](#). A record is a unit of input data that inference can be made on, for example, a single line in CSV data. If MaxRecordCount is 1, the model container expects one record per request. A value of 2 or greater means that the model expects batch requests, which can reduce overhead and speed up the inferencing process. If this parameter is not provided, the explainer will tune the record count per request according to the model container's capacity at runtime.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## ProbabilityAttribute

A JMESPath expression used to extract the probability (or score) from the model container output if the model container is in JSON Lines format.

**Example:** If the model container output of a single request is `'{"predicted_label":1,"probability":0.6}'`, then set ProbabilityAttribute to `'probability'`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `.*`

Required: No

## ProbabilityIndex

A zero-based index used to extract a probability value (score) or list from model container output in CSV format. If this value is not provided, the entire model container output will be treated as a probability value (score) or list.

**Example for a single class model:** If the model container output consists of a string-formatted prediction label followed by its probability: `'1,0.6'`, set ProbabilityIndex to 1 to select the probability value `0.6`.



**Example for a multiclass model:** If the model container output consists of a string-formatted prediction label followed by its probability: `'"[\ 'cat\ ',\ 'dog\ ',\ 'fish \ ']", "[0.1,0.6,0.3]"'`, set `ProbabilityIndex` to 1 to select the probability values `[0.1,0.6,0.3]`.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClarifyShapBaselineConfig

Service: Amazon SageMaker Service

The configuration for the [SHAP baseline](#) (also called the background or reference dataset) of the Kernel SHAP algorithm.

## Note

- The number of records in the baseline data determines the size of the synthetic dataset, which has an impact on latency of explainability requests. For more information, see the **Synthetic data** of [Configure and create an endpoint](#).
- ShapBaseline and ShapBaselineUri are mutually exclusive parameters. One or the other is required to configure a SHAP baseline.

## Contents

### MimeType

The MIME type of the baseline data. Choose from 'text/csv' or 'application/jsonlines'. Defaults to 'text/csv'.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*\|[a-zA-Z0-9](-*[a-zA-Z0-9+.]*)*`

Required: No

### ShapBaseline

The inline SHAP baseline data in string format. ShapBaseline can have one or multiple records to be used as the baseline dataset. The format of the SHAP baseline file should be the same format as the training dataset. For example, if the training dataset is in CSV format and each record contains four features, and all features are numerical, then the format of the baseline data should also share these characteristics. For natural language processing (NLP) of text columns, the baseline value should be the value used to replace the unit of text specified by the Granularity of the TextConfig parameter. The size limit for ShapBaseline is 4 KB. Use the ShapBaselineUri parameter if you want to provide more than 4 KB of baseline data.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 4096.

Pattern: `[\s\S]+`

Required: No

### **ShapBaselineUri**

The uniform resource identifier (URI) of the S3 bucket where the SHAP baseline file is stored. The format of the SHAP baseline file should be the same format as the format of the training dataset. For example, if the training dataset is in CSV format, and each record in the training dataset has four features, and all features are numerical, then the baseline file should also have this same format. Each record should contain only the features. If you are using a virtual private cloud (VPC), the `ShapBaselineUri` should be accessible to the VPC. For more information about setting up endpoints with Amazon Virtual Private Cloud, see [Give SageMaker access to Resources in your Amazon Virtual Private Cloud](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\s]+)\/?(.*)$`

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClarifyShapConfig

Service: Amazon SageMaker Service

The configuration for SHAP analysis using SageMaker Clarify Explainer.

## Contents

### ShapBaselineConfig

The configuration for the SHAP baseline of the Kernal SHAP algorithm.

Type: [ClarifyShapBaselineConfig](#) object

Required: Yes

### NumberOfSamples

The number of samples to be used for analysis by the Kernal SHAP algorithm.

#### Note

The number of samples determines the size of the synthetic dataset, which has an impact on latency of explainability requests. For more information, see the **Synthetic data** of [Configure and create an endpoint](#).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### Seed

The starting value used to initialize the random number generator in the explainer. Provide a value for this parameter to obtain a deterministic SHAP result.

Type: Integer

Required: No

### TextConfig

A parameter that indicates if text features are treated as text and explanations are provided for individual units of text. Required for natural language processing (NLP) explainability only.

Type: [ClarifyTextConfig](#) object

Required: No

### **UseLogit**

A Boolean toggle to indicate if you want to use the logit function (true) or log-odds units (false) for model predictions. Defaults to false.

Type: Boolean

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClarifyTextConfig

Service: Amazon SageMaker Service

A parameter used to configure the SageMaker Clarify explainer to treat text features as text so that explanations are provided for individual units of text. Required only for natural language processing (NLP) explainability.

## Contents

### Granularity

The unit of granularity for the analysis of text features. For example, if the unit is 'token', then each token (like a word in English) of the text is treated as a feature. SHAP values are computed for each unit/feature.

Type: String

Valid Values: token | sentence | paragraph

Required: Yes

### Language

Specifies the language of the text features in [ISO 639-1](#) or [ISO 639-3](#) code of a supported language.

#### Note

For a mix of multiple languages, use code 'xx'.

Type: String

Valid Values: af | sq | ar | hy | eu | bn | bg | ca | zh | hr | cs | da | nl | en | et | fi | fr | de | el | gu | he | hi | hu | is | id | ga | it | kn | ky | lv | lt | lb | mk | ml | mr | ne | nb | fa | pl | pt | ro | ru | sa | sr | tn | si | sk | sl | es | sv | tl | ta | tt | te | tr | uk | ur | yo | lij | xx

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClusterEbsVolumeConfig

Service: Amazon SageMaker Service

Defines the configuration for attaching an additional Amazon Elastic Block Store (EBS) volume to each instance of the SageMaker HyperPod cluster instance group. To learn more, see [SageMaker HyperPod release notes: June 20, 2024](#).

## Contents

### VolumeSizeInGB

The size in gigabytes (GB) of the additional EBS volume to be attached to the instances in the SageMaker HyperPod cluster instance group. The additional EBS volume is attached to each instance within the SageMaker HyperPod cluster instance group and mounted to `/opt/sagemaker`.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 16384.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ClusterInstanceGroupDetails

Service: Amazon SageMaker Service

Details of an instance group in a SageMaker HyperPod cluster.

## Contents

### CurrentCount

The number of instances that are currently in the instance group of a SageMaker HyperPod cluster.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### ExecutionRole

The execution role for the instance group to assume.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: No

### InstanceGroupName

The name of the instance group of a SageMaker HyperPod cluster.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: No

### InstanceStorageConfigs

The additional storage configurations for the instances in the SageMaker HyperPod cluster instance group.

Type: Array of [ClusterInstanceStorageConfig](#) objects

Array Members: Maximum number of 1 item.

Required: No

### InstanceType

The instance type of the instance group of a SageMaker HyperPod cluster.

Type: String

Valid Values: ml.p4d.24xlarge | ml.p4de.24xlarge | ml.p5.48xlarge | ml.trn1.32xlarge | ml.trn1n.32xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.12xlarge | ml.c5.18xlarge | ml.c5.24xlarge | ml.c5n.large | ml.c5n.2xlarge | ml.c5n.4xlarge | ml.c5n.9xlarge | ml.c5n.18xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.8xlarge | ml.m5.12xlarge | ml.m5.16xlarge | ml.m5.24xlarge | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge

Required: No

### LifeCycleConfig

Details of LifeCycle configuration for the instance group.

Type: [ClusterLifeCycleConfig](#) object

Required: No

### TargetCount

The number of instances you specified to add to the instance group of a SageMaker HyperPod cluster.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## ThreadsPerCore

The number you specified to `ThreadsPerCore` in `CreateCluster` for enabling or disabling multithreading. For instance types that support multithreading, you can specify 1 for disabling multithreading and 2 for enabling multithreading. For more information, see the reference table of [CPU cores and threads per CPU core per instance type](#) in the *Amazon Elastic Compute Cloud User Guide*.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 2.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClusterInstanceGroupSpecification

Service: Amazon SageMaker Service

The specifications of an instance group that you need to define.

## Contents

### ExecutionRole

Specifies an IAM execution role to be assumed by the instance group.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: Yes

### InstanceCount

Specifies the number of instances to add to the instance group of a SageMaker HyperPod cluster.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

### InstanceGroupName

Specifies the name of the instance group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: Yes

### InstanceType

Specifies the instance type of the instance group.

Type: String

Valid Values: ml.p4d.24xlarge | ml.p4de.24xlarge | ml.p5.48xlarge | ml.trn1.32xlarge | ml.trn1n.32xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.12xlarge | ml.c5.18xlarge | ml.c5.24xlarge | ml.c5n.large | ml.c5n.2xlarge | ml.c5n.4xlarge | ml.c5n.9xlarge | ml.c5n.18xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.8xlarge | ml.m5.12xlarge | ml.m5.16xlarge | ml.m5.24xlarge | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge

Required: Yes

### LifeCycleConfig

Specifies the LifeCycle configuration for the instance group.

Type: [ClusterLifeCycleConfig](#) object

Required: Yes

### InstanceStorageConfigs

Specifies the additional storage configurations for the instances in the SageMaker HyperPod cluster instance group.

Type: Array of [ClusterInstanceStorageConfig](#) objects

Array Members: Maximum number of 1 item.

Required: No

### ThreadsPerCore

Specifies the value for **Threads per core**. For instance types that support multithreading, you can specify 1 for disabling multithreading and 2 for enabling multithreading. For instance types that doesn't support multithreading, specify 1. For more information, see the reference table of [CPU cores and threads per CPU core per instance type](#) in the *Amazon Elastic Compute Cloud User Guide*.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 2.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClusterInstancePlacement

Service: Amazon SageMaker Service

Specifies the placement details for the node in the SageMaker HyperPod cluster, including the Availability Zone and the unique identifier (ID) of the Availability Zone.

## Contents

### AvailabilityZone

The Availability Zone where the node in the SageMaker HyperPod cluster is launched.

Type: String

Pattern: `^[a-z]{2}-[a-z]+\d[a-z]$`

Required: No

### AvailabilityZoneId

The unique identifier (ID) of the Availability Zone where the node in the SageMaker HyperPod cluster is launched.

Type: String

Pattern: `^[a-z]{3}\d-az\d$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClusterInstanceStatusDetails

Service: Amazon SageMaker Service

Details of an instance in a SageMaker HyperPod cluster.

## Contents

### Status

The status of an instance in a SageMaker HyperPod cluster.

Type: String

Valid Values: Running | Failure | Pending | ShuttingDown | SystemUpdating

Required: Yes

### Message

The message from an instance in a SageMaker HyperPod cluster.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ClusterInstanceStorageConfig

Service: Amazon SageMaker Service

Defines the configuration for attaching additional storage to the instances in the SageMaker HyperPod cluster instance group. To learn more, see [SageMaker HyperPod release notes: June 20, 2024](#).

## Contents

### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

## EbsVolumeConfig

Defines the configuration for attaching additional Amazon Elastic Block Store (EBS) volumes to the instances in the SageMaker HyperPod cluster instance group. The additional EBS volume is attached to each instance within the SageMaker HyperPod cluster instance group and mounted to `/opt/sagemaker`.

Type: [ClusterEbsVolumeConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClusterLifeCycleConfig

Service: Amazon SageMaker Service

The lifecycle configuration for a SageMaker HyperPod cluster.

## Contents

### OnCreate

The file name of the entrypoint script of lifecycle scripts under `SourceS3Uri`. This entrypoint script runs during cluster creation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[\\S\\s]+$`

Required: Yes

### SourceS3Uri

An Amazon S3 bucket path where your lifecycle scripts are stored.

#### Important

Make sure that the S3 bucket path starts with `s3://sagemaker-`.

The [IAM role for SageMaker HyperPod](#) has the managed [AmazonSageMakerClusterInstanceRolePolicy](#) attached, which allows access to S3 buckets with the specific prefix `sagemaker-`.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\s]+)/?(.*)$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClusterNodeDetails

Service: Amazon SageMaker Service

Details of an instance (also called a *node* interchangeably) in a SageMaker HyperPod cluster.

## Contents

### InstanceGroupName

The instance group name in which the instance is.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: No

### InstanceId

The ID of the instance.

Type: String

Required: No

### InstanceStatus

The status of the instance.

Type: [ClusterInstanceStatusDetails](#) object

Required: No

### InstanceStorageConfigs

The configurations of additional storage specified to the instance group where the instance (node) is launched.

Type: Array of [ClusterInstanceStorageConfig](#) objects

Array Members: Maximum number of 1 item.

Required: No

## InstanceType

The type of the instance.

Type: String

Valid Values: ml.p4d.24xlarge | ml.p4de.24xlarge | ml.p5.48xlarge | ml.trn1.32xlarge | ml.trn1n.32xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.12xlarge | ml.c5.18xlarge | ml.c5.24xlarge | ml.c5n.large | ml.c5n.2xlarge | ml.c5n.4xlarge | ml.c5n.9xlarge | ml.c5n.18xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.8xlarge | ml.m5.12xlarge | ml.m5.16xlarge | ml.m5.24xlarge | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge

Required: No

## LaunchTime

The time when the instance is launched.

Type: Timestamp

Required: No

## LifeCycleConfig

The LifeCycle configuration applied to the instance.

Type: [ClusterLifeCycleConfig](#) object

Required: No

## Placement

The placement details of the SageMaker HyperPod cluster node.

Type: [ClusterInstancePlacement](#) object

Required: No

## PrivateDnsHostname

The private DNS hostname of the SageMaker HyperPod cluster node.

Type: String

Pattern: `^ip-((25[0-5]|(2[0-4]|1\d|[1-9])\d)-?\b){4}\. .* $`

Required: No

## PrivatePrimaryIp

The private primary IP address of the SageMaker HyperPod cluster node.

Type: String

Pattern: `^((25[0-5]|(2[0-4]|1\d|[1-9])\d)\.?\b){4}$`

Required: No

## ThreadsPerCore

The number of threads per CPU core you specified under `CreateCluster`.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 2.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClusterNodeSummary

Service: Amazon SageMaker Service

Lists a summary of the properties of an instance (also called a *node* interchangeably) of a SageMaker HyperPod cluster.

## Contents

### InstanceGroupName

The name of the instance group in which the instance is.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: Yes

### InstanceId

The ID of the instance.

Type: String

Required: Yes

### InstanceStatus

The status of the instance.

Type: [ClusterInstanceStatusDetails](#) object

Required: Yes

### InstanceType

The type of the instance.

Type: String

Valid Values: `m1.p4d.24xlarge` | `m1.p4de.24xlarge` | `m1.p5.48xlarge` | `m1.trn1.32xlarge` | `m1.trn1n.32xlarge` | `m1.g5.xlarge` | `m1.g5.2xlarge`

| ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.12xlarge | ml.g5.16xlarge  
| ml.g5.24xlarge | ml.g5.48xlarge | ml.c5.large | ml.c5.xlarge |  
ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.12xlarge |  
ml.c5.18xlarge | ml.c5.24xlarge | ml.c5n.large | ml.c5n.2xlarge  
| ml.c5n.4xlarge | ml.c5n.9xlarge | ml.c5n.18xlarge | ml.m5.large  
| ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.8xlarge |  
ml.m5.12xlarge | ml.m5.16xlarge | ml.m5.24xlarge | ml.t3.medium |  
ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge

Required: Yes

## LaunchTime

The time when the instance is launched.

Type: Timestamp

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ClusterSummary

Service: Amazon SageMaker Service

Lists a summary of the properties of a SageMaker HyperPod cluster.

## Contents

### ClusterArn

The Amazon Resource Name (ARN) of the SageMaker HyperPod cluster.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:cluster/[a-z0-9]{12}$`

Required: Yes

### ClusterName

The name of the SageMaker HyperPod cluster.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: Yes

### ClusterStatus

The status of the SageMaker HyperPod cluster.

Type: String

Valid Values: `Creating | Deleting | Failed | InService | RollingBack | SystemUpdating | Updating`

Required: Yes

### CreationTime

The time when the SageMaker HyperPod cluster is created.

Type: Timestamp

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CodeEditorAppImageConfig

Service: Amazon SageMaker Service

The configuration for the file system and kernels in a SageMaker image running as a Code Editor app. The `FileSystemConfig` object is not supported.

## Contents

### ContainerConfig

The configuration used to run the application image container.

Type: [ContainerConfig](#) object

Required: No

### FileSystemConfig

The Amazon Elastic File System storage configuration for a SageMaker image.

Type: [FileSystemConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CodeEditorAppSettings

Service: Amazon SageMaker Service

The Code Editor application settings.

For more information about Code Editor, see [Get started with Code Editor in Amazon SageMaker](#).

## Contents

### CustomImages

A list of custom SageMaker images that are configured to run as a Code Editor app.

Type: Array of [CustomImage](#) objects

Array Members: Maximum number of 200 items.

Required: No

### DefaultResourceSpec

Specifies the ARN's of a SageMaker image and SageMaker image version, and the instance type that the version runs on.

Type: [ResourceSpec](#) object

Required: No

### LifecycleConfigArns

The Amazon Resource Name (ARN) of the Code Editor application lifecycle configuration.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:studio-lifecycle-config/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CodeRepository

Service: Amazon SageMaker Service

A Git repository that SageMaker automatically displays to users for cloning in the JupyterServer application.

## Contents

### RepositoryUrl

The URL of the Git repository.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^https://([\.-_a-zA-Z0-9]+)/?){3,1016}$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CodeRepositorySummary

Service: Amazon SageMaker Service

Specifies summary information about a Git repository.

## Contents

### CodeRepositoryArn

The Amazon Resource Name (ARN) of the Git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:code-repository/[\S]{1,2048}$`

Required: Yes

### CodeRepositoryName

The name of the Git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### CreationTime

The date and time that the Git repository was created.

Type: Timestamp

Required: Yes

### LastModifiedTime

The date and time that the Git repository was last modified.

Type: Timestamp

Required: Yes

## GitConfig

Configuration details for the Git repository, including the URL where it is located and the ARN of the AWS Secrets Manager secret that contains the credentials used to access the repository.

Type: [GitConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# CognitoConfig

Service: Amazon SageMaker Service

Use this parameter to configure your Amazon Cognito workforce. A single Cognito workforce is created using and corresponds to a single [Amazon Cognito user pool](#).

## Contents

### ClientId

The client ID for your Amazon Cognito user pool.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: [ -~ ]+

Required: Yes

### UserPool

A [user pool](#) is a user directory in Amazon Cognito. With a user pool, your users can sign in to your web or mobile app through Amazon Cognito. Your users can also sign in through social identity providers like Google, Facebook, Amazon, or Apple, and through SAML identity providers.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [ \w- ]+ \_ [ 0-9a-zA-Z ]+

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# CognitoMemberDefinition

Service: Amazon SageMaker Service

Identifies a Amazon Cognito user group. A user group can be used in on or more work teams.

## Contents

### ClientId

An identifier for an application client. You must create the app client ID using Amazon Cognito.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: [ -~ ]+

Required: Yes

### UserGroup

An identifier for a user group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: [ \p{L}\p{M}\p{S}\p{N}\p{P} ]+

Required: Yes

### UserPool

An identifier for a user pool. The user pool must be in the same region as the service that you are calling.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [ \w- ]+ \_ [ 0-9a-zA-Z ]+

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CollectionConfig

Service: Amazon SageMaker Service

Configuration for your collection.

## Contents

### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

## VectorConfig

Configuration for your vector collection type.

- **Dimension:** The number of elements in your vector.

Type: [VectorConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CollectionConfiguration

Service: Amazon SageMaker Service

Configuration information for the Amazon SageMaker Debugger output tensor collections.

## Contents

### CollectionName

The name of the tensor collection. The name must be unique relative to other rule configuration names.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\*

Required: No

### CollectionParameters

Parameter values for the tensor collection. The allowed parameters are "name", "include\_regex", "reduction\_config", "save\_config", "tensor\_names", and "save\_histogram".

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 20 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CompilationJobSummary

Service: Amazon SageMaker Service

A summary of a model compilation job.

## Contents

### CompilationJobArn

The Amazon Resource Name (ARN) of the model compilation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:compilation-job/.*`

Required: Yes

### CompilationJobName

The name of the model compilation job that you want a summary for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### CompilationJobStatus

The status of the model compilation job.

Type: String

Valid Values: INPROGRESS | COMPLETED | FAILED | STARTING | STOPPING | STOPPED

Required: Yes

### CreationTime

The time when the model compilation job was created.



Type: Timestamp

Required: Yes

### **CompilationEndTime**

The time when the model compilation job completed.

Type: Timestamp

Required: No

### **CompilationStartTime**

The time when the model compilation job started.

Type: Timestamp

Required: No

### **CompilationTargetDevice**

The type of device that the model will run on after the compilation job has completed.

Type: String

Valid Values: lambda | ml\_m4 | ml\_m5 | ml\_m6g | ml\_c4 | ml\_c5 | ml\_c6g | ml\_p2 | ml\_p3 | ml\_g4dn | ml\_inf1 | ml\_inf2 | ml\_trn1 | ml\_eia2 | jetson\_tx1 | jetson\_tx2 | jetson\_nano | jetson\_xavier | rasp3b | rasp4b | imx8qm | deeplens | rk3399 | rk3288 | aisage | sbe\_c | qcs605 | qcs603 | sitara\_am57x | amba\_cv2 | amba\_cv22 | amba\_cv25 | x86\_win32 | x86\_win64 | coreml | jacinto\_tda4vm | imx8mplus

Required: No

### **CompilationTargetPlatformAccelerator**

The type of accelerator that the model will run on after the compilation job has completed.

Type: String

Valid Values: INTEL\_GRAPHICS | MALI | NVIDIA | NNA

Required: No

## CompilationTargetPlatformArch

The type of architecture that the model will run on after the compilation job has completed.

Type: String

Valid Values: X86\_64 | X86 | ARM64 | ARM\_EABI | ARM\_EABIHF

Required: No

## CompilationTargetPlatformOs

The type of OS that the model will run on after the compilation job has completed.

Type: String

Valid Values: ANDROID | LINUX

Required: No

## LastModifiedTime

The time when the model compilation job was last modified.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ConditionStepMetadata

Service: Amazon SageMaker Service

Metadata for a Condition step.

## Contents

### Outcome

The outcome of the Condition step evaluation.

Type: String

Valid Values: True | False

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ContainerConfig

Service: Amazon SageMaker Service

The configuration used to run the application image container.

## Contents

### ContainerArguments

The arguments for the container when you're running the application.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 64.

Pattern: `^(?!\\s*$).+`

Required: No

### ContainerEntrypoint

The entrypoint used to run the application in the container.

Type: Array of strings

Array Members: Maximum number of 1 item.

Length Constraints: Maximum length of 256.

Pattern: `^(?!\\s*$).+`

Required: No

### ContainerEnvironmentVariables

The environment variables to set in the container

Type: String to string map

Map Entries: Maximum number of 25 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `^(?!\\s*$) . +`

Value Length Constraints: Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ContainerDefinition

Service: Amazon SageMaker Service

Describes the container, as part of model definition.

## Contents

### ContainerHostname

This parameter is ignored for models that contain only a `PrimaryContainer`.

When a `ContainerDefinition` is part of an inference pipeline, the value of the parameter uniquely identifies the container for the purposes of logging and metrics. For information, see [Use Logs and Metrics to Monitor an Inference Pipeline](#). If you don't specify a value for this parameter for a `ContainerDefinition` that is part of an inference pipeline, a unique name is automatically assigned based on the position of the `ContainerDefinition` in the pipeline. If you specify a value for the `ContainerHostName` for any `ContainerDefinition` that is part of an inference pipeline, you must specify a value for the `ContainerHostName` parameter of every `ContainerDefinition` in that pipeline.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### Environment

The environment variables to set in the Docker container.

The maximum length of each key and value in the `Environment` map is 1024 bytes. The maximum length of all keys and values in the map, combined, is 32 KB. If you pass multiple containers to a `CreateModel` request, then the maximum length of all of their maps, combined, is also 32 KB.

Type: String to string map

Map Entries: Maximum number of 100 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 1024.

Value Pattern: `[\S\s]*`

Required: No

## Image

The path where inference code is stored. This can be either in Amazon EC2 Container Registry or in a Docker registry that is accessible from the same VPC that you configure for your endpoint. If you are using your own custom algorithm instead of an algorithm provided by SageMaker, the inference code must meet SageMaker requirements. SageMaker supports both `registry/repository[:tag]` and `registry/repository[@digest]` image path formats. For more information, see [Using Your Own Algorithms with Amazon SageMaker](#).

### Note

The model artifacts in an Amazon S3 bucket and the Docker image for inference container in Amazon EC2 Container Registry must be in the same region as the model or endpoint you are creating.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `[\S]+`

Required: No

## ImageConfig

Specifies whether the model container is in Amazon ECR or a private Docker registry accessible from your Amazon Virtual Private Cloud (VPC). For information about storing containers in a private Docker registry, see [Use a Private Docker Registry for Real-Time Inference Containers](#).

### Note

The model artifacts in an Amazon S3 bucket and the Docker image for inference container in Amazon EC2 Container Registry must be in the same region as the model or endpoint you are creating.

Type: [ImageConfig](#) object

Required: No

### **InferenceSpecificationName**

The inference specification name in the model package version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### **Mode**

Whether the container hosts a single model or multiple models.

Type: String

Valid Values: `SingleModel` | `MultiModel`

Required: No

### **ModelDataSource**

Specifies the location of ML model data to deploy.

#### **Note**

Currently you cannot use `ModelDataSource` in conjunction with SageMaker batch transform, SageMaker serverless endpoints, SageMaker multi-model endpoints, and SageMaker Marketplace.

Type: [ModelDataSource](#) object

Required: No

### **ModelDataUrl**

The S3 path where the model artifacts, which result from model training, are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix). The S3 path is required for



SageMaker built-in algorithms, but not if you use your own algorithms. For more information on built-in algorithms, see [Common Parameters](#).

**Note**

The model artifacts must be in an S3 bucket that is in the same region as the model or endpoint you are creating.

If you provide a value for this parameter, SageMaker uses AWS Security Token Service to download model artifacts from the S3 path you provide. AWS STS is activated in your AWS account by default. If you previously deactivated AWS STS for a region, you need to reactivate AWS STS for that region. For more information, see [Activating and Deactivating AWS STS in an AWS Region](#) in the *AWS Identity and Access Management User Guide*.

**Important**

If you use a built-in algorithm to create a model, SageMaker requires that you provide a S3 path to the model artifacts in `ModelDataUrl`.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: No

**ModelPackageName**

The name or Amazon Resource Name (ARN) of the model package to use to create the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 176.

Pattern: `(arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:[a-z\-\]*\/)?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!-)(\/[0-9]{1,5})?$$`

Required: No

## MultiModelConfig

Specifies additional configuration for multi-model endpoints.

Type: [MultiModelConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ContextSource

Service: Amazon SageMaker Service

A structure describing the source of a context.

### Contents

#### SourceUri

The URI of the source.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: .\*

Required: Yes

#### SourceId

The ID of the source.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### SourceType

The type of the source.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ContextSummary

Service: Amazon SageMaker Service

Lists a summary of the properties of a context. A context provides a logical grouping of other entities.

## Contents

### ContextArn

The Amazon Resource Name (ARN) of the context.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:context/.*`

Required: No

### ContextName

The name of the context.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,119}`

Required: No

### ContextType

The type of the context.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### CreationTime

When the context was created.

Type: Timestamp

Required: No

### **LastModifiedTime**

When the context was last modified.

Type: Timestamp

Required: No

### **Source**

The source of the context.

Type: [ContextSource](#) object

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ContinuousParameterRange

Service: Amazon SageMaker Service

A list of continuous hyperparameters to tune.

## Contents

### MaxValue

The maximum value for the hyperparameter. The tuning job uses floating-point values between MinValue value and this value for tuning.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### MinValue

The minimum value for the hyperparameter. The tuning job uses floating-point values between this value and MaxValue for tuning.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### Name

The name of the continuous hyperparameter to tune.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

## ScalingType

The scale that hyperparameter tuning uses to search the hyperparameter range. For information about choosing a hyperparameter scale, see [Hyperparameter Scaling](#). One of the following values:

Auto

SageMaker hyperparameter tuning chooses the best scale for the hyperparameter.

Linear

Hyperparameter tuning searches the values in the hyperparameter range by using a linear scale.

Logarithmic

Hyperparameter tuning searches the values in the hyperparameter range by using a logarithmic scale.

Logarithmic scaling works only for ranges that have only values greater than 0.

ReverseLogarithmic

Hyperparameter tuning searches the values in the hyperparameter range by using a reverse logarithmic scale.

Reverse logarithmic scaling works only for ranges that are entirely within the range  $0 \leq x < 1.0$ .

Type: String

Valid Values: Auto | Linear | Logarithmic | ReverseLogarithmic

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)



- [AWS SDK for Ruby V3](#)

# ContinuousParameterRangeSpecification

Service: Amazon SageMaker Service

Defines the possible values for a continuous hyperparameter.

## Contents

### MaxValue

The maximum floating-point value allowed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### MinValue

The minimum floating-point value allowed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ConvergenceDetected

Service: Amazon SageMaker Service

A flag to indicating that automatic model tuning (AMT) has detected model convergence, defined as a lack of significant improvement (1% or less) against an objective metric.

## Contents

### CompleteOnConvergence

A flag to stop a tuning job once AMT has detected that the job has converged.

Type: String

Valid Values: Disabled | Enabled

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CustomFileSystem

Service: Amazon SageMaker Service

A file system, created by you, that you assign to a user profile or space for an Amazon SageMaker Domain. Permitted users can access this file system in Amazon SageMaker Studio.

## Contents

### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

## EFSFileSystem

A custom file system in Amazon EFS.

Type: [EFSFileSystem](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CustomFileSystemConfig

Service: Amazon SageMaker Service

The settings for assigning a custom file system to a user profile or space for an Amazon SageMaker Domain. Permitted users can access this file system in Amazon SageMaker Studio.

## Contents

### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

## EFSFileSystemConfig

The settings for a custom Amazon EFS file system.

Type: [EFSFileSystemConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CustomImage

Service: Amazon SageMaker Service

A custom SageMaker image. For more information, see [Bring your own SageMaker image](#).

## Contents

### AppImageConfigName

The name of the AppImageConfig.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### ImageName

The name of the CustomImage. Must be unique to your account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}$`

Required: Yes

### ImageVersionNumber

The version number of the CustomImage.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CustomizedMetricSpecification

Service: Amazon SageMaker Service

A customized metric.

## Contents

### MetricName

The name of the customized metric.

Type: String

Required: No

### Namespace

The namespace of the customized metric.

Type: String

Required: No

### Statistic

The statistic of the customized metric.

Type: String

Valid Values: Average | Minimum | Maximum | SampleCount | Sum

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# CustomPosixUserConfig

Service: Amazon SageMaker Service

Details about the POSIX identity that is used for file system operations.

## Contents

### Gid

The POSIX group ID.

Type: Long

Valid Range: Minimum value of 1001. Maximum value of 4000000.

Required: Yes

### Uid

The POSIX user ID.

Type: Long

Valid Range: Minimum value of 10000. Maximum value of 4000000.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataCaptureConfig

Service: Amazon SageMaker Service

Configuration to control how SageMaker captures inference data.

## Contents

### CaptureOptions

Specifies data Model Monitor will capture. You can configure whether to collect only input, only output, or both

Type: Array of [CaptureOption](#) objects

Array Members: Minimum number of 1 item. Maximum number of 32 items.

Required: Yes

### DestinationS3Uri

The Amazon S3 location used to capture the data.

Type: String

Length Constraints: Maximum length of 512.

Pattern: `^(https|s3):\/\/([^\.]\/)?(.* )$`

Required: Yes

### InitialSamplingPercentage

The percentage of requests SageMaker will capture. A lower value is recommended for Endpoints with high traffic.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: Yes

### CaptureContentTypeHeader

Configuration specifying how to treat different headers. If no headers are specified SageMaker will by default base64 encode when capturing the data.

Type: [CaptureContentTypeHeader](#) object

Required: No

### **EnableCapture**

Whether data capture should be enabled or disabled (defaults to enabled).

Type: Boolean

Required: No

### **KmsKeyId**

The Amazon Resource Name (ARN) of an AWS Key Management Service key that SageMaker uses to encrypt the captured data at rest using Amazon S3 server-side encryption.

The KmsKeyId can be any of the following formats:

- Key ID: 1234abcd-12ab-34cd-56ef-1234567890ab
- Key ARN: arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab
- Alias name: alias/ExampleAlias
- Alias name ARN: arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# DataCaptureConfigSummary

Service: Amazon SageMaker Service

The currently active data capture configuration used by your Endpoint.

## Contents

### CaptureStatus

Whether data capture is currently functional.

Type: String

Valid Values: Started | Stopped

Required: Yes

### CurrentSamplingPercentage

The percentage of requests being captured by your Endpoint.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: Yes

### DestinationS3Uri

The Amazon S3 location being used to capture the data.

Type: String

Length Constraints: Maximum length of 512.

Pattern: `^(https|s3)://([^\s/]+)/?(.*)$`

Required: Yes

### EnableCapture

Whether data capture is enabled or disabled.

Type: Boolean

Required: Yes

## **KmsKeyId**

The KMS key being used to encrypt the data in Amazon S3.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_ -]*$`

Required: Yes

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataCatalogConfig

Service: Amazon SageMaker Service

The meta data of the Glue table which serves as data catalog for the OfflineStore.

## Contents

### Catalog

The name of the Glue table catalog.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Database

The name of the Glue table database.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### TableName

The name of the Glue table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# DataProcessing

Service: Amazon SageMaker Service

The data structure used to specify the data to be used for inference in a batch transform job and to associate the data that is relevant to the prediction results in the output. The input filter provided allows you to exclude input data that is not needed for inference in a batch transform job. The output filter provided allows you to include input data relevant to interpreting the predictions in the output from the job. For more information, see [Associate Prediction Results with their Corresponding Input Records](#).

## Contents

### InputFilter

A [JSONPath](#) expression used to select a portion of the input data to pass to the algorithm. Use the `InputFilter` parameter to exclude fields, such as an ID column, from the input. If you want SageMaker to pass the entire input dataset to the algorithm, accept the default value `$`.

Examples: `"$"`, `"$[1:]"`, `"$.features"`

Type: String

Length Constraints: Minimum length of 0. Maximum length of 63.

Required: No

### JoinSource

Specifies the source of the data to join with the transformed data. The valid values are `None` and `Input`. The default value is `None`, which specifies not to join the input with the transformed data. If you want the batch transform job to join the original input data with the transformed data, set `JoinSource` to `Input`. You can specify `OutputFilter` as an additional filter to select a portion of the joined dataset and store it in the output file.

For JSON or JSONLines objects, such as a JSON array, SageMaker adds the transformed data to the input JSON object in an attribute called `SageMakerOutput`. The joined result for JSON must be a key-value pair object. If the input is not a key-value pair object, SageMaker creates a new JSON file. In the new JSON file, and the input data is stored under the `SageMakerInput` key and the results are stored in `SageMakerOutput`.

For CSV data, SageMaker takes each row as a JSON array and joins the transformed data with the input by appending each transformed row to the end of the input. The joined data has the original input data followed by the transformed data and the output is a CSV file.

For information on how joining is applied, see [Workflow for Associating Inferences with Input Records](#).

Type: String

Valid Values: Input | None

Required: No

### OutputFilter

A [JSONPath](#) expression used to select a portion of the joined dataset to save in the output file for a batch transform job. If you want SageMaker to store the entire input dataset in the output file, leave the default value, \$. If you specify indexes that aren't within the dimension size of the joined dataset, you get an error.

Examples: "\$", "\$[0,5:]", "\$['id', 'SageMakerOutput']"

Type: String

Length Constraints: Minimum length of 0. Maximum length of 63.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityAppSpecification

Service: Amazon SageMaker Service

Information about the container that a data quality monitoring job runs.

## Contents

### ImageUri

The container image that the data quality monitoring job runs.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

### ContainerArguments

The arguments to send to the container that the monitoring job runs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### ContainerEntrypoint

The entrypoint for a container used to run a monitoring job.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

## Environment

Sets the environment variables in the container that the monitoring job runs.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 256.

Value Pattern: `[\S\s]*`

Required: No

## PostAnalyticsProcessorSourceUri

An Amazon S3 URI to a script that is called after analysis has been performed. Applicable only for the built-in (first party) containers.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: No

## RecordPreprocessorSourceUri

An Amazon S3 URI to a script that is called per row prior to running analysis. It can base64 decode the payload and convert it into a flattened JSON so that the built-in container can use the converted data. Applicable only for the built-in (first party) containers.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityBaselineConfig

Service: Amazon SageMaker Service

Configuration for monitoring constraints and monitoring statistics. These baseline resources are compared against the results of the current job from the series of jobs scheduled to collect data periodically.

## Contents

### BaseliningJobName

The name of the job that performs baselining for the data quality monitoring job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### ConstraintsResource

The constraints resource for a monitoring job.

Type: [MonitoringConstraintsResource](#) object

Required: No

### StatisticsResource

The statistics resource for a monitoring job.

Type: [MonitoringStatisticsResource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityJobInput

Service: Amazon SageMaker Service

The input for the data quality monitoring job. Currently endpoints are supported for input.

## Contents

### BatchTransformInput

Input object for the batch transform job.

Type: [BatchTransformInput](#) object

Required: No

### EndpointInput

Input object for the endpoint

Type: [EndpointInput](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# DatasetDefinition

Service: Amazon SageMaker Service

Configuration for Dataset Definition inputs. The Dataset Definition input must specify exactly one of either `AthenaDatasetDefinition` or `RedshiftDatasetDefinition` types.

## Contents

### AthenaDatasetDefinition

Configuration for Athena Dataset Definition input.

Type: [AthenaDatasetDefinition](#) object

Required: No

### DataDistributionType

Whether the generated dataset is `FullyReplicated` or `ShardedByS3Key` (default).

Type: String

Valid Values: `FullyReplicated` | `ShardedByS3Key`

Required: No

### InputMode

Whether to use `File` or `Pipe` input mode. In `File` (default) mode, Amazon SageMaker copies the data from the input source onto the local Amazon Elastic Block Store (Amazon EBS) volumes before starting your training algorithm. This is the most commonly used input mode. In `Pipe` mode, Amazon SageMaker streams input data from the source directly to your algorithm without using the EBS volume.

Type: String

Valid Values: `Pipe` | `File`

Required: No

### LocalPath

The local path where you want Amazon SageMaker to download the Dataset Definition inputs to run a processing job. `LocalPath` is an absolute path to the input data. This is a required parameter when `AppManaged` is `False` (default).

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### **RedshiftDatasetDefinition**

Configuration for Redshift Dataset Definition input.

Type: [RedshiftDatasetDefinition](#) object

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataSource

Service: Amazon SageMaker Service

Describes the location of the channel data.

## Contents

### FileSystemDataSource

The file system that is associated with a channel.

Type: [FileSystemDataSource](#) object

Required: No

### S3DataSource

The S3 location of the data source that is associated with a channel.

Type: [S3DataSource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DebugHookConfig

Service: Amazon SageMaker Service

Configuration information for the Amazon SageMaker Debugger hook parameters, metric and tensor collections, and storage paths. To learn more about how to configure the DebugHookConfig parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

## Contents

### S3OutputPath

Path to Amazon S3 storage location for metrics and tensors.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

### CollectionConfigurations

Configuration information for Amazon SageMaker Debugger tensor collections. To learn more about how to configure the CollectionConfiguration parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

Type: Array of [CollectionConfiguration](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

### HookParameters

Configuration information for the Amazon SageMaker Debugger hook parameters.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 20 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

### LocalPath

Path to local storage location for metrics and tensors. Defaults to `/opt/ml/output/tensors/`.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .\*

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DebugRuleConfiguration

Service: Amazon SageMaker Service

Configuration information for SageMaker Debugger rules for debugging. To learn more about how to configure the `DebugRuleConfiguration` parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

## Contents

### RuleConfigurationName

The name of the rule configuration. It must be unique relative to other rule configuration names.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `.*`

Required: Yes

### RuleEvaluatorImage

The Amazon Elastic Container (ECR) Image for the managed rule evaluation.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `.*`

Required: Yes

### InstanceType

The instance type to deploy a custom rule for debugging a training job.

Type: String

Valid Values: `m1.t3.medium` | `m1.t3.large` | `m1.t3.xlarge` | `m1.t3.2xlarge` | `m1.m4.xlarge` | `m1.m4.2xlarge` | `m1.m4.4xlarge` | `m1.m4.10xlarge` | `m1.m4.16xlarge` | `m1.c4.xlarge` | `m1.c4.2xlarge` | `m1.c4.4xlarge` | `m1.c4.8xlarge` | `m1.p2.xlarge` | `m1.p2.8xlarge` | `m1.p2.16xlarge`

| ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge  
| ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge  
| ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge |  
ml.m5.12xlarge | ml.m5.24xlarge | ml.r5.large | ml.r5.xlarge |  
ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge |  
ml.r5.16xlarge | ml.r5.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge |  
ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge

Required: No

### LocalPath

Path to local storage location for output of rules. Defaults to /opt/ml/processing/output/rule/.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .\*

Required: No

### RuleParameters

Runtime configuration for rule container.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

### S3OutputPath

Path to Amazon S3 storage location for rules.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\s]+)/?(.*)$`

Required: No

### **VolumeSizeInGB**

The size, in GB, of the ML storage volume attached to the processing instance.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# DebugRuleEvaluationStatus

Service: Amazon SageMaker Service

Information about the status of the rule evaluation.

## Contents

### LastModifiedTime

Timestamp when the rule evaluation status was last modified.

Type: Timestamp

Required: No

### RuleConfigurationName

The name of the rule configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\*

Required: No

### RuleEvaluationJobArn

The Amazon Resource Name (ARN) of the rule evaluation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:processing-job/.\*

Required: No

### RuleEvaluationStatus

Status of the rule evaluation.

Type: String

Valid Values: InProgress | NoIssuesFound | IssuesFound | Error | Stopping | Stopped

Required: No

### StatusDetails

Details from the rule evaluation.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DefaultEbsStorageSettings

Service: Amazon SageMaker Service

A collection of default EBS storage settings that apply to spaces created within a domain or user profile.

## Contents

### DefaultEbsVolumeSizeInGb

The default size of the EBS storage volume for a space.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 16384.

Required: Yes

### MaximumEbsVolumeSizeInGb

The maximum size of the EBS storage volume for a space.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 16384.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DefaultSpaceSettings

Service: Amazon SageMaker Service

A collection of settings that apply to spaces created in the domain.

## Contents

### CustomFileSystemConfigs

The settings for assigning a custom file system to a domain. Permitted users can access this file system in Amazon SageMaker Studio.

Type: Array of [CustomFileSystemConfig](#) objects

Array Members: Maximum number of 10 items.

Required: No

### CustomPosixUserConfig

Details about the POSIX identity that is used for file system operations.

Type: [CustomPosixUserConfig](#) object

Required: No

### ExecutionRole

The ARN of the execution role for the space.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\ ]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@\-\_/\ ]+$`

Required: No

### JupyterLabAppSettings

The settings for the JupyterLab application.

Type: [JupyterLabAppSettings](#) object

Required: No

## JupyterServerAppSettings

The JupyterServer app settings.

Type: [JupyterServerAppSettings](#) object

Required: No

## KernelGatewayAppSettings

The KernelGateway app settings.

Type: [KernelGatewayAppSettings](#) object

Required: No

## SecurityGroups

The security group IDs for the Amazon VPC that the space uses for communication.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

Required: No

## SpaceStorageSettings

The default storage settings for a space.

Type: [DefaultSpaceStorageSettings](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DefaultSpaceStorageSettings

Service: Amazon SageMaker Service

The default storage settings for a space.

## Contents

### DefaultEbsStorageSettings

The default EBS storage settings for a space.

Type: [DefaultEbsStorageSettings](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeployedImage

Service: Amazon SageMaker Service

Gets the Amazon EC2 Container Registry path of the docker image of the model that is hosted in this [ProductionVariant](#).

If you used the `registry/repository[:tag]` form to specify the image path of the primary container when you created the model hosted in this `ProductionVariant`, the path resolves to a path of the form `registry/repository[@digest]`. A digest is a hash value that identifies a specific version of an image. For information about Amazon ECR paths, see [Pulling an Image](#) in the *Amazon ECR User Guide*.

## Contents

### ResolutionTime

The date and time when the image path for the model resolved to the `ResolvedImage`

Type: Timestamp

Required: No

### ResolvedImage

The specific digest path of the image hosted in this `ProductionVariant`.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `[\S]+`

Required: No

### SpecifiedImage

The image path you specified when you created the model.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `[\S]+`



Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeploymentConfig

Service: Amazon SageMaker Service

The deployment configuration for an endpoint, which contains the desired deployment strategy and rollback configurations.

## Contents

### AutoRollbackConfiguration

Automatic rollback configuration for handling endpoint deployment failures and recovery.

Type: [AutoRollbackConfig](#) object

Required: No

### BlueGreenUpdatePolicy

Update policy for a blue/green deployment. If this update policy is specified, SageMaker creates a new fleet during the deployment while maintaining the old fleet. SageMaker flips traffic to the new fleet according to the specified traffic routing configuration. Only one update policy should be used in the deployment configuration. If no update policy is specified, SageMaker uses a blue/green deployment strategy with all at once traffic shifting by default.

Type: [BlueGreenUpdatePolicy](#) object

Required: No

### RollingUpdatePolicy

Specifies a rolling deployment strategy for updating a SageMaker endpoint.

Type: [RollingUpdatePolicy](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeploymentRecommendation

Service: Amazon SageMaker Service

A set of recommended deployment configurations for the model. To get more advanced recommendations, see [CreateInferenceRecommendationsJob](#) to create an inference recommendation job.

## Contents

### RecommendationStatus

Status of the deployment recommendation. The status NOT\_APPLICABLE means that SageMaker is unable to provide a default recommendation for the model using the information provided. If the deployment status is IN\_PROGRESS, retry your API call after a few seconds to get a COMPLETED deployment recommendation.

Type: String

Valid Values: IN\_PROGRESS | COMPLETED | FAILED | NOT\_APPLICABLE

Required: Yes

### RealTimeInferenceRecommendations

A list of [RealTimeInferenceRecommendation](#) items.

Type: Array of [RealTimeInferenceRecommendation](#) objects

Array Members: Minimum number of 0 items. Maximum number of 3 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# DeploymentStage

Service: Amazon SageMaker Service

Contains information about a stage in an edge deployment plan.

## Contents

### DeviceSelectionConfig

Configuration of the devices in the stage.

Type: [DeviceSelectionConfig](#) object

Required: Yes

### StageName

The name of the stage.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### DeploymentConfig

Configuration of the deployment details.

Type: [EdgeDeploymentConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# DeploymentStageStatusSummary

Service: Amazon SageMaker Service

Contains information summarizing the deployment stage results.

## Contents

### DeploymentConfig

Configuration of the deployment details.

Type: [EdgeDeploymentConfig](#) object

Required: Yes

### DeploymentStatus

General status of the current state.

Type: [EdgeDeploymentStatus](#) object

Required: Yes

### DeviceSelectionConfig

Configuration of the devices in the stage.

Type: [DeviceSelectionConfig](#) object

Required: Yes

### StageName

The name of the stage.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## DerivedInformation

Service: Amazon SageMaker Service

Information that SageMaker Neo automatically derived about the model.

### Contents

#### DerivedDataInputConfig

The data input configuration that SageMaker Neo automatically derived for the model. When SageMaker Neo derives this information, you don't need to specify the data input configuration when you create a compilation job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16384.

Pattern: `[\S\s]+`

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## DesiredWeightAndCapacity

Service: Amazon SageMaker Service

Specifies weight and capacity values for a production variant.

### Contents

#### VariantName

The name of the variant to update.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

#### DesiredInstanceCount

The variant's capacity.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

#### DesiredWeight

The variant's weight.

Type: Float

Valid Range: Minimum value of 0.

Required: No

#### ServerlessUpdateConfig

Specifies the serverless update concurrency configuration for an endpoint variant.

Type: [ProductionVariantServerlessUpdateConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Device

Service: Amazon SageMaker Service

Information of a particular device.

### Contents

#### DeviceName

The name of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

#### Description

Description of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: `^[-a-zA-Z0-9_.,;:!]*$`

Required: No

#### IoTThingName

AWS Internet of Things (IoT) object name.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9:_-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeviceDeploymentSummary

Service: Amazon SageMaker Service

Contains information summarizing device details and deployment status.

## Contents

### DeviceArn

The ARN of the device.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:[a-z\-\]*:[a-z\-\]*:\d{12}:[a-z\-\]*/?[a-zA-Z_0-9+=,.\@\-\_/\]+$`

Required: Yes

### DeviceName

The name of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### EdgeDeploymentPlanArn

The ARN of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z\-\]*:\d{12}:edge-deployment/?[a-zA-Z_0-9+=,.\@\-\_/\]+$`

Required: Yes

## EdgeDeploymentPlanName

The name of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## StageName

The name of the stage in the edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## DeployedStageName

The name of the deployed stage.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

## DeploymentStartTime

The time when the deployment on the device started.

Type: Timestamp

Required: No

## Description

The description of the device.



Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: `^[-a-zA-Z0-9_.,;:! ]*$`

Required: No

### **DeviceDeploymentStatus**

The deployment status of the device.

Type: String

Valid Values: READYTODEPLOY | INPROGRESS | DEPLOYED | FAILED | STOPPING | STOPPED

Required: No

### **DeviceDeploymentStatusMessage**

The detailed error message for the deployment status result.

Type: String

Required: No

### **DeviceFleetName**

The name of the fleet to which the device belongs to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeviceFleetSummary

Service: Amazon SageMaker Service

Summary of the device fleet.

## Contents

### DeviceFleetArn

Amazon Resource Name (ARN) of the device fleet.

Type: String

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:device-fleet/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: Yes

### DeviceFleetName

Name of the device fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### CreationTime

Timestamp of when the device fleet was created.

Type: Timestamp

Required: No

### LastModifiedTime

Timestamp of when the device fleet was last updated.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeviceSelectionConfig

Service: Amazon SageMaker Service

Contains information about the configurations of selected devices.

## Contents

### DeviceSubsetType

Type of device subsets to deploy to the current stage.

Type: String

Valid Values: PERCENTAGE | SELECTION | NAMECONTAINS

Required: Yes

### DeviceNameContains

A filter to select devices with names containing this name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### DeviceNames

List of devices chosen to deploy.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### Percentage

Percentage of devices in the fleet to deploy to the current stage.

Type: Integer

Valid Range: Maximum value of 100.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeviceStats

Service: Amazon SageMaker Service

Status of devices.

## Contents

### ConnectedDeviceCount

The number of devices connected with a heartbeat.

Type: Long

Required: Yes

### RegisteredDeviceCount

The number of registered devices.

Type: Long

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeviceSummary

Service: Amazon SageMaker Service

Summary of the device.

## Contents

### DeviceArn

Amazon Resource Name (ARN) of the device.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:[a-z\-\]*:[a-z\-\]*:\d{12}:[a-z\-\]*/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: Yes

### DeviceName

The unique identifier of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### AgentVersion

Edge Manager agent version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: `[a-zA-Z0-9\ \_\.]+`

Required: No



## Description

A description of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: `^[-a-zA-Z0-9_.,;:! ]*$`

Required: No

## DeviceFleetName

The name of the fleet the device belongs to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

## IoTThingName

The AWS Internet of Things (IoT) object thing name associated with the device..

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9:_- ]+`

Required: No

## LatestHeartbeat

The last heartbeat received from the device.

Type: Timestamp

Required: No

## Models

Models on the device.

Type: Array of [EdgeModelSummary](#) objects

Required: No

### **RegistrationTime**

The timestamp of the last registration or de-reregistration.

Type: Timestamp

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DirectDeploySettings

Service: Amazon SageMaker Service

The model deployment settings for the SageMaker Canvas application.

## Note

In order to enable model deployment for Canvas, the SageMaker Domain's or user profile's AWS IAM execution role must have the `AmazonSageMakerCanvasDirectDeployAccess` policy attached. You can also turn on model deployment permissions through the SageMaker Domain's or user profile's settings in the SageMaker console.

## Contents

### Status

Describes whether model deployment permissions are enabled or disabled in the Canvas application.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DockerSettings

Service: Amazon SageMaker Service

A collection of settings that configure the domain's Docker interaction.

## Contents

### EnableDockerAccess

Indicates whether the domain can access Docker.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

### VpcOnlyTrustedAccounts

The list of AWS accounts that are trusted when the domain is created in VPC-only mode.

Type: Array of strings

Array Members: Maximum number of 20 items.

Length Constraints: Fixed length of 12.

Pattern:  $^{\backslash}d+{\$}$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## DomainDetails

Service: Amazon SageMaker Service

The domain's details.

### Contents

#### CreationTime

The creation time.

Type: Timestamp

Required: No

#### DomainArn

The domain's Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:domain/.*`

Required: No

#### DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-(-*[a-z0-9]){1,61}`

Required: No

#### DomainName

The domain name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### **LastModifiedTime**

The last modified time.

Type: Timestamp

Required: No

### **Status**

The status.

Type: String

Valid Values: Deleting | Failed | InService | Pending | Updating | Update\_Failed | Delete\_Failed

Required: No

### **Url**

The domain's URL.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# DomainSettings

Service: Amazon SageMaker Service

A collection of settings that apply to the SageMaker Domain. These settings are specified through the `CreateDomain` API call.

## Contents

### DockerSettings

A collection of settings that configure the domain's Docker interaction.

Type: [DockerSettings](#) object

Required: No

### ExecutionRoleIdentityConfig

The configuration for attaching a SageMaker user profile name to the execution role as a [sts:SourceIdentity key](#).

Type: String

Valid Values: USER\_PROFILE\_NAME | DISABLED

Required: No

### RStudioServerProDomainSettings

A collection of settings that configure the RStudioServerPro Domain-level app.

Type: [RStudioServerProDomainSettings](#) object

Required: No

### SecurityGroupIds

The security groups for the Amazon Virtual Private Cloud that the Domain uses for communication between Domain-level apps and user apps.

Type: Array of strings

Array Members: Maximum number of 3 items.

Length Constraints: Maximum length of 32.



Pattern: [-0-9a-zA-Z]+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## DomainSettingsForUpdate

Service: Amazon SageMaker Service

A collection of Domain configuration settings to update.

### Contents

#### DockerSettings

A collection of settings that configure the domain's Docker interaction.

Type: [DockerSettings](#) object

Required: No

#### ExecutionRoleIdentityConfig

The configuration for attaching a SageMaker user profile name to the execution role as a [sts:SourceIdentity key](#). This configuration can only be modified if there are no apps in the InService or Pending state.

Type: String

Valid Values: USER\_PROFILE\_NAME | DISABLED

Required: No

#### RStudioServerProDomainSettingsForUpdate

A collection of RStudioServerPro Domain-level app settings to update. A single RStudioServerPro application is created for a domain.

Type: [RStudioServerProDomainSettingsForUpdate](#) object

Required: No

#### SecurityGroupIds

The security groups for the Amazon Virtual Private Cloud that the Domain uses for communication between Domain-level apps and user apps.

Type: Array of strings

Array Members: Maximum number of 3 items.

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DriftCheckBaselines

Service: Amazon SageMaker Service

Represents the drift check baselines that can be used when the model monitor is set using the model package.

## Contents

### Bias

Represents the drift check bias baselines that can be used when the model monitor is set using the model package.

Type: [DriftCheckBias](#) object

Required: No

### Explainability

Represents the drift check explainability baselines that can be used when the model monitor is set using the model package.

Type: [DriftCheckExplainability](#) object

Required: No

### ModelDataQuality

Represents the drift check model data quality baselines that can be used when the model monitor is set using the model package.

Type: [DriftCheckModelDataQuality](#) object

Required: No

### ModelQuality

Represents the drift check model quality baselines that can be used when the model monitor is set using the model package.

Type: [DriftCheckModelQuality](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DriftCheckBias

Service: Amazon SageMaker Service

Represents the drift check bias baselines that can be used when the model monitor is set using the model package.

## Contents

### ConfigFile

The bias config file for a model.

Type: [FileSource](#) object

Required: No

### PostTrainingConstraints

The post-training constraints.

Type: [MetricsSource](#) object

Required: No

### PreTrainingConstraints

The pre-training constraints.

Type: [MetricsSource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DriftCheckExplainability

Service: Amazon SageMaker Service

Represents the drift check explainability baselines that can be used when the model monitor is set using the model package.

## Contents

### ConfigFile

The explainability config file for the model.

Type: [FileSource](#) object

Required: No

### Constraints

The drift check explainability constraints.

Type: [MetricsSource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DriftCheckModelDataQuality

Service: Amazon SageMaker Service

Represents the drift check data quality baselines that can be used when the model monitor is set using the model package.

## Contents

### Constraints

The drift check model data quality constraints.

Type: [MetricsSource](#) object

Required: No

### Statistics

The drift check model data quality statistics.

Type: [MetricsSource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# DriftCheckModelQuality

Service: Amazon SageMaker Service

Represents the drift check model quality baselines that can be used when the model monitor is set using the model package.

## Contents

### Constraints

The drift check model quality constraints.

Type: [MetricsSource](#) object

Required: No

### Statistics

The drift check model quality statistics.

Type: [MetricsSource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DynamicScalingConfiguration

Service: Amazon SageMaker Service

An object with the recommended values for you to specify when creating an autoscaling policy.

## Contents

### MaxCapacity

The recommended maximum capacity to specify for your autoscaling policy.

Type: Integer

Required: No

### MinCapacity

The recommended minimum capacity to specify for your autoscaling policy.

Type: Integer

Required: No

### ScaleInCooldown

The recommended scale in cooldown time for your autoscaling policy.

Type: Integer

Required: No

### ScaleOutCooldown

The recommended scale out cooldown time for your autoscaling policy.

Type: Integer

Required: No

### ScalingPolicies

An object of the scaling policies for each metric.

Type: Array of [ScalingPolicy](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EbsStorageSettings

Service: Amazon SageMaker Service

A collection of EBS storage settings that apply to both private and shared spaces.

## Contents

### EbsVolumeSizeInGb

The size of an EBS storage volume for a space.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 16384.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Edge

Service: Amazon SageMaker Service

A directed edge connecting two lineage entities.

## Contents

### AssociationType

The type of the Association(Edge) between the source and destination. For example ContributedTo, Produced, or DerivedFrom.

Type: String

Valid Values: ContributedTo | AssociatedWith | DerivedFrom | Produced | SameAs

Required: No

### DestinationArn

The Amazon Resource Name (ARN) of the destination lineage entity of the directed edge.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

Required: No

### SourceArn

The Amazon Resource Name (ARN) of the source lineage entity of the directed edge.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeDeploymentConfig

Service: Amazon SageMaker Service

Contains information about the configuration of a deployment.

## Contents

### FailureHandlingPolicy

Toggle that determines whether to rollback to previous configuration if the current deployment fails. By default this is turned on. You may turn this off if you want to investigate the errors yourself.

Type: String

Valid Values: ROLLBACK\_ON\_FAILURE | DO\_NOTHING

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeDeploymentModelConfig

Service: Amazon SageMaker Service

Contains information about the configuration of a model in a deployment.

## Contents

### EdgePackagingJobName

The edge packaging job associated with this deployment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelHandle

The name the device application uses to reference this model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# EdgeDeploymentPlanSummary

Service: Amazon SageMaker Service

Contains information summarizing an edge deployment plan.

## Contents

### DeviceFleetName

The name of the device fleet used for the deployment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### EdgeDeploymentFailed

The number of edge devices that failed the deployment.

Type: Integer

Required: Yes

### EdgeDeploymentPending

The number of edge devices yet to pick up the deployment, or in progress.

Type: Integer

Required: Yes

### EdgeDeploymentPlanArn

The ARN of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z\-\]*:\d{12}:edge-deployment/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: Yes

### **EdgeDeploymentPlanName**

The name of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### **EdgeDeploymentSuccess**

The number of edge devices with the successful deployment.

Type: Integer

Required: Yes

### **CreationTime**

The time when the edge deployment plan was created.

Type: Timestamp

Required: No

### **LastModifiedTime**

The time when the edge deployment plan was last updated.

Type: Timestamp

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# EdgeDeploymentStatus

Service: Amazon SageMaker Service

Contains information summarizing the deployment stage results.

## Contents

### EdgeDeploymentFailedInStage

The number of edge devices that failed the deployment in current stage.

Type: Integer

Required: Yes

### EdgeDeploymentPendingInStage

The number of edge devices yet to pick up the deployment in current stage, or in progress.

Type: Integer

Required: Yes

### EdgeDeploymentSuccessInStage

The number of edge devices with the successful deployment in the current stage.

Type: Integer

Required: Yes

### StageStatus

The general status of the current stage.

Type: String

Valid Values: CREATING | READYTODEPLOY | STARTING | INPROGRESS | DEPLOYED | FAILED | STOPPING | STOPPED

Required: Yes

### EdgeDeploymentStageStartTime

The time when the deployment API started.

Type: Timestamp

Required: No

### **EdgeDeploymentStatusMessage**

A detailed message about deployment status in current stage.

Type: String

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeModel

Service: Amazon SageMaker Service

The model on the edge device.

## Contents

### ModelName

The name of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelVersion

The model version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: `[a-zA-Z0-9\_\.]+`

Required: Yes

### LatestInference

The timestamp of the last inference that was made.

Type: Timestamp

Required: No

### LatestSampleTime

The timestamp of the last data sample taken.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeModelStat

Service: Amazon SageMaker Service

Status of edge devices with this model.

## Contents

### ActiveDeviceCount

The number of devices that have this model version, a heart beat, and are currently running.

Type: Long

Required: Yes

### ConnectedDeviceCount

The number of devices that have this model version and have a heart beat.

Type: Long

Required: Yes

### ModelName

The name of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelVersion

The model version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: `[a-zA-Z0-9\_\.]+`



Required: Yes

### **OfflineDeviceCount**

The number of devices that have this model version and do not have a heart beat.

Type: Long

Required: Yes

### **SamplingDeviceCount**

The number of devices with this model version and are producing sample data.

Type: Long

Required: Yes

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeModelSummary

Service: Amazon SageMaker Service

Summary of model on edge device.

## Contents

### ModelName

The name of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelVersion

The version model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: `[a-zA-Z0-9\ \_\.]+`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeOutputConfig

Service: Amazon SageMaker Service

The output configuration.

## Contents

### S3OutputLocation

The Amazon Simple Storage (S3) bucket URI.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: Yes

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume after compilation job. If you don't provide a KMS key ID, Amazon SageMaker uses the default KMS key for Amazon S3 for your role's account.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_-]*$`

Required: No

### PresetDeploymentConfig

The configuration used to create deployment artifacts. Specify configuration options with a JSON string. The available configuration options for each type are:

- `ComponentName` (optional) - Name of the GreenGrass V2 component. If not specified, the default name generated consists of "SagemakerEdgeManager" and the name of your SageMaker Edge Manager packaging job.
- `ComponentDescription` (optional) - Description of the component.
- `ComponentVersion` (optional) - The version of the component.

**Note**

AWS IoT Greengrass uses semantic versions for components. Semantic versions follow a *major.minor.patch* number system. For example, version 1.0.0 represents the first major release for a component. For more information, see the [semantic version specification](#).

- `PlatformOS` (optional) - The name of the operating system for the platform. Supported platforms include Windows and Linux.
- `PlatformArchitecture` (optional) - The processor architecture for the platform.

Supported architectures Windows include: `Windows32_x86`, `Windows64_x64`.

Supported architectures for Linux include: `Linux x86_64`, `Linux ARMV8`.

Type: String

Required: No

**PresetDeploymentType**

The deployment type SageMaker Edge Manager will create. Currently only supports AWS IoT Greengrass Version 2 components.

Type: String

Valid Values: `GreengrassV2Component`

Required: No

**See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgePackagingJobSummary

Service: Amazon SageMaker Service

Summary of edge packaging job.

## Contents

### EdgePackagingJobArn

The Amazon Resource Name (ARN) of the edge packaging job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z\-\]*:\d{12}:edge-packaging-job/?[a-zA-Z_0-9+=,.\@\-\_/\]+`

Required: Yes

### EdgePackagingJobName

The name of the edge packaging job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### EdgePackagingJobStatus

The status of the edge packaging job.

Type: String

Valid Values: STARTING | INPROGRESS | COMPLETED | FAILED | STOPPING | STOPPED

Required: Yes

### CompilationJobName

The name of the SageMaker Neo compilation job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### **CreationTime**

The timestamp of when the job was created.

Type: Timestamp

Required: No

### **LastModifiedTime**

The timestamp of when the edge packaging job was last updated.

Type: Timestamp

Required: No

### **ModelName**

The name of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### **ModelVersion**

The version of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: `[a-zA-Z0-9\ \_\.]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgePresetDeploymentOutput

Service: Amazon SageMaker Service

The output of a SageMaker Edge Manager deployable resource.

## Contents

### Type

The deployment type created by SageMaker Edge Manager. Currently only supports AWS IoT Greengrass Version 2 components.

Type: String

Valid Values: GreengrassV2Component

Required: Yes

### Artifact

The Amazon Resource Name (ARN) of the generated deployable resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

### Status

The status of the deployable resource.

Type: String

Valid Values: COMPLETED | FAILED

Required: No

### StatusMessage

Returns a message describing the status of the deployed resource.

Type: String

Required: No



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EFSFileSystem

Service: Amazon SageMaker Service

A file system, created by you in Amazon EFS, that you assign to a user profile or space for an Amazon SageMaker Domain. Permitted users can access this file system in Amazon SageMaker Studio.

## Contents

### FileSystemId

The ID of your Amazon EFS file system.

Type: String

Length Constraints: Minimum length of 11. Maximum length of 21.

Pattern: `^(fs-[0-9a-f]{8,})$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EFSFileSystemConfig

Service: Amazon SageMaker Service

The settings for assigning a custom Amazon EFS file system to a user profile or space for an Amazon SageMaker Domain.

## Contents

### FileSystemId

The ID of your Amazon EFS file system.

Type: String

Length Constraints: Minimum length of 11. Maximum length of 21.

Pattern: `^(fs-[0-9a-f]{8,})$`

Required: Yes

### FileSystemPath

The path to the file system directory that is accessible in Amazon SageMaker Studio. Permitted users can access only this directory and below.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^\\S*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# EMRStepMetadata

Service: Amazon SageMaker Service

The configurations and outcomes of an Amazon EMR step execution.

## Contents

### ClusterId

The identifier of the EMR cluster.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### LogFilePath

The path to the log file where the cluster step's failure root cause is recorded.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### StepId

The identifier of the EMR cluster step.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### StepName

The name of the EMR cluster step.

Type: String

Length Constraints: Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Endpoint

Service: Amazon SageMaker Service

A hosted endpoint for real-time inference.

## Contents

### CreationTime

The time that the endpoint was created.

Type: Timestamp

Required: Yes

### EndpointArn

The Amazon Resource Name (ARN) of the endpoint.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:endpoint/.*`

Required: Yes

### EndpointConfigName

The endpoint configuration associated with the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### EndpointName

The name of the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### **EndpointStatus**

The status of the endpoint.

Type: String

Valid Values: `OutOfService` | `Creating` | `Updating` | `SystemUpdating` | `RollingBack` | `InService` | `Deleting` | `Failed` | `UpdateRollbackFailed`

Required: Yes

### **LastModifiedTime**

The last time the endpoint was modified.

Type: Timestamp

Required: Yes

### **DataCaptureConfig**

The currently active data capture configuration used by your Endpoint.

Type: [DataCaptureConfigSummary](#) object

Required: No

### **FailureReason**

If the endpoint failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **MonitoringSchedules**

A list of monitoring schedules for the endpoint. For information about model monitoring, see [Amazon SageMaker Model Monitor](#).

Type: Array of [MonitoringSchedule](#) objects



Required: No

### **ProductionVariants**

A list of the production variants hosted on the endpoint. Each production variant is a model.

Type: Array of [ProductionVariantSummary](#) objects

Array Members: Minimum number of 1 item.

Required: No

### **ShadowProductionVariants**

A list of the shadow variants hosted on the endpoint. Each shadow variant is a model in shadow mode with production traffic replicated from the production variant.

Type: Array of [ProductionVariantSummary](#) objects

Array Members: Minimum number of 1 item.

Required: No

### **Tags**

A list of the tags associated with the endpoint. For more information, see [Tagging AWS resources](#) in the *AWS General Reference Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EndpointConfigSummary

Service: Amazon SageMaker Service

Provides summary information for an endpoint configuration.

## Contents

### CreationTime

A timestamp that shows when the endpoint configuration was created.

Type: Timestamp

Required: Yes

### EndpointConfigArn

The Amazon Resource Name (ARN) of the endpoint configuration.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:endpoint-config/.*`

Required: Yes

### EndpointConfigName

The name of the endpoint configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## EndpointInfo

Service: Amazon SageMaker Service

Details about a customer endpoint that was compared in an Inference Recommender job.

### Contents

#### EndpointName

The name of a customer's endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EndpointInput

Service: Amazon SageMaker Service

Input object for the endpoint

## Contents

### EndpointName

An endpoint in customer's account which has enabled DataCaptureConfig enabled.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### LocalPath

Path to the filesystem where the endpoint data is available to the container.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `.*`

Required: Yes

### EndTimeOffset

If specified, monitoring jobs subtract this time from the end time. For information about using offsets for scheduling monitoring jobs, see [Schedule Model Quality Monitoring Jobs](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 15.

Pattern: `^.?P.*`

Required: No

**ExcludeFeaturesAttribute**

The attributes of the input data to exclude from the analysis.

Type: String

Length Constraints: Maximum length of 100.

Required: No

**FeaturesAttribute**

The attributes of the input data that are the input features.

Type: String

Required: No

**InferenceAttribute**

The attribute of the input data that represents the ground truth label.

Type: String

Required: No

**ProbabilityAttribute**

In a classification problem, the attribute that represents the class probability.

Type: String

Required: No

**ProbabilityThresholdAttribute**

The threshold for the class probability to be evaluated as a positive result.

Type: Double

Required: No

**S3DataDistributionType**

Whether input data distributed in Amazon S3 is fully replicated or sharded by an Amazon S3 key. Defaults to FullyReplicated

Type: String

Valid Values: FullyReplicated | ShardedByS3Key

Required: No

### **S3InputMode**

Whether the Pipe or File is used as the input mode for transferring data for the monitoring job. Pipe mode is recommended for large datasets. File mode is useful for small files that fit in memory. Defaults to File.

Type: String

Valid Values: Pipe | File

Required: No

### **StartTimeOffset**

If specified, monitoring jobs subtract this time from the start time. For information about using offsets for scheduling monitoring jobs, see [Schedule Model Quality Monitoring Jobs](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 15.

Pattern: ^.?.\*P.\*

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EndpointInputConfiguration

Service: Amazon SageMaker Service

The endpoint configuration for the load test.

## Contents

### EnvironmentParameterRanges

The parameter you want to benchmark against.

Type: [EnvironmentParameterRanges](#) object

Required: No

### InferenceSpecificationName

The inference specification name in the model package version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### InstanceType

The instance types to use for the load test.

Type: String

Valid Values: `m1.t2.medium | m1.t2.large | m1.t2.xlarge | m1.t2.2xlarge | m1.m4.xlarge | m1.m4.2xlarge | m1.m4.4xlarge | m1.m4.10xlarge | m1.m4.16xlarge | m1.m5.large | m1.m5.xlarge | m1.m5.2xlarge | m1.m5.4xlarge | m1.m5.12xlarge | m1.m5.24xlarge | m1.m5d.large | m1.m5d.xlarge | m1.m5d.2xlarge | m1.m5d.4xlarge | m1.m5d.12xlarge | m1.m5d.24xlarge | m1.c4.large | m1.c4.xlarge | m1.c4.2xlarge | m1.c4.4xlarge | m1.c4.8xlarge | m1.p2.xlarge | m1.p2.8xlarge | m1.p2.16xlarge | m1.p3.2xlarge | m1.p3.8xlarge | m1.p3.16xlarge | m1.c5.large | m1.c5.xlarge | m1.c5.2xlarge | m1.c5.4xlarge | m1.c5.9xlarge | m1.c5.18xlarge | m1.c5d.large | m1.c5d.xlarge | m1.c5d.2xlarge | m1.c5d.4xlarge | m1.c5d.9xlarge | m1.c5d.18xlarge |`



ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge  
| ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge  
| ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.12xlarge | ml.r5.24xlarge  
| ml.r5d.large | ml.r5d.xlarge | ml.r5d.2xlarge | ml.r5d.4xlarge |  
ml.r5d.12xlarge | ml.r5d.24xlarge | ml.inf1.xlarge | ml.inf1.2xlarge  
| ml.inf1.6xlarge | ml.inf1.24xlarge | ml.dl1.24xlarge | ml.c6i.large  
| ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge |  
ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge  
| ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge |  
ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge  
| ml.g6.xlarge | ml.g6.2xlarge | ml.g6.4xlarge | ml.g6.8xlarge |  
ml.g6.12xlarge | ml.g6.16xlarge | ml.g6.24xlarge | ml.g6.48xlarge  
| ml.p4d.24xlarge | ml.c7g.large | ml.c7g.xlarge | ml.c7g.2xlarge |  
ml.c7g.4xlarge | ml.c7g.8xlarge | ml.c7g.12xlarge | ml.c7g.16xlarge  
| ml.m6g.large | ml.m6g.xlarge | ml.m6g.2xlarge | ml.m6g.4xlarge |  
ml.m6g.8xlarge | ml.m6g.12xlarge | ml.m6g.16xlarge | ml.m6gd.large |  
ml.m6gd.xlarge | ml.m6gd.2xlarge | ml.m6gd.4xlarge | ml.m6gd.8xlarge  
| ml.m6gd.12xlarge | ml.m6gd.16xlarge | ml.c6g.large | ml.c6g.xlarge  
| ml.c6g.2xlarge | ml.c6g.4xlarge | ml.c6g.8xlarge | ml.c6g.12xlarge  
| ml.c6g.16xlarge | ml.c6gd.large | ml.c6gd.xlarge | ml.c6gd.2xlarge |  
ml.c6gd.4xlarge | ml.c6gd.8xlarge | ml.c6gd.12xlarge | ml.c6gd.16xlarge  
| ml.c6gn.large | ml.c6gn.xlarge | ml.c6gn.2xlarge | ml.c6gn.4xlarge  
| ml.c6gn.8xlarge | ml.c6gn.12xlarge | ml.c6gn.16xlarge | ml.r6g.large  
| ml.r6g.xlarge | ml.r6g.2xlarge | ml.r6g.4xlarge | ml.r6g.8xlarge |  
ml.r6g.12xlarge | ml.r6g.16xlarge | ml.r6gd.large | ml.r6gd.xlarge |  
ml.r6gd.2xlarge | ml.r6gd.4xlarge | ml.r6gd.8xlarge | ml.r6gd.12xlarge  
| ml.r6gd.16xlarge | ml.p4de.24xlarge | ml.trn1.2xlarge |  
ml.trn1.32xlarge | ml.trn1n.32xlarge | ml.inf2.xlarge | ml.inf2.8xlarge  
| ml.inf2.24xlarge | ml.inf2.48xlarge | ml.p5.48xlarge | ml.m7i.large  
| ml.m7i.xlarge | ml.m7i.2xlarge | ml.m7i.4xlarge | ml.m7i.8xlarge |  
ml.m7i.12xlarge | ml.m7i.16xlarge | ml.m7i.24xlarge | ml.m7i.48xlarge  
| ml.c7i.large | ml.c7i.xlarge | ml.c7i.2xlarge | ml.c7i.4xlarge |  
ml.c7i.8xlarge | ml.c7i.12xlarge | ml.c7i.16xlarge | ml.c7i.24xlarge  
| ml.c7i.48xlarge | ml.r7i.large | ml.r7i.xlarge | ml.r7i.2xlarge |  
ml.r7i.4xlarge | ml.r7i.8xlarge | ml.r7i.12xlarge | ml.r7i.16xlarge |  
ml.r7i.24xlarge | ml.r7i.48xlarge

Required: No

## ServerlessConfig

Specifies the serverless configuration for an endpoint variant.

Type: [ProductionVariantServerlessConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EndpointMetadata

Service: Amazon SageMaker Service

The metadata of the endpoint.

## Contents

### EndpointName

The name of the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### EndpointConfigName

The name of the endpoint configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### EndpointStatus

The status of the endpoint. For possible values of the status of an endpoint, see [EndpointSummary](#).

Type: String

Valid Values: `OutOfService` | `Creating` | `Updating` | `SystemUpdating` | `RollingBack` | `InService` | `Deleting` | `Failed` | `UpdateRollbackFailed`

Required: No

## FailureReason

If the status of the endpoint is Failed, or the status is InService but update operation fails, this provides the reason why it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EndpointOutputConfiguration

Service: Amazon SageMaker Service

The endpoint configuration made by Inference Recommender during a recommendation job.

## Contents

### EndpointName

The name of the endpoint made during a recommendation job.

Type: String

Required: Yes

### VariantName

The name of the production variant (deployed model) made during a recommendation job.

Type: String

Required: Yes

### InitialInstanceCount

The number of instances recommended to launch initially.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### InstanceType

The instance type recommended by Amazon SageMaker Inference Recommender.

Type: String

Valid Values: `m1.t2.medium` | `m1.t2.large` | `m1.t2.xlarge` | `m1.t2.2xlarge` | `m1.m4.xlarge` | `m1.m4.2xlarge` | `m1.m4.4xlarge` | `m1.m4.10xlarge` | `m1.m4.16xlarge` | `m1.m5.large` | `m1.m5.xlarge` | `m1.m5.2xlarge` | `m1.m5.4xlarge` | `m1.m5.12xlarge` | `m1.m5.24xlarge` | `m1.m5d.large` | `m1.m5d.xlarge` | `m1.m5d.2xlarge` | `m1.m5d.4xlarge` | `m1.m5d.12xlarge` | `m1.m5d.24xlarge` | `m1.c4.large` | `m1.c4.xlarge` | `m1.c4.2xlarge` | `m1.c4.4xlarge` | `m1.c4.8xlarge` | `m1.p2.xlarge` | `m1.p2.8xlarge` |

ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge  
| ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge |  
ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.large | ml.c5d.xlarge |  
ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge |  
ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge  
| ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge  
| ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.12xlarge | ml.r5.24xlarge  
| ml.r5d.large | ml.r5d.xlarge | ml.r5d.2xlarge | ml.r5d.4xlarge |  
ml.r5d.12xlarge | ml.r5d.24xlarge | ml.inf1.xlarge | ml.inf1.2xlarge  
| ml.inf1.6xlarge | ml.inf1.24xlarge | ml.d11.24xlarge | ml.c6i.large  
| ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge |  
ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge  
| ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge |  
ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge  
| ml.g6.xlarge | ml.g6.2xlarge | ml.g6.4xlarge | ml.g6.8xlarge |  
ml.g6.12xlarge | ml.g6.16xlarge | ml.g6.24xlarge | ml.g6.48xlarge  
| ml.p4d.24xlarge | ml.c7g.large | ml.c7g.xlarge | ml.c7g.2xlarge |  
ml.c7g.4xlarge | ml.c7g.8xlarge | ml.c7g.12xlarge | ml.c7g.16xlarge  
| ml.m6g.large | ml.m6g.xlarge | ml.m6g.2xlarge | ml.m6g.4xlarge |  
ml.m6g.8xlarge | ml.m6g.12xlarge | ml.m6g.16xlarge | ml.m6gd.large |  
ml.m6gd.xlarge | ml.m6gd.2xlarge | ml.m6gd.4xlarge | ml.m6gd.8xlarge  
| ml.m6gd.12xlarge | ml.m6gd.16xlarge | ml.c6g.large | ml.c6g.xlarge  
| ml.c6g.2xlarge | ml.c6g.4xlarge | ml.c6g.8xlarge | ml.c6g.12xlarge  
| ml.c6g.16xlarge | ml.c6gd.large | ml.c6gd.xlarge | ml.c6gd.2xlarge |  
ml.c6gd.4xlarge | ml.c6gd.8xlarge | ml.c6gd.12xlarge | ml.c6gd.16xlarge  
| ml.c6gn.large | ml.c6gn.xlarge | ml.c6gn.2xlarge | ml.c6gn.4xlarge  
| ml.c6gn.8xlarge | ml.c6gn.12xlarge | ml.c6gn.16xlarge | ml.r6g.large  
| ml.r6g.xlarge | ml.r6g.2xlarge | ml.r6g.4xlarge | ml.r6g.8xlarge |  
ml.r6g.12xlarge | ml.r6g.16xlarge | ml.r6gd.large | ml.r6gd.xlarge |  
ml.r6gd.2xlarge | ml.r6gd.4xlarge | ml.r6gd.8xlarge | ml.r6gd.12xlarge  
| ml.r6gd.16xlarge | ml.p4de.24xlarge | ml.trn1.2xlarge |  
ml.trn1.32xlarge | ml.trn1n.32xlarge | ml.inf2.xlarge | ml.inf2.8xlarge  
| ml.inf2.24xlarge | ml.inf2.48xlarge | ml.p5.48xlarge | ml.m7i.large  
| ml.m7i.xlarge | ml.m7i.2xlarge | ml.m7i.4xlarge | ml.m7i.8xlarge |  
ml.m7i.12xlarge | ml.m7i.16xlarge | ml.m7i.24xlarge | ml.m7i.48xlarge  
| ml.c7i.large | ml.c7i.xlarge | ml.c7i.2xlarge | ml.c7i.4xlarge |

ml.c7i.8xlarge | ml.c7i.12xlarge | ml.c7i.16xlarge | ml.c7i.24xlarge  
| ml.c7i.48xlarge | ml.r7i.large | ml.r7i.xlarge | ml.r7i.2xlarge |  
ml.r7i.4xlarge | ml.r7i.8xlarge | ml.r7i.12xlarge | ml.r7i.16xlarge |  
ml.r7i.24xlarge | ml.r7i.48xlarge

Required: No

### ServerlessConfig

Specifies the serverless configuration for an endpoint variant.

Type: [ProductionVariantServerlessConfig](#) object

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EndpointPerformance

Service: Amazon SageMaker Service

The performance results from running an Inference Recommender job on an existing endpoint.

## Contents

### EndpointInfo

Details about a customer endpoint that was compared in an Inference Recommender job.

Type: [EndpointInfo](#) object

Required: Yes

### Metrics

The metrics for an existing endpoint.

Type: [InferenceMetrics](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# EndpointSummary

Service: Amazon SageMaker Service

Provides summary information for an endpoint.

## Contents

### CreationTime

A timestamp that shows when the endpoint was created.

Type: Timestamp

Required: Yes

### EndpointArn

The Amazon Resource Name (ARN) of the endpoint.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:endpoint/.*`

Required: Yes

### EndpointName

The name of the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### EndpointStatus

The status of the endpoint.

- `OutOfService`: Endpoint is not available to take incoming requests.
- `Creating`: [CreateEndpoint](#) is executing.

- Updating: [UpdateEndpoint](#) or [UpdateEndpointWeightsAndCapacities](#) is executing.
- SystemUpdating: Endpoint is undergoing maintenance and cannot be updated or deleted or re-scaled until it has completed. This maintenance operation does not change any customer-specified values such as VPC config, KMS encryption, model, instance type, or instance count.
- RollingBack: Endpoint fails to scale up or down or change its variant weight and is in the process of rolling back to its previous configuration. Once the rollback completes, endpoint returns to an InService status. This transitional status only applies to an endpoint that has autoscaling enabled and is undergoing variant weight or capacity changes as part of an [UpdateEndpointWeightsAndCapacities](#) call or when the [UpdateEndpointWeightsAndCapacities](#) operation is called explicitly.
- InService: Endpoint is available to process incoming requests.
- Deleting: [DeleteEndpoint](#) is executing.
- Failed: Endpoint could not be created, updated, or re-scaled. Use `DescribeEndpointOutput$FailureReason` for information about the failure. [DeleteEndpoint](#) is the only operation that can be performed on a failed endpoint.

To get a list of endpoints with a specified status, use the `StatusEquals` filter with a call to [ListEndpoints](#).

Type: String

Valid Values: `OutOfService` | `Creating` | `Updating` | `SystemUpdating` | `RollingBack` | `InService` | `Deleting` | `Failed` | `UpdateRollbackFailed`

Required: Yes

### **LastModifiedTime**

A timestamp that shows when the endpoint was last modified.

Type: Timestamp

Required: Yes

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EnvironmentParameter

Service: Amazon SageMaker Service

A list of environment parameters suggested by the Amazon SageMaker Inference Recommender.

## Contents

### Key

The environment key suggested by the Amazon SageMaker Inference Recommender.

Type: String

Required: Yes

### Value

The value suggested by the Amazon SageMaker Inference Recommender.

Type: String

Required: Yes

### ValueType

The value type suggested by the Amazon SageMaker Inference Recommender.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EnvironmentParameterRanges

Service: Amazon SageMaker Service

Specifies the range of environment parameters

## Contents

### CategoricalParameterRanges

Specifies a list of parameters for each category.

Type: Array of [CategoricalParameter](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Experiment

Service: Amazon SageMaker Service

The properties of an experiment as returned by the [Search](#) API.

## Contents

### CreatedBy

Who created the experiment.

Type: [UserContext](#) object

Required: No

### CreationTime

When the experiment was created.

Type: Timestamp

Required: No

### Description

The description of the experiment.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .\*

Required: No

### DisplayName

The name of the experiment as displayed. If `DisplayName` isn't specified, `ExperimentName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### **ExperimentArn**

The Amazon Resource Name (ARN) of the experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment/.*`

Required: No

### **ExperimentName**

The name of the experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### **LastModifiedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

### **LastModifiedTime**

When the experiment was last modified.

Type: Timestamp

Required: No

### **Source**

The source of the experiment.

Type: [ExperimentSource](#) object

Required: No

## Tags

The list of tags that are associated with the experiment. You can use [Search](#) API to search on the tags.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ExperimentConfig

Service: Amazon SageMaker Service

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob](#)
- [CreateTrainingJob](#)
- [CreateTransformJob](#)

## Contents

### ExperimentName

The name of an existing experiment to associate with the trial component.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### RunName

The name of the experiment run to associate with the trial component.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### TrialComponentDisplayName

The display name for the trial component. If this key isn't specified, the display name is the trial component name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### **TrialName**

The name of an existing trial to associate the trial component with. If not specified, a new trial is created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ExperimentSource

Service: Amazon SageMaker Service

The source of the experiment.

### Contents

#### SourceArn

The Amazon Resource Name (ARN) of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:.*`

Required: Yes

#### SourceType

The source type.

Type: String

Length Constraints: Maximum length of 128.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ExperimentSummary

Service: Amazon SageMaker Service

A summary of the properties of an experiment. To get the complete set of properties, call the [DescribeExperiment](#) API and provide the ExperimentName.

## Contents

### CreationTime

When the experiment was created.

Type: Timestamp

Required: No

### DisplayName

The name of the experiment as displayed. If DisplayName isn't specified, ExperimentName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### ExperimentArn

The Amazon Resource Name (ARN) of the experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment/.*`

Required: No

### ExperimentName

The name of the experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### **ExperimentSource**

The source of the experiment.

Type: [ExperimentSource](#) object

Required: No

### **LastModifiedTime**

When the experiment was last modified.

Type: Timestamp

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Explainability

Service: Amazon SageMaker Service

Contains explainability metrics for a model.

## Contents

### Report

The explainability report for a model.

Type: [MetricsSource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ExplainerConfig

Service: Amazon SageMaker Service

A parameter to activate explainers.

## Contents

### ClarifyExplainerConfig

A member of `ExplainerConfig` that contains configuration parameters for the SageMaker Clarify explainer.

Type: [ClarifyExplainerConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FailStepMetadata

Service: Amazon SageMaker Service

The container for the metadata for Fail step.

## Contents

### ErrorMessage

A message that you define and then is processed and rendered by the Fail step when the error occurs.

Type: String

Length Constraints: Maximum length of 3072.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# FeatureDefinition

Service: Amazon SageMaker Service

A list of features. You must include `FeatureName` and `FeatureType`. Valid feature `FeatureTypes` are `Integral`, `Fractional` and `String`.

## Contents

### FeatureName

The name of a feature. The type must be a string. `FeatureName` cannot be any of the following: `is_deleted`, `write_time`, `api_invocation_time`.

The name:

- Must start with an alphanumeric character.
- Can only include alphanumeric characters, underscores, and hyphens. Spaces are not allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,63}`

Required: Yes

### FeatureType

The value type of a feature. Valid values are `Integral`, `Fractional`, or `String`.

Type: String

Valid Values: `Integral` | `Fractional` | `String`

Required: Yes

### CollectionConfig

Configuration for your collection.

Type: [CollectionConfig](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: No

## CollectionType

A grouping of elements where each element within the collection must have the same feature type (String, Integral, or Fractional).

- **List:** An ordered collection of elements.
- **Set:** An unordered collection of unique elements.
- **Vector:** A specialized list that represents a fixed-size array of elements. The vector dimension is determined by you. Must have elements with fractional feature types.

Type: String

Valid Values: List | Set | Vector

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FeatureGroup

Service: Amazon SageMaker Service

Amazon SageMaker Feature Store stores features in a collection called Feature Group. A Feature Group can be visualized as a table which has rows, with a unique identifier for each row where each column in the table is a feature. In principle, a Feature Group is composed of features and values per features.

## Contents

### CreationTime

The time a FeatureGroup was created.

Type: Timestamp

Required: No

### Description

A free form description of a FeatureGroup.

Type: String

Length Constraints: Maximum length of 128.

Required: No

### EventTimeFeatureName

The name of the feature that stores the EventTime of a Record in a FeatureGroup.

A EventTime is point in time when a new event occurs that corresponds to the creation or update of a Record in FeatureGroup. All Records in the FeatureGroup must have a corresponding EventTime.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,63}`

Required: No

## FailureReason

The reason that the FeatureGroup failed to be replicated in the OfflineStore. This is failure may be due to a failure to create a FeatureGroup in or delete a FeatureGroup from the OfflineStore.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## FeatureDefinitions

A list of Features. Each Feature must include a FeatureName and a FeatureType.

Valid FeatureTypes are Integral, Fractional and String.

FeatureNames cannot be any of the following: `is_deleted`, `write_time`, `api_invocation_time`.

You can create up to 2,500 FeatureDefinitions per FeatureGroup.

Type: Array of [FeatureDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2500 items.

Required: No

## FeatureGroupArn

The Amazon Resource Name (ARN) of a FeatureGroup.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:feature-group/.*`

Required: No

## FeatureGroupName

The name of the FeatureGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([_-]*[a-zA-Z0-9]){0,63}`

Required: No

### **FeatureGroupStatus**

A FeatureGroup status.

Type: String

Valid Values: `Creating` | `Created` | `CreateFailed` | `Deleting` | `DeleteFailed`

Required: No

### **LastModifiedTime**

A timestamp indicating the last time you updated the feature group.

Type: Timestamp

Required: No

### **LastUpdateStatus**

A value that indicates whether the feature group was updated successfully.

Type: [LastUpdateStatus](#) object

Required: No

### **OfflineStoreConfig**

The configuration of an OfflineStore.

Provide an OfflineStoreConfig in a request to CreateFeatureGroup to create an OfflineStore.

To encrypt an OfflineStore using at rest data encryption, specify AWS Key Management Service (KMS) key ID, or KMSKeyId, in S3StorageConfig.

Type: [OfflineStoreConfig](#) object

Required: No

### **OfflineStoreStatus**

The status of `OfflineStore`.

Type: [OfflineStoreStatus](#) object

Required: No

### **OnlineStoreConfig**

Use this to specify the AWS Key Management Service (KMS) Key ID, or `KMSKeyId`, for at rest data encryption. You can turn `OnlineStore` on or off by specifying the `EnableOnlineStore` flag at General Assembly.

The default value is `False`.

Type: [OnlineStoreConfig](#) object

Required: No

### **RecordIdentifierFeatureName**

The name of the `Feature` whose value uniquely identifies a `Record` defined in the `FeatureGroup` `FeatureDefinitions`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,63}`

Required: No

### **RoleArn**

The Amazon Resource Name (ARN) of the IAM execution role used to create the feature group.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam:]\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: No

## Tags

Tags used to define a FeatureGroup.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FeatureGroupSummary

Service: Amazon SageMaker Service

The name, ARN, CreationTime, FeatureGroup values, LastUpdatedTime and EnableOnlineStorage status of a FeatureGroup.

## Contents

### CreationTime

A timestamp indicating the time of creation time of the FeatureGroup.

Type: Timestamp

Required: Yes

### FeatureGroupArn

Unique identifier for the FeatureGroup.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:feature-group/.*`

Required: Yes

### FeatureGroupName

The name of FeatureGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([_]*[a-zA-Z0-9]){0,63}`

Required: Yes

### FeatureGroupStatus

The status of a FeatureGroup. The status can be any of the following: Creating, Created, CreateFail, Deleting or DetailFail.



Type: String

Valid Values: Creating | Created | CreateFailed | Deleting | DeleteFailed

Required: No

### **OfflineStoreStatus**

Notifies you if replicating data into the OfflineStore has failed. Returns either: Active or Blocked.

Type: [OfflineStoreStatus](#) object

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FeatureMetadata

Service: Amazon SageMaker Service

The metadata for a feature. It can either be metadata that you specify, or metadata that is updated automatically.

## Contents

### CreationTime

A timestamp indicating when the feature was created.

Type: Timestamp

Required: No

### Description

An optional description that you specify to better describe the feature.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

Pattern: .\*

Required: No

### FeatureGroupArn

The Amazon Resource Number (ARN) of the feature group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:feature-group/.\*

Required: No

### FeatureGroupName

The name of the feature group containing the feature.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,63}`

Required: No

### FeatureName

The name of feature.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,63}`

Required: No

### FeatureType

The data type of the feature.

Type: String

Valid Values: `Integral | Fractional | String`

Required: No

### LastModifiedTime

A timestamp indicating when the feature was last modified.

Type: Timestamp

Required: No

### Parameters

Optional key-value pairs that you specify to better describe the feature.

Type: Array of [FeatureParameter](#) objects

Array Members: Minimum number of 0 items. Maximum number of 25 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FeatureParameter

Service: Amazon SageMaker Service

A key-value pair that you specify to describe the feature.

## Contents

### Key

A key that must contain a value to describe the feature.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern:  $^([\p{L}\p{Z}\p{N}_\p{-}:/=+\p{-}]^*)\$$

Required: No

### Value

The value that belongs to a key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern:  $^([\p{L}\p{Z}\p{N}_\p{-}:/=+\p{-}]^*)\$$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## FileSource

Service: Amazon SageMaker Service

Contains details regarding the file source.

### Contents

#### S3Uri

The Amazon S3 URI for the file source.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

#### ContentDigest

The digest of the file source.

Type: String

Length Constraints: Maximum length of 72.

Pattern: `^[Ss][Hh][Aa]256:[0-9a-fA-F]{64}$`

Required: No

#### ContentType

The type of content stored in the file source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FileSystemConfig

Service: Amazon SageMaker Service

The Amazon Elastic File System storage configuration for a SageMaker image.

## Contents

### DefaultGid

The default POSIX group ID (GID). If not specified, defaults to 100.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 65535.

Required: No

### DefaultUid

The default POSIX user ID (UID). If not specified, defaults to 1000.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 65535.

Required: No

### MountPath

The path within the image to mount the user's EFS home directory. The directory should be empty. If not specified, defaults to */home/sagemaker-user*.

Type: String

Length Constraints: Maximum length of 1024.

Pattern:  $^{\wedge} \backslash / . *$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FileSystemDataSource

Service: Amazon SageMaker Service

Specifies a file system data source for a channel.

## Contents

### DirectoryPath

The full path to the directory to associate with the channel.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .\*

Required: Yes

### FileSystemAccessMode

The access mode of the mount of the directory associated with the channel. A directory can be mounted either in `ro` (read-only) or `rw` (read-write) mode.

Type: String

Valid Values: `rw` | `ro`

Required: Yes

### FileSystemId

The file system id.

Type: String

Length Constraints: Minimum length of 11. Maximum length of 21.

Pattern: `^(fs-[0-9a-f]{8,})$`

Required: Yes

### FileSystemType

The file system type.

Type: String

Valid Values: EFS | FSxLustre

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Filter

Service: Amazon SageMaker Service

A conditional statement for a search expression that includes a resource property, a Boolean operator, and a value. Resources that match the statement are returned in the results from the [Search](#) API.

If you specify a `Value`, but not an `Operator`, SageMaker uses the equals operator.

In search, there are several property types:

### Metrics

To define a metric filter, enter a value using the form `"Metrics.<name>"`, where `<name>` is a metric name. For example, the following filter searches for training jobs with an "accuracy" metric greater than "0.9":

```
{  
  
  "Name": "Metrics.accuracy",  
  
  "Operator": "GreaterThan",  
  
  "Value": "0.9"  
  
}
```

### HyperParameters

To define a hyperparameter filter, enter a value with the form `"HyperParameters.<name>"`. Decimal hyperparameter values are treated as a decimal in a comparison if the specified `Value` is also a decimal value. If the specified `Value` is an integer, the decimal hyperparameter values are treated as integers. For example, the following filter is satisfied by training jobs with a "learning\_rate" hyperparameter that is less than "0.5":

```
{  
  
  "Name": "HyperParameters.learning_rate",  
  
  "Operator": "LessThan",  
  
  "Value": "0.5"  
  
}
```

```
}
```

## Tags

To define a tag filter, enter a value with the form `Tags.<key>`.

## Contents

### Name

A resource property name. For example, `TrainingJobName`. For valid property names, see [SearchRecord](#). You must specify a valid property for the resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `.+`

Required: Yes

### Operator

A Boolean binary operator that is used to evaluate the filter. The operator field contains one of the following values:

#### Equals

The value of `Name` equals `Value`.

#### NotEquals

The value of `Name` doesn't equal `Value`.

#### Exists

The `Name` property exists.

#### NotExists

The `Name` property does not exist.

#### GreaterThan

The value of `Name` is greater than `Value`. Not supported for text properties.

## GreaterThanOrEqualTo

The value of Name is greater than or equal to Value. Not supported for text properties.

## LessThan

The value of Name is less than Value. Not supported for text properties.

## LessThanOrEqualTo

The value of Name is less than or equal to Value. Not supported for text properties.

## In

The value of Name is one of the comma delimited strings in Value. Only supported for text properties.

## Contains

The value of Name contains the string Value. Only supported for text properties.

A SearchExpression can include the Contains operator multiple times when the value of Name is one of the following:

- Experiment.DisplayName
- Experiment.ExperimentName
- Experiment.Tags
- Trial.DisplayName
- Trial.TrialName
- Trial.Tags
- TrialComponent.DisplayName
- TrialComponent.TrialComponentName
- TrialComponent.Tags
- TrialComponent.InputArtifacts
- TrialComponent.OutputArtifacts

A SearchExpression can include only one Contains operator for all other values of Name. In these cases, if you include multiple Contains operators in the SearchExpression, the result is the following error message: "'CONTAINS' operator usage limit of 1 exceeded."

Type: String

Valid Values: Equals | NotEquals | GreaterThan | GreaterThanOrEqualTo | LessThan | LessThanOrEqualTo | Contains | Exists | NotExists | In

Required: No

## Value

A value used with Name and Operator to determine which resources satisfy the filter's condition. For numerical properties, Value must be an integer or floating-point decimal. For timestamp properties, Value must be an ISO 8601 date-time string of the following format: YYYY-mm-dd 'T' HH:MM:SS.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: .+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FinalAutoMLJobObjectiveMetric

Service: Amazon SageMaker Service

The best candidate result from an AutoML training job.

## Contents

### MetricName

The name of the metric with the best result. For a description of the possible objective metrics, see [AutoMLJobObjective\\$MetricName](#).

Type: String

Valid Values: Accuracy | MSE | F1 | F1macro | AUC | RMSE | BalancedAccuracy | R2 | Recall | RecallMacro | Precision | PrecisionMacro | MAE | MAPE | MASE | WAPE | AverageWeightedQuantileLoss

Required: Yes

### Value

The value of the metric with the best result.

Type: Float

Required: Yes

### StandardMetricName

The name of the standard metric. For a description of the standard metrics, see [Autopilot candidate metrics](#).

Type: String

Valid Values: Accuracy | MSE | F1 | F1macro | AUC | RMSE | BalancedAccuracy | R2 | Recall | RecallMacro | Precision | PrecisionMacro | MAE | MAPE | MASE | WAPE | AverageWeightedQuantileLoss

Required: No

### Type

The type of metric with the best result.



Type: String

Valid Values: Maximize | Minimize

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FinalHyperParameterTuningJobObjectiveMetric

Service: Amazon SageMaker Service

Shows the latest objective metric emitted by a training job that was launched by a hyperparameter tuning job. You define the objective metric in the `HyperParameterTuningJobObjective` parameter of [HyperParameterTuningJobConfig](#).

## Contents

### MetricName

The name of the objective metric. For SageMaker built-in algorithms, metrics are defined per algorithm. See the [metrics for XGBoost](#) as an example. You can also use a custom algorithm for training and define your own metrics. For more information, see [Define metrics and environment variables](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: . +

Required: Yes

### Value

The value of the objective metric.

Type: Float

Required: Yes

### Type

Select if you want to minimize or maximize the objective metric during hyperparameter tuning.

Type: String

Valid Values: Maximize | Minimize

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FlowDefinitionOutputConfig

Service: Amazon SageMaker Service

Contains information about where human output will be stored.

## Contents

### S3OutputPath

The Amazon S3 path where the object containing human output will be made available.

To learn more about the format of Amazon A2I output data, see [Amazon A2I Output Data](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

### KmsKeyId

The Amazon Key Management Service (KMS) key ID for server-side encryption.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



## FlowDefinitionSummary

Service: Amazon SageMaker Service

Contains summary information about the flow definition.

### Contents

#### CreationTime

The timestamp when SageMaker created the flow definition.

Type: Timestamp

Required: Yes

#### FlowDefinitionArn

The Amazon Resource Name (ARN) of the flow definition.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]+:[0-9]{12}:flow-definition/.*`

Required: Yes

#### FlowDefinitionName

The name of the flow definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-z0-9](-*[a-z0-9]){0,62}`

Required: Yes

#### FlowDefinitionStatus

The status of the flow definition. Valid values:

Type: String

Valid Values: Initializing | Active | Failed | Deleting

Required: Yes

### **FailureReason**

The reason why the flow definition creation failed. A failure reason is returned only when the flow definition status is Failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# GenerativeAiSettings

Service: Amazon SageMaker Service

The generative AI settings for the SageMaker Canvas application.

Configure these settings for Canvas users starting chats with generative AI foundation models. For more information, see [Use generative AI with foundation models](#).

## Contents

### AmazonBedrockRoleArn

The ARN of an AWS IAM role that allows fine-tuning of large language models (LLMs) in Amazon Bedrock. The IAM role should have Amazon S3 read and write permissions, as well as a trust relationship that establishes `bedrock.amazonaws.com` as a service principal.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# GitConfig

Service: Amazon SageMaker Service

Specifies configuration details for a Git repository in your AWS account.

## Contents

### RepositoryUrl

The URL where the Git repository is located.

Type: String

Length Constraints: Minimum length of 11. Maximum length of 1024.

Pattern: `^https://(?:[^\s/]+)/?.{3,1016}$`

Required: Yes

### Branch

The default branch for the Git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[\^ ~^:~*\[]+`

Required: No

### SecretArn

The Amazon Resource Name (ARN) of the AWS Secrets Manager secret that contains the credentials used to access the git repository. The secret must have a staging label of `AWSCURRENT` and must be in the following format:

```
{"username": UserName, "password": Password}
```

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:secretsmanager:[a-z0-9\-*]:[0-9]{12}:secret:.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# GitConfigForUpdate

Service: Amazon SageMaker Service

Specifies configuration details for a Git repository when the repository is updated.

## Contents

### SecretArn

The Amazon Resource Name (ARN) of the AWS Secrets Manager secret that contains the credentials used to access the git repository. The secret must have a staging label of AWSCURRENT and must be in the following format:

```
{"username": UserName, "password": Password}
```

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:secretsmanager:[a-z0-9\-*]:[0-9]{12}:secret:.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HolidayConfigAttributes

Service: Amazon SageMaker Service

Stores the holiday featurization attributes applicable to each item of time-series datasets during the training of a forecasting model. This allows the model to identify patterns associated with specific holidays.

## Contents

### CountryCode

The country code for the holiday calendar.

For the list of public holiday calendars supported by AutoML job V2, see [Country Codes](#). Use the country code corresponding to the country of your choice.

Type: String

Length Constraints: Fixed length of 2.

Pattern: [A-Z]{2}

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HubContentDependency

Service: Amazon SageMaker Service

Any dependencies related to hub content, such as scripts, model artifacts, datasets, or notebooks.

## Contents

### DependencyCopyPath

The hub content dependency copy path.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

Required: No

### DependencyOriginPath

The hub content dependency origin path.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## HubContentInfo

Service: Amazon SageMaker Service

Information about hub content.

### Contents

#### CreationTime

The date and time that the hub content was created.

Type: Timestamp

Required: Yes

#### DocumentSchemaVersion

The version of the hub content document schema.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: `^\d{1,4}.\d{1,4}.\d{1,4}$`

Required: Yes

#### HubContentArn

The Amazon Resource Name (ARN) of the hub content.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `.*`

Required: Yes

#### HubContentName

The name of the hub content.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### **HubContentStatus**

The status of the hub content.

Type: String

Valid Values: Available | Importing | Deleting | ImportFailed | DeleteFailed

Required: Yes

### **HubContentType**

The type of hub content.

Type: String

Valid Values: Model | Notebook | ModelReference

Required: Yes

### **HubContentVersion**

The version of the hub content.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: `^\d{1,4}.\d{1,4}.\d{1,4}$`

Required: Yes

### **HubContentDescription**

A description of the hub content.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: `.*`

Required: No

## HubContentDisplayName

The display name of the hub content.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: No

## HubContentSearchKeywords

The searchable keywords for the hub content.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 255.

Pattern: ^[A-Z]\*\$

Required: No

## OriginalCreationTime

The date and time when the hub content was originally created, before any updates or revisions.

Type: Timestamp

Required: No

## SageMakerPublicHubContentArn

The ARN of the public hub content.

Type: String

Length Constraints: Maximum length of 255.

Pattern: ^arn:[a-z0-9-\.]{1,63}:sagemaker:\w+(?:-\w+)+:aws:hub-content\[a-zA-Z0-9\](-\*[a-zA-Z0-9]){0,62}\Model\[a-zA-Z0-9\](-\*[a-zA-Z0-9]){0,63}\$



Required: No

## SupportStatus

The support status of the hub content.

Type: String

Valid Values: Supported | Deprecated

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## HubInfo

Service: Amazon SageMaker Service

Information about a hub.

### Contents

#### CreationTime

The date and time that the hub was created.

Type: Timestamp

Required: Yes

#### HubArn

The Amazon Resource Name (ARN) of the hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

#### HubName

The name of the hub.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

#### HubStatus

The status of the hub.

Type: String

Valid Values: InService | Creating | Updating | Deleting | CreateFailed | UpdateFailed | DeleteFailed

Required: Yes

### **LastModifiedTime**

The date and time that the hub was last modified.

Type: Timestamp

Required: Yes

### **HubDescription**

A description of the hub.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

Required: No

### **HubDisplayName**

The display name of the hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: No

### **HubSearchKeywords**

The searchable keywords for the hub.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 255.

Pattern: `^[^A-Z]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HubS3StorageConfig

Service: Amazon SageMaker Service

The Amazon S3 storage configuration of a hub.

## Contents

### S3OutputPath

The Amazon S3 bucket prefix for hosting hub content.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HumanLoopActivationConditionsConfig

Service: Amazon SageMaker Service

Defines under what conditions SageMaker creates a human loop. Used within [CreateFlowDefinition](#). See [HumanLoopActivationConditionsConfig](#) for the required format of activation conditions.

## Contents

### HumanLoopActivationConditions

JSON expressing use-case specific conditions declaratively. If any condition is matched, atomic tasks are created against the configured work team. The set of conditions is different for Rekognition and Textract. For more information about how to structure the JSON, see [JSON Schema for Human Loop Activation Conditions in Amazon Augmented AI](#) in the *Amazon SageMaker Developer Guide*.

Type: String

Length Constraints: Maximum length of 10240.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HumanLoopActivationConfig

Service: Amazon SageMaker Service

Provides information about how and under what conditions SageMaker creates a human loop. If `HumanLoopActivationConfig` is not given, then all requests go to humans.

## Contents

### HumanLoopActivationConditionsConfig

Container structure for defining under what conditions SageMaker creates a human loop.

Type: [HumanLoopActivationConditionsConfig](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HumanLoopConfig

Service: Amazon SageMaker Service

Describes the work to be performed by human workers.

## Contents

### HumanTaskUiArn

The Amazon Resource Name (ARN) of the human task user interface.

You can use standard HTML and Crowd HTML Elements to create a custom worker task template. You use this template to create a human task UI.

To learn how to create a custom HTML template, see [Create Custom Worker Task Template](#).

To learn how to create a human task UI, which is a worker task template that can be used in a flow definition, see [Create and Delete a Worker Task Templates](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]+:[0-9]{12}:human-task-ui/.*`

Required: Yes

### TaskCount

The number of distinct workers who will perform the same task on each object. For example, if TaskCount is set to 3 for an image classification labeling job, three workers will classify each input image. Increasing TaskCount can improve label accuracy.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 3.

Required: Yes

### TaskDescription

A description for the human worker task.

Type: String



Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: Yes

### **TaskTitle**

A title for the human worker task.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\t\n\r -\uD7FF\uE000-\uFFFF]\*\$

Required: Yes

### **WorkteamArn**

Amazon Resource Name (ARN) of a team of workers. To learn more about the types of workforces and work teams you can create and use with Amazon A2I, see [Create and Manage Workforces](#).

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:workteam/.\*

Required: Yes

### **PublicWorkforceTaskPrice**

Defines the amount of money paid to an Amazon Mechanical Turk worker for each task performed.

Use one of the following prices for bounding box tasks. Prices are in US dollars and should be based on the complexity of the task; the longer it takes in your initial testing, the more you should offer.

- 0.036
- 0.048
- 0.060

- 0.072
- 0.120
- 0.240
- 0.360
- 0.480
- 0.600
- 0.720
- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for image classification, text classification, and custom tasks. Prices are in US dollars.

- 0.012
- 0.024
- 0.036
- 0.048
- 0.060
- 0.072
- 0.120
- 0.240
- 0.360
- 0.480
- 0.600
- 0.720
- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for semantic segmentation tasks. Prices are in US dollars.

- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for Textract AnalyzeDocument Important Form Key Amazon Augmented AI review tasks. Prices are in US dollars.

- 2.400
- 2.280
- 2.160
- 2.040
- 1.920
- 1.800
- 1.680
- 1.560
- 1.440
- 1.320
- 1.200
- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360
- 0.240
- 0.120
- 0.072
- 0.060
- 0.048
- 0.036

- 0.024
- 0.012

Use one of the following prices for Rekognition DetectModerationLabels Amazon Augmented AI review tasks. Prices are in US dollars.

- 1.200
- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360
- 0.240
- 0.120
- 0.072
- 0.060
- 0.048
- 0.036
- 0.024
- 0.012

Use one of the following prices for Amazon Augmented AI custom human review tasks. Prices are in US dollars.

- 1.200
- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360

- 0.240
- 0.120
- 0.072
- 0.060
- 0.048
- 0.036
- 0.024
- 0.012

Type: [PublicWorkforceTaskPrice](#) object

Required: No

### **TaskAvailabilityLifetimeInSeconds**

The length of time that a task remains available for review by human workers.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### **TaskKeywords**

Keywords used to describe the task so that workers can discover the task.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern:  $^[A-Za-z0-9]+([A-Za-z0-9]+)*$$

Required: No

### **TaskTimeLimitInSeconds**

The amount of time that a worker has to complete a task. The default value is 3,600 seconds (1 hour).

Type: Integer

Valid Range: Minimum value of 30.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HumanLoopRequestSource

Service: Amazon SageMaker Service

Container for configuring the source of human task requests.

## Contents

### AwsManagedHumanLoopRequestSource

Specifies whether Amazon Rekognition or Amazon Textract are used as the integration source. The default field settings and JSON parsing rules are different based on the integration source.

Valid values:

Type: String

Valid Values: AWS/Rekognition/DetectModerationLabels/Image/V3 | AWS/Textract/AnalyzeDocument/Forms/V1

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HumanTaskConfig

Service: Amazon SageMaker Service

Information required for human workers to complete a labeling task.

## Contents

### AnnotationConsolidationConfig

Configures how labels are consolidated across human workers.

Type: [AnnotationConsolidationConfig](#) object

Required: Yes

### NumberOfHumanWorkersPerDataObject

The number of human workers that will label an object.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 9.

Required: Yes

### PreHumanTaskLambdaArn

The Amazon Resource Name (ARN) of a Lambda function that is run before a data object is sent to a human worker. Use this function to provide input to a custom labeling job.

For [built-in task types](#), use one of the following Amazon SageMaker Ground Truth Lambda function ARNs for PreHumanTaskLambdaArn. For custom labeling workflows, see [Pre-annotation Lambda](#).

**Bounding box** - Finds the most similar boxes from different workers based on the Jaccard index of the boxes.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-BoundingBox`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-BoundingBox`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-BoundingBox`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-BoundingBox`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-BoundingBox`



- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-BoundingBox`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-BoundingBox`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-BoundingBox`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-BoundingBox`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-BoundingBox`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-BoundingBox`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-BoundingBox`

**Image classification** - Uses a variant of the Expectation Maximization approach to estimate the true class of an image based on annotations from individual workers.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-ImageMultiClass`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-ImageMultiClass`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-ImageMultiClass`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-ImageMultiClass`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-ImageMultiClass`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-ImageMultiClass`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-ImageMultiClass`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-ImageMultiClass`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-ImageMultiClass`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-ImageMultiClass`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-ImageMultiClass`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-ImageMultiClass`

**Multi-label image classification** - Uses a variant of the Expectation Maximization approach to estimate the true classes of an image based on annotations from individual workers.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-ImageMultiClassMultiLabel`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-ImageMultiClassMultiLabel`

- `arn:aws:lambda:us-west-2:081040173940:function:PRE-ImageMultiClassMultiLabel`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-ImageMultiClassMultiLabel`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-ImageMultiClassMultiLabel`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-ImageMultiClassMultiLabel`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-ImageMultiClassMultiLabel`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-ImageMultiClassMultiLabel`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-ImageMultiClassMultiLabel`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-ImageMultiClassMultiLabel`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-ImageMultiClassMultiLabel`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-ImageMultiClassMultiLabel`

**Semantic segmentation** - Treats each pixel in an image as a multi-class classification and treats pixel annotations from workers as "votes" for the correct label.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-SemanticSegmentation`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-SemanticSegmentation`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-SemanticSegmentation`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-SemanticSegmentation`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-SemanticSegmentation`

- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-SemanticSegmentation`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-SemanticSegmentation`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-SemanticSegmentation`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-SemanticSegmentation`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-SemanticSegmentation`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-SemanticSegmentation`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-SemanticSegmentation`

**Text classification** - Uses a variant of the Expectation Maximization approach to estimate the true class of text based on annotations from individual workers.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-TextMultiClass`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-TextMultiClass`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-TextMultiClass`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-TextMultiClass`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-TextMultiClass`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-TextMultiClass`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-TextMultiClass`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-TextMultiClass`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-TextMultiClass`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-TextMultiClass`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-TextMultiClass`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-TextMultiClass`

**Multi-label text classification** - Uses a variant of the Expectation Maximization approach to estimate the true classes of text based on annotations from individual workers.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-TextMultiClassMultiLabel`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-TextMultiClassMultiLabel`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-TextMultiClassMultiLabel`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-TextMultiClassMultiLabel`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-TextMultiClassMultiLabel`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-TextMultiClassMultiLabel`
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- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-TextMultiClassMultiLabel`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-TextMultiClassMultiLabel`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-TextMultiClassMultiLabel`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-TextMultiClassMultiLabel`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-TextMultiClassMultiLabel`

**Named entity recognition** - Groups similar selections and calculates aggregate boundaries, resolving to most-assigned label.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-NamedEntityRecognition`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-NamedEntityRecognition`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-NamedEntityRecognition`

- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-NamedEntityRecognition`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-NamedEntityRecognition`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-NamedEntityRecognition`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-NamedEntityRecognition`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-NamedEntityRecognition`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-NamedEntityRecognition`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-NamedEntityRecognition`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-NamedEntityRecognition`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-NamedEntityRecognition`

**Video Classification** - Use this task type when you need workers to classify videos using predefined labels that you specify. Workers are shown videos and are asked to choose one label for each video.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-VideoMultiClass`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-VideoMultiClass`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-VideoMultiClass`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-VideoMultiClass`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-VideoMultiClass`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-VideoMultiClass`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-VideoMultiClass`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-VideoMultiClass`

- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-VideoMultiClass`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-VideoMultiClass`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-VideoMultiClass`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-VideoMultiClass`

**Video Frame Object Detection** - Use this task type to have workers identify and locate objects in a sequence of video frames (images extracted from a video) using bounding boxes. For example, you can use this task to ask workers to identify and localize various objects in a series of video frames, such as cars, bikes, and pedestrians.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-VideoObjectDetection`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-VideoObjectDetection`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-VideoObjectDetection`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-VideoObjectDetection`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-VideoObjectDetection`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-VideoObjectDetection`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-VideoObjectDetection`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-VideoObjectDetection`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-VideoObjectDetection`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-VideoObjectDetection`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-VideoObjectDetection`

- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-VideoObjectDetection`

**Video Frame Object Tracking** - Use this task type to have workers track the movement of objects in a sequence of video frames (images extracted from a video) using bounding boxes. For example, you can use this task to ask workers to track the movement of objects, such as cars, bikes, and pedestrians.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-VideoObjectTracking`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-VideoObjectTracking`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-VideoObjectTracking`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-VideoObjectTracking`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-VideoObjectTracking`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-VideoObjectTracking`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-VideoObjectTracking`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-VideoObjectTracking`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-VideoObjectTracking`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-VideoObjectTracking`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-VideoObjectTracking`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-VideoObjectTracking`

### 3D Point Cloud Modalities

Use the following pre-annotation lambdas for 3D point cloud labeling modality tasks. See [3D Point Cloud Task types](#) to learn more.

**3D Point Cloud Object Detection** - Use this task type when you want workers to classify objects in a 3D point cloud by drawing 3D cuboids around objects. For example, you can use this task type to ask workers to identify different types of objects in a point cloud, such as cars, bikes, and pedestrians.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-3DPointCloudObjectDetection`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-3DPointCloudObjectDetection`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-3DPointCloudObjectDetection`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-3DPointCloudObjectDetection`
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- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-3DPointCloudObjectDetection`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-3DPointCloudObjectDetection`

**3D Point Cloud Object Tracking** - Use this task type when you want workers to draw 3D cuboids around objects that appear in a sequence of 3D point cloud frames. For example, you can use this task type to ask workers to track the movement of vehicles across multiple point cloud frames.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-3DPointCloudObjectTracking`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-3DPointCloudObjectTracking`



- `arn:aws:lambda:us-west-2:081040173940:function:PRE-3DPointCloudObjectTracking`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-3DPointCloudObjectTracking`
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- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-3DPointCloudObjectTracking`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-3DPointCloudObjectTracking`

**3D Point Cloud Semantic Segmentation** - Use this task type when you want workers to create a point-level semantic segmentation masks by painting objects in a 3D point cloud using different colors where each color is assigned to one of the classes you specify.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-3DPointCloudSemanticSegmentation`

- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-3DPointCloudSemanticSegmentation`

### Use the following ARNs for Label Verification and Adjustment Jobs

Use label verification and adjustment jobs to review and adjust labels. To learn more, see [Verify and Adjust Labels](#).

**Bounding box verification** - Uses a variant of the Expectation Maximization approach to estimate the true class of verification judgement for bounding box labels based on annotations from individual workers.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-VerificationBoundingBox`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-VerificationBoundingBox`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-VerificationBoundingBox`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-VerificationBoundingBox`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-VerificationBoundingBox`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-VerificationBoundingBox`

- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-VerificationBoundingBox`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-VerificationBoundingBox`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-VerificationBoundingBox`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-VerificationBoundingBox`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-VerificationBoundingBox`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-VerificationBoundingBox`

**Bounding box adjustment** - Finds the most similar boxes from different workers based on the Jaccard index of the adjusted annotations.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-AdjustmentBoundingBox`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-AdjustmentBoundingBox`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-AdjustmentBoundingBox`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-AdjustmentBoundingBox`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-AdjustmentBoundingBox`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-AdjustmentBoundingBox`
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- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-AdjustmentBoundingBox`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-AdjustmentBoundingBox`

- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-AdjustmentBoundingBox`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-AdjustmentBoundingBox`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-AdjustmentBoundingBox`

**Semantic segmentation verification** - Uses a variant of the Expectation Maximization approach to estimate the true class of verification judgment for semantic segmentation labels based on annotations from individual workers.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-VerificationSemanticSegmentation`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-VerificationSemanticSegmentation`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-VerificationSemanticSegmentation`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-VerificationSemanticSegmentation`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-VerificationSemanticSegmentation`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-VerificationSemanticSegmentation`
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- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-VerificationSemanticSegmentation`
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- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-VerificationSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-VerificationSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-VerificationSemanticSegmentation`

**Semantic segmentation adjustment** - Treats each pixel in an image as a multi-class classification and treats pixel adjusted annotations from workers as "votes" for the correct label.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-AdjustmentSemanticSegmentation`
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- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-AdjustmentSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-AdjustmentSemanticSegmentation`

**Video Frame Object Detection Adjustment** - Use this task type when you want workers to adjust bounding boxes that workers have added to video frames to classify and localize objects in a sequence of video frames.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-AdjustmentVideoObjectDetection`

- `arn:aws:lambda:us-west-2:081040173940:function:PRE-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-AdjustmentVideoObjectDetection`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-AdjustmentVideoObjectDetection`

**Video Frame Object Tracking Adjustment** - Use this task type when you want workers to adjust bounding boxes that workers have added to video frames to track object movement across a sequence of video frames.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-AdjustmentVideoObjectTracking`

- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-AdjustmentVideoObjectTracking`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-AdjustmentVideoObjectTracking`

**3D point cloud object detection adjustment** - Adjust 3D cuboids in a point cloud frame.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-Adjustment3DPointCloudObjectDetection`

- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-Adjustment3DPointCloudObjectDetection`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-Adjustment3DPointCloudObjectDetection`

**3D point cloud object tracking adjustment** - Adjust 3D cuboids across a sequence of point cloud frames.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-Adjustment3DPointCloudObjectTracking`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-Adjustment3DPointCloudObjectTracking`



**3D point cloud semantic segmentation adjustment** - Adjust semantic segmentation masks in a 3D point cloud.

- `arn:aws:lambda:us-east-1:432418664414:function:PRE-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:us-east-2:266458841044:function:PRE-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:us-west-2:081040173940:function:PRE-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:eu-west-1:568282634449:function:PRE-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-south-1:565803892007:function:PRE-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:eu-central-1:203001061592:function:PRE-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-Adjustment3DPointCloudSemanticSegmentation`

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-\]*:lambda:[a-z0-9\-\]*:[0-9]{12}:function:.*`

Required: Yes

## TaskDescription

A description of the task for your human workers.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: . +

Required: Yes

## TaskTimeLimitInSeconds

The amount of time that a worker has to complete a task.

If you create a custom labeling job, the maximum value for this parameter is 8 hours (28,800 seconds).

If you create a labeling job using a [built-in task type](#) the maximum for this parameter depends on the task type you use:

- For [image](#) and [text](#) labeling jobs, the maximum is 8 hours (28,800 seconds).
- For [3D point cloud](#) and [video frame](#) labeling jobs, the maximum is 30 days (2952,000 seconds) for non-AL mode. For most users, the maximum is also 30 days.

Type: Integer

Valid Range: Minimum value of 30.

Required: Yes

## TaskTitle

A title for the task for your human workers.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\t\n\r -\uD7FF\uE000-\uFFFF]\*\$

Required: Yes

## UiConfig

Information about the user interface that workers use to complete the labeling task.

Type: [UiConfig](#) object

Required: Yes

## WorkteamArn

The Amazon Resource Name (ARN) of the work team assigned to complete the tasks.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:workteam/.*`

Required: Yes

## MaxConcurrentTaskCount

Defines the maximum number of data objects that can be labeled by human workers at the same time. Also referred to as batch size. Each object may have more than one worker at one time. The default value is 1000 objects. To increase the maximum value to 5000 objects, contact AWS Support.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 5000.

Required: No

## PublicWorkforceTaskPrice

The price that you pay for each task performed by an Amazon Mechanical Turk worker.

Type: [PublicWorkforceTaskPrice](#) object

Required: No

## TaskAvailabilityLifetimeInSeconds

The length of time that a task remains available for labeling by human workers. The default and maximum values for this parameter depend on the type of workforce you use.

- If you choose the Amazon Mechanical Turk workforce, the maximum is 12 hours (43,200 seconds). The default is 6 hours (21,600 seconds).
- If you choose a private or vendor workforce, the default value is 30 days (2592,000 seconds) for non-AL mode. For most users, the maximum is also 30 days.

Type: Integer

Valid Range: Minimum value of 60.

Required: No

## TaskKeywords

Keywords used to describe the task so that workers on Amazon Mechanical Turk can discover the task.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: `^[A-Za-z0-9]+( [A-Za-z0-9]+)*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HumanTaskUiSummary

Service: Amazon SageMaker Service

Container for human task user interface information.

## Contents

### CreationTime

A timestamp when SageMaker created the human task user interface.

Type: Timestamp

Required: Yes

### HumanTaskUiArn

The Amazon Resource Name (ARN) of the human task user interface.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]+:[0-9]{12}:human-task-ui/.*`

Required: Yes

### HumanTaskUiName

The name of the human task user interface.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-z0-9](-*[a-z0-9])*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperbandStrategyConfig

Service: Amazon SageMaker Service

The configuration for Hyperband, a multi-fidelity based hyperparameter tuning strategy. Hyperband uses the final and intermediate results of a training job to dynamically allocate resources to utilized hyperparameter configurations while automatically stopping under-performing configurations. This parameter should be provided only if Hyperband is selected as the StrategyConfig under the HyperParameterTuningJobConfig API.

## Contents

### MaxResource

The maximum number of resources (such as epochs) that can be used by a training job launched by a hyperparameter tuning job. Once a job reaches the MaxResource value, it is stopped. If a value for MaxResource is not provided, and Hyperband is selected as the hyperparameter tuning strategy, HyperbandTraining attempts to infer MaxResource from the following keys (if present) in [StaticsHyperParameters](#):

- epochs
- numepochs
- n-epochs
- n\_epochs
- num\_epochs

If HyperbandStrategyConfig is unable to infer a value for MaxResource, it generates a validation error. The maximum value is 20,000 epochs. All metrics that correspond to an objective metric are used to derive [early stopping decisions](#). For [distributed](#) training jobs, ensure that duplicate metrics are not printed in the logs across the individual nodes in a training job. If multiple nodes are publishing duplicate or incorrect metrics, training jobs may make an incorrect stopping decision and stop the job prematurely.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## MinResource

The minimum number of resources (such as epochs) that can be used by a training job launched by a hyperparameter tuning job. If the value for `MinResource` has not been reached, the training job is not stopped by `Hyperband`.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# HyperParameterAlgorithmSpecification

Service: Amazon SageMaker Service

Specifies which training algorithm to use for training jobs that a hyperparameter tuning job launches and the metrics to monitor.

## Contents

### TrainingInputMode

The training input mode that the algorithm supports. For more information about input modes, see [Algorithms](#).

#### Pipe mode

If an algorithm supports Pipe mode, Amazon SageMaker streams data directly from Amazon S3 to the container.

#### File mode

If an algorithm supports File mode, SageMaker downloads the training data from S3 to the provisioned ML storage volume, and mounts the directory to the Docker volume for the training container.

You must provision the ML storage volume with sufficient capacity to accommodate the data downloaded from S3. In addition to the training data, the ML storage volume also stores the output model. The algorithm container uses the ML storage volume to also store intermediate information, if any.

For distributed algorithms, training data is distributed uniformly. Your training duration is predictable if the input data objects sizes are approximately the same. SageMaker does not split the files any further for model training. If the object sizes are skewed, training won't be optimal as the data distribution is also skewed when one host in a training cluster is overloaded, thus becoming a bottleneck in training.

#### FastFile mode

If an algorithm supports FastFile mode, SageMaker streams data directly from S3 to the container with no code changes, and provides file system access to the data. Users can author their training script to interact with these files as if they were stored on disk.

FastFile mode works best when the data is read sequentially. Augmented manifest files aren't supported. The startup time is lower when there are fewer files in the S3 bucket provided.

Type: String

Valid Values: Pipe | File | FastFile

Required: Yes

### AlgorithmName

The name of the resource algorithm to use for the hyperparameter tuning job. If you specify a value for this parameter, do not specify a value for TrainingImage.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: (arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:[a-z\-\]\*\/\*)?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!--)\$

Required: No

### MetricDefinitions

An array of [MetricDefinition](#) objects that specify the metrics that the algorithm emits.

Type: Array of [MetricDefinition](#) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

Required: No

### TrainingImage

The registry path of the Docker image that contains the training algorithm. For information about Docker registry paths for built-in algorithms, see [Algorithms Provided by Amazon SageMaker: Common Parameters](#). SageMaker supports both registry/repository[:tag] and registry/repository[@digest] image path formats. For more information, see [Using Your Own Algorithms with Amazon SageMaker](#).

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterSpecification

Service: Amazon SageMaker Service

Defines a hyperparameter to be used by an algorithm.

## Contents

### Name

The name of this hyperparameter. The name must be unique.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: Yes

### Type

The type of this hyperparameter. The valid types are Integer, Continuous, Categorical, and FreeText.

Type: String

Valid Values: Integer | Continuous | Categorical | FreeText

Required: Yes

### DefaultValue

The default value for this hyperparameter. If a default value is specified, a hyperparameter cannot be required.

Type: String

Length Constraints: Maximum length of 2500.

Pattern: `.*`

Required: No

### Description

A brief description of the hyperparameter.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

### **IsRequired**

Indicates whether this hyperparameter is required.

Type: Boolean

Required: No

### **IsTunable**

Indicates whether this hyperparameter is tunable in a hyperparameter tuning job.

Type: Boolean

Required: No

### **Range**

The allowed range for this hyperparameter.

Type: [ParameterRange](#) object

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTrainingJobDefinition

Service: Amazon SageMaker Service

Defines the training jobs launched by a hyperparameter tuning job.

## Contents

### AlgorithmSpecification

The [HyperParameterAlgorithmSpecification](#) object that specifies the resource algorithm to use for the training jobs that the tuning job launches.

Type: [HyperParameterAlgorithmSpecification](#) object

Required: Yes

### OutputDataConfig

Specifies the path to the Amazon S3 bucket where you store model artifacts from the training jobs that the tuning job launches.

Type: [OutputDataConfig](#) object

Required: Yes

### RoleArn

The Amazon Resource Name (ARN) of the IAM role associated with the training jobs that the tuning job launches.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: Yes

### StoppingCondition

Specifies a limit to how long a model hyperparameter training job can run. It also specifies how long a managed spot training job has to complete. When the job reaches the time limit, SageMaker ends the training job. Use this API to cap model training costs.

Type: [StoppingCondition](#) object

Required: Yes

### **CheckpointConfig**

Contains information about the output location for managed spot training checkpoint data.

Type: [CheckpointConfig](#) object

Required: No

### **DefinitionName**

The job definition name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,63}`

Required: No

### **EnableInterContainerTrafficEncryption**

To encrypt all communications between ML compute instances in distributed training, choose `True`. Encryption provides greater security for distributed training, but training might take longer. How long it takes depends on the amount of communication between compute instances, especially if you use a deep learning algorithm in distributed training.

Type: Boolean

Required: No

### **EnableManagedSpotTraining**

A Boolean indicating whether managed spot training is enabled (`True`) or not (`False`).

Type: Boolean

Required: No

### **EnableNetworkIsolation**

Isolates the training container. No inbound or outbound network calls can be made, except for calls between peers within a training cluster for distributed training. If network isolation is used for training jobs that are configured to use a VPC, SageMaker downloads and uploads customer

data and model artifacts through the specified VPC, but the training container does not have network access.

Type: Boolean

Required: No

## Environment

An environment variable that you can pass into the SageMaker [CreateTrainingJob](#) API. You can use an existing [environment variable from the training container](#) or use your own. See [Define metrics and variables](#) for more information.

### Note

The maximum number of items specified for Map Entries refers to the maximum number of environment variables for each TrainingJobDefinition and also the maximum for the hyperparameter tuning job itself. That is, the sum of the number of environment variables for all the training job definitions can't exceed the maximum number specified.

Type: String to string map

Map Entries: Maximum number of 48 items.

Key Length Constraints: Maximum length of 512.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 512.

Value Pattern: `[\S\s]*`

Required: No

## HyperParameterRanges

Specifies ranges of integer, continuous, and categorical hyperparameters that a hyperparameter tuning job searches. The hyperparameter tuning job launches training jobs with hyperparameter values within these ranges to find the combination of values that result in the training job with the best performance as measured by the objective metric of the hyperparameter tuning job.



**Note**

The maximum number of items specified for `Array Members` refers to the maximum number of hyperparameters for each range and also the maximum for the hyperparameter tuning job itself. That is, the sum of the number of hyperparameters for all the ranges can't exceed the maximum number specified.

Type: [ParameterRanges](#) object

Required: No

**HyperParameterTuningResourceConfig**

The configuration for the hyperparameter tuning resources, including the compute instances and storage volumes, used for training jobs launched by the tuning job. By default, storage volumes hold model artifacts and incremental states. Choose `File` for `TrainingInputMode` in the `AlgorithmSpecification` parameter to additionally store training data in the storage volume (optional).

Type: [HyperParameterTuningResourceConfig](#) object

Required: No

**InputDataConfig**

An array of [Channel](#) objects that specify the input for the training jobs that the tuning job launches.

Type: Array of [Channel](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

**ResourceConfig**

The resources, including the compute instances and storage volumes, to use for the training jobs that the tuning job launches.

Storage volumes store model artifacts and incremental states. Training algorithms might also use storage volumes for scratch space. If you want SageMaker to use the storage volume

to store the training data, choose `File` as the `TrainingInputMode` in the algorithm specification. For distributed training algorithms, specify an instance count greater than 1.

**Note**

If you want to use hyperparameter optimization with instance type flexibility, use `HyperParameterTuningResourceConfig` instead.

Type: [ResourceConfig](#) object

Required: No

### RetryStrategy

The number of times to retry the job when the job fails due to an `InternalServerError`.

Type: [RetryStrategy](#) object

Required: No

### StaticHyperParameters

Specifies the values of hyperparameters that do not change for the tuning job.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `.*`

Value Length Constraints: Maximum length of 2500.

Value Pattern: `.*`

Required: No

### TuningObjective

Defines the objective metric for a hyperparameter tuning job. Hyperparameter tuning uses the value of this metric to evaluate the training jobs it launches, and returns the training job that results in either the highest or lowest value for this metric, depending on the value you specify

for the Type parameter. If you want to define a custom objective metric, see [Define metrics and environment variables](#).

Type: [HyperParameterTuningJobObjective](#) object

Required: No

## VpcConfig

The [VpcConfig](#) object that specifies the VPC that you want the training jobs that this hyperparameter tuning job launches to connect to. Control access to and from your training container by configuring the VPC. For more information, see [Protect Training Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [VpcConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTrainingJobSummary

Service: Amazon SageMaker Service

The container for the summary information about a training job.

## Contents

### CreationTime

The date and time that the training job was created.

Type: Timestamp

Required: Yes

### TrainingJobArn

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:training-job/.*`

Required: Yes

### TrainingJobName

The name of the training job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### TrainingJobStatus

The status of the training job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: Yes

### **TunedHyperParameters**

A list of the hyperparameters for which you specified ranges to search.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 2500.

Value Pattern: .\*

Required: Yes

### **FailureReason**

The reason that the training job failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **FinalHyperParameterTuningJobObjectiveMetric**

The [FinalHyperParameterTuningJobObjectiveMetric](#) object that specifies the value of the objective metric of the tuning job that launched this training job.

Type: [FinalHyperParameterTuningJobObjectiveMetric](#) object

Required: No

### **ObjectiveStatus**

The status of the objective metric for the training job:

- **Succeeded:** The final objective metric for the training job was evaluated by the hyperparameter tuning job and used in the hyperparameter tuning process.

- **Pending:** The training job is in progress and evaluation of its final objective metric is pending.
- **Failed:** The final objective metric for the training job was not evaluated, and was not used in the hyperparameter tuning process. This typically occurs when the training job failed or did not emit an objective metric.

Type: String

Valid Values: Succeeded | Pending | Failed

Required: No

### **TrainingEndTime**

Specifies the time when the training job ends on training instances. You are billed for the time interval between the value of `TrainingStartTime` and this time. For successful jobs and stopped jobs, this is the time after model artifacts are uploaded. For failed jobs, this is the time when SageMaker detects a job failure.

Type: Timestamp

Required: No

### **TrainingJobDefinitionName**

The training job definition name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,63}`

Required: No

### **TrainingStartTime**

The date and time that the training job started.

Type: Timestamp

Required: No

### **TuningJobName**

The HyperParameter tuning job that launched the training job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningInstanceConfig

Service: Amazon SageMaker Service

The configuration for hyperparameter tuning resources for use in training jobs launched by the tuning job. These resources include compute instances and storage volumes. Specify one or more compute instance configurations and allocation strategies to select resources (optional).

## Contents

### InstanceCount

The number of instances of the type specified by InstanceType. Choose an instance count larger than 1 for distributed training algorithms. See [Step 2: Launch a SageMaker Distributed Training Job Using the SageMaker Python SDK](#) for more information.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

### InstanceType

The instance type used for processing of hyperparameter optimization jobs. Choose from general purpose (no GPUs) instance types: ml.m5.xlarge, ml.m5.2xlarge, and ml.m5.4xlarge or compute optimized (no GPUs) instance types: ml.c5.xlarge and ml.c5.2xlarge. For more information about instance types, see [instance type descriptions](#).

Type: String

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.p4d.24xlarge | ml.p4de.24xlarge | ml.p5.48xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5n.xlarge | ml.c5n.2xlarge | ml.c5n.4xlarge | ml.c5n.9xlarge



| ml.c5n.18xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge |  
ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge |  
ml.g5.48xlarge | ml.trn1.2xlarge | ml.trn1.32xlarge | ml.trn1n.32xlarge  
| ml.m6i.large | ml.m6i.xlarge | ml.m6i.2xlarge | ml.m6i.4xlarge |  
ml.m6i.8xlarge | ml.m6i.12xlarge | ml.m6i.16xlarge | ml.m6i.24xlarge  
| ml.m6i.32xlarge | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.8xlarge |  
ml.c6i.4xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge |  
ml.c6i.32xlarge

Required: Yes

### **VolumeSizeInGB**

The volume size in GB of the data to be processed for hyperparameter optimization (optional).

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningJobCompletionDetails

Service: Amazon SageMaker Service

A structure that contains runtime information about both current and completed hyperparameter tuning jobs.

## Contents

### ConvergenceDetectedTime

The time in timestamp format that AMT detected model convergence, as defined by a lack of significant improvement over time based on criteria developed over a wide range of diverse benchmarking tests.

Type: Timestamp

Required: No

### NumberOfTrainingJobsObjectiveNotImproving

The number of training jobs launched by a tuning job that are not improving (1% or less) as measured by model performance evaluated against an objective function.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningJobConfig

Service: Amazon SageMaker Service

Configures a hyperparameter tuning job.

## Contents

### ResourceLimits

The [ResourceLimits](#) object that specifies the maximum number of training and parallel training jobs that can be used for this hyperparameter tuning job.

Type: [ResourceLimits](#) object

Required: Yes

### Strategy

Specifies how hyperparameter tuning chooses the combinations of hyperparameter values to use for the training job it launches. For information about search strategies, see [How Hyperparameter Tuning Works](#).

Type: String

Valid Values: Bayesian | Random | Hyperband | Grid

Required: Yes

### HyperParameterTuningJobObjective

The [HyperParameterTuningJobObjective](#) specifies the objective metric used to evaluate the performance of training jobs launched by this tuning job.

Type: [HyperParameterTuningJobObjective](#) object

Required: No

### ParameterRanges

The [ParameterRanges](#) object that specifies the ranges of hyperparameters that this tuning job searches over to find the optimal configuration for the highest model performance against your chosen objective metric.

Type: [ParameterRanges](#) object

Required: No

### RandomSeed

A value used to initialize a pseudo-random number generator. Setting a random seed and using the same seed later for the same tuning job will allow hyperparameter optimization to find more a consistent hyperparameter configuration between the two runs.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### StrategyConfig

The configuration for the Hyperband optimization strategy. This parameter should be provided only if Hyperband is selected as the strategy for `HyperParameterTuningJobConfig`.

Type: [HyperParameterTuningJobStrategyConfig](#) object

Required: No

### TrainingJobEarlyStoppingType

Specifies whether to use early stopping for training jobs launched by the hyperparameter tuning job. Because the Hyperband strategy has its own advanced internal early stopping mechanism, `TrainingJobEarlyStoppingType` must be OFF to use Hyperband. This parameter can take on one of the following values (the default value is OFF):

OFF

Training jobs launched by the hyperparameter tuning job do not use early stopping.

AUTO

SageMaker stops training jobs launched by the hyperparameter tuning job when they are unlikely to perform better than previously completed training jobs. For more information, see [Stop Training Jobs Early](#).

Type: String

Valid Values: Off | Auto

Required: No

## TuningJobCompletionCriteria

The tuning job's completion criteria.

Type: [TuningJobCompletionCriteria](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningJobConsumedResources

Service: Amazon SageMaker Service

The total resources consumed by your hyperparameter tuning job.

## Contents

### RuntimeInSeconds

The wall clock runtime in seconds used by your hyperparameter tuning job.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningJobObjective

Service: Amazon SageMaker Service

Defines the objective metric for a hyperparameter tuning job. Hyperparameter tuning uses the value of this metric to evaluate the training jobs it launches, and returns the training job that results in either the highest or lowest value for this metric, depending on the value you specify for the Type parameter. If you want to define a custom objective metric, see [Define metrics and environment variables](#).

## Contents

### MetricName

The name of the metric to use for the objective metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: . +

Required: Yes

### Type

Whether to minimize or maximize the objective metric.

Type: String

Valid Values: Maximize | Minimize

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)





# HyperParameterTuningJobSearchEntity

Service: Amazon SageMaker Service

An entity returned by the [SearchRecord](#) API containing the properties of a hyperparameter tuning job.

## Contents

### BestTrainingJob

The container for the summary information about a training job.

Type: [HyperParameterTrainingJobSummary](#) object

Required: No

### ConsumedResources

The total amount of resources consumed by a hyperparameter tuning job.

Type: [HyperParameterTuningJobConsumedResources](#) object

Required: No

### CreationTime

The time that a hyperparameter tuning job was created.

Type: Timestamp

Required: No

### FailureReason

The error that was created when a hyperparameter tuning job failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### HyperParameterTuningEndTime

The time that a hyperparameter tuning job ended.

Type: Timestamp

Required: No

### **HyperParameterTuningJobArn**

The Amazon Resource Name (ARN) of a hyperparameter tuning job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:hyper-parameter-tuning-job/.*`

Required: No

### **HyperParameterTuningJobConfig**

Configures a hyperparameter tuning job.

Type: [HyperParameterTuningJobConfig](#) object

Required: No

### **HyperParameterTuningJobName**

The name of a hyperparameter tuning job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: No

### **HyperParameterTuningJobStatus**

The status of a hyperparameter tuning job.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping | Deleting | DeleteFailed

Required: No

### **LastModifiedTime**

The time that a hyperparameter tuning job was last modified.

Type: Timestamp

Required: No

### **ObjectiveStatusCounters**

Specifies the number of training jobs that this hyperparameter tuning job launched, categorized by the status of their objective metric. The objective metric status shows whether the final objective metric for the training job has been evaluated by the tuning job and used in the hyperparameter tuning process.

Type: [ObjectiveStatusCounters](#) object

Required: No

### **OverallBestTrainingJob**

The container for the summary information about a training job.

Type: [HyperParameterTrainingJobSummary](#) object

Required: No

### **Tags**

The tags associated with a hyperparameter tuning job. For more information see [Tagging AWS resources](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### **TrainingJobDefinition**

Defines the training jobs launched by a hyperparameter tuning job.

Type: [HyperParameterTrainingJobDefinition](#) object

Required: No

## TrainingJobDefinitions

The job definitions included in a hyperparameter tuning job.

Type: Array of [HyperParameterTrainingJobDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

## TrainingJobStatusCounters

The numbers of training jobs launched by a hyperparameter tuning job, categorized by status.

Type: [TrainingJobStatusCounters](#) object

Required: No

## TuningJobCompletionDetails

Information about either a current or completed hyperparameter tuning job.

Type: [HyperParameterTuningJobCompletionDetails](#) object

Required: No

## WarmStartConfig

Specifies the configuration for a hyperparameter tuning job that uses one or more previous hyperparameter tuning jobs as a starting point. The results of previous tuning jobs are used to inform which combinations of hyperparameters to search over in the new tuning job.

All training jobs launched by the new hyperparameter tuning job are evaluated by using the objective metric, and the training job that performs the best is compared to the best training jobs from the parent tuning jobs. From these, the training job that performs the best as measured by the objective metric is returned as the overall best training job.

### Note

All training jobs launched by parent hyperparameter tuning jobs and the new hyperparameter tuning jobs count against the limit of training jobs for the tuning job.

Type: [HyperParameterTuningJobWarmStartConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningJobStrategyConfig

Service: Amazon SageMaker Service

The configuration for a training job launched by a hyperparameter tuning job. Choose `Bayesian` for Bayesian optimization, and `Random` for random search optimization. For more advanced use cases, use `Hyperband`, which evaluates objective metrics for training jobs after every epoch. For more information about strategies, see [How Hyperparameter Tuning Works](#).

## Contents

### HyperbandStrategyConfig

The configuration for the object that specifies the `Hyperband` strategy. This parameter is only supported for the `Hyperband` selection for `Strategy` within the `HyperParameterTuningJobConfig` API.

Type: [HyperbandStrategyConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningJobSummary

Service: Amazon SageMaker Service

Provides summary information about a hyperparameter tuning job.

## Contents

### CreationTime

The date and time that the tuning job was created.

Type: Timestamp

Required: Yes

### HyperParameterTuningJobArn

The Amazon Resource Name (ARN) of the tuning job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:hyper-parameter-tuning-job/.*`

Required: Yes

### HyperParameterTuningJobName

The name of the tuning job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

### HyperParameterTuningJobStatus

The status of the tuning job.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping | Deleting | DeleteFailed

Required: Yes

### **ObjectiveStatusCounters**

The [ObjectiveStatusCounters](#) object that specifies the numbers of training jobs, categorized by objective metric status, that this tuning job launched.

Type: [ObjectiveStatusCounters](#) object

Required: Yes

### **Strategy**

Specifies the search strategy hyperparameter tuning uses to choose which hyperparameters to evaluate at each iteration.

Type: String

Valid Values: Bayesian | Random | Hyperband | Grid

Required: Yes

### **TrainingJobStatusCounters**

The [TrainingJobStatusCounters](#) object that specifies the numbers of training jobs, categorized by status, that this tuning job launched.

Type: [TrainingJobStatusCounters](#) object

Required: Yes

### **HyperParameterTuningEndTime**

The date and time that the tuning job ended.

Type: Timestamp

Required: No

### **LastModifiedTime**

The date and time that the tuning job was modified.

Type: Timestamp



Required: No

## ResourceLimits

The [ResourceLimits](#) object that specifies the maximum number of training jobs and parallel training jobs allowed for this tuning job.

Type: [ResourceLimits](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningJobWarmStartConfig

Service: Amazon SageMaker Service

Specifies the configuration for a hyperparameter tuning job that uses one or more previous hyperparameter tuning jobs as a starting point. The results of previous tuning jobs are used to inform which combinations of hyperparameters to search over in the new tuning job.

All training jobs launched by the new hyperparameter tuning job are evaluated by using the objective metric, and the training job that performs the best is compared to the best training jobs from the parent tuning jobs. From these, the training job that performs the best as measured by the objective metric is returned as the overall best training job.

## Note

All training jobs launched by parent hyperparameter tuning jobs and the new hyperparameter tuning jobs count against the limit of training jobs for the tuning job.

## Contents

### ParentHyperParameterTuningJobs

An array of hyperparameter tuning jobs that are used as the starting point for the new hyperparameter tuning job. For more information about warm starting a hyperparameter tuning job, see [Using a Previous Hyperparameter Tuning Job as a Starting Point](#).

Hyperparameter tuning jobs created before October 1, 2018 cannot be used as parent jobs for warm start tuning jobs.

Type: Array of [ParentHyperParameterTuningJob](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: Yes

### WarmStartType

Specifies one of the following:

IDENTICAL\_DATA\_AND\_ALGORITHM

The new hyperparameter tuning job uses the same input data and training image as the parent tuning jobs. You can change the hyperparameter ranges to search and the

maximum number of training jobs that the hyperparameter tuning job launches. You cannot use a new version of the training algorithm, unless the changes in the new version do not affect the algorithm itself. For example, changes that improve logging or adding support for a different data format are allowed. You can also change hyperparameters from tunable to static, and from static to tunable, but the total number of static plus tunable hyperparameters must remain the same as it is in all parent jobs. The objective metric for the new tuning job must be the same as for all parent jobs.

## TRANSFER\_LEARNING

The new hyperparameter tuning job can include input data, hyperparameter ranges, maximum number of concurrent training jobs, and maximum number of training jobs that are different than those of its parent hyperparameter tuning jobs. The training image can also be a different version from the version used in the parent hyperparameter tuning job. You can also change hyperparameters from tunable to static, and from static to tunable, but the total number of static plus tunable hyperparameters must remain the same as it is in all parent jobs. The objective metric for the new tuning job must be the same as for all parent jobs.

Type: String

Valid Values: IdenticalDataAndAlgorithm | TransferLearning

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningResourceConfig

Service: Amazon SageMaker Service

The configuration of resources, including compute instances and storage volumes for use in training jobs launched by hyperparameter tuning jobs.

HyperParameterTuningResourceConfig is similar to ResourceConfig, but has the additional InstanceConfigs and AllocationStrategy fields to allow for flexible instance management. Specify one or more instance types, count, and the allocation strategy for instance selection.

## Note

HyperParameterTuningResourceConfig supports the capabilities of ResourceConfig with the exception of KeepAlivePeriodInSeconds. Hyperparameter tuning jobs use warm pools by default, which reuse clusters between training jobs.

## Contents

### AllocationStrategy

The strategy that determines the order of preference for resources specified in InstanceConfigs used in hyperparameter optimization.

Type: String

Valid Values: Prioritized

Required: No

### InstanceConfigs

A list containing the configuration(s) for one or more resources for processing hyperparameter jobs. These resources include compute instances and storage volumes to use in model training jobs launched by hyperparameter tuning jobs. The AllocationStrategy controls the order in which multiple configurations provided in InstanceConfigs are used.

## Note

If you only want to use a single instance configuration inside the HyperParameterTuningResourceConfig API, do not provide a value for

InstanceConfigs. Instead, use InstanceType, VolumeSizeInGB and InstanceCount. If you use InstanceConfigs, do not provide values for InstanceType, VolumeSizeInGB or InstanceCount.

Type: Array of [HyperParameterTuningInstanceConfig](#) objects

Array Members: Minimum number of 1 item. Maximum number of 6 items.

Required: No

### InstanceCount

The number of compute instances of type InstanceType to use. For [distributed training](#), select a value greater than 1.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### InstanceType

The instance type used to run hyperparameter optimization tuning jobs. See [descriptions of instance types](#) for more information.

Type: String

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.p4d.24xlarge | ml.p4de.24xlarge | ml.p5.48xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5n.xlarge | ml.c5n.2xlarge | ml.c5n.4xlarge | ml.c5n.9xlarge | ml.c5n.18xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge |

ml.g5.48xlarge | ml.trn1.2xlarge | ml.trn1.32xlarge | ml.trn1n.32xlarge  
| ml.m6i.large | ml.m6i.xlarge | ml.m6i.2xlarge | ml.m6i.4xlarge |  
ml.m6i.8xlarge | ml.m6i.12xlarge | ml.m6i.16xlarge | ml.m6i.24xlarge  
| ml.m6i.32xlarge | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.8xlarge |  
ml.c6i.4xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge |  
ml.c6i.32xlarge

Required: No

### VolumeKmsKeyId

A key used by AWS Key Management Service to encrypt data on the storage volume attached to the compute instances used to run the training job. You can use either of the following formats to specify a key.

KMS Key ID:

```
"1234abcd-12ab-34cd-56ef-1234567890ab"
```

Amazon Resource Name (ARN) of a KMS key:

```
"arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"
```

Some instances use local storage, which use a [hardware module to encrypt](#) storage volumes. If you choose one of these instance types, you cannot request a `VolumeKmsKeyId`. For a list of instance types that use local storage, see [instance store volumes](#). For more information about AWS Key Management Service, see [KMS encryption](#) for more information.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

### VolumeSizeInGB

The volume size in GB for the storage volume to be used in processing hyperparameter optimization jobs (optional). These volumes store model artifacts, incremental states and optionally, scratch space for training algorithms. Do not provide a value for this parameter if a value for `InstanceConfigs` is also specified.

Some instance types have a fixed total local storage size. If you select one of these instances for training, `VolumeSizeInGB` cannot be greater than this total size. For a list of instance types with local instance storage and their sizes, see [instance store volumes](#).

**Note**

SageMaker supports only the [General Purpose SSD \(gp2\)](#) storage volume type.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# IamIdentity

Service: Amazon SageMaker Service

The IAM Identity details associated with the user. These details are associated with model package groups, model packages and project entities only.

## Contents

### Arn

The Amazon Resource Name (ARN) of the IAM identity.

Type: String

Required: No

### PrincipalId

The ID of the principal that assumes the IAM identity.

Type: String

Required: No

### SourceIdentity

The person or application which assumes the IAM identity.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# IamPolicyConstraints

Service: Amazon SageMaker Service

Use this parameter to specify a supported global condition key that is added to the IAM policy.

## Contents

### SourceIp

When `SourceIp` is Enabled the worker's IP address when a task is rendered in the worker portal is added to the IAM policy as a `Condition` used to generate the Amazon S3 presigned URL. This IP address is checked by Amazon S3 and must match in order for the Amazon S3 resource to be rendered in the worker portal.

Type: String

Valid Values: Enabled | Disabled

Required: No

### VpcSourceIp

When `VpcSourceIp` is Enabled the worker's IP address when a task is rendered in private worker portal inside the VPC is added to the IAM policy as a `Condition` used to generate the Amazon S3 presigned URL. To render the task successfully Amazon S3 checks that the presigned URL is being accessed over an Amazon S3 VPC Endpoint, and that the worker's IP address matches the IP address in the IAM policy. To learn more about configuring private worker portal, see [Use Amazon VPC mode from a private worker portal](#).

Type: String

Valid Values: Enabled | Disabled

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# IdentityProviderOAuthSetting

Service: Amazon SageMaker Service

The Amazon SageMaker Canvas application setting where you configure OAuth for connecting to an external data source, such as Snowflake.

## Contents

### DataSourceName

The name of the data source that you're connecting to. Canvas currently supports OAuth for Snowflake and Salesforce Data Cloud.

Type: String

Valid Values: SalesforceGenie | Snowflake

Required: No

### SecretArn

The ARN of an AWS Secrets Manager secret that stores the credentials from your identity provider, such as the client ID and secret, authorization URL, and token URL.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:secretsmanager:[a-z0-9\-*]:[0-9]{12}:secret:.*`

Required: No

### Status

Describes whether OAuth for a data source is enabled or disabled in the Canvas application.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Image

Service: Amazon SageMaker Service

A SageMaker image. A SageMaker image represents a set of container images that are derived from a common base container image. Each of these container images is represented by a SageMaker `ImageVersion`.

## Contents

### CreationTime

When the image was created.

Type: Timestamp

Required: Yes

### ImageArn

The ARN of the image.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws(-[\w]+)*:sagemaker:.+:[0-9]{12}:image/[a-z0-9]([-.]?[a-z0-9])*$`

Required: Yes

### ImageName

The name of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}$`

Required: Yes

### ImageStatus

The status of the image.

Type: String

Valid Values: CREATING | CREATED | CREATE\_FAILED | UPDATING | UPDATE\_FAILED  
| DELETING | DELETE\_FAILED

Required: Yes

### **LastModifiedTime**

When the image was last modified.

Type: Timestamp

Required: Yes

### **Description**

The description of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: .\*

Required: No

### **DisplayName**

The name of the image as displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^\S(.\*\S)?\$

Required: No

### **FailureReason**

When a create, update, or delete operation fails, the reason for the failure.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ImageClassificationJobConfig

Service: Amazon SageMaker Service

The collection of settings used by an AutoML job V2 for the image classification problem type.

## Contents

### CompletionCriteria

How long a job is allowed to run, or how many candidates a job is allowed to generate.

Type: [AutoMLJobCompletionCriteria](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ImageConfig

Service: Amazon SageMaker Service

Specifies whether the model container is in Amazon ECR or a private Docker registry accessible from your Amazon Virtual Private Cloud (VPC).

## Contents

### RepositoryAccessMode

Set this to one of the following values:

- `Platform` - The model image is hosted in Amazon ECR.
- `Vpc` - The model image is hosted in a private Docker registry in your VPC.

Type: String

Valid Values: `Platform` | `Vpc`

Required: Yes

### RepositoryAuthConfig

(Optional) Specifies an authentication configuration for the private docker registry where your model image is hosted. Specify a value for this property only if you specified `Vpc` as the value for the `RepositoryAccessMode` field, and the private Docker registry where the model image is hosted requires authentication.

Type: [RepositoryAuthConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ImageVersion

Service: Amazon SageMaker Service

A version of a SageMaker Image. A version represents an existing container image.

## Contents

### CreationTime

When the version was created.

Type: Timestamp

Required: Yes

### ImageArn

The ARN of the image the version is based on.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws(-[\w]+)*:sagemaker:.+:[0-9]{12}:image/[a-z0-9]([-.]?[a-z0-9])*$`

Required: Yes

### ImageVersionArn

The ARN of the version.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws(-[\w]+)*:sagemaker:.+:[0-9]{12}:image-version/[a-z0-9]([-.]?[a-z0-9])*/[0-9]+$`

Required: Yes

### ImageVersionStatus

The status of the version.

Type: String

Valid Values: CREATING | CREATED | CREATE\_FAILED | DELETING | DELETE\_FAILED

Required: Yes

### **LastModifiedTime**

When the version was last modified.

Type: Timestamp

Required: Yes

### **Version**

The version number.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

### **FailureReason**

When a create or delete operation fails, the reason for the failure.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceComponentComputeResourceRequirements

Service: Amazon SageMaker Service

Defines the compute resources to allocate to run a model that you assign to an inference component. These resources include CPU cores, accelerators, and memory.

## Contents

### MinMemoryRequiredInMb

The minimum MB of memory to allocate to run a model that you assign to an inference component.

Type: Integer

Valid Range: Minimum value of 128.

Required: Yes

### MaxMemoryRequiredInMb

The maximum MB of memory to allocate to run a model that you assign to an inference component.

Type: Integer

Valid Range: Minimum value of 128.

Required: No

### NumberOfAcceleratorDevicesRequired

The number of accelerators to allocate to run a model that you assign to an inference component. Accelerators include GPUs and AWS Inferentia.

Type: Float

Valid Range: Minimum value of 1.

Required: No

### NumberOfCpuCoresRequired

The number of CPU cores to allocate to run a model that you assign to an inference component.

Type: Float

Valid Range: Minimum value of 0.25.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceComponentContainerSpecification

Service: Amazon SageMaker Service

Defines a container that provides the runtime environment for a model that you deploy with an inference component.

## Contents

### ArtifactUrl

The Amazon S3 path where the model artifacts, which result from model training, are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: No

### Environment

The environment variables to set in the Docker container. Each key and value in the Environment string-to-string map can have length of up to 1024. We support up to 16 entries in the map.

Type: String to string map

Map Entries: Maximum number of 100 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 1024.

Value Pattern: `[\S\s]*`

Required: No

### Image

The Amazon Elastic Container Registry (Amazon ECR) path where the Docker image for the model is stored.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `[\S]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceComponentContainerSpecificationSummary

Service: Amazon SageMaker Service

Details about the resources that are deployed with this inference component.

## Contents

### ArtifactUrl

The Amazon S3 path where the model artifacts are stored.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\s]+)?(.*)$`

Required: No

### DeployedImage

Gets the Amazon EC2 Container Registry path of the docker image of the model that is hosted in this [ProductionVariant](#).

If you used the `registry/repository[:tag]` form to specify the image path of the primary container when you created the model hosted in this `ProductionVariant`, the path resolves to a path of the form `registry/repository[@digest]`. A digest is a hash value that identifies a specific version of an image. For information about Amazon ECR paths, see [Pulling an Image](#) in the *Amazon ECR User Guide*.

Type: [DeployedImage](#) object

Required: No

### Environment

The environment variables to set in the Docker container.

Type: String to string map

Map Entries: Maximum number of 100 items.

Key Length Constraints: Maximum length of 1024.



Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]\*

Value Length Constraints: Maximum length of 1024.

Value Pattern: [\\S\\s]\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceComponentRuntimeConfig

Service: Amazon SageMaker Service

Runtime settings for a model that is deployed with an inference component.

## Contents

### CopyCount

The number of runtime copies of the model container to deploy with the inference component. Each copy can serve inference requests.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceComponentRuntimeConfigSummary

Service: Amazon SageMaker Service

Details about the runtime settings for the model that is deployed with the inference component.

## Contents

### CurrentCopyCount

The number of runtime copies of the model container that are currently deployed.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### DesiredCopyCount

The number of runtime copies of the model container that you requested to deploy with the inference component.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceComponentSpecification

Service: Amazon SageMaker Service

Details about the resources to deploy with this inference component, including the model, container, and compute resources.

## Contents

### ComputeResourceRequirements

The compute resources allocated to run the model assigned to the inference component.

Type: [InferenceComponentComputeResourceRequirements](#) object

Required: Yes

### Container

Defines a container that provides the runtime environment for a model that you deploy with an inference component.

Type: [InferenceComponentContainerSpecification](#) object

Required: No

### ModelName

The name of an existing SageMaker model object in your account that you want to deploy with the inference component.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9]* [a-zA-Z0-9] )?`

Required: No

### StartupParameters

Settings that take effect while the model container starts up.

Type: [InferenceComponentStartupParameters](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceComponentSpecificationSummary

Service: Amazon SageMaker Service

Details about the resources that are deployed with this inference component.

## Contents

### ComputeResourceRequirements

The compute resources allocated to run the model assigned to the inference component.

Type: [InferenceComponentComputeResourceRequirements](#) object

Required: No

### Container

Details about the container that provides the runtime environment for the model that is deployed with the inference component.

Type: [InferenceComponentContainerSpecificationSummary](#) object

Required: No

### ModelName

The name of the SageMaker model object that is deployed with the inference component.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\ -a-zA-Z0-9 ]* [a-zA-Z0-9] )?`

Required: No

### StartupParameters

Settings that take effect while the model container starts up.

Type: [InferenceComponentStartupParameters](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceComponentStartupParameters

Service: Amazon SageMaker Service

Settings that take effect while the model container starts up.

## Contents

### ContainerStartupHealthCheckTimeoutInSeconds

The timeout value, in seconds, for your inference container to pass health check by Amazon S3 Hosting. For more information about health check, see [How Your Container Should Respond to Health Check \(Ping\) Requests](#).

Type: Integer

Valid Range: Minimum value of 60. Maximum value of 3600.

Required: No

### ModelDataDownloadTimeoutInSeconds

The timeout value, in seconds, to download and extract the model that you want to host from Amazon S3 to the individual inference instance associated with this inference component.

Type: Integer

Valid Range: Minimum value of 60. Maximum value of 3600.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# InferenceComponentSummary

Service: Amazon SageMaker Service

A summary of the properties of an inference component.

## Contents

### CreationTime

The time when the inference component was created.

Type: Timestamp

Required: Yes

### EndpointArn

The Amazon Resource Name (ARN) of the endpoint that hosts the inference component.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:endpoint/.*`

Required: Yes

### EndpointName

The name of the endpoint that hosts the inference component.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### InferenceComponentArn

The Amazon Resource Name (ARN) of the inference component.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: Yes

### **InferenceComponentName**

The name of the inference component.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9]*[a-zA-Z0-9] )?$`

Required: Yes

### **LastModifiedTime**

The time when the inference component was last updated.

Type: Timestamp

Required: Yes

### **VariantName**

The name of the production variant that hosts the inference component.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( -*[a-zA-Z0-9] ) {0,62}`

Required: Yes

### **InferenceComponentStatus**

The status of the inference component.

Type: String

Valid Values: InService | Creating | Updating | Failed | Deleting

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceExecutionConfig

Service: Amazon SageMaker Service

Specifies details about how containers in a multi-container endpoint are run.

## Contents

### Mode

How containers in a multi-container are run. The following values are valid.

- SERIAL - Containers run as a serial pipeline.
- DIRECT - Only the individual container that you specify is run.

Type: String

Valid Values: `Serial` | `Direct`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceExperimentDataStorageConfig

Service: Amazon SageMaker Service

The Amazon S3 location and configuration for storing inference request and response data.

## Contents

### Destination

The Amazon S3 bucket where the inference request and response data is stored.

Type: String

Length Constraints: Maximum length of 512.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

### ContentType

Configuration specifying how to treat different headers. If no headers are specified Amazon SageMaker will by default base64 encode when capturing the data.

Type: [CaptureContentTypeHeader](#) object

Required: No

### KmsKey

The AWS Key Management Service key that Amazon SageMaker uses to encrypt captured data at rest using Amazon S3 server-side encryption.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceExperimentSchedule

Service: Amazon SageMaker Service

The start and end times of an inference experiment.

The maximum duration that you can set for an inference experiment is 30 days.

## Contents

### EndTime

The timestamp at which the inference experiment ended or will end.

Type: Timestamp

Required: No

### StartTime

The timestamp at which the inference experiment started or will start.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceExperimentSummary

Service: Amazon SageMaker Service

Lists a summary of properties of an inference experiment.

## Contents

### CreationTime

The timestamp at which the inference experiment was created.

Type: Timestamp

Required: Yes

### LastModifiedTime

The timestamp when you last modified the inference experiment.

Type: Timestamp

Required: Yes

### Name

The name of the inference experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: Yes

### Status

The status of the inference experiment.

Type: String

Valid Values: `Creating | Created | Updating | Running | Starting | Stopping | Completed | Cancelled`

Required: Yes



## Type

The type of the inference experiment.

Type: String

Valid Values: ShadowMode

Required: Yes

## CompletionTime

The timestamp at which the inference experiment was completed.

Type: Timestamp

Required: No

## Description

The description of the inference experiment.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

## RoleArn

The ARN of the IAM role that Amazon SageMaker can assume to access model artifacts and container images, and manage Amazon SageMaker Inference endpoints for model deployment.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.\@-\\_/\]]+\$

Required: No

## Schedule

The duration for which the inference experiment ran or will run.

The maximum duration that you can set for an inference experiment is 30 days.

Type: [InferenceExperimentSchedule](#) object

Required: No

### **StatusReason**

The error message for the inference experiment status result.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceHubAccessConfig

Service: Amazon SageMaker Service

Configuration information specifying which hub contents have accessible deployment options.

## Contents

### HubContentArn

The ARN of the hub content for which deployment access is allowed.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceMetrics

Service: Amazon SageMaker Service

The metrics for an existing endpoint compared in an Inference Recommender job.

## Contents

### MaxInvocations

The expected maximum number of requests per minute for the instance.

Type: Integer

Required: Yes

### ModelLatency

The expected model latency at maximum invocations per minute for the instance.

Type: Integer

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceRecommendation

Service: Amazon SageMaker Service

A list of recommendations made by Amazon SageMaker Inference Recommender.

## Contents

### EndpointConfiguration

Defines the endpoint configuration parameters.

Type: [EndpointOutputConfiguration](#) object

Required: Yes

### ModelConfiguration

Defines the model configuration.

Type: [ModelConfiguration](#) object

Required: Yes

### InvocationEndTime

A timestamp that shows when the benchmark completed.

Type: Timestamp

Required: No

### InvocationStartTime

A timestamp that shows when the benchmark started.

Type: Timestamp

Required: No

### Metrics

The metrics used to decide what recommendation to make.

Type: [RecommendationMetrics](#) object

Required: No

## RecommendationId

The recommendation ID which uniquely identifies each recommendation.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceRecommendationsJob

Service: Amazon SageMaker Service

A structure that contains a list of recommendation jobs.

## Contents

### CreationTime

A timestamp that shows when the job was created.

Type: Timestamp

Required: Yes

### JobArn

The Amazon Resource Name (ARN) of the recommendation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:inference-recommendations-job/.*`

Required: Yes

### JobDescription

The job description.

Type: String

Length Constraints: Maximum length of 128.

Required: Yes

### JobName

The name of the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,63}`

Required: Yes

### **JobType**

The recommendation job type.

Type: String

Valid Values: Default | Advanced

Required: Yes

### **LastModifiedTime**

A timestamp that shows when the job was last modified.

Type: Timestamp

Required: Yes

### **RoleArn**

The Amazon Resource Name (ARN) of an IAM role that enables Amazon SageMaker to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: Yes

### **Status**

The status of the job.

Type: String

Valid Values: PENDING | IN\_PROGRESS | COMPLETED | FAILED | STOPPING | STOPPED | DELETING | DELETED

Required: Yes



## CompletionTime

A timestamp that shows when the job completed.

Type: Timestamp

Required: No

## FailureReason

If the job fails, provides information why the job failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## ModelName

The name of the created model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\ -a-zA-Z0-9 ] * [a-zA-Z0-9] ) ?`

Required: No

## ModelPackageVersionArn

The Amazon Resource Name (ARN) of a versioned model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)? :sagemaker : [a-z0-9\ - ] {9,16} : [0-9] {12} : model-package / [ \ S ] {1,2048} $`

Required: No

## SamplePayloadUrl

The Amazon Simple Storage Service (Amazon S3) path where the sample payload is stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\s]+)/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceRecommendationsJobStep

Service: Amazon SageMaker Service

A returned array object for the Steps response field in the [ListInferenceRecommendationsJobSteps](#) API command.

## Contents

### JobName

The name of the Inference Recommender job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,63}`

Required: Yes

### Status

The current status of the benchmark.

Type: String

Valid Values: PENDING | IN\_PROGRESS | COMPLETED | FAILED | STOPPING | STOPPED | DELETING | DELETED

Required: Yes

### StepType

The type of the subtask.

BENCHMARK: Evaluate the performance of your model on different instance types.

Type: String

Valid Values: BENCHMARK

Required: Yes

### InferenceBenchmark

The details for a specific benchmark.

Type: [RecommendationJobInferenceBenchmark](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceSpecification

Service: Amazon SageMaker Service

Defines how to perform inference generation after a training job is run.

## Contents

### Containers

The Amazon ECR registry path of the Docker image that contains the inference code.

Type: Array of [ModelPackageContainerDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 15 items.

Required: Yes

### SupportedContentTypes

The supported MIME types for the input data.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### SupportedRealtimeInferenceInstanceTypes

A list of the instance types that are used to generate inferences in real-time.

This parameter is required for unversioned models, and optional for versioned models.

Type: Array of strings

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.12xlarge | ml.m5d.24xlarge | ml.c4.large | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge

| ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge |  
ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.large | ml.c5d.xlarge |  
ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge |  
ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge  
| ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge  
| ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.12xlarge | ml.r5.24xlarge  
| ml.r5d.large | ml.r5d.xlarge | ml.r5d.2xlarge | ml.r5d.4xlarge |  
ml.r5d.12xlarge | ml.r5d.24xlarge | ml.inf1.xlarge | ml.inf1.2xlarge  
| ml.inf1.6xlarge | ml.inf1.24xlarge | ml.dl1.24xlarge | ml.c6i.large  
| ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge |  
ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge  
| ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge |  
ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge  
| ml.g6.xlarge | ml.g6.2xlarge | ml.g6.4xlarge | ml.g6.8xlarge |  
ml.g6.12xlarge | ml.g6.16xlarge | ml.g6.24xlarge | ml.g6.48xlarge  
| ml.p4d.24xlarge | ml.c7g.large | ml.c7g.xlarge | ml.c7g.2xlarge |  
ml.c7g.4xlarge | ml.c7g.8xlarge | ml.c7g.12xlarge | ml.c7g.16xlarge  
| ml.m6g.large | ml.m6g.xlarge | ml.m6g.2xlarge | ml.m6g.4xlarge |  
ml.m6g.8xlarge | ml.m6g.12xlarge | ml.m6g.16xlarge | ml.m6gd.large |  
ml.m6gd.xlarge | ml.m6gd.2xlarge | ml.m6gd.4xlarge | ml.m6gd.8xlarge  
| ml.m6gd.12xlarge | ml.m6gd.16xlarge | ml.c6g.large | ml.c6g.xlarge  
| ml.c6g.2xlarge | ml.c6g.4xlarge | ml.c6g.8xlarge | ml.c6g.12xlarge  
| ml.c6g.16xlarge | ml.c6gd.large | ml.c6gd.xlarge | ml.c6gd.2xlarge |  
ml.c6gd.4xlarge | ml.c6gd.8xlarge | ml.c6gd.12xlarge | ml.c6gd.16xlarge  
| ml.c6gn.large | ml.c6gn.xlarge | ml.c6gn.2xlarge | ml.c6gn.4xlarge  
| ml.c6gn.8xlarge | ml.c6gn.12xlarge | ml.c6gn.16xlarge | ml.r6g.large  
| ml.r6g.xlarge | ml.r6g.2xlarge | ml.r6g.4xlarge | ml.r6g.8xlarge |  
ml.r6g.12xlarge | ml.r6g.16xlarge | ml.r6gd.large | ml.r6gd.xlarge |  
ml.r6gd.2xlarge | ml.r6gd.4xlarge | ml.r6gd.8xlarge | ml.r6gd.12xlarge  
| ml.r6gd.16xlarge | ml.p4de.24xlarge | ml.trn1.2xlarge |  
ml.trn1.32xlarge | ml.trn1n.32xlarge | ml.inf2.xlarge | ml.inf2.8xlarge  
| ml.inf2.24xlarge | ml.inf2.48xlarge | ml.p5.48xlarge | ml.m7i.large  
| ml.m7i.xlarge | ml.m7i.2xlarge | ml.m7i.4xlarge | ml.m7i.8xlarge |  
ml.m7i.12xlarge | ml.m7i.16xlarge | ml.m7i.24xlarge | ml.m7i.48xlarge  
| ml.c7i.large | ml.c7i.xlarge | ml.c7i.2xlarge | ml.c7i.4xlarge |  
ml.c7i.8xlarge | ml.c7i.12xlarge | ml.c7i.16xlarge | ml.c7i.24xlarge

| ml.c7i.48xlarge | ml.r7i.large | ml.r7i.xlarge | ml.r7i.2xlarge |  
ml.r7i.4xlarge | ml.r7i.8xlarge | ml.r7i.12xlarge | ml.r7i.16xlarge |  
ml.r7i.24xlarge | ml.r7i.48xlarge

Required: No

### SupportedResponseMIMETypes

The supported MIME types for the output data.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Pattern: `^[-\w]+\./+$`

Required: No

### SupportedTransformInstanceTypes

A list of the instance types on which a transformation job can be run or on which an endpoint can be deployed.

This parameter is required for unversioned models, and optional for versioned models.

Type: Array of strings

Array Members: Minimum number of 1 item.

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge  
| ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge  
| ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge  
| ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge  
| ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge  
| ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge |  
ml.m5.12xlarge | ml.m5.24xlarge | ml.m6i.large | ml.m6i.xlarge |  
ml.m6i.2xlarge | ml.m6i.4xlarge | ml.m6i.8xlarge | ml.m6i.12xlarge  
| ml.m6i.16xlarge | ml.m6i.24xlarge | ml.m6i.32xlarge | ml.c6i.large  
| ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge |  
ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge  
| ml.r6i.large | ml.r6i.xlarge | ml.r6i.2xlarge | ml.r6i.4xlarge |  
ml.r6i.8xlarge | ml.r6i.12xlarge | ml.r6i.16xlarge | ml.r6i.24xlarge

| ml.r6i.32xlarge | ml.m7i.large | ml.m7i.xlarge | ml.m7i.2xlarge |  
ml.m7i.4xlarge | ml.m7i.8xlarge | ml.m7i.12xlarge | ml.m7i.16xlarge  
| ml.m7i.24xlarge | ml.m7i.48xlarge | ml.c7i.large | ml.c7i.xlarge  
| ml.c7i.2xlarge | ml.c7i.4xlarge | ml.c7i.8xlarge | ml.c7i.12xlarge  
| ml.c7i.16xlarge | ml.c7i.24xlarge | ml.c7i.48xlarge | ml.r7i.large  
| ml.r7i.xlarge | ml.r7i.2xlarge | ml.r7i.4xlarge | ml.r7i.8xlarge |  
ml.r7i.12xlarge | ml.r7i.16xlarge | ml.r7i.24xlarge | ml.r7i.48xlarge  
| ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge  
| ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.g5.xlarge | ml.g5.2xlarge  
| ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.12xlarge | ml.g5.16xlarge |  
ml.g5.24xlarge | ml.g5.48xlarge

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# InfraCheckConfig

Service: Amazon SageMaker Service

Configuration information for the infrastructure health check of a training job. A SageMaker-provided health check tests the health of instance hardware and cluster network connectivity.

## Contents

### EnableInfraCheck

Enables an infrastructure health check.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InputConfig

Service: Amazon SageMaker Service

Contains information about the location of input model artifacts, the name and shape of the expected data inputs, and the framework in which the model was trained.

## Contents

### Framework

Identifies the framework in which the model was trained. For example: TENSORFLOW.

Type: String

Valid Values: TENSORFLOW | KERAS | MXNET | ONNX | PYTORCH | XGBOOST | TFLITE  
| DARKNET | SKLEARN

Required: Yes

### S3Uri

The S3 path where the model artifacts, which result from model training, are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

### DataInputConfig

Specifies the name and shape of the expected data inputs for your trained model with a JSON dictionary form. The data inputs are Framework specific.

- TensorFlow: You must specify the name and shape (NHWC format) of the expected data inputs using a dictionary format for your trained model. The dictionary formats required for the console and CLI are different.
  - Examples for one input:
    - If using the console, `{"input": [1, 1024, 1024, 3]}`

- If using the CLI, `{"input": [1, 1024, 1024, 3]}`
- Examples for two inputs:
  - If using the console, `{"data1": [1, 28, 28, 1], "data2": [1, 28, 28, 1]}`
  - If using the CLI, `{"data1": [1, 28, 28, 1], "data2": [1, 28, 28, 1]}`
- KERAS: You must specify the name and shape (NCHW format) of expected data inputs using a dictionary format for your trained model. Note that while Keras model artifacts should be uploaded in NHWC (channel-last) format, `DataInputConfig` should be specified in NCHW (channel-first) format. The dictionary formats required for the console and CLI are different.
  - Examples for one input:
    - If using the console, `{"input_1": [1, 3, 224, 224]}`
    - If using the CLI, `{"input_1": [1, 3, 224, 224]}`
  - Examples for two inputs:
    - If using the console, `{"input_1": [1, 3, 224, 224], "input_2": [1, 3, 224, 224]}`
    - If using the CLI, `{"input_1": [1, 3, 224, 224], "input_2": [1, 3, 224, 224]}`
- MXNET/ONNX/DARKNET: You must specify the name and shape (NCHW format) of the expected data inputs in order using a dictionary format for your trained model. The dictionary formats required for the console and CLI are different.
  - Examples for one input:
    - If using the console, `{"data": [1, 3, 1024, 1024]}`
    - If using the CLI, `{"data": [1, 3, 1024, 1024]}`
  - Examples for two inputs:
    - If using the console, `{"var1": [1, 1, 28, 28], "var2": [1, 1, 28, 28]}`
    - If using the CLI, `{"var1": [1, 1, 28, 28], "var2": [1, 1, 28, 28]}`
- PyTorch: You can either specify the name and shape (NCHW format) of expected data inputs in order using a dictionary format for your trained model or you can specify the shape only using a list format. The dictionary formats required for the console and CLI are different. The list formats for the console and CLI are the same.
  - Examples for one input in dictionary format:
    - If using the console, `{"input0": [1, 3, 224, 224]}`
    - If using the CLI, `{"input0": [1, 3, 224, 224]}`
  - Example for one input in list format: `[1, 3, 224, 224]`

- Examples for two inputs in dictionary format:
  - If using the console, `{"input0": [1, 3, 224, 224], "input1": [1, 3, 224, 224]}`
  - If using the CLI, `{"input0": [1, 3, 224, 224], "input1": [1, 3, 224, 224]}`
- Example for two inputs in list format: `[[1, 3, 224, 224], [1, 3, 224, 224]]`
- XGBOOST: input data name and shape are not needed.

DataInputConfig supports the following parameters for CoreML TargetDevice (ML Model format):

- `shape`: Input shape, for example `{"input_1": {"shape": [1, 224, 224, 3]}}`. In addition to static input shapes, CoreML converter supports Flexible input shapes:
  - Range Dimension. You can use the Range Dimension feature if you know the input shape will be within some specific interval in that dimension, for example: `{"input_1": {"shape": ["1..10", 224, 224, 3]}}`
  - Enumerated shapes. Sometimes, the models are trained to work only on a select set of inputs. You can enumerate all supported input shapes, for example: `{"input_1": {"shape": [[1, 224, 224, 3], [1, 160, 160, 3]]}}`
- `default_shape`: Default input shape. You can set a default shape during conversion for both Range Dimension and Enumerated Shapes. For example `{"input_1": {"shape": ["1..10", 224, 224, 3], "default_shape": [1, 224, 224, 3]}}`
- `type`: Input type. Allowed values: Image and Tensor. By default, the converter generates an ML Model with inputs of type Tensor (MultiArray). User can set input type to be Image. Image input type requires additional input parameters such as bias and scale.
- `bias`: If the input type is an Image, you need to provide the bias vector.
- `scale`: If the input type is an Image, you need to provide a scale factor.

CoreML ClassifierConfig parameters can be specified using [OutputConfig](#) CompilerOptions. CoreML converter supports Tensorflow and PyTorch models. CoreML conversion examples:

- Tensor type input:
  - `"DataInputConfig": {"input_1": {"shape": [[1, 224, 224, 3], [1, 160, 160, 3]], "default_shape": [1, 224, 224, 3]}}`
- Tensor type input without input name (PyTorch):
  - `"DataInputConfig": [{"shape": [[1, 3, 224, 224], [1, 3, 160, 160]], "default_shape": [1, 3, 224, 224]}`

- Image type input:
  - "DataInputConfig": {"input\_1": {"shape": [[1,224,224,3], [1,160,160,3]], "default\_shape": [1,224,224,3], "type": "Image", "bias": [-1,-1,-1], "scale": 0.007843137255}}
  - "CompilerOptions": {"class\_labels": "imagenet\_labels\_1000.txt"}
- Image type input without input name (PyTorch):
  - "DataInputConfig": [{"shape": [[1,3,224,224], [1,3,160,160]], "default\_shape": [1,3,224,224], "type": "Image", "bias": [-1,-1,-1], "scale": 0.007843137255}]
  - "CompilerOptions": {"class\_labels": "imagenet\_labels\_1000.txt"}

Depending on the model format, DataInputConfig requires the following parameters for ml\_eia2 [OutputConfig:TargetDevice](#).

- For TensorFlow models saved in the SavedModel format, specify the input names from signature\_def\_key and the input model shapes for DataInputConfig. Specify the signature\_def\_key in [OutputConfig:CompilerOptions](#) if the model does not use TensorFlow's default signature def key. For example:
  - "DataInputConfig": {"inputs": [1, 224, 224, 3]}
  - "CompilerOptions": {"signature\_def\_key": "serving\_custom"}
- For TensorFlow models saved as a frozen graph, specify the input tensor names and shapes in DataInputConfig and the output tensor names for output\_names in [OutputConfig:CompilerOptions](#). For example:
  - "DataInputConfig": {"input\_tensor:0": [1, 224, 224, 3]}
  - "CompilerOptions": {"output\_names": ["output\_tensor:0"]}

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16384.

Pattern: [`\S\s`]+

Required: No

### FrameworkVersion

Specifies the framework version to use. This API field is only supported for the MXNet, PyTorch, TensorFlow and TensorFlow Lite frameworks.

For information about framework versions supported for cloud targets and edge devices, see [Cloud Supported Instance Types and Frameworks](#) and [Edge Supported Frameworks](#).

Type: String

Length Constraints: Minimum length of 3. Maximum length of 10.

Pattern: `[0-9]\.[A-Za-z0-9.]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InstanceGroup

Service: Amazon SageMaker Service

Defines an instance group for heterogeneous cluster training. When requesting a training job using the [CreateTrainingJob](#) API, you can configure multiple instance groups .

## Contents

### InstanceCount

Specifies the number of instances of the instance group.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

### InstanceGroupName

Specifies the name of the instance group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: . +

Required: Yes

### InstanceType

Specifies the instance type of the instance group.

Type: String

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge |

ml.p4d.24xlarge | ml.p4de.24xlarge | ml.p5.48xlarge | ml.c5.xlarge  
| ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge  
| ml.c5n.xlarge | ml.c5n.2xlarge | ml.c5n.4xlarge | ml.c5n.9xlarge  
| ml.c5n.18xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge |  
ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge |  
ml.g5.48xlarge | ml.trn1.2xlarge | ml.trn1.32xlarge | ml.trn1n.32xlarge  
| ml.m6i.large | ml.m6i.xlarge | ml.m6i.2xlarge | ml.m6i.4xlarge |  
ml.m6i.8xlarge | ml.m6i.12xlarge | ml.m6i.16xlarge | ml.m6i.24xlarge  
| ml.m6i.32xlarge | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.8xlarge |  
ml.c6i.4xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge |  
ml.c6i.32xlarge

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# InstanceMetadataServiceConfiguration

Service: Amazon SageMaker Service

Information on the IMDS configuration of the notebook instance

## Contents

### MinimumInstanceMetadataServiceVersion

Indicates the minimum IMDS version that the notebook instance supports. When passed as part of `CreateNotebookInstance`, if no value is selected, then it defaults to `IMDSv1`. This means that both `IMDSv1` and `IMDSv2` are supported. If passed as part of `UpdateNotebookInstance`, there is no default.

Type: String

Length Constraints: Maximum length of 1.

Pattern: 1 | 2

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# IntegerParameterRange

Service: Amazon SageMaker Service

For a hyperparameter of the integer type, specifies the range that a hyperparameter tuning job searches.

## Contents

### MaxValue

The maximum value of the hyperparameter to search.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### MinValue

The minimum value of the hyperparameter to search.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### Name

The name of the hyperparameter to search.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

## ScalingType

The scale that hyperparameter tuning uses to search the hyperparameter range. For information about choosing a hyperparameter scale, see [Hyperparameter Scaling](#). One of the following values:

Auto

SageMaker hyperparameter tuning chooses the best scale for the hyperparameter.

Linear

Hyperparameter tuning searches the values in the hyperparameter range by using a linear scale.

Logarithmic

Hyperparameter tuning searches the values in the hyperparameter range by using a logarithmic scale.

Logarithmic scaling works only for ranges that have only values greater than 0.

Type: String

Valid Values: Auto | Linear | Logarithmic | ReverseLogarithmic

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# IntegerParameterRangeSpecification

Service: Amazon SageMaker Service

Defines the possible values for an integer hyperparameter.

## Contents

### MaxValue

The maximum integer value allowed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### MinValue

The minimum integer value allowed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JupyterLabAppImageConfig

Service: Amazon SageMaker Service

The configuration for the file system and kernels in a SageMaker image running as a JupyterLab app. The `FileSystemConfig` object is not supported.

## Contents

### ContainerConfig

The configuration used to run the application image container.

Type: [ContainerConfig](#) object

Required: No

### FileSystemConfig

The Amazon Elastic File System storage configuration for a SageMaker image.

Type: [FileSystemConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JupyterLabAppSettings

Service: Amazon SageMaker Service

The settings for the JupyterLab application.

## Contents

### CodeRepositories

A list of Git repositories that SageMaker automatically displays to users for cloning in the JupyterLab application.

Type: Array of [CodeRepository](#) objects

Array Members: Maximum number of 10 items.

Required: No

### CustomImages

A list of custom SageMaker images that are configured to run as a JupyterLab app.

Type: Array of [CustomImage](#) objects

Array Members: Maximum number of 200 items.

Required: No

### DefaultResourceSpec

Specifies the ARN's of a SageMaker image and SageMaker image version, and the instance type that the version runs on.

Type: [ResourceSpec](#) object

Required: No

### LifecycleConfigArns

The Amazon Resource Name (ARN) of the lifecycle configurations attached to the user profile or domain. To remove a lifecycle config, you must set LifecycleConfigArns to an empty list.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:studio-lifecycle-config/.\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JupyterServerAppSettings

Service: Amazon SageMaker Service

The JupyterServer app settings.

## Contents

### CodeRepositories

A list of Git repositories that SageMaker automatically displays to users for cloning in the JupyterServer application.

Type: Array of [CodeRepository](#) objects

Array Members: Maximum number of 10 items.

Required: No

### DefaultResourceSpec

The default instance type and the Amazon Resource Name (ARN) of the default SageMaker image used by the JupyterServer app. If you use the `LifecycleConfigArns` parameter, then this parameter is also required.

Type: [ResourceSpec](#) object

Required: No

### LifecycleConfigArns

The Amazon Resource Name (ARN) of the Lifecycle Configurations attached to the JupyterServerApp. If you use this parameter, the `DefaultResourceSpec` parameter is also required.

#### Note

To remove a Lifecycle Config, you must set `LifecycleConfigArns` to an empty list.

Type: Array of strings

Length Constraints: Maximum length of 256.



Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:studio-lifecycle-config/.\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# KendraSettings

Service: Amazon SageMaker Service

The Amazon SageMaker Canvas application setting where you configure document querying.

## Contents

### Status

Describes whether the document querying feature is enabled or disabled in the Canvas application.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# KernelGatewayAppSettings

Service: Amazon SageMaker Service

The KernelGateway app settings.

## Contents

### CustomImages

A list of custom SageMaker images that are configured to run as a KernelGateway app.

Type: Array of [CustomImage](#) objects

Array Members: Maximum number of 200 items.

Required: No

### DefaultResourceSpec

The default instance type and the Amazon Resource Name (ARN) of the default SageMaker image used by the KernelGateway app.

#### Note

The Amazon SageMaker Studio UI does not use the default instance type value set here. The default instance type set here is used when Apps are created using the AWS CLI or AWS CloudFormation and the instance type parameter value is not passed.

Type: [ResourceSpec](#) object

Required: No

### LifecycleConfigArns

The Amazon Resource Name (ARN) of the Lifecycle Configurations attached to the the user profile or domain.

#### Note

To remove a Lifecycle Config, you must set LifecycleConfigArns to an empty list.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:studio-lifecycle-config/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# KernelGatewayImageConfig

Service: Amazon SageMaker Service

The configuration for the file system and kernels in a SageMaker image running as a KernelGateway app.

## Contents

### KernelSpecs

The specification of the Jupyter kernels in the image.

Type: Array of [KernelSpec](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: Yes

### FileSystemConfig

The Amazon Elastic File System storage configuration for a SageMaker image.

Type: [FileSystemConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# KernelSpec

Service: Amazon SageMaker Service

The specification of a Jupyter kernel.

## Contents

### Name

The name of the Jupyter kernel in the image. This value is case sensitive.

Type: String

Length Constraints: Maximum length of 1024.

Required: Yes

### DisplayName

The display name of the kernel.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelCounters

Service: Amazon SageMaker Service

Provides a breakdown of the number of objects labeled.

## Contents

### FailedNonRetryableError

The total number of objects that could not be labeled due to an error.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### HumanLabeled

The total number of objects labeled by a human worker.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### MachineLabeled

The total number of objects labeled by automated data labeling.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### TotalLabeled

The total number of objects labeled.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## Unlabeled

The total number of objects not yet labeled.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# LabelCountersForWorkteam

Service: Amazon SageMaker Service

Provides counts for human-labeled tasks in the labeling job.

## Contents

### HumanLabeled

The total number of data objects labeled by a human worker.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### PendingHuman

The total number of data objects that need to be labeled by a human worker.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### Total

The total number of tasks in the labeling job.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobAlgorithmsConfig

Service: Amazon SageMaker Service

Provides configuration information for auto-labeling of your data objects. A `LabelingJobAlgorithmsConfig` object must be supplied in order to use auto-labeling.

## Contents

### LabelingJobAlgorithmSpecificationArn

Specifies the Amazon Resource Name (ARN) of the algorithm used for auto-labeling. You must select one of the following ARNs:

- *Image classification*

```
arn:aws:sagemaker:region:027400017018:labeling-job-algorithm-specification/image-classification
```

- *Text classification*

```
arn:aws:sagemaker:region:027400017018:labeling-job-algorithm-specification/text-classification
```

- *Object detection*

```
arn:aws:sagemaker:region:027400017018:labeling-job-algorithm-specification/object-detection
```

- *Semantic Segmentation*

```
arn:aws:sagemaker:region:027400017018:labeling-job-algorithm-specification/semantic-segmentation
```

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:.*`

Required: Yes

## InitialActiveLearningModelArn

At the end of an auto-label job Ground Truth sends the Amazon Resource Name (ARN) of the final model used for auto-labeling. You can use this model as the starting point for subsequent similar jobs by providing the ARN of the model here.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:model/.*`

Required: No

## LabelingJobResourceConfig

Provides configuration information for a labeling job.

Type: [LabelingJobResourceConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobDataAttributes

Service: Amazon SageMaker Service

Attributes of the data specified by the customer. Use these to describe the data to be labeled.

## Contents

### ContentClassifiers

Declares that your content is free of personally identifiable information or adult content. SageMaker may restrict the Amazon Mechanical Turk workers that can view your task based on this information.

Type: Array of strings

Array Members: Maximum number of 256 items.

Valid Values: `FreeOfPersonallyIdentifiableInformation` | `FreeOfAdultContent`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobDataSource

Service: Amazon SageMaker Service

Provides information about the location of input data.

You must specify at least one of the following: `S3DataSource` or `SnsDataSource`.

Use `SnsDataSource` to specify an SNS input topic for a streaming labeling job. If you do not specify an SNS input topic ARN, Ground Truth will create a one-time labeling job.

Use `S3DataSource` to specify an input manifest file for both streaming and one-time labeling jobs. Adding an `S3DataSource` is optional if you use `SnsDataSource` to create a streaming labeling job.

## Contents

### S3DataSource

The Amazon S3 location of the input data objects.

Type: [LabelingJobS3DataSource](#) object

Required: No

### SnsDataSource

An Amazon SNS data source used for streaming labeling jobs. To learn more, see [Send Data to a Streaming Labeling Job](#).

Type: [LabelingJobSnsDataSource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# LabelingJobForWorkteamSummary

Service: Amazon SageMaker Service

Provides summary information for a work team.

## Contents

### CreationTime

The date and time that the labeling job was created.

Type: Timestamp

Required: Yes

### JobReferenceCode

A unique identifier for a labeling job. You can use this to refer to a specific labeling job.

Type: String

Length Constraints: Minimum length of 1.

Pattern: .+

Required: Yes

### WorkRequesterAccountId

The AWS account ID of the account used to start the labeling job.

Type: String

Length Constraints: Fixed length of 12.

Pattern: ^\d+\$

Required: Yes

### LabelCounters

Provides information about the progress of a labeling job.

Type: [LabelCountersForWorkteam](#) object



Required: No

### **LabelingJobName**

The name of the labeling job that the work team is assigned to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### **NumberOfHumanWorkersPerDataObject**

The configured number of workers per data object.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 9.

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobInputConfig

Service: Amazon SageMaker Service

Input configuration information for a labeling job.

## Contents

### DataSource

The location of the input data.

Type: [LabelingJobDataSource](#) object

Required: Yes

### DataAttributes

Attributes of the data specified by the customer.

Type: [LabelingJobDataAttributes](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobOutput

Service: Amazon SageMaker Service

Specifies the location of the output produced by the labeling job.

## Contents

### OutputDatasetS3Uri

The Amazon S3 bucket location of the manifest file for labeled data.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: Yes

### FinalActiveLearningModelArn

The Amazon Resource Name (ARN) for the most recent SageMaker model trained as part of automated data labeling.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:model/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobOutputConfig

Service: Amazon SageMaker Service

Output configuration information for a labeling job.

## Contents

### S3OutputPath

The Amazon S3 location to write output data.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

### KmsKeyId

The AWS Key Management Service ID of the key used to encrypt the output data, if any.

If you provide your own KMS key ID, you must add the required permissions to your KMS key described in [Encrypt Output Data and Storage Volume with AWS KMS](#).

If you don't provide a KMS key ID, Amazon SageMaker uses the default AWS KMS key for Amazon S3 for your role's account to encrypt your output data.

If you use a bucket policy with an `s3:PutObject` permission that only allows objects with server-side encryption, set the condition key of `s3:x-amz-server-side-encryption` to `"aws:kms"`. For more information, see [KMS-Managed Encryption Keys](#) in the *Amazon Simple Storage Service Developer Guide*.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## SnsTopicArn

An Amazon Simple Notification Service (Amazon SNS) output topic ARN. Provide a `SnsTopicArn` if you want to do real time chaining to another streaming job and receive an Amazon SNS notifications each time a data object is submitted by a worker.

If you provide an `SnsTopicArn` in `OutputConfig`, when workers complete labeling tasks, Ground Truth will send labeling task output data to the SNS output topic you specify here.

To learn more, see [Receive Output Data from a Streaming Labeling Job](#).

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sns:[a-z0-9\-*]:[0-9]{12}:[a-zA-Z0-9_.-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobResourceConfig

Service: Amazon SageMaker Service

Configure encryption on the storage volume attached to the ML compute instance used to run automated data labeling model training and inference.

## Contents

### VolumeKmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance(s) that run the training and inference jobs used for automated data labeling.

You can only specify a `VolumeKmsKeyId` when you create a labeling job with automated data labeling enabled using the API operation `CreateLabelingJob`. You cannot specify an AWS KMS key to encrypt the storage volume used for automated data labeling model training and inference when you create a labeling job using the console. To learn more, see [Output Data and Storage Volume Encryption](#).

The `VolumeKmsKeyId` can be any of the following formats:

- KMS Key ID

```
"1234abcd-12ab-34cd-56ef-1234567890ab"
```

- Amazon Resource Name (ARN) of a KMS Key

```
"arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"
```

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

### VpcConfig

Specifies an Amazon Virtual Private Cloud (VPC) that your SageMaker jobs, hosted models, and compute resources have access to. You can control access to and from your resources by

configuring a VPC. For more information, see [Give SageMaker Access to Resources in your Amazon VPC](#).

Type: [VpcConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobS3DataSource

Service: Amazon SageMaker Service

The Amazon S3 location of the input data objects.

## Contents

### ManifestS3Uri

The Amazon S3 location of the manifest file that describes the input data objects.

The input manifest file referenced in `ManifestS3Uri` must contain one of the following keys: `source-ref` or `source`. The value of the keys are interpreted as follows:

- `source-ref`: The source of the object is the Amazon S3 object specified in the value. Use this value when the object is a binary object, such as an image.
- `source`: The source of the object is the value. Use this value when the object is a text value.

If you are a new user of Ground Truth, it is recommended you review [Use an Input Manifest File](#) in the Amazon SageMaker Developer Guide to learn how to create an input manifest file.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# LabelingJobSnsDataSource

Service: Amazon SageMaker Service

An Amazon SNS data source used for streaming labeling jobs.

## Contents

### SnsTopicArn

The Amazon SNS input topic Amazon Resource Name (ARN). Specify the ARN of the input topic you will use to send new data objects to a streaming labeling job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sns:[a-z0-9\-*]:[0-9]{12}:[a-zA-Z0-9_.-]+`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobStoppingConditions

Service: Amazon SageMaker Service

A set of conditions for stopping a labeling job. If any of the conditions are met, the job is automatically stopped. You can use these conditions to control the cost of data labeling.

## Note

Labeling jobs fail after 30 days with an appropriate client error message.

## Contents

### MaxHumanLabeledObjectCount

The maximum number of objects that can be labeled by human workers.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### MaxPercentageOfInputDatasetLabeled

The maximum number of input data objects that should be labeled.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# LabelingJobSummary

Service: Amazon SageMaker Service

Provides summary information about a labeling job.

## Contents

### CreationTime

The date and time that the job was created (timestamp).

Type: Timestamp

Required: Yes

### LabelCounters

Counts showing the progress of the labeling job.

Type: [LabelCounters](#) object

Required: Yes

### LabelingJobArn

The Amazon Resource Name (ARN) assigned to the labeling job when it was created.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:labeling-job/.*`

Required: Yes

### LabelingJobName

The name of the labeling job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### **LabelingJobStatus**

The current status of the labeling job.

Type: String

Valid Values: Initializing | InProgress | Completed | Failed | Stopping | Stopped

Required: Yes

### **LastModifiedTime**

The date and time that the job was last modified (timestamp).

Type: Timestamp

Required: Yes

### **PreHumanTaskLambdaArn**

The Amazon Resource Name (ARN) of a Lambda function. The function is run before each data object is sent to a worker.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: arn:aws[a-z\-\*]:lambda:[a-z0-9\-\*]:[0-9]{12}:function:.\*

Required: Yes

### **WorkteamArn**

The Amazon Resource Name (ARN) of the work team assigned to the job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:workteam/.\*

Required: Yes

## AnnotationConsolidationLambdaArn

The Amazon Resource Name (ARN) of the Lambda function used to consolidate the annotations from individual workers into a label for a data object. For more information, see [Annotation Consolidation](#).

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:lambda:[a-z0-9\-*]:[0-9]{12}:function:.*`

Required: No

## FailureReason

If the `LabelingJobStatus` field is `Failed`, this field contains a description of the error.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## InputConfig

Input configuration for the labeling job.

Type: [LabelingJobInputConfig](#) object

Required: No

## LabelingJobOutput

The location of the output produced by the labeling job.

Type: [LabelingJobOutput](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LambdaStepMetadata

Service: Amazon SageMaker Service

Metadata for a Lambda step.

## Contents

### Arn

The Amazon Resource Name (ARN) of the Lambda function that was run by this step execution.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### OutputParameters

A list of the output parameters of the Lambda step.

Type: Array of [OutputParameter](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# LastUpdateStatus

Service: Amazon SageMaker Service

A value that indicates whether the update was successful.

## Contents

### Status

A value that indicates whether the update was made successful.

Type: String

Valid Values: Successful | Failed | InProgress

Required: Yes

### FailureReason

If the update wasn't successful, indicates the reason why it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LineageGroupSummary

Service: Amazon SageMaker Service

Lists a summary of the properties of a lineage group. A lineage group provides a group of shareable lineage entity resources.

## Contents

### CreationTime

The creation time of the lineage group summary.

Type: Timestamp

Required: No

### DisplayName

The display name of the lineage group summary.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### LastModifiedTime

The last modified time of the lineage group summary.

Type: Timestamp

Required: No

### LineageGroupArn

The Amazon Resource Name (ARN) of the lineage group resource.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:lineage-group/.*`

Required: No

## LineageGroupName

The name or Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MemberDefinition

Service: Amazon SageMaker Service

Defines an Amazon Cognito or your own OIDC IdP user group that is part of a work team.

## Contents

### CognitoMemberDefinition

The Amazon Cognito user group that is part of the work team.

Type: [CognitoMemberDefinition](#) object

Required: No

### OidcMemberDefinition

A list user groups that exist in your OIDC Identity Provider (IdP). One to ten groups can be used to create a single private work team. When you add a user group to the list of Groups, you can add that user group to one or more private work teams. If you add a user group to a private work team, all workers in that user group are added to the work team.

Type: [OidcMemberDefinition](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MetadataProperties

Service: Amazon SageMaker Service

Metadata properties of the tracking entity, trial, or trial component.

## Contents

### CommitId

The commit ID.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### GeneratedBy

The entity this entity was generated by.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### ProjectId

The project ID.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### Repository

The repository.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MetricData

Service: Amazon SageMaker Service

The name, value, and date and time of a metric that was emitted to Amazon CloudWatch.

## Contents

### MetricName

The name of the metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: No

### Timestamp

The date and time that the algorithm emitted the metric.

Type: Timestamp

Required: No

### Value

The value of the metric.

Type: Float

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)





# MetricDatum

Service: Amazon SageMaker Service

Information about the metric for a candidate produced by an AutoML job.

## Contents

### MetricName

The name of the metric.

Type: String

Valid Values: Accuracy | MSE | F1 | F1macro | AUC | RMSE | BalancedAccuracy | R2 | Recall | RecallMacro | Precision | PrecisionMacro | MAE | MAPE | MASE | WAPE | AverageWeightedQuantileLoss

Required: No

### Set

The dataset split from which the AutoML job produced the metric.

Type: String

Valid Values: Train | Validation | Test

Required: No

### StandardMetricName

The name of the standard metric.

#### Note

For definitions of the standard metrics, see [Autopilot candidate metrics](#).

Type: String

Valid Values: Accuracy | MSE | F1 | F1macro | AUC | RMSE | MAE | R2 | BalancedAccuracy | Precision | PrecisionMacro | Recall | RecallMacro | LogLoss | InferenceLatency | MAPE | MASE | WAPE |

AverageWeightedQuantileLoss | Rouge1 | Rouge2 | RougeL | RougeLSum |  
Perplexity | ValidationLoss | TrainingLoss

Required: No

### Value

The value of the metric.

Type: Float

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MetricDefinition

Service: Amazon SageMaker Service

Specifies a metric that the training algorithm writes to `stderr` or `stdout`. You can view these logs to understand how your training job performs and check for any errors encountered during training. SageMaker hyperparameter tuning captures all defined metrics. Specify one of the defined metrics to use as an objective metric using the [TuningObjective](#) parameter in the `HyperParameterTrainingJobDefinition` API to evaluate job performance during hyperparameter tuning.

## Contents

### Name

The name of the metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `.+`

Required: Yes

### Regex

A regular expression that searches the output of a training job and gets the value of the metric. For more information about using regular expressions to define metrics, see [Defining metrics and environment variables](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 500.

Pattern: `.+`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MetricSpecification

Service: Amazon SageMaker Service

An object containing information about a metric.

## Contents

### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

## Customized

Information about a customized metric.

Type: [CustomizedMetricSpecification](#) object

Required: No

## Predefined

Information about a predefined metric.

Type: [PredefinedMetricSpecification](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MetricsSource

Service: Amazon SageMaker Service

Details about the metrics source.

## Contents

### ContentType

The metric source content type.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### S3Uri

The S3 URI for the metrics source.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3):\/\/([^\/]+)\/?(.\*)\$

Required: Yes

### ContentDigest

The hash key used for the metrics source.

Type: String

Length Constraints: Maximum length of 72.

Pattern: ^[Ss][Hh][Aa]256:[0-9a-fA-F]{64}\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Model

Service: Amazon SageMaker Service

The properties of a model as returned by the [Search](#) API.

## Contents

### Containers

The containers in the inference pipeline.

Type: Array of [ContainerDefinition](#) objects

Array Members: Maximum number of 15 items.

Required: No

### CreationTime

A timestamp that indicates when the model was created.

Type: Timestamp

Required: No

### DeploymentRecommendation

A set of recommended deployment configurations for the model.

Type: [DeploymentRecommendation](#) object

Required: No

### EnableNetworkIsolation

Isolates the model container. No inbound or outbound network calls can be made to or from the model container.

Type: Boolean

Required: No

### ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role that you specified for the model.



Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: No

### **InferenceExecutionConfig**

Specifies details about how containers in a multi-container endpoint are run.

Type: [InferenceExecutionConfig](#) object

Required: No

### **ModelArn**

The Amazon Resource Name (ARN) of the model.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*:sagemaker:[a-z0-9\-*:[0-9]{12}:model/.*`

Required: No

### **ModelName**

The name of the model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9]*[a-zA-Z0-9])?`

Required: No

### **PrimaryContainer**

Describes the container, as part of model definition.

Type: [ContainerDefinition](#) object

Required: No

## Tags

A list of key-value pairs associated with the model. For more information, see [Tagging AWS resources](#) in the *AWS General Reference Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## VpcConfig

Specifies an Amazon Virtual Private Cloud (VPC) that your SageMaker jobs, hosted models, and compute resources have access to. You can control access to and from your resources by configuring a VPC. For more information, see [Give SageMaker Access to Resources in your Amazon VPC](#).

Type: [VpcConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelAccessConfig

Service: Amazon SageMaker Service

The access configuration file to control access to the ML model. You can explicitly accept the model end-user license agreement (EULA) within the `ModelAccessConfig`.

- If you are a Jumpstart user, see the [End-user license agreements](#) section for more details on accepting the EULA.
- If you are an AutoML user, see the *Optional Parameters* section of *Create an AutoML job to fine-tune text generation models using the API* for details on [How to set the EULA acceptance when fine-tuning a model using the AutoML API](#).

## Contents

### AcceptEula

Specifies agreement to the model end-user license agreement (EULA). The `AcceptEula` value must be explicitly defined as `True` in order to accept the EULA that this model requires. You are responsible for reviewing and complying with any applicable license terms and making sure they are acceptable for your use case before downloading or using a model.

Type: Boolean

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelArtifacts

Service: Amazon SageMaker Service

Provides information about the location that is configured for storing model artifacts.

Model artifacts are outputs that result from training a model. They typically consist of trained parameters, a model definition that describes how to compute inferences, and other metadata. A SageMaker container stores your trained model artifacts in the `/opt/ml/model` directory. After training has completed, by default, these artifacts are uploaded to your Amazon S3 bucket as compressed files.

## Contents

### S3ModelArtifacts

The path of the S3 object that contains the model artifacts. For example, `s3://bucket-name/keynameprefix/model.tar.gz`.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelBiasAppSpecification

Service: Amazon SageMaker Service

Docker container image configuration object for the model bias job.

## Contents

### ConfigUri

JSON formatted S3 file that defines bias parameters. For more information on this JSON configuration file, see [Configure bias parameters](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

### ImageUri

The container image to be run by the model bias job.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `.*`

Required: Yes

### Environment

Sets the environment variables in the Docker container.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 256.

Value Pattern: `[\S\s]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelBiasBaselineConfig

Service: Amazon SageMaker Service

The configuration for a baseline model bias job.

## Contents

### BaseliningJobName

The name of the baseline model bias job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### ConstraintsResource

The constraints resource for a monitoring job.

Type: [MonitoringConstraintsResource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelBiasJobInput

Service: Amazon SageMaker Service

Inputs for the model bias job.

## Contents

### GroundTruthS3Input

Location of ground truth labels to use in model bias job.

Type: [MonitoringGroundTruthS3Input](#) object

Required: Yes

### BatchTransformInput

Input object for the batch transform job.

Type: [BatchTransformInput](#) object

Required: No

### EndpointInput

Input object for the endpoint

Type: [EndpointInput](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ModelCard

Service: Amazon SageMaker Service

An Amazon SageMaker Model Card.

## Contents

### Content

The content of the model card. Content uses the [model card JSON schema](#) and provided as a string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100000.

Pattern: .\*

Required: No

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

### CreationTime

The date and time that the model card was created.

Type: Timestamp

Required: No

### LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

## LastModifiedTime

The date and time that the model card was last modified.

Type: Timestamp

Required: No

## ModelCardArn

The Amazon Resource Name (ARN) of the model card.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

## ModelCardName

The unique name of the model card.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

## ModelCardStatus

The approval status of the model card within your organization. Different organizations might have different criteria for model card review and approval.

- **Draft:** The model card is a work in progress.
- **PendingReview:** The model card is pending review.
- **Approved:** The model card is approved.
- **Archived:** The model card is archived. No more updates should be made to the model card, but it can still be exported.

Type: String

Valid Values: Draft | PendingReview | Approved | Archived

Required: No

### **ModelCardVersion**

The version of the model card.

Type: Integer

Required: No

### **ModelId**

The unique name (ID) of the model.

Type: String

Required: No

### **ModelPackageGroupName**

The model package group that contains the model package. Only relevant for model cards created for model packages in the Amazon SageMaker Model Registry.

Type: String

Required: No

### **RiskRating**

The risk rating of the model. Different organizations might have different criteria for model card risk ratings. For more information, see [Risk ratings](#).

Type: String

Required: No

### **SecurityConfig**

The security configuration used to protect model card data.

Type: [ModelCardSecurityConfig](#) object

Required: No

## Tags

Key-value pairs used to manage metadata for the model card.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelCardExportArtifacts

Service: Amazon SageMaker Service

The artifacts of the model card export job.

## Contents

### S3ExportArtifacts

The Amazon S3 URI of the exported model artifacts.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelCardExportJobSummary

Service: Amazon SageMaker Service

The summary of the Amazon SageMaker Model Card export job.

## Contents

### CreatedAt

The date and time that the model card export job was created.

Type: Timestamp

Required: Yes

### LastModifiedAt

The date and time that the model card export job was last modified..

Type: Timestamp

Required: Yes

### ModelCardExportJobArn

The Amazon Resource Name (ARN) of the model card export job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}/export-job/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelCardExportJobName

The name of the model card export job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### **ModelCardName**

The name of the model card that the export job exports.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### **ModelCardVersion**

The version of the model card that the export job exports.

Type: Integer

Required: Yes

### **Status**

The completion status of the model card export job.

Type: String

Valid Values: `InProgress` | `Completed` | `Failed`

Required: Yes

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelCardExportOutputConfig

Service: Amazon SageMaker Service

Configure the export output details for an Amazon SageMaker Model Card.

## Contents

### S3OutputPath

The Amazon S3 output path to export your model card PDF.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ModelCardSecurityConfig

Service: Amazon SageMaker Service

Configure the security settings to protect model card data.

## Contents

### KmsKeyId

A Key Management Service [key ID](#) to use for encrypting a model card.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelCardSummary

Service: Amazon SageMaker Service

A summary of the model card.

## Contents

### CreationTime

The date and time that the model card was created.

Type: Timestamp

Required: Yes

### ModelCardArn

The Amazon Resource Name (ARN) of the model card.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelCardName

The name of the model card.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelCardStatus

The approval status of the model card within your organization. Different organizations might have different criteria for model card review and approval.

- **Draft:** The model card is a work in progress.
- **PendingReview:** The model card is pending review.
- **Approved:** The model card is approved.
- **Archived:** The model card is archived. No more updates should be made to the model card, but it can still be exported.

Type: String

Valid Values: Draft | PendingReview | Approved | Archived

Required: Yes

### **LastModifiedTime**

The date and time that the model card was last modified.

Type: Timestamp

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelCardVersionSummary

Service: Amazon SageMaker Service

A summary of a specific version of the model card.

## Contents

### CreationTime

The date and time that the model card version was created.

Type: Timestamp

Required: Yes

### ModelCardArn

The Amazon Resource Name (ARN) of the model card.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelCardName

The name of the model card.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelCardStatus

The approval status of the model card version within your organization. Different organizations might have different criteria for model card review and approval.

- **Draft:** The model card is a work in progress.
- **PendingReview:** The model card is pending review.
- **Approved:** The model card is approved.
- **Archived:** The model card is archived. No more updates should be made to the model card, but it can still be exported.

Type: String

Valid Values: Draft | PendingReview | Approved | Archived

Required: Yes

### **ModelCardVersion**

A version of the model card.

Type: Integer

Required: Yes

### **LastModifiedTime**

The time date and time that the model card version was last modified.

Type: Timestamp

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelClientConfig

Service: Amazon SageMaker Service

Configures the timeout and maximum number of retries for processing a transform job invocation.

## Contents

### InvocationsMaxRetries

The maximum number of retries when invocation requests are failing. The default value is 3.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 3.

Required: No

### InvocationsTimeoutInSeconds

The timeout value in seconds for an invocation request. The default value is 600.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 3600.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelConfiguration

Service: Amazon SageMaker Service

Defines the model configuration. Includes the specification name and environment parameters.

## Contents

### CompilationJobName

The name of the compilation job used to create the recommended model artifacts.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### EnvironmentParameters

Defines the environment parameters that includes key, value types, and values.

Type: Array of [EnvironmentParameter](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

### InferenceSpecificationName

The inference specification name in the model package version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ModelDashboardEndpoint

Service: Amazon SageMaker Service

An endpoint that hosts a model displayed in the Amazon SageMaker Model Dashboard.

## Contents

### CreationTime

A timestamp that indicates when the endpoint was created.

Type: Timestamp

Required: Yes

### EndpointArn

The Amazon Resource Name (ARN) of the endpoint.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:endpoint/.*`

Required: Yes

### EndpointName

The endpoint name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### EndpointStatus

The endpoint status.

Type: String

Valid Values: OutOfService | Creating | Updating | SystemUpdating | RollingBack | InService | Deleting | Failed | UpdateRollbackFailed

Required: Yes

### **LastModifiedTime**

The last time the endpoint was modified.

Type: Timestamp

Required: Yes

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelDashboardIndicatorAction

Service: Amazon SageMaker Service

An alert action taken to light up an icon on the Amazon SageMaker Model Dashboard when an alert goes into InAlert status.

## Contents

### Enabled

Indicates whether the alert action is turned on.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelDashboardModel

Service: Amazon SageMaker Service

A model displayed in the Amazon SageMaker Model Dashboard.

## Contents

### Endpoints

The endpoints that host a model.

Type: Array of [ModelDashboardEndpoint](#) objects

Required: No

### LastBatchTransformJob

A batch transform job. For information about SageMaker batch transform, see [Use Batch Transform](#).

Type: [TransformJob](#) object

Required: No

### Model

A model displayed in the Model Dashboard.

Type: [Model](#) object

Required: No

### ModelCard

The model card for a model.

Type: [ModelDashboardModelCard](#) object

Required: No

### MonitoringSchedules

The monitoring schedules for a model.

Type: Array of [ModelDashboardMonitoringSchedule](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelDashboardModelCard

Service: Amazon SageMaker Service

The model card for a model displayed in the Amazon SageMaker Model Dashboard.

## Contents

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

### CreationTime

A timestamp that indicates when the model card was created.

Type: Timestamp

Required: No

### LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

### LastModifiedTime

A timestamp that indicates when the model card was last updated.

Type: Timestamp

Required: No

### ModelCardArn

The Amazon Resource Name (ARN) for a model card.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### **ModelCardName**

The name of a model card.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### **ModelCardStatus**

The model card status.

Type: String

Valid Values: `Draft | PendingReview | Approved | Archived`

Required: No

### **ModelCardVersion**

The model card version.

Type: Integer

Required: No

### **ModelId**

For models created in SageMaker, this is the model ARN. For models created outside of SageMaker, this is a user-customized string.

Type: String

Required: No

## RiskRating

A model card's risk rating. Can be low, medium, or high.

Type: String

Required: No

## SecurityConfig

The KMS Key ID (KMSKeyId) for encryption of model card information.

Type: [ModelCardSecurityConfig](#) object

Required: No

## Tags

The tags associated with a model card.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ModelDashboardMonitoringSchedule

Service: Amazon SageMaker Service

A monitoring schedule for a model displayed in the Amazon SageMaker Model Dashboard.

## Contents

### BatchTransformInput

Input object for the batch transform job.

Type: [BatchTransformInput](#) object

Required: No

### CreationTime

A timestamp that indicates when the monitoring schedule was created.

Type: Timestamp

Required: No

### EndpointName

The endpoint which is monitored.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### FailureReason

If a monitoring job failed, provides the reason.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## LastModifiedTime

A timestamp that indicates when the monitoring schedule was last updated.

Type: Timestamp

Required: No

## LastMonitoringExecutionSummary

Summary of information about the last monitoring job to run.

Type: [MonitoringExecutionSummary](#) object

Required: No

## MonitoringAlertSummaries

A JSON array where each element is a summary for a monitoring alert.

Type: Array of [MonitoringAlertSummary](#) objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

## MonitoringScheduleArn

The Amazon Resource Name (ARN) of a monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

## MonitoringScheduleConfig

Configures the monitoring schedule and defines the monitoring job.

Type: [MonitoringScheduleConfig](#) object

Required: No

## MonitoringScheduleName

The name of a monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

## MonitoringScheduleStatus

The status of the monitoring schedule.

Type: String

Valid Values: Pending | Failed | Scheduled | Stopped

Required: No

## MonitoringType

The monitor type of a model monitor.

Type: String

Valid Values: DataQuality | ModelQuality | ModelBias | ModelExplainability

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelDataQuality

Service: Amazon SageMaker Service

Data quality constraints and statistics for a model.

## Contents

### Constraints

Data quality constraints for a model.

Type: [MetricsSource](#) object

Required: No

### Statistics

Data quality statistics for a model.

Type: [MetricsSource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelDataSource

Service: Amazon SageMaker Service

Specifies the location of ML model data to deploy. If specified, you must specify one and only one of the available data sources.

## Contents

### S3DataSource

Specifies the S3 location of ML model data to deploy.

Type: [S3ModelDataSource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelDeployConfig

Service: Amazon SageMaker Service

Specifies how to generate the endpoint name for an automatic one-click Autopilot model deployment.

## Contents

### AutoGenerateEndpointName

Set to `True` to automatically generate an endpoint name for a one-click Autopilot model deployment; set to `False` otherwise. The default value is `False`.

#### Note

If you set `AutoGenerateEndpointName` to `True`, do not specify the `EndpointName`; otherwise a 400 error is thrown.

Type: Boolean

Required: No

### EndpointName

Specifies the endpoint name to use for a one-click Autopilot model deployment if the endpoint name is not generated automatically.

#### Note

Specify the `EndpointName` if and only if you set `AutoGenerateEndpointName` to `False`; otherwise a 400 error is thrown.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelDeployResult

Service: Amazon SageMaker Service

Provides information about the endpoint of the model deployment.

## Contents

### EndpointName

The name of the endpoint to which the model has been deployed.

#### Note

If model deployment fails, this field is omitted from the response.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ModelDigests

Service: Amazon SageMaker Service

Provides information to verify the integrity of stored model artifacts.

## Contents

### ArtifactDigest

Provides a hash value that uniquely identifies the stored model artifacts.

Type: String

Pattern: `^[\\w: ]+$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelExplainabilityAppSpecification

Service: Amazon SageMaker Service

Docker container image configuration object for the model explainability job.

## Contents

### ConfigUri

JSON formatted Amazon S3 file that defines explainability parameters. For more information on this JSON configuration file, see [Configure model explainability parameters](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: Yes

### ImageUri

The container image to be run by the model explainability job.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `.*`

Required: Yes

### Environment

Sets the environment variables in the Docker container.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 256.

Value Pattern: `[\S\s]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelExplainabilityBaselineConfig

Service: Amazon SageMaker Service

The configuration for a baseline model explainability job.

## Contents

### BaseliningJobName

The name of the baseline model explainability job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### ConstraintsResource

The constraints resource for a monitoring job.

Type: [MonitoringConstraintsResource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelExplainabilityJobInput

Service: Amazon SageMaker Service

Inputs for the model explainability job.

## Contents

### BatchTransformInput

Input object for the batch transform job.

Type: [BatchTransformInput](#) object

Required: No

### EndpointInput

Input object for the endpoint

Type: [EndpointInput](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelInfrastructureConfig

Service: Amazon SageMaker Service

The configuration for the infrastructure that the model will be deployed to.

## Contents

### InfrastructureType

The inference option to which to deploy your model. Possible values are the following:

- `RealTime`: Deploy to real-time inference.

Type: String

Valid Values: `RealTimeInference`

Required: Yes

### RealTimeInferenceConfig

The infrastructure configuration for deploying the model to real-time inference.

Type: [RealTimeInferenceConfig](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelInput

Service: Amazon SageMaker Service

Input object for the model.

## Contents

### DataInputConfig

The input configuration object for the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16384.

Pattern: `[\S\s]+`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelLatencyThreshold

Service: Amazon SageMaker Service

The model latency threshold.

## Contents

### Percentile

The model latency percentile threshold. Acceptable values are P95 and P99. For custom load tests, specify the value as P95.

Type: String

Length Constraints: Maximum length of 64.

Required: No

### ValueInMilliseconds

The model latency percentile value in milliseconds.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ModelMetadataFilter

Service: Amazon SageMaker Service

Part of the search expression. You can specify the name and value (domain, task, framework, framework version, task, and model).

## Contents

### Name

The name of the of the model to filter by.

Type: String

Valid Values: Domain | Framework | Task | FrameworkVersion

Required: Yes

### Value

The value to filter the model metadata.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelMetadataSearchExpression

Service: Amazon SageMaker Service

One or more filters that searches for the specified resource or resources in a search. All resource objects that satisfy the expression's condition are included in the search results

## Contents

### Filters

A list of filter objects.

Type: Array of [ModelMetadataFilter](#) objects

Array Members: Minimum number of 1 item. Maximum number of 4 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelMetadataSummary

Service: Amazon SageMaker Service

A summary of the model metadata.

## Contents

### Domain

The machine learning domain of the model.

Type: String

Required: Yes

### Framework

The machine learning framework of the model.

Type: String

Required: Yes

### FrameworkVersion

The framework version of the model.

Type: String

Required: Yes

### Model

The name of the model.

Type: String

Required: Yes

### Task

The machine learning task of the model.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelMetrics

Service: Amazon SageMaker Service

Contains metrics captured from a model.

## Contents

### Bias

Metrics that measure bias in a model.

Type: [Bias](#) object

Required: No

### Explainability

Metrics that help explain a model.

Type: [Explainability](#) object

Required: No

### ModelDataQuality

Metrics that measure the quality of the input data for a model.

Type: [ModelDataQuality](#) object

Required: No

### ModelQuality

Metrics that measure the quality of a model.

Type: [ModelQuality](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackage

Service: Amazon SageMaker Service

A versioned model that can be deployed for SageMaker inference.

## Contents

### AdditionalInferenceSpecifications

An array of additional Inference Specification objects.

Type: Array of [AdditionalInferenceSpecificationDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 15 items.

Required: No

### ApprovalDescription

A description provided when the model approval is set.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### CertifyForMarketplace

Whether the model package is to be certified to be listed on AWS Marketplace. For information about listing model packages on AWS Marketplace, see [List Your Algorithm or Model Package on AWS Marketplace](#).

Type: Boolean

Required: No

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, or project.

Type: [UserContext](#) object

Required: No

### **CreationTime**

The time that the model package was created.

Type: Timestamp

Required: No

### **CustomerMetadataProperties**

The metadata properties for the model package.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern:  $^([\backslash p\{L\}\backslash p\{Z\}\backslash p\{N\}_\cdot : \backslash / = + \backslash - @]^*)\{1, 128\}$

Value Length Constraints: Minimum length of 1. Maximum length of 256.

Value Pattern:  $^([\backslash p\{L\}\backslash p\{Z\}\backslash p\{N\}_\cdot : \backslash / = + \backslash - @]^*)\{1, 256\}$

Required: No

### **Domain**

The machine learning domain of your model package and its components. Common machine learning domains include computer vision and natural language processing.

Type: String

Required: No

### **DriftCheckBaselines**

Represents the drift check baselines that can be used when the model monitor is set using the model package.

Type: [DriftCheckBaselines](#) object

Required: No



## InferenceSpecification

Defines how to perform inference generation after a training job is run.

Type: [InferenceSpecification](#) object

Required: No

## LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, or project.

Type: [UserContext](#) object

Required: No

## LastModifiedTime

The last time the model package was modified.

Type: Timestamp

Required: No

## MetadataProperties

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties](#) object

Required: No

## ModelApprovalStatus

The approval status of the model. This can be one of the following values.

- APPROVED - The model is approved
- REJECTED - The model is rejected.
- PENDING\_MANUAL\_APPROVAL - The model is waiting for manual approval.

Type: String

Valid Values: Approved | Rejected | PendingManualApproval

Required: No

## ModelCard

The model card associated with the model package. Since `ModelPackageModelCard` is tied to a model package, it is a specific usage of a model card and its schema is simplified compared to the schema of `ModelCard`. The `ModelPackageModelCard` schema does not include `model_package_details`, and `model_overview` is composed of the `model_creator` and `model_artifact` properties. For more information about the model package model card schema, see [Model package model card schema](#). For more information about the model card associated with the model package, see [View the Details of a Model Version](#).

Type: [ModelPackageModelCard](#) object

Required: No

## ModelMetrics

Metrics for the model.

Type: [ModelMetrics](#) object

Required: No

## ModelPackageArn

The Amazon Resource Name (ARN) of the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9-]{9,16}:[0-9]{12}:model-package/[\\S]{1,2048}$`

Required: No

## ModelPackageDescription

The description of the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\\p{L}\\p{M}\\p{Z}\\p{S}\\p{N}\\p{P}]*`

Required: No

### **ModelPackageGroupName**

The model group to which the model belongs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### **ModelPackageName**

The name of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### **ModelPackageStatus**

The status of the model package. This can be one of the following values.

- PENDING - The model package is pending being created.
- IN\_PROGRESS - The model package is in the process of being created.
- COMPLETED - The model package was successfully created.
- FAILED - The model package failed.
- DELETING - The model package is in the process of being deleted.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting

Required: No

### **ModelPackageStatusDetails**

Specifies the validation and image scan statuses of the model package.

Type: [ModelPackageStatusDetails](#) object

Required: No

### **ModelPackageVersion**

The version number of a versioned model.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### **SamplePayloadUrl**

The Amazon Simple Storage Service path where the sample payload are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

Type: String

Required: No

### **SecurityConfig**

An optional AWS Key Management Service key to encrypt, decrypt, and re-encrypt model package information for regulated workloads with highly sensitive data.

Type: [ModelPackageSecurityConfig](#) object

Required: No

### **SkipModelValidation**

Indicates if you want to skip model validation.

Type: String

Valid Values: All | None

Required: No

### **SourceAlgorithmSpecification**

A list of algorithms that were used to create a model package.

Type: [SourceAlgorithmSpecification](#) object

Required: No

### SourceUri

The URI of the source for the model package.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{N}\p{P}]{0,1024}`

Required: No

### Tags

A list of the tags associated with the model package. For more information, see [Tagging AWS resources](#) in the *AWS General Reference Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### Task

The machine learning task your model package accomplishes. Common machine learning tasks include object detection and image classification.

Type: String

Required: No

### ValidationSpecification

Specifies batch transform jobs that SageMaker runs to validate your model package.

Type: [ModelPackageValidationSpecification](#) object

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageContainerDefinition

Service: Amazon SageMaker Service

Describes the Docker container for the model package.

## Contents

### Image

The Amazon EC2 Container Registry (Amazon ECR) path where inference code is stored.

If you are using your own custom algorithm instead of an algorithm provided by SageMaker, the inference code must meet SageMaker requirements. SageMaker supports both `registry/repository[:tag]` and `registry/repository[@digest]` image path formats. For more information, see [Using Your Own Algorithms with Amazon SageMaker](#).

Type: String

Length Constraints: Maximum length of 255.

Pattern: `[\S]+`

Required: Yes

### AdditionalS3DataSource

The additional data source that is used during inference in the Docker container for your model package.

Type: [AdditionalS3DataSource](#) object

Required: No

### ContainerHostname

The DNS host name for the Docker container.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## Environment

The environment variables to set in the Docker container. Each key and value in the Environment string to string map can have length of up to 1024. We support up to 16 entries in the map.

Type: String to string map

Map Entries: Maximum number of 100 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 1024.

Value Pattern: `[\S\s]*`

Required: No

## Framework

The machine learning framework of the model package container image.

Type: String

Required: No

## FrameworkVersion

The framework version of the Model Package Container Image.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 10.

Pattern: `[0-9]\.[A-Za-z0-9.-]+`

Required: No

## ImageDigest

An MD5 hash of the training algorithm that identifies the Docker image used for training.

Type: String

Length Constraints: Maximum length of 72.



Pattern: `^[Ss][Hh][Aa]256:[0-9a-fA-F]{64}$`

Required: No

### **ModelDataSource**

Specifies the location of ML model data to deploy during endpoint creation.

Type: [ModelDataSource](#) object

Required: No

### **ModelDataUrl**

The Amazon S3 path where the model artifacts, which result from model training, are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

#### **Note**

The model artifacts must be in an S3 bucket that is in the same region as the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: No

### **ModelInput**

A structure with Model Input details.

Type: [ModelInput](#) object

Required: No

### **NearestModelName**

The name of a pre-trained machine learning benchmarked by Amazon SageMaker Inference Recommender model that matches your model. You can find a list of benchmarked models by calling `ListModelMetadata`.

Type: String

Required: No

### ProductId

The AWS Marketplace product ID of the model package.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageGroup

Service: Amazon SageMaker Service

A group of versioned models in the model registry.

## Contents

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

### CreationTime

The time that the model group was created.

Type: Timestamp

Required: No

### ModelPackageGroupArn

The Amazon Resource Name (ARN) of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9-]{9,16}:[0-9]{12}:model-package-group/[\S]{1,2048}$`

Required: No

### ModelPackageGroupDescription

The description for the model group.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

### **ModelPackageGroupName**

The name of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### **ModelPackageGroupStatus**

The status of the model group. This can be one of the following values.

- PENDING - The model group is pending being created.
- IN\_PROGRESS - The model group is in the process of being created.
- COMPLETED - The model group was successfully created.
- FAILED - The model group failed.
- DELETING - The model group is in the process of being deleted.
- DELETE\_FAILED - SageMaker failed to delete the model group.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting | DeleteFailed

Required: No

### **Tags**

A list of the tags associated with the model group. For more information, see [Tagging AWS resources](#) in the *AWS General Reference Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageGroupSummary

Service: Amazon SageMaker Service

Summary information about a model group.

## Contents

### CreationTime

The time that the model group was created.

Type: Timestamp

Required: Yes

### ModelPackageGroupArn

The Amazon Resource Name (ARN) of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:model-package-group/[\S]{1,2048}$`

Required: Yes

### ModelPackageGroupName

The name of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### ModelPackageGroupStatus

The status of the model group.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting | DeleteFailed

Required: Yes

### **ModelPackageGroupDescription**

A description of the model group.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageModelCard

Service: Amazon SageMaker Service

The model card associated with the model package. Since `ModelPackageModelCard` is tied to a model package, it is a specific usage of a model card and its schema is simplified compared to the schema of `ModelCard`. The `ModelPackageModelCard` schema does not include `model_package_details`, and `model_overview` is composed of the `model_creator` and `model_artifact` properties. For more information about the model package model card schema, see [Model package model card schema](#). For more information about the model card associated with the model package, see [View the Details of a Model Version](#).

## Contents

### ModelCardContent

The content of the model card. The content must follow the schema described in [Model Package Model Card Schema](#).

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100000.

Pattern: .\*

Required: No

### ModelCardStatus

The approval status of the model card within your organization. Different organizations might have different criteria for model card review and approval.

- **Draft:** The model card is a work in progress.
- **PendingReview:** The model card is pending review.
- **Approved:** The model card is approved.
- **Archived:** The model card is archived. No more updates can be made to the model card content. If you try to update the model card content, you will receive the message `ModelCard is in Archived state`.

Type: String

Valid Values: `Draft` | `PendingReview` | `Approved` | `Archived`



Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageSecurityConfig

Service: Amazon SageMaker Service

An optional AWS Key Management Service key to encrypt, decrypt, and re-encrypt model package information for regulated workloads with highly sensitive data.

## Contents

### KmsKeyId

The AWS KMS Key ID (KMSKeyId) used for encryption of model package information.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageStatusDetails

Service: Amazon SageMaker Service

Specifies the validation and image scan statuses of the model package.

## Contents

### ValidationStatuses

The validation status of the model package.

Type: Array of [ModelPackageStatusItem](#) objects

Required: Yes

### ImageScanStatuses

The status of the scan of the Docker image container for the model package.

Type: Array of [ModelPackageStatusItem](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageStatusItem

Service: Amazon SageMaker Service

Represents the overall status of a model package.

## Contents

### Name

The name of the model package for which the overall status is being reported.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### Status

The current status.

Type: String

Valid Values: `NotStarted` | `InProgress` | `Completed` | `Failed`

Required: Yes

### FailureReason

if the overall status is `Failed`, the reason for the failure.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageSummary

Service: Amazon SageMaker Service

Provides summary information about a model package.

## Contents

### CreationTime

A timestamp that shows when the model package was created.

Type: Timestamp

Required: Yes

### ModelPackageArn

The Amazon Resource Name (ARN) of the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:model-package/[\S]{1,2048}$`

Required: Yes

### ModelPackageStatus

The overall status of the model package.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting

Required: Yes

### ModelApprovalStatus

The approval status of the model. This can be one of the following values.

- APPROVED - The model is approved
- REJECTED - The model is rejected.
- PENDING\_MANUAL\_APPROVAL - The model is waiting for manual approval.

Type: String

Valid Values: Approved | Rejected | PendingManualApproval

Required: No

### **ModelPackageDescription**

A brief description of the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

### **ModelPackageGroupName**

If the model package is a versioned model, the model group that the versioned model belongs to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### **ModelPackageName**

The name of the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### **ModelPackageVersion**

If the model package is a versioned model, the version of the model.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ModelPackageValidationProfile

Service: Amazon SageMaker Service

Contains data, such as the inputs and targeted instance types that are used in the process of validating the model package.

The data provided in the validation profile is made available to your buyers on AWS Marketplace.

## Contents

### ProfileName

The name of the profile for the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### TransformJobDefinition

The `TransformJobDefinition` object that describes the transform job used for the validation of the model package.

Type: [TransformJobDefinition](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageValidationSpecification

Service: Amazon SageMaker Service

Specifies batch transform jobs that SageMaker runs to validate your model package.

## Contents

### ValidationProfiles

An array of `ModelPackageValidationProfile` objects, each of which specifies a batch transform job that SageMaker runs to validate your model package.

Type: Array of [ModelPackageValidationProfile](#) objects

Array Members: Minimum number of 0 items. Maximum number of 1 item.

Required: Yes

### ValidationRole

The IAM roles to be used for the validation of the model package.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelQuality

Service: Amazon SageMaker Service

Model quality statistics and constraints.

## Contents

### Constraints

Model quality constraints.

Type: [MetricsSource](#) object

Required: No

### Statistics

Model quality statistics.

Type: [MetricsSource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelQualityAppSpecification

Service: Amazon SageMaker Service

Container image configuration object for the monitoring job.

## Contents

### ImageUri

The address of the container image that the monitoring job runs.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

### ContainerArguments

An array of arguments for the container used to run the monitoring job.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### ContainerEntrypoint

Specifies the entrypoint for a container that the monitoring job runs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

## Environment

Sets the environment variables in the container that the monitoring job runs.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 256.

Value Pattern: `[\S\s]*`

Required: No

## PostAnalyticsProcessorSourceUri

An Amazon S3 URI to a script that is called after analysis has been performed. Applicable only for the built-in (first party) containers.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: No

## ProblemType

The machine learning problem type of the model that the monitoring job monitors.

Type: String

Valid Values: `BinaryClassification` | `MulticlassClassification` | `Regression`

Required: No

## RecordPreprocessorSourceUri

An Amazon S3 URI to a script that is called per row prior to running analysis. It can base64 decode the payload and convert it into a flattened JSON so that the built-in container can use the converted data. Applicable only for the built-in (first party) containers.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\s]+)/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelQualityBaselineConfig

Service: Amazon SageMaker Service

Configuration for monitoring constraints and monitoring statistics. These baseline resources are compared against the results of the current job from the series of jobs scheduled to collect data periodically.

## Contents

### BaseliningJobName

The name of the job that performs baselining for the monitoring job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### ConstraintsResource

The constraints resource for a monitoring job.

Type: [MonitoringConstraintsResource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelQualityJobInput

Service: Amazon SageMaker Service

The input for the model quality monitoring job. Currently endpoints are supported for input for model quality monitoring jobs.

## Contents

### GroundTruthS3Input

The ground truth label provided for the model.

Type: [MonitoringGroundTruthS3Input](#) object

Required: Yes

### BatchTransformInput

Input object for the batch transform job.

Type: [BatchTransformInput](#) object

Required: No

### EndpointInput

Input object for the endpoint

Type: [EndpointInput](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ModelRegisterSettings

Service: Amazon SageMaker Service

The model registry settings for the SageMaker Canvas application.

## Contents

### CrossAccountModelRegisterRoleArn

The Amazon Resource Name (ARN) of the SageMaker model registry account. Required only to register model versions created by a different SageMaker Canvas AWS account than the AWS account in which SageMaker model registry is set up.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam:~\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: No

### Status

Describes whether the integration to the model registry is enabled or disabled in the Canvas application.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelStepMetadata

Service: Amazon SageMaker Service

Metadata for Model steps.

## Contents

### Arn

The Amazon Resource Name (ARN) of the created model.

Type: String

Length Constraints: Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelSummary

Service: Amazon SageMaker Service

Provides summary information about a model.

## Contents

### CreationTime

A timestamp that indicates when the model was created.

Type: Timestamp

Required: Yes

### ModelArn

The Amazon Resource Name (ARN) of the model.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:model/.*`

Required: Yes

### ModelName

The name of the model that you want a summary for.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9]*[a-zA-Z0-9])?`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelVariantConfig

Service: Amazon SageMaker Service

Contains information about the deployment options of a model.

## Contents

### InfrastructureConfig

The configuration for the infrastructure that the model will be deployed to.

Type: [ModelInfrastructureConfig](#) object

Required: Yes

### ModelName

The name of the Amazon SageMaker Model entity.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9] * [a-zA-Z0-9] )?`

Required: Yes

### VariantName

The name of the variant.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9] * [a-zA-Z0-9] )?`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelVariantConfigSummary

Service: Amazon SageMaker Service

Summary of the deployment configuration of a model.

## Contents

### InfrastructureConfig

The configuration of the infrastructure that the model has been deployed to.

Type: [ModelInfrastructureConfig](#) object

Required: Yes

### ModelName

The name of the Amazon SageMaker Model entity.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9]* [a-zA-Z0-9] )?`

Required: Yes

### Status

The status of deployment for the model variant on the hosted inference endpoint.

- `Creating` - Amazon SageMaker is preparing the model variant on the hosted inference endpoint.
- `InService` - The model variant is running on the hosted inference endpoint.
- `Updating` - Amazon SageMaker is updating the model variant on the hosted inference endpoint.
- `Deleting` - Amazon SageMaker is deleting the model variant on the hosted inference endpoint.
- `Deleted` - The model variant has been deleted on the hosted inference endpoint. This can only happen after stopping the experiment.

Type: String

Valid Values: Creating | Updating | InService | Deleting | Deleted

Required: Yes

### VariantName

The name of the variant.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9]*[a-zA-Z0-9] )?`

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# MonitoringAlertActions

Service: Amazon SageMaker Service

A list of alert actions taken in response to an alert going into InAlert status.

## Contents

### ModelDashboardIndicator

An alert action taken to light up an icon on the Model Dashboard when an alert goes into InAlert status.

Type: [ModelDashboardIndicatorAction](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringAlertHistorySummary

Service: Amazon SageMaker Service

Provides summary information of an alert's history.

## Contents

### AlertStatus

The current alert status of an alert.

Type: String

Valid Values: InAlert | OK

Required: Yes

### CreationTime

A timestamp that indicates when the first alert transition occurred in an alert history. An alert transition can be from status InAlert to OK, or from OK to InAlert.

Type: Timestamp

Required: Yes

### MonitoringAlertName

The name of a monitoring alert.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### MonitoringScheduleName

The name of a monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringAlertSummary

Service: Amazon SageMaker Service

Provides summary information about a monitor alert.

## Contents

### Actions

A list of alert actions taken in response to an alert going into InAlert status.

Type: [MonitoringAlertActions](#) object

Required: Yes

### AlertStatus

The current status of an alert.

Type: String

Valid Values: InAlert | OK

Required: Yes

### CreationTime

A timestamp that indicates when a monitor alert was created.

Type: Timestamp

Required: Yes

### DatapointsToAlert

Within EvaluationPeriod, how many execution failures will raise an alert.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

### EvaluationPeriod

The number of most recent monitoring executions to consider when evaluating alert status.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

### **LastModifiedTime**

A timestamp that indicates when a monitor alert was last updated.

Type: Timestamp

Required: Yes

### **MonitoringAlertName**

The name of a monitoring alert.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringAppSpecification

Service: Amazon SageMaker Service

Container image configuration object for the monitoring job.

## Contents

### ImageUri

The container image to be run by the monitoring job.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

### ContainerArguments

An array of arguments for the container used to run the monitoring job.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### ContainerEntrypoint

Specifies the entrypoint for a container used to run the monitoring job.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### **PostAnalyticsProcessorSourceUri**

An Amazon S3 URI to a script that is called after analysis has been performed. Applicable only for the built-in (first party) containers.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\s]+)?/?(.*)$`

Required: No

### **RecordPreprocessorSourceUri**

An Amazon S3 URI to a script that is called per row prior to running analysis. It can base64 decode the payload and convert it into a flattened JSON so that the built-in container can use the converted data. Applicable only for the built-in (first party) containers.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\s]+)?/?(.*)$`

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringBaselineConfig

Service: Amazon SageMaker Service

Configuration for monitoring constraints and monitoring statistics. These baseline resources are compared against the results of the current job from the series of jobs scheduled to collect data periodically.

## Contents

### BaseliningJobName

The name of the job that performs baselining for the monitoring job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### ConstraintsResource

The baseline constraint file in Amazon S3 that the current monitoring job should validated against.

Type: [MonitoringConstraintsResource](#) object

Required: No

### StatisticsResource

The baseline statistics file in Amazon S3 that the current monitoring job should be validated against.

Type: [MonitoringStatisticsResource](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringClusterConfig

Service: Amazon SageMaker Service

Configuration for the cluster used to run model monitoring jobs.

## Contents

### InstanceCount

The number of ML compute instances to use in the model monitoring job. For distributed processing jobs, specify a value greater than 1. The default value is 1.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

### InstanceType

The ML compute instance type for the processing job.

Type: String

Valid Values: ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge

Required: Yes

### VolumeSizeInGB

The size of the ML storage volume, in gigabytes, that you want to provision. You must specify sufficient ML storage for your scenario.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 16384.

Required: Yes

### **VolumeKmsKeyId**

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance(s) that run the model monitoring job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringConstraintsResource

Service: Amazon SageMaker Service

The constraints resource for a monitoring job.

## Contents

### S3Uri

The Amazon S3 URI for the constraints resource.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringCsvDatasetFormat

Service: Amazon SageMaker Service

Represents the CSV dataset format used when running a monitoring job.

## Contents

### Header

Indicates if the CSV data has a header.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringDatasetFormat

Service: Amazon SageMaker Service

Represents the dataset format used when running a monitoring job.

## Contents

### Csv

The CSV dataset used in the monitoring job.

Type: [MonitoringCsvDatasetFormat](#) object

Required: No

### Json

The JSON dataset used in the monitoring job

Type: [MonitoringJsonDatasetFormat](#) object

Required: No

### Parquet

The Parquet dataset used in the monitoring job

Type: [MonitoringParquetDatasetFormat](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringExecutionSummary

Service: Amazon SageMaker Service

Summary of information about the last monitoring job to run.

## Contents

### CreationTime

The time at which the monitoring job was created.

Type: Timestamp

Required: Yes

### LastModifiedTime

A timestamp that indicates the last time the monitoring job was modified.

Type: Timestamp

Required: Yes

### MonitoringExecutionStatus

The status of the monitoring job.

Type: String

Valid Values: Pending | Completed | CompletedWithViolations | InProgress | Failed | Stopping | Stopped

Required: Yes

### MonitoringScheduleName

The name of the monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

**ScheduledTime**

The time the monitoring job was scheduled.

Type: Timestamp

Required: Yes

**EndpointName**

The name of the endpoint used to run the monitoring job.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

**FailureReason**

Contains the reason a monitoring job failed, if it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**MonitoringJobDefinitionName**

The name of the monitoring job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

**MonitoringType**

The type of the monitoring job.

Type: String



Valid Values: DataQuality | ModelQuality | ModelBias | ModelExplainability

Required: No

### ProcessingJobArn

The Amazon Resource Name (ARN) of the monitoring job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:processing-job/.*`

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringGroundTruthS3Input

Service: Amazon SageMaker Service

The ground truth labels for the dataset used for the monitoring job.

## Contents

### S3Uri

The address of the Amazon S3 location of the ground truth labels.

Type: String

Length Constraints: Maximum length of 512.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringInput

Service: Amazon SageMaker Service

The inputs for a monitoring job.

## Contents

### BatchTransformInput

Input object for the batch transform job.

Type: [BatchTransformInput](#) object

Required: No

### EndpointInput

The endpoint for a monitoring job.

Type: [EndpointInput](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringJobDefinition

Service: Amazon SageMaker Service

Defines the monitoring job.

## Contents

### MonitoringAppSpecification

Configures the monitoring job to run a specified Docker container image.

Type: [MonitoringAppSpecification](#) object

Required: Yes

### MonitoringInputs

The array of inputs for the monitoring job. Currently we support monitoring an Amazon SageMaker Endpoint.

Type: Array of [MonitoringInput](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

### MonitoringOutputConfig

The array of outputs from the monitoring job to be uploaded to Amazon S3.

Type: [MonitoringOutputConfig](#) object

Required: Yes

### MonitoringResources

Identifies the resources, ML compute instances, and ML storage volumes to deploy for a monitoring job. In distributed processing, you specify more than one instance.

Type: [MonitoringResources](#) object

Required: Yes

### RoleArn

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@\-\_/\]+$`

Required: Yes

### BaselineConfig

Baseline configuration used to validate that the data conforms to the specified constraints and statistics

Type: [MonitoringBaselineConfig](#) object

Required: No

### Environment

Sets the environment variables in the Docker container.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 256.

Value Pattern: `[\S\s]*`

Required: No

### NetworkConfig

Specifies networking options for an monitoring job.

Type: [NetworkConfig](#) object

Required: No

### StoppingCondition

Specifies a time limit for how long the monitoring job is allowed to run.

Type: [MonitoringStoppingCondition](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringJobDefinitionSummary

Service: Amazon SageMaker Service

Summary information about a monitoring job.

## Contents

### CreationTime

The time that the monitoring job was created.

Type: Timestamp

Required: Yes

### EndpointName

The name of the endpoint that the job monitors.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### MonitoringJobDefinitionArn

The Amazon Resource Name (ARN) of the monitoring job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `.*`

Required: Yes

### MonitoringJobDefinitionName

The name of the monitoring job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# MonitoringJsonDatasetFormat

Service: Amazon SageMaker Service

Represents the JSON dataset format used when running a monitoring job.

## Contents

### Line

Indicates if the file should be read as a JSON object per line.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringNetworkConfig

Service: Amazon SageMaker Service

The networking configuration for the monitoring job.

## Contents

### EnableInterContainerTrafficEncryption

Whether to encrypt all communications between the instances used for the monitoring jobs. Choose `True` to encrypt communications. Encryption provides greater security for distributed jobs, but the processing might take longer.

Type: Boolean

Required: No

### EnableNetworkIsolation

Whether to allow inbound and outbound network calls to and from the containers used for the monitoring job.

Type: Boolean

Required: No

### VpcConfig

Specifies an Amazon Virtual Private Cloud (VPC) that your SageMaker jobs, hosted models, and compute resources have access to. You can control access to and from your resources by configuring a VPC. For more information, see [Give SageMaker Access to Resources in your Amazon VPC](#).

Type: [VpcConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringOutput

Service: Amazon SageMaker Service

The output object for a monitoring job.

## Contents

### S3Output

The Amazon S3 storage location where the results of a monitoring job are saved.

Type: [MonitoringS3Output](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringOutputConfig

Service: Amazon SageMaker Service

The output configuration for monitoring jobs.

## Contents

### MonitoringOutputs

Monitoring outputs for monitoring jobs. This is where the output of the periodic monitoring jobs is uploaded.

Type: Array of [MonitoringOutput](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt the model artifacts at rest using Amazon S3 server-side encryption.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringParquetDatasetFormat

Service: Amazon SageMaker Service

Represents the Parquet dataset format used when running a monitoring job.

## Contents

The members of this exception structure are context-dependent.

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringResources

Service: Amazon SageMaker Service

Identifies the resources to deploy for a monitoring job.

## Contents

### ClusterConfig

The configuration for the cluster resources used to run the processing job.

Type: [MonitoringClusterConfig](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringS3Output

Service: Amazon SageMaker Service

Information about where and how you want to store the results of a monitoring job.

## Contents

### LocalPath

The local path to the Amazon S3 storage location where Amazon SageMaker saves the results of a monitoring job. LocalPath is an absolute path for the output data.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### S3Uri

A URI that identifies the Amazon S3 storage location where Amazon SageMaker saves the results of a monitoring job.

Type: String

Length Constraints: Maximum length of 512.

Pattern: ^(https|s3):\/\/([^\/]+)\/?(.\*)\$

Required: Yes

### S3UploadMode

Whether to upload the results of the monitoring job continuously or after the job completes.

Type: String

Valid Values: Continuous | EndOfJob

Required: No



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringSchedule

Service: Amazon SageMaker Service

A schedule for a model monitoring job. For information about model monitor, see [Amazon SageMaker Model Monitor](#).

## Contents

### CreationTime

The time that the monitoring schedule was created.

Type: Timestamp

Required: No

### EndpointName

The endpoint that hosts the model being monitored.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### FailureReason

If the monitoring schedule failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### LastModifiedTime

The last time the monitoring schedule was changed.

Type: Timestamp

Required: No

## LastMonitoringExecutionSummary

Summary of information about the last monitoring job to run.

Type: [MonitoringExecutionSummary](#) object

Required: No

## MonitoringScheduleArn

The Amazon Resource Name (ARN) of the monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

## MonitoringScheduleConfig

Configures the monitoring schedule and defines the monitoring job.

Type: [MonitoringScheduleConfig](#) object

Required: No

## MonitoringScheduleName

The name of the monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

## MonitoringScheduleStatus

The status of the monitoring schedule. This can be one of the following values.

- PENDING - The schedule is pending being created.
- FAILED - The schedule failed.

- SCHEDULED - The schedule was successfully created.
- STOPPED - The schedule was stopped.

Type: String

Valid Values: Pending | Failed | Scheduled | Stopped

Required: No

## MonitoringType

The type of the monitoring job definition to schedule.

Type: String

Valid Values: DataQuality | ModelQuality | ModelBias | ModelExplainability

Required: No

## Tags

A list of the tags associated with the monitoring schedule. For more information, see [Tagging AWS resources](#) in the *AWS General Reference Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringScheduleConfig

Service: Amazon SageMaker Service

Configures the monitoring schedule and defines the monitoring job.

## Contents

### MonitoringJobDefinition

Defines the monitoring job.

Type: [MonitoringJobDefinition](#) object

Required: No

### MonitoringJobDefinitionName

The name of the monitoring job definition to schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### MonitoringType

The type of the monitoring job definition to schedule.

Type: String

Valid Values: `DataQuality | ModelQuality | ModelBias | ModelExplainability`

Required: No

### ScheduleConfig

Configures the monitoring schedule.

Type: [ScheduleConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringScheduleSummary

Service: Amazon SageMaker Service

Summarizes the monitoring schedule.

## Contents

### CreationTime

The creation time of the monitoring schedule.

Type: Timestamp

Required: Yes

### LastModifiedTime

The last time the monitoring schedule was modified.

Type: Timestamp

Required: Yes

### MonitoringScheduleArn

The Amazon Resource Name (ARN) of the monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### MonitoringScheduleName

The name of the monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: Yes

### **MonitoringScheduleStatus**

The status of the monitoring schedule.

Type: String

Valid Values: Pending | Failed | Scheduled | Stopped

Required: Yes

### **EndpointName**

The name of the endpoint using the monitoring schedule.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### **MonitoringJobDefinitionName**

The name of the monitoring job definition that the schedule is for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}$`

Required: No

### **MonitoringType**

The type of the monitoring job definition that the schedule is for.

Type: String

Valid Values: DataQuality | ModelQuality | ModelBias | ModelExplainability

Required: No



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringStatisticsResource

Service: Amazon SageMaker Service

The statistics resource for a monitoring job.

## Contents

### S3Uri

The Amazon S3 URI for the statistics resource.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringStoppingCondition

Service: Amazon SageMaker Service

A time limit for how long the monitoring job is allowed to run before stopping.

## Contents

### MaxRuntimeInSeconds

The maximum runtime allowed in seconds.

#### Note

The `MaxRuntimeInSeconds` cannot exceed the frequency of the job. For data quality and model explainability, this can be up to 3600 seconds for an hourly schedule. For model bias and model quality hourly schedules, this can be up to 1800 seconds.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 86400.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MultiModelConfig

Service: Amazon SageMaker Service

Specifies additional configuration for hosting multi-model endpoints.

## Contents

### ModelCacheSetting

Whether to cache models for a multi-model endpoint. By default, multi-model endpoints cache models so that a model does not have to be loaded into memory each time it is invoked. Some use cases do not benefit from model caching. For example, if an endpoint hosts a large number of models that are each invoked infrequently, the endpoint might perform better if you disable model caching. To disable model caching, set the value of this parameter to `Disabled`.

Type: String

Valid Values: `Enabled` | `Disabled`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# NeoVpcConfig

Service: Amazon SageMaker Service

The [VpcConfig](#) configuration object that specifies the VPC that you want the compilation jobs to connect to. For more information on controlling access to your Amazon S3 buckets used for compilation job, see [Give Amazon SageMaker Compilation Jobs Access to Resources in Your Amazon VPC](#).

## Contents

### SecurityGroupIds

The VPC security group IDs. IDs have the form of `sg-xxxxxxx`. Specify the security groups for the VPC that is specified in the `Subnets` field.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

Required: Yes

### Subnets

The ID of the subnets in the VPC that you want to connect the compilation job to for accessing the model in Amazon S3.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## NestedFilters

Service: Amazon SageMaker Service

A list of nested [Filter](#) objects. A resource must satisfy the conditions of all filters to be included in the results returned from the [Search](#) API.

For example, to filter on a training job's `InputDataConfig` property with a specific channel name and `S3Uri` prefix, define the following filters:

- `{Name:"InputDataConfig.ChannelName", "Operator":"Equals", "Value":"train"}`,
- `{Name:"InputDataConfig.DataSource.S3DataSource.S3Uri", "Operator":"Contains", "Value":"mybucket/catdata"}`

## Contents

### Filters

A list of filters. Each filter acts on a property. Filters must contain at least one `Filters` value. For example, a `NestedFilters` call might include a filter on the `PropertyName` parameter of the `InputDataConfig` property: `InputDataConfig.DataSource.S3DataSource.S3Uri`.

Type: Array of [Filter](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: Yes

### NestedPropertyName

The name of the property to use in the nested filters. The value must match a listed property name, such as `InputDataConfig`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `.+`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# NetworkConfig

Service: Amazon SageMaker Service

Networking options for a job, such as network traffic encryption between containers, whether to allow inbound and outbound network calls to and from containers, and the VPC subnets and security groups to use for VPC-enabled jobs.

## Contents

### EnableInterContainerTrafficEncryption

Whether to encrypt all communications between distributed processing jobs. Choose `True` to encrypt communications. Encryption provides greater security for distributed processing jobs, but the processing might take longer.

Type: Boolean

Required: No

### EnableNetworkIsolation

Whether to allow inbound and outbound network calls to and from the containers used for the processing job.

Type: Boolean

Required: No

### VpcConfig

Specifies an Amazon Virtual Private Cloud (VPC) that your SageMaker jobs, hosted models, and compute resources have access to. You can control access to and from your resources by configuring a VPC. For more information, see [Give SageMaker Access to Resources in your Amazon VPC](#).

Type: [VpcConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# NotebookInstanceLifecycleConfigSummary

Service: Amazon SageMaker Service

Provides a summary of a notebook instance lifecycle configuration.

## Contents

### NotebookInstanceLifecycleConfigArn

The Amazon Resource Name (ARN) of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

### NotebookInstanceLifecycleConfigName

The name of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

### CreationTime

A timestamp that tells when the lifecycle configuration was created.

Type: Timestamp

Required: No

### LastModifiedTime

A timestamp that tells when the lifecycle configuration was last modified.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# NotebookInstanceLifecycleHook

Service: Amazon SageMaker Service

Contains the notebook instance lifecycle configuration script.

Each lifecycle configuration script has a limit of 16384 characters.

The value of the \$PATH environment variable that is available to both scripts is `/sbin:bin:/usr/sbin:/usr/bin`.

View Amazon CloudWatch Logs for notebook instance lifecycle configurations in log group `/aws/sagemaker/NotebookInstances` in log stream `[notebook-instance-name]/[LifecycleConfigHook]`.

Lifecycle configuration scripts cannot run for longer than 5 minutes. If a script runs for longer than 5 minutes, it fails and the notebook instance is not created or started.

For information about notebook instance lifestyle configurations, see [Step 2.1: \(Optional\) Customize a Notebook Instance](#).

## Contents

### Content

A base64-encoded string that contains a shell script for a notebook instance lifecycle configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16384.

Pattern: `[\S\s]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# NotebookInstanceSummary

Service: Amazon SageMaker Service

Provides summary information for an SageMaker notebook instance.

## Contents

### NotebookInstanceArn

The Amazon Resource Name (ARN) of the notebook instance.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

### NotebookInstanceName

The name of the notebook instance that you want a summary for.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

### AdditionalCodeRepositories

An array of up to three Git repositories associated with the notebook instance. These can be either the names of Git repositories stored as resources in your account, or the URL of Git repositories in [AWS CodeCommit](#) or in any other Git repository. These repositories are cloned at the same level as the default repository of your notebook instance. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: Array of strings

Array Members: Maximum number of 3 items.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^https://([^\s/]+)?/?(.*)$|^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: No

### CreationTime

A timestamp that shows when the notebook instance was created.

Type: Timestamp

Required: No

### DefaultCodeRepository

The Git repository associated with the notebook instance as its default code repository. This can be either the name of a Git repository stored as a resource in your account, or the URL of a Git repository in [AWS CodeCommit](#) or in any other Git repository. When you open a notebook instance, it opens in the directory that contains this repository. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^https://(?:[^\s/]+)?(?:.*)$|^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: No

### InstanceType

The type of ML compute instance that the notebook instance is running on.

Type: String

Valid Values: `m1.t2.medium | m1.t2.large | m1.t2.xlarge | m1.t2.2xlarge | m1.t3.medium | m1.t3.large | m1.t3.xlarge | m1.t3.2xlarge | m1.m4.xlarge | m1.m4.2xlarge | m1.m4.4xlarge | m1.m4.10xlarge | m1.m4.16xlarge | m1.m5.xlarge | m1.m5.2xlarge | m1.m5.4xlarge | m1.m5.12xlarge | m1.m5.24xlarge | m1.m5d.large | m1.m5d.xlarge | m1.m5d.2xlarge | m1.m5d.4xlarge | m1.m5d.8xlarge | m1.m5d.12xlarge | m1.m5d.16xlarge | m1.m5d.24xlarge | m1.c4.xlarge | m1.c4.2xlarge | m1.c4.4xlarge | m1.c4.8xlarge | m1.c5.xlarge | m1.c5.2xlarge | m1.c5.4xlarge | m1.c5.9xlarge | m1.c5.18xlarge | m1.c5d.xlarge | m1.c5d.2xlarge | m1.c5d.4xlarge | m1.c5d.9xlarge | m1.c5d.18xlarge | m1.p2.xlarge`



| ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge |  
ml.p3.16xlarge | ml.p3dn.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge |  
ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge  
| ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge |  
ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge  
| ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge |  
ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge |  
ml.inf1.xlarge | ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge  
| ml.p4d.24xlarge | ml.p4de.24xlarge | ml.p5.48xlarge | ml.m6i.large  
| ml.m6i.xlarge | ml.m6i.2xlarge | ml.m6i.4xlarge | ml.m6i.8xlarge |  
ml.m6i.12xlarge | ml.m6i.16xlarge | ml.m6i.24xlarge | ml.m6i.32xlarge  
| ml.m7i.large | ml.m7i.xlarge | ml.m7i.2xlarge | ml.m7i.4xlarge |  
ml.m7i.8xlarge | ml.m7i.12xlarge | ml.m7i.16xlarge | ml.m7i.24xlarge  
| ml.m7i.48xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge |  
ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge  
| ml.c6i.24xlarge | ml.c6i.32xlarge | ml.c7i.large | ml.c7i.xlarge  
| ml.c7i.2xlarge | ml.c7i.4xlarge | ml.c7i.8xlarge | ml.c7i.12xlarge  
| ml.c7i.16xlarge | ml.c7i.24xlarge | ml.c7i.48xlarge | ml.r6i.large  
| ml.r6i.xlarge | ml.r6i.2xlarge | ml.r6i.4xlarge | ml.r6i.8xlarge |  
ml.r6i.12xlarge | ml.r6i.16xlarge | ml.r6i.24xlarge | ml.r6i.32xlarge  
| ml.r7i.large | ml.r7i.xlarge | ml.r7i.2xlarge | ml.r7i.4xlarge |  
ml.r7i.8xlarge | ml.r7i.12xlarge | ml.r7i.16xlarge | ml.r7i.24xlarge  
| ml.r7i.48xlarge | ml.m6id.large | ml.m6id.xlarge | ml.m6id.2xlarge |  
ml.m6id.4xlarge | ml.m6id.8xlarge | ml.m6id.12xlarge | ml.m6id.16xlarge  
| ml.m6id.24xlarge | ml.m6id.32xlarge | ml.c6id.large | ml.c6id.xlarge  
| ml.c6id.2xlarge | ml.c6id.4xlarge | ml.c6id.8xlarge | ml.c6id.12xlarge  
| ml.c6id.16xlarge | ml.c6id.24xlarge | ml.c6id.32xlarge |  
ml.r6id.large | ml.r6id.xlarge | ml.r6id.2xlarge | ml.r6id.4xlarge |  
ml.r6id.8xlarge | ml.r6id.12xlarge | ml.r6id.16xlarge | ml.r6id.24xlarge  
| ml.r6id.32xlarge | ml.g6.xlarge | ml.g6.2xlarge | ml.g6.4xlarge |  
ml.g6.8xlarge | ml.g6.12xlarge | ml.g6.16xlarge | ml.g6.24xlarge |  
ml.g6.48xlarge

Required: No

### **LastModifiedTime**

A timestamp that shows when the notebook instance was last modified.

Type: Timestamp

Required: No

### **NotebookInstanceLifecycleConfigName**

The name of a notebook instance lifecycle configuration associated with this notebook instance.

For information about notebook instance lifestyle configurations, see [Step 2.1: \(Optional\) Customize a Notebook Instance](#).

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: No

### **NotebookInstanceStatus**

The status of the notebook instance.

Type: String

Valid Values: Pending | InService | Stopping | Stopped | Failed | Deleting | Updating

Required: No

### **Url**

The URL that you use to connect to the Jupyter notebook running in your notebook instance.

Type: String

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# NotificationConfiguration

Service: Amazon SageMaker Service

Configures Amazon SNS notifications of available or expiring work items for work teams.

## Contents

### NotificationTopicArn

The ARN for the Amazon SNS topic to which notifications should be published.

Type: String

Pattern: `arn:aws[a-z\-*]:sns:[a-z0-9\-*]:[0-9]{12}:[a-zA-Z0-9_.-]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ObjectiveStatusCounters

Service: Amazon SageMaker Service

Specifies the number of training jobs that this hyperparameter tuning job launched, categorized by the status of their objective metric. The objective metric status shows whether the final objective metric for the training job has been evaluated by the tuning job and used in the hyperparameter tuning process.

## Contents

### Failed

The number of training jobs whose final objective metric was not evaluated and used in the hyperparameter tuning process. This typically occurs when the training job failed or did not emit an objective metric.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### Pending

The number of training jobs that are in progress and pending evaluation of their final objective metric.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### Succeeded

The number of training jobs whose final objective metric was evaluated by the hyperparameter tuning job and used in the hyperparameter tuning process.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OfflineStoreConfig

Service: Amazon SageMaker Service

The configuration of an OfflineStore.

Provide an OfflineStoreConfig in a request to CreateFeatureGroup to create an OfflineStore.

To encrypt an OfflineStore using at rest data encryption, specify AWS Key Management Service (KMS) key ID, or KMSKeyId, in S3StorageConfig.

## Contents

### S3StorageConfig

The Amazon Simple Storage (Amazon S3) location of OfflineStore.

Type: [S3StorageConfig](#) object

Required: Yes

### DataCatalogConfig

The meta data of the Glue table that is autogenerated when an OfflineStore is created.

Type: [DataCatalogConfig](#) object

Required: No

### DisableGlueTableCreation

Set to True to disable the automatic creation of an AWS Glue table when configuring an OfflineStore. If set to False, Feature Store will name the OfflineStore Glue table following [Athena's naming recommendations](#).

The default value is False.

Type: Boolean

Required: No

### TableFormat

Format for the offline store table. Supported formats are Glue (Default) and [Apache Iceberg](#).

Type: String

Valid Values: Default | Glue | Iceberg

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# OfflineStoreStatus

Service: Amazon SageMaker Service

The status of OfflineStore.

## Contents

### Status

An OfflineStore status.

Type: String

Valid Values: Active | Blocked | Disabled

Required: Yes

### BlockedReason

The justification for why the OfflineStoreStatus is Blocked (if applicable).

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OidcConfig

Service: Amazon SageMaker Service

Use this parameter to configure your OIDC Identity Provider (IdP).

## Contents

### AuthorizationEndpoint

The OIDC IdP authorization endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: Yes

### ClientId

The OIDC IdP client ID used to configure your private workforce.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[ -~ ]+`

Required: Yes

### ClientSecret

The OIDC IdP client secret used to configure your private workforce.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[ -~ ]+`

Required: Yes

### Issuer

The OIDC IdP issuer used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: Yes

### **JwksUri**

The OIDC IdP JSON Web Key Set (Jwks) URI used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: Yes

### **LogoutEndpoint**

The OIDC IdP logout endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: Yes

### **TokenEndpoint**

The OIDC IdP token endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: Yes

### **UserInfoEndpoint**

The OIDC IdP user information endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: Yes

### **AuthenticationRequestExtraParams**

A string to string map of identifiers specific to the custom identity provider (IdP) being used.

Type: String to string map

Map Entries: Maximum number of 10 items.

Key Length Constraints: Maximum length of 512.

Key Pattern: `.*`

Value Length Constraints: Maximum length of 512.

Value Pattern: `.*`

Required: No

### **Scope**

An array of string identifiers used to refer to the specific pieces of user data or claims that the client application wants to access.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[!#-\[\]-~]+( [!#-\[\]-~]+)*$`

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OidcConfigForResponse

Service: Amazon SageMaker Service

Your OIDC IdP workforce configuration.

## Contents

### AuthenticationRequestExtraParams

A string to string map of identifiers specific to the custom identity provider (IdP) being used.

Type: String to string map

Map Entries: Maximum number of 10 items.

Key Length Constraints: Maximum length of 512.

Key Pattern: . \*

Value Length Constraints: Maximum length of 512.

Value Pattern: . \*

Required: No

### AuthorizationEndpoint

The OIDC IdP authorization endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: https://\S+

Required: No

### ClientId

The OIDC IdP client ID used to configure your private workforce.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: [ -~ ]+

Required: No

### **Issuer**

The OIDC IdP issuer used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: https://\S+

Required: No

### **JwksUri**

The OIDC IdP JSON Web Key Set (Jwks) URI used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: https://\S+

Required: No

### **LogoutEndpoint**

The OIDC IdP logout endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: https://\S+

Required: No

### **Scope**

An array of string identifiers used to refer to the specific pieces of user data or claims that the client application wants to access.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^[!#\-\[\]\-\~]+( [!#\-\[\]\-\~]+)*$`

Required: No

### **TokenEndpoint**

The OIDC IdP token endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: No

### **UserInfoEndpoint**

The OIDC IdP user information endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# OidcMemberDefinition

Service: Amazon SageMaker Service

A list of user groups that exist in your OIDC Identity Provider (IdP). One to ten groups can be used to create a single private work team. When you add a user group to the list of Groups, you can add that user group to one or more private work teams. If you add a user group to a private work team, all workers in that user group are added to the work team.

## Contents

### Groups

A list of comma separated strings that identifies user groups in your OIDC IdP. Each user group is made up of a group of private workers.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `[\p{L}\p{M}\p{S}\p{N}\p{P}]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OnlineStoreConfig

Service: Amazon SageMaker Service

Use this to specify the AWS Key Management Service (KMS) Key ID, or `KMSKeyId`, for at rest data encryption. You can turn `OnlineStore` on or off by specifying the `EnableOnlineStore` flag at General Assembly.

The default value is `False`.

## Contents

### EnableOnlineStore

Turn `OnlineStore` off by specifying `False` for the `EnableOnlineStore` flag. Turn `OnlineStore` on by specifying `True` for the `EnableOnlineStore` flag.

The default value is `False`.

Type: Boolean

Required: No

### SecurityConfig

Use to specify KMS Key ID (`KMSKeyId`) for at-rest encryption of your `OnlineStore`.

Type: [OnlineStoreSecurityConfig](#) object

Required: No

### StorageType

Option for different tiers of low latency storage for real-time data retrieval.

- `Standard`: A managed low latency data store for feature groups.
- `InMemory`: A managed data store for feature groups that supports very low latency retrieval.

Type: String

Valid Values: `Standard` | `InMemory`

Required: No

## TtlDuration

Time to live duration, where the record is hard deleted after the expiration time is reached;  $\text{ExpiresAt} = \text{EventTime} + \text{TtlDuration}$ . For information on `HardDelete`, see the [DeleteRecord](#) API in the Amazon SageMaker API Reference guide.

Type: [TtlDuration](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OnlineStoreConfigUpdate

Service: Amazon SageMaker Service

Updates the feature group online store configuration.

## Contents

### TtlDuration

Time to live duration, where the record is hard deleted after the expiration time is reached;  $\text{ExpiresAt} = \text{EventTime} + \text{TtlDuration}$ . For information on `HardDelete`, see the [DeleteRecord](#) API in the Amazon SageMaker API Reference guide.

Type: [TtlDuration](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OnlineStoreSecurityConfig

Service: Amazon SageMaker Service

The security configuration for OnlineStore.

## Contents

### KmsKeyId

The AWS Key Management Service (KMS) key ARN that SageMaker Feature Store uses to encrypt the Amazon S3 objects at rest using Amazon S3 server-side encryption.

The caller (either user or IAM role) of `CreateFeatureGroup` must have below permissions to the `OnlineStore KmsKeyId`:

- "kms:Encrypt"
- "kms:Decrypt"
- "kms:DescribeKey"
- "kms:CreateGrant"
- "kms:RetireGrant"
- "kms:ReEncryptFrom"
- "kms:ReEncryptTo"
- "kms:GenerateDataKey"
- "kms:ListAliases"
- "kms:ListGrants"
- "kms:RevokeGrant"

The caller (either user or IAM role) to all `DataPlane` operations (`PutRecord`, `GetRecord`, `DeleteRecord`) must have the following permissions to the `KmsKeyId`:

- "kms:Decrypt"

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OutputConfig

Service: Amazon SageMaker Service

Contains information about the output location for the compiled model and the target device that the model runs on. `TargetDevice` and `TargetPlatform` are mutually exclusive, so you need to choose one between the two to specify your target device or platform. If you cannot find your device you want to use from the `TargetDevice` list, use `TargetPlatform` to describe the platform of your edge device and `CompilerOptions` if there are specific settings that are required or recommended to use for particular `TargetPlatform`.

## Contents

### S3OutputLocation

Identifies the S3 bucket where you want Amazon SageMaker to store the model artifacts. For example, `s3://bucket-name/key-name-prefix`.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)/?(.*)$`

Required: Yes

### CompilerOptions

Specifies additional parameters for compiler options in JSON format. The compiler options are `TargetPlatform` specific. It is required for NVIDIA accelerators and highly recommended for CPU compilations. For any other cases, it is optional to specify `CompilerOptions`.

- `DTYPE`: Specifies the data type for the input. When compiling for `ml_*` (except for `ml_inf`) instances using PyTorch framework, provide the data type (`dtype`) of the model's input. `"float32"` is used if `"DTYPE"` is not specified. Options for data type are:
  - `float32`: Use either `"float"` or `"float32"`.
  - `int64`: Use either `"int64"` or `"long"`.

For example, `{"dtype" : "float32"}`.

- `CPU`: Compilation for CPU supports the following compiler options.
  - `mcpu`: CPU micro-architecture. For example, `{'mcpu' : 'skylake-avx512'}`

- `matrx`: CPU flags. For example, `{'matrx': ['+neon', '+vfpv4']}`
- ARM: Details of ARM CPU compilations.
  - NEON: NEON is an implementation of the Advanced SIMD extension used in ARMv7 processors.

For example, add `{'matrx': ['+neon']}` to the compiler options if compiling for ARM 32-bit platform with the NEON support.

- NVIDIA: Compilation for NVIDIA GPU supports the following compiler options.
  - `gpu_code`: Specifies the targeted architecture.
  - `trt-ver`: Specifies the TensorRT versions in x.y.z. format.
  - `cuda-ver`: Specifies the CUDA version in x.y format.

For example, `{'gpu-code': 'sm_72', 'trt-ver': '6.0.1', 'cuda-ver': '10.1'}`

- ANDROID: Compilation for the Android OS supports the following compiler options:
  - `ANDROID_PLATFORM`: Specifies the Android API levels. Available levels range from 21 to 29. For example, `{'ANDROID_PLATFORM': 28}`.
  - `matrx`: Add `{'matrx': ['+neon']}` to compiler options if compiling for ARM 32-bit platform with NEON support.
- INFERENCE: Compilation for target `ml_inf1` uses compiler options passed in as a JSON string. For example, `"CompilerOptions": "\"--verbose 1 --num-neuroncores 2 - 02\""`.

For information about supported compiler options, see [Neuron Compiler CLI Reference Guide](#).

- CoreML: Compilation for the CoreML [OutputConfig](#) `TargetDevice` supports the following compiler options:
  - `class_labels`: Specifies the classification labels file name inside input tar.gz file. For example, `{"class_labels": "imagenet_labels_1000.txt"}`. Labels inside the txt file should be separated by newlines.
- EIA: Compilation for the Elastic Inference Accelerator supports the following compiler options:
  - `precision_mode`: Specifies the precision of compiled artifacts. Supported values are "FP16" and "FP32". Default is "FP32".



- `signature_def_key`: Specifies the signature to use for models in SavedModel format. Defaults is TensorFlow's default signature def key.
- `output_names`: Specifies a list of output tensor names for models in FrozenGraph format. Set at most one API field, either: `signature_def_key` or `output_names`.

For example: `{"precision_mode": "FP32", "output_names": ["output:0"]}`

Type: String

Length Constraints: Minimum length of 3. Maximum length of 1024.

Pattern: `.*`

Required: No

## KmsKeyId

The AWS Key Management Service key (AWS KMS) that Amazon SageMaker uses to encrypt your output models with Amazon S3 server-side encryption after compilation job. If you don't provide a KMS key ID, Amazon SageMaker uses the default KMS key for Amazon S3 for your role's account. For more information, see [KMS-Managed Encryption Keys](#) in the *Amazon Simple Storage Service Developer Guide*.

The KmsKeyId can be any of the following formats:

- Key ID: `1234abcd-12ab-34cd-56ef-1234567890ab`
- Key ARN: `arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab`
- Alias name: `alias/ExampleAlias`
- Alias name ARN: `arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias`

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## TargetDevice

Identifies the target device or the machine learning instance that you want to run your model on after the compilation has completed. Alternatively, you can specify OS, architecture, and accelerator using [TargetPlatform](#) fields. It can be used instead of TargetPlatform.

### Note

Currently ml\_trn1 is available only in US East (N. Virginia) Region, and ml\_inf2 is available only in US East (Ohio) Region.

Type: String

Valid Values: lambda | ml\_m4 | ml\_m5 | ml\_m6g | ml\_c4 | ml\_c5 | ml\_c6g | ml\_p2 | ml\_p3 | ml\_g4dn | ml\_inf1 | ml\_inf2 | ml\_trn1 | ml\_eia2 | jetson\_tx1 | jetson\_tx2 | jetson\_nano | jetson\_xavier | rasp3b | rasp4b | imx8qm | deeplens | rk3399 | rk3288 | aisage | sbe\_c | qcs605 | qcs603 | sitara\_am57x | amba\_cv2 | amba\_cv22 | amba\_cv25 | x86\_win32 | x86\_win64 | coreml | jacinto\_tda4vm | imx8mplus

Required: No

## TargetPlatform

Contains information about a target platform that you want your model to run on, such as OS, architecture, and accelerators. It is an alternative of TargetDevice.

The following examples show how to configure the TargetPlatform and CompilerOptions JSON strings for popular target platforms:

- Raspberry Pi 3 Model B+

```
"TargetPlatform": {"Os": "LINUX", "Arch": "ARM_EABIHF"},  
"CompilerOptions": {'mattr': ['+neon']}
```

- Jetson TX2

```
"TargetPlatform": {"Os": "LINUX", "Arch": "ARM64", "Accelerator":  
"NVIDIA"},
```

```
"CompilerOptions": {'gpu-code': 'sm_62', 'trt-ver': '6.0.1', 'cuda-ver': '10.0'}
```

- EC2 m5.2xlarge instance OS

```
"TargetPlatform": {"Os": "LINUX", "Arch": "X86_64", "Accelerator": "NVIDIA"},
```

```
"CompilerOptions": {'mcpu': 'skylake-avx512'}
```

- RK3399

```
"TargetPlatform": {"Os": "LINUX", "Arch": "ARM64", "Accelerator": "MALI"}
```

- ARMv7 phone (CPU)

```
"TargetPlatform": {"Os": "ANDROID", "Arch": "ARM_EABI"},
```

```
"CompilerOptions": {'ANDROID_PLATFORM': 25, 'mattr': ['+neon']}
```

- ARMv8 phone (CPU)

```
"TargetPlatform": {"Os": "ANDROID", "Arch": "ARM64"},
```

```
"CompilerOptions": {'ANDROID_PLATFORM': 29}
```

Type: [TargetPlatform](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OutputDataConfig

Service: Amazon SageMaker Service

Provides information about how to store model training results (model artifacts).

## Contents

### S3OutputPath

Identifies the S3 path where you want SageMaker to store the model artifacts. For example, `s3://bucket-name/key-name-prefix`.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

### CompressionType

The model output compression type. Select None to output an uncompressed model, recommended for large model outputs. Defaults to gzip.

Type: String

Valid Values: GZIP | NONE

Required: No

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that SageMaker uses to encrypt the model artifacts at rest using Amazon S3 server-side encryption. The KmsKeyId can be any of the following formats:

- // KMS Key ID

`"1234abcd-12ab-34cd-56ef-1234567890ab"`

- // Amazon Resource Name (ARN) of a KMS Key

`"arn:aws:kms:us-`

`west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"`

- // KMS Key Alias

```
"alias/ExampleAlias"
```

- // Amazon Resource Name (ARN) of a KMS Key Alias

```
"arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias"
```

If you use a KMS key ID or an alias of your KMS key, the SageMaker execution role must include permissions to call `kms:Encrypt`. If you don't provide a KMS key ID, SageMaker uses the default KMS key for Amazon S3 for your role's account. For more information, see [KMS-Managed Encryption Keys](#) in the *Amazon Simple Storage Service Developer Guide*. If the output data is stored in Amazon S3 Express One Zone, it is encrypted with server-side encryption with Amazon S3 managed keys (SSE-S3). KMS key is not supported for Amazon S3 Express One Zone

The KMS key policy must grant permission to the IAM role that you specify in your `CreateTrainingJob`, `CreateTransformJob`, or `CreateHyperParameterTuningJob` requests. For more information, see [Using Key Policies in AWS KMS](#) in the *AWS Key Management Service Developer Guide*.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OutputParameter

Service: Amazon SageMaker Service

An output parameter of a pipeline step.

## Contents

### Name

The name of the output parameter.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

### Value

The value of the output parameter.

Type: String

Length Constraints: Maximum length of 1024.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OwnershipSettings

Service: Amazon SageMaker Service

The collection of ownership settings for a space.

## Contents

### OwnerUserProfileName

The user profile who is the owner of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OwnershipSettingsSummary

Service: Amazon SageMaker Service

Specifies summary information about the ownership settings.

## Contents

### OwnerUserProfileName

The user profile who is the owner of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ParallelismConfiguration

Service: Amazon SageMaker Service

Configuration that controls the parallelism of the pipeline. By default, the parallelism configuration specified applies to all executions of the pipeline unless overridden.

## Contents

### MaxParallelExecutionSteps

The max number of steps that can be executed in parallel.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Parameter

Service: Amazon SageMaker Service

Assigns a value to a named Pipeline parameter.

## Contents

### Name

The name of the parameter to assign a value to. This parameter name must match a named parameter in the pipeline definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[A-Za-z0-9\-\_]*$`

Required: Yes

### Value

The literal value for the parameter.

Type: String

Length Constraints: Maximum length of 1024.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ParameterRange

Service: Amazon SageMaker Service

Defines the possible values for categorical, continuous, and integer hyperparameters to be used by an algorithm.

## Contents

### CategoricalParameterRangeSpecification

A `CategoricalParameterRangeSpecification` object that defines the possible values for a categorical hyperparameter.

Type: [CategoricalParameterRangeSpecification](#) object

Required: No

### ContinuousParameterRangeSpecification

A `ContinuousParameterRangeSpecification` object that defines the possible values for a continuous hyperparameter.

Type: [ContinuousParameterRangeSpecification](#) object

Required: No

### IntegerParameterRangeSpecification

A `IntegerParameterRangeSpecification` object that defines the possible values for an integer hyperparameter.

Type: [IntegerParameterRangeSpecification](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# ParameterRanges

Service: Amazon SageMaker Service

Specifies ranges of integer, continuous, and categorical hyperparameters that a hyperparameter tuning job searches. The hyperparameter tuning job launches training jobs with hyperparameter values within these ranges to find the combination of values that result in the training job with the best performance as measured by the objective metric of the hyperparameter tuning job.

## Note

The maximum number of items specified for `Array Members` refers to the maximum number of hyperparameters for each range and also the maximum for the hyperparameter tuning job itself. That is, the sum of the number of hyperparameters for all the ranges can't exceed the maximum number specified.

## Contents

### AutoParameters

A list containing hyperparameter names and example values to be used by Autotune to determine optimal ranges for your tuning job.

Type: Array of [AutoParameter](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Required: No

### CategoricalParameterRanges

The array of [CategoricalParameterRange](#) objects that specify ranges of categorical hyperparameters that a hyperparameter tuning job searches.

Type: Array of [CategoricalParameterRange](#) objects

Array Members: Minimum number of 0 items. Maximum number of 30 items.

Required: No

## ContinuousParameterRanges

The array of [ContinuousParameterRange](#) objects that specify ranges of continuous hyperparameters that a hyperparameter tuning job searches.

Type: Array of [ContinuousParameterRange](#) objects

Array Members: Minimum number of 0 items. Maximum number of 30 items.

Required: No

## IntegerParameterRanges

The array of [IntegerParameterRange](#) objects that specify ranges of integer hyperparameters that a hyperparameter tuning job searches.

Type: Array of [IntegerParameterRange](#) objects

Array Members: Minimum number of 0 items. Maximum number of 30 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Parent

Service: Amazon SageMaker Service

The trial that a trial component is associated with and the experiment the trial is part of. A component might not be associated with a trial. A component can be associated with multiple trials.

## Contents

### ExperimentName

The name of the experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### TrialName

The name of the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)





# ParentHyperParameterTuningJob

Service: Amazon SageMaker Service

A previously completed or stopped hyperparameter tuning job to be used as a starting point for a new hyperparameter tuning job.

## Contents

### HyperParameterTuningJobName

The name of the hyperparameter tuning job to be used as a starting point for a new hyperparameter tuning job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PendingDeploymentSummary

Service: Amazon SageMaker Service

The summary of an in-progress deployment when an endpoint is creating or updating with a new endpoint configuration.

## Contents

### EndpointConfigName

The name of the endpoint configuration used in the deployment.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### ProductionVariants

An array of [PendingProductionVariantSummary](#) objects, one for each model hosted behind this endpoint for the in-progress deployment.

Type: Array of [PendingProductionVariantSummary](#) objects

Array Members: Minimum number of 1 item.

Required: No

### ShadowProductionVariants

An array of [PendingProductionVariantSummary](#) objects, one for each model hosted behind this endpoint in shadow mode with production traffic replicated from the model specified on `ProductionVariants` for the in-progress deployment.

Type: Array of [PendingProductionVariantSummary](#) objects

Array Members: Minimum number of 1 item.

Required: No

## StartTime

The start time of the deployment.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PendingProductionVariantSummary

Service: Amazon SageMaker Service

The production variant summary for a deployment when an endpoint is creating or updating with the [CreateEndpoint](#) or [UpdateEndpoint](#) operations. Describes the `VariantStatus` , weight and capacity for a production variant associated with an endpoint.

## Contents

### VariantName

The name of the variant.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### AcceleratorType

The size of the Elastic Inference (EI) instance to use for the production variant. EI instances provide on-demand GPU computing for inference. For more information, see [Using Elastic Inference in Amazon SageMaker](#).

Type: String

Valid Values: `ml.eia1.medium | ml.eia1.large | ml.eia1.xlarge | ml.eia2.medium | ml.eia2.large | ml.eia2.xlarge`

Required: No

### CurrentInstanceCount

The number of instances associated with the variant.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## CurrentServerlessConfig

The serverless configuration for the endpoint.

Type: [ProductionVariantServerlessConfig](#) object

Required: No

## CurrentWeight

The weight associated with the variant.

Type: Float

Valid Range: Minimum value of 0.

Required: No

## DeployedImages

An array of `DeployedImage` objects that specify the Amazon EC2 Container Registry paths of the inference images deployed on instances of this `ProductionVariant`.

Type: Array of [DeployedImage](#) objects

Required: No

## DesiredInstanceCount

The number of instances requested in this deployment, as specified in the endpoint configuration for the endpoint. The value is taken from the request to the [CreateEndpointConfig](#) operation.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## DesiredServerlessConfig

The serverless configuration requested for this deployment, as specified in the endpoint configuration for the endpoint.

Type: [ProductionVariantServerlessConfig](#) object

Required: No

### DesiredWeight

The requested weight for the variant in this deployment, as specified in the endpoint configuration for the endpoint. The value is taken from the request to the [CreateEndpointConfig](#) operation.

Type: Float

Valid Range: Minimum value of 0.

Required: No

### InstanceType

The type of instances associated with the variant.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.12xlarge | ml.m5d.24xlarge | ml.c4.large | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.large | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.12xlarge | ml.r5.24xlarge | ml.r5d.large | ml.r5d.xlarge | ml.r5d.2xlarge | ml.r5d.4xlarge | ml.r5d.12xlarge | ml.r5d.24xlarge | ml.inf1.xlarge | ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge | ml.d11.24xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge

| ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge |  
ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge  
| ml.g6.xlarge | ml.g6.2xlarge | ml.g6.4xlarge | ml.g6.8xlarge |  
ml.g6.12xlarge | ml.g6.16xlarge | ml.g6.24xlarge | ml.g6.48xlarge  
| ml.p4d.24xlarge | ml.c7g.large | ml.c7g.xlarge | ml.c7g.2xlarge |  
ml.c7g.4xlarge | ml.c7g.8xlarge | ml.c7g.12xlarge | ml.c7g.16xlarge  
| ml.m6g.large | ml.m6g.xlarge | ml.m6g.2xlarge | ml.m6g.4xlarge |  
ml.m6g.8xlarge | ml.m6g.12xlarge | ml.m6g.16xlarge | ml.m6gd.large |  
ml.m6gd.xlarge | ml.m6gd.2xlarge | ml.m6gd.4xlarge | ml.m6gd.8xlarge  
| ml.m6gd.12xlarge | ml.m6gd.16xlarge | ml.c6g.large | ml.c6g.xlarge  
| ml.c6g.2xlarge | ml.c6g.4xlarge | ml.c6g.8xlarge | ml.c6g.12xlarge  
| ml.c6g.16xlarge | ml.c6gd.large | ml.c6gd.xlarge | ml.c6gd.2xlarge |  
ml.c6gd.4xlarge | ml.c6gd.8xlarge | ml.c6gd.12xlarge | ml.c6gd.16xlarge  
| ml.c6gn.large | ml.c6gn.xlarge | ml.c6gn.2xlarge | ml.c6gn.4xlarge  
| ml.c6gn.8xlarge | ml.c6gn.12xlarge | ml.c6gn.16xlarge | ml.r6g.large  
| ml.r6g.xlarge | ml.r6g.2xlarge | ml.r6g.4xlarge | ml.r6g.8xlarge |  
ml.r6g.12xlarge | ml.r6g.16xlarge | ml.r6gd.large | ml.r6gd.xlarge |  
ml.r6gd.2xlarge | ml.r6gd.4xlarge | ml.r6gd.8xlarge | ml.r6gd.12xlarge  
| ml.r6gd.16xlarge | ml.p4de.24xlarge | ml.trn1.2xlarge |  
ml.trn1.32xlarge | ml.trn1n.32xlarge | ml.inf2.xlarge | ml.inf2.8xlarge  
| ml.inf2.24xlarge | ml.inf2.48xlarge | ml.p5.48xlarge | ml.m7i.large  
| ml.m7i.xlarge | ml.m7i.2xlarge | ml.m7i.4xlarge | ml.m7i.8xlarge |  
ml.m7i.12xlarge | ml.m7i.16xlarge | ml.m7i.24xlarge | ml.m7i.48xlarge  
| ml.c7i.large | ml.c7i.xlarge | ml.c7i.2xlarge | ml.c7i.4xlarge |  
ml.c7i.8xlarge | ml.c7i.12xlarge | ml.c7i.16xlarge | ml.c7i.24xlarge  
| ml.c7i.48xlarge | ml.r7i.large | ml.r7i.xlarge | ml.r7i.2xlarge |  
ml.r7i.4xlarge | ml.r7i.8xlarge | ml.r7i.12xlarge | ml.r7i.16xlarge |  
ml.r7i.24xlarge | ml.r7i.48xlarge

Required: No

## ManagedInstanceScaling

Settings that control the range in the number of instances that the endpoint provisions as it scales up or down to accommodate traffic.

Type: [ProductionVariantManagedInstanceScaling](#) object

Required: No

## RoutingConfig

Settings that control how the endpoint routes incoming traffic to the instances that the endpoint hosts.

Type: [ProductionVariantRoutingConfig](#) object

Required: No

## VariantStatus

The endpoint variant status which describes the current deployment stage status or operational status.

Type: Array of [ProductionVariantStatus](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



## Phase

Service: Amazon SageMaker Service

Defines the traffic pattern.

### Contents

#### DurationInSeconds

Specifies how long a traffic phase should be. For custom load tests, the value should be between 120 and 3600. This value should not exceed `JobDurationInSeconds`.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

#### InitialNumberOfUsers

Specifies how many concurrent users to start with. The value should be between 1 and 3.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

#### SpawnRate

Specified how many new users to spawn in a minute.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Pipeline

Service: Amazon SageMaker Service

A SageMaker Model Building Pipeline instance.

## Contents

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

### CreationTime

The creation time of the pipeline.

Type: Timestamp

Required: No

### LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

### LastModifiedTime

The time that the pipeline was last modified.

Type: Timestamp

Required: No

### LastRunTime

The time when the pipeline was last run.

Type: Timestamp

Required: No

### **ParallelismConfiguration**

The parallelism configuration applied to the pipeline.

Type: [ParallelismConfiguration](#) object

Required: No

### **PipelineArn**

The Amazon Resource Name (ARN) of the pipeline.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:pipeline/.*`

Required: No

### **PipelineDescription**

The description of the pipeline.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: `.*`

Required: No

### **PipelineDisplayName**

The display name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: No

### **PipelineName**

The name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: No

### **PipelineStatus**

The status of the pipeline.

Type: String

Valid Values: Active | Deleting

Required: No

### **RoleArn**

The Amazon Resource Name (ARN) of the role that created the pipeline.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: No

### **Tags**

A list of tags that apply to the pipeline.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## PipelineDefinitionS3Location

Service: Amazon SageMaker Service

The location of the pipeline definition stored in Amazon S3.

### Contents

#### Bucket

Name of the S3 bucket.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `[a-z0-9][\.\-a-z0-9]{1,61}[a-z0-9]`

Required: Yes

#### ObjectKey

The object key (or key name) uniquely identifies the object in an S3 bucket.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `.+`

Required: Yes

#### VersionId

Version Id of the pipeline definition file. If not specified, Amazon SageMaker will retrieve the latest version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `.+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# PipelineExecution

Service: Amazon SageMaker Service

An execution of a pipeline.

## Contents

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

### CreationTime

The creation time of the pipeline execution.

Type: Timestamp

Required: No

### FailureReason

If the execution failed, a message describing why.

Type: String

Length Constraints: Maximum length of 1300.

Pattern: .\*

Required: No

### LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

## LastModifiedTime

The time that the pipeline execution was last modified.

Type: Timestamp

Required: No

## ParallelismConfiguration

The parallelism configuration applied to the pipeline execution.

Type: [ParallelismConfiguration](#) object

Required: No

## PipelineArn

The Amazon Resource Name (ARN) of the pipeline that was executed.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:pipeline/.*`

Required: No

## PipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:pipeline\./.*/execution\./.*$`

Required: No

## PipelineExecutionDescription

The description of the pipeline execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: .\*

Required: No

### **PipelineExecutionDisplayName**

The display name of the pipeline execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,81}`

Required: No

### **PipelineExecutionStatus**

The status of the pipeline status.

Type: String

Valid Values: Executing | Stopping | Stopped | Failed | Succeeded

Required: No

### **PipelineExperimentConfig**

Specifies the names of the experiment and trial created by a pipeline.

Type: [PipelineExperimentConfig](#) object

Required: No

### **PipelineParameters**

Contains a list of pipeline parameters. This list can be empty.

Type: Array of [Parameter](#) objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

## SelectiveExecutionConfig

The selective execution configuration applied to the pipeline run.

Type: [SelectiveExecutionConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PipelineExecutionStep

Service: Amazon SageMaker Service

An execution of a step in a pipeline.

## Contents

### AttemptCount

The current attempt of the execution step. For more information, see [Retry Policy for SageMaker Pipelines steps](#).

Type: Integer

Required: No

### CacheHitResult

If this pipeline execution step was cached, details on the cache hit.

Type: [CacheHitResult](#) object

Required: No

### EndTime

The time that the step stopped executing.

Type: Timestamp

Required: No

### FailureReason

The reason why the step failed execution. This is only returned if the step failed its execution.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### Metadata

Metadata to run the pipeline step.

Type: [PipelineExecutionStepMetadata](#) object

Required: No

### **SelectiveExecutionResult**

The ARN from an execution of the current pipeline from which results are reused for this step.

Type: [SelectiveExecutionResult](#) object

Required: No

### **StartTime**

The time that the step started executing.

Type: Timestamp

Required: No

### **StepDescription**

The description of the step.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: .\*

Required: No

### **StepDisplayName**

The display name of the step.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: .\*

Required: No

### **StepName**

The name of the step that is executed.

Type: String

Length Constraints: Maximum length of 64.

Pattern: `^[A-Za-z0-9\-\_]*$`

Required: No

### StepStatus

The status of the step execution.

Type: String

Valid Values: Starting | Executing | Stopping | Stopped | Failed | Succeeded

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PipelineExecutionStepMetadata

Service: Amazon SageMaker Service

Metadata for a step execution.

## Contents

### AutoMLJob

The Amazon Resource Name (ARN) of the AutoML job that was run by this step.

Type: [AutoMLJobStepMetadata](#) object

Required: No

### Callback

The URL of the Amazon SQS queue used by this step execution, the pipeline generated token, and a list of output parameters.

Type: [CallbackStepMetadata](#) object

Required: No

### ClarifyCheck

Container for the metadata for a Clarify check step. The configurations and outcomes of the check step execution. This includes:

- The type of the check conducted,
- The Amazon S3 URIs of baseline constraints and statistics files to be used for the drift check.
- The Amazon S3 URIs of newly calculated baseline constraints and statistics.
- The model package group name provided.
- The Amazon S3 URI of the violation report if violations detected.
- The Amazon Resource Name (ARN) of check processing job initiated by the step execution.
- The boolean flags indicating if the drift check is skipped.
- If step property `BaselineUsedForDriftCheck` is set the same as `CalculatedBaseline`.

Type: [ClarifyCheckStepMetadata](#) object

Required: No



## Condition

The outcome of the condition evaluation that was run by this step execution.

Type: [ConditionStepMetadata](#) object

Required: No

## EMR

The configurations and outcomes of an Amazon EMR step execution.

Type: [EMRStepMetadata](#) object

Required: No

## Fail

The configurations and outcomes of a Fail step execution.

Type: [FailStepMetadata](#) object

Required: No

## Lambda

The Amazon Resource Name (ARN) of the Lambda function that was run by this step execution and a list of output parameters.

Type: [LambdaStepMetadata](#) object

Required: No

## Model

The Amazon Resource Name (ARN) of the model that was created by this step execution.

Type: [ModelStepMetadata](#) object

Required: No

## ProcessingJob

The Amazon Resource Name (ARN) of the processing job that was run by this step execution.

Type: [ProcessingJobStepMetadata](#) object

Required: No

## QualityCheck

The configurations and outcomes of the check step execution. This includes:

- The type of the check conducted.
- The Amazon S3 URIs of baseline constraints and statistics files to be used for the drift check.
- The Amazon S3 URIs of newly calculated baseline constraints and statistics.
- The model package group name provided.
- The Amazon S3 URI of the violation report if violations detected.
- The Amazon Resource Name (ARN) of check processing job initiated by the step execution.
- The Boolean flags indicating if the drift check is skipped.
- If step property `BaselineUsedForDriftCheck` is set the same as `CalculatedBaseline`.

Type: [QualityCheckStepMetadata](#) object

Required: No

## RegisterModel

The Amazon Resource Name (ARN) of the model package that the model was registered to by this step execution.

Type: [RegisterModelStepMetadata](#) object

Required: No

## TrainingJob

The Amazon Resource Name (ARN) of the training job that was run by this step execution.

Type: [TrainingJobStepMetadata](#) object

Required: No

## TransformJob

The Amazon Resource Name (ARN) of the transform job that was run by this step execution.

Type: [TransformJobStepMetadata](#) object

Required: No

## TuningJob

The Amazon Resource Name (ARN) of the tuning job that was run by this step execution.

Type: [TuningJobStepMetaData](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PipelineExecutionSummary

Service: Amazon SageMaker Service

A pipeline execution summary.

## Contents

### PipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\ ]*:sagemaker:[a-z0-9\-\ ]*:[0-9]{12}:pipeline\./.*\./execution\./.*$`

Required: No

### PipelineExecutionDescription

The description of the pipeline execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: `.*`

Required: No

### PipelineExecutionDisplayName

The display name of the pipeline execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,81}`

Required: No

## PipelineExecutionFailureReason

A message generated by SageMaker Pipelines describing why the pipeline execution failed.

Type: String

Length Constraints: Maximum length of 3072.

Required: No

## PipelineExecutionStatus

The status of the pipeline execution.

Type: String

Valid Values: Executing | Stopping | Stopped | Failed | Succeeded

Required: No

## StartTime

The start time of the pipeline execution.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PipelineExperimentConfig

Service: Amazon SageMaker Service

Specifies the names of the experiment and trial created by a pipeline.

## Contents

### ExperimentName

The name of the experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### TrialName

The name of the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PipelineSummary

Service: Amazon SageMaker Service

A summary of a pipeline.

## Contents

### CreationTime

The creation time of the pipeline.

Type: Timestamp

Required: No

### LastExecutionTime

The last time that a pipeline execution began.

Type: Timestamp

Required: No

### LastModifiedTime

The time that the pipeline was last modified.

Type: Timestamp

Required: No

### PipelineArn

The Amazon Resource Name (ARN) of the pipeline.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:pipeline/.*`

Required: No

### PipelineDescription

The description of the pipeline.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: .\*

Required: No

### **PipelineDisplayName**

The display name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: No

### **PipelineName**

The name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: No

### **RoleArn**

The Amazon Resource Name (ARN) that the pipeline used to execute.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: No



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PredefinedMetricSpecification

Service: Amazon SageMaker Service

A specification for a predefined metric.

## Contents

### PredefinedMetricType

The metric type. You can only apply SageMaker metric types to SageMaker endpoints.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingClusterConfig

Service: Amazon SageMaker Service

Configuration for the cluster used to run a processing job.

## Contents

### InstanceCount

The number of ML compute instances to use in the processing job. For distributed processing jobs, specify a value greater than 1. The default value is 1.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

### InstanceType

The ML compute instance type for the processing job.

Type: String

Valid Values: ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge

Required: Yes

### VolumeSizeInGB

The size of the ML storage volume in gigabytes that you want to provision. You must specify sufficient ML storage for your scenario.

**Note**

Certain Nitro-based instances include local storage with a fixed total size, dependent on the instance type. When using these instances for processing, Amazon SageMaker mounts the local instance storage instead of Amazon EBS gp2 storage. You can't request a `VolumeSizeInGB` greater than the total size of the local instance storage. For a list of instance types that support local instance storage, including the total size per instance type, see [Instance Store Volumes](#).

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 16384.

Required: Yes

**VolumeKmsKeyId**

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance(s) that run the processing job.

**Note**

Certain Nitro-based instances include local storage, dependent on the instance type. Local storage volumes are encrypted using a hardware module on the instance. You can't request a `VolumeKmsKeyId` when using an instance type with local storage. For a list of instance types that support local instance storage, see [Instance Store Volumes](#).

For more information about local instance storage encryption, see [SSD Instance Store Volumes](#).

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_-]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingFeatureStoreOutput

Service: Amazon SageMaker Service

Configuration for processing job outputs in Amazon SageMaker Feature Store.

## Contents

### FeatureGroupName

The name of the Amazon SageMaker FeatureGroup to use as the destination for processing job output. Note that your processing script is responsible for putting records into your Feature Store.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([_-]*[a-zA-Z0-9]){0,63}`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingInput

Service: Amazon SageMaker Service

The inputs for a processing job. The processing input must specify exactly one of either `S3Input` or `DatasetDefinition` types.

## Contents

### InputName

The name for the processing job input.

Type: String

Required: Yes

### AppManaged

When `True`, input operations such as data download are managed natively by the processing job application. When `False` (default), input operations are managed by Amazon SageMaker.

Type: Boolean

Required: No

### DatasetDefinition

Configuration for a Dataset Definition input.

Type: [DatasetDefinition](#) object

Required: No

### S3Input

Configuration for downloading input data from Amazon S3 into the processing container.

Type: [ProcessingS3Input](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ProcessingJob

Service: Amazon SageMaker Service

An Amazon SageMaker processing job that is used to analyze data and evaluate models. For more information, see [Process Data and Evaluate Models](#).

## Contents

### AppSpecification

Configuration to run a processing job in a specified container image.

Type: [AppSpecification](#) object

Required: No

### AutoMLJobArn

The Amazon Resource Name (ARN) of the AutoML job associated with this processing job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:automl-job/.*`

Required: No

### CreationTime

The time the processing job was created.

Type: Timestamp

Required: No

### Environment

Sets the environment variables in the Docker container.

Type: String to string map

Map Entries: Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]\*

Value Length Constraints: Maximum length of 256.

Value Pattern: [\\S\\s]\*

Required: No

### ExitMessage

A string, up to one KB in size, that contains metadata from the processing container when the processing job exits.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\\S\\s]\*

Required: No

### ExperimentConfig

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob](#)
- [CreateTrainingJob](#)
- [CreateTransformJob](#)

Type: [ExperimentConfig](#) object

Required: No

### FailureReason

A string, up to one KB in size, that contains the reason a processing job failed, if it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### LastModifiedTime

The time the processing job was last modified.

Type: Timestamp

Required: No

### **MonitoringScheduleArn**

The ARN of a monitoring schedule for an endpoint associated with this processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### **NetworkConfig**

Networking options for a job, such as network traffic encryption between containers, whether to allow inbound and outbound network calls to and from containers, and the VPC subnets and security groups to use for VPC-enabled jobs.

Type: [NetworkConfig](#) object

Required: No

### **ProcessingEndTime**

The time that the processing job ended.

Type: Timestamp

Required: No

### **ProcessingInputs**

List of input configurations for the processing job.

Type: Array of [ProcessingInput](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: No

### **ProcessingJobArn**

The ARN of the processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:processing-job/.*`

Required: No

### **ProcessingJobName**

The name of the processing job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### **ProcessingJobStatus**

The status of the processing job.

Type: String

Valid Values: `InProgress` | `Completed` | `Failed` | `Stopping` | `Stopped`

Required: No

### **ProcessingOutputConfig**

Configuration for uploading output from the processing container.

Type: [ProcessingOutputConfig](#) object

Required: No

### **ProcessingResources**

Identifies the resources, ML compute instances, and ML storage volumes to deploy for a processing job. In distributed training, you specify more than one instance.

Type: [ProcessingResources](#) object

Required: No

## ProcessingStartTime

The time that the processing job started.

Type: Timestamp

Required: No

## RoleArn

The ARN of the role used to create the processing job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:iam:~\d{12}:role/?[a-zA-Z_0-9+=,.\@\-\_/\]+$`

Required: No

## StoppingCondition

Configures conditions under which the processing job should be stopped, such as how long the processing job has been running. After the condition is met, the processing job is stopped.

Type: [ProcessingStoppingCondition](#) object

Required: No

## Tags

An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## TrainingJobArn

The ARN of the training job associated with this processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:training-job/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingJobStepMetadata

Service: Amazon SageMaker Service

Metadata for a processing job step.

## Contents

### Arn

The Amazon Resource Name (ARN) of the processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:processing-job/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingJobSummary

Service: Amazon SageMaker Service

Summary of information about a processing job.

## Contents

### CreationTime

The time at which the processing job was created.

Type: Timestamp

Required: Yes

### ProcessingJobArn

The Amazon Resource Name (ARN) of the processing job..

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:processing-job/.*`

Required: Yes

### ProcessingJobName

The name of the processing job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### ProcessingJobStatus

The status of the processing job.

Type: String

Valid Values: `InProgress` | `Completed` | `Failed` | `Stopping` | `Stopped`



Required: Yes

### **ExitMessage**

An optional string, up to one KB in size, that contains metadata from the processing container when the processing job exits.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

### **FailureReason**

A string, up to one KB in size, that contains the reason a processing job failed, if it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **LastModifiedTime**

A timestamp that indicates the last time the processing job was modified.

Type: Timestamp

Required: No

### **ProcessingEndTime**

The time at which the processing job completed.

Type: Timestamp

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingOutput

Service: Amazon SageMaker Service

Describes the results of a processing job. The processing output must specify exactly one of either `S3Output` or `FeatureStoreOutput` types.

## Contents

### OutputName

The name for the processing job output.

Type: String

Required: Yes

### AppManaged

When `True`, output operations such as data upload are managed natively by the processing job application. When `False` (default), output operations are managed by Amazon SageMaker.

Type: Boolean

Required: No

### FeatureStoreOutput

Configuration for processing job outputs in Amazon SageMaker Feature Store. This processing output type is only supported when `AppManaged` is specified.

Type: [ProcessingFeatureStoreOutput](#) object

Required: No

### S3Output

Configuration for processing job outputs in Amazon S3.

Type: [ProcessingS3Output](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingOutputConfig

Service: Amazon SageMaker Service

Configuration for uploading output from the processing container.

## Contents

### Outputs

An array of outputs configuring the data to upload from the processing container.

Type: Array of [ProcessingOutput](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: Yes

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt the processing job output. KmsKeyId can be an ID of a KMS key, ARN of a KMS key, alias of a KMS key, or alias of a KMS key. The KmsKeyId is applied to all outputs.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingResources

Service: Amazon SageMaker Service

Identifies the resources, ML compute instances, and ML storage volumes to deploy for a processing job. In distributed training, you specify more than one instance.

## Contents

### ClusterConfig

The configuration for the resources in a cluster used to run the processing job.

Type: [ProcessingClusterConfig](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingS3Input

Service: Amazon SageMaker Service

Configuration for downloading input data from Amazon S3 into the processing container.

## Contents

### S3DataType

Whether you use an `S3Prefix` or a `ManifestFile` for the data type. If you choose `S3Prefix`, `S3Uri` identifies a key name prefix. Amazon SageMaker uses all objects with the specified key name prefix for the processing job. If you choose `ManifestFile`, `S3Uri` identifies an object that is a manifest file containing a list of object keys that you want Amazon SageMaker to use for the processing job.

Type: String

Valid Values: `ManifestFile` | `S3Prefix`

Required: Yes

### S3Uri

The URI of the Amazon S3 prefix Amazon SageMaker downloads data required to run a processing job.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: Yes

### LocalPath

The local path in your container where you want Amazon SageMaker to write input data to. `LocalPath` is an absolute path to the input data and must begin with `/opt/ml/processing/`. `LocalPath` is a required parameter when `AppManaged` is `False` (default).

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### **S3CompressionType**

Whether to GZIP-decompress the data in Amazon S3 as it is streamed into the processing container. Gzip can only be used when Pipe mode is specified as the S3InputMode. In Pipe mode, Amazon SageMaker streams input data from the source directly to your container without using the EBS volume.

Type: String

Valid Values: None | Gzip

Required: No

### **S3DataDistributionType**

Whether to distribute the data from Amazon S3 to all processing instances with FullyReplicated, or whether the data from Amazon S3 is shared by Amazon S3 key, downloading one shard of data to each processing instance.

Type: String

Valid Values: FullyReplicated | ShardedByS3Key

Required: No

### **S3InputMode**

Whether to use File or Pipe input mode. In File mode, Amazon SageMaker copies the data from the input source onto the local ML storage volume before starting your processing container. This is the most commonly used input mode. In Pipe mode, Amazon SageMaker streams input data from the source directly to your processing container into named pipes without using the ML storage volume.

Type: String

Valid Values: Pipe | File

Required: No



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingS3Output

Service: Amazon SageMaker Service

Configuration for uploading output data to Amazon S3 from the processing container.

## Contents

### LocalPath

The local path of a directory where you want Amazon SageMaker to upload its contents to Amazon S3. LocalPath is an absolute path to a directory containing output files. This directory will be created by the platform and exist when your container's entrypoint is invoked.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### S3UploadMode

Whether to upload the results of the processing job continuously or after the job completes.

Type: String

Valid Values: Continuous | EndOfJob

Required: Yes

### S3Uri

A URI that identifies the Amazon S3 bucket where you want Amazon SageMaker to save the results of a processing job.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3):\/\/([^\/]+)\/?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingStoppingCondition

Service: Amazon SageMaker Service

Configures conditions under which the processing job should be stopped, such as how long the processing job has been running. After the condition is met, the processing job is stopped.

## Contents

### MaxRuntimeInSeconds

Specifies the maximum runtime in seconds.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 777600.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProductionVariant

Service: Amazon SageMaker Service

Identifies a model that you want to host and the resources chosen to deploy for hosting it. If you are deploying multiple models, tell SageMaker how to distribute traffic among the models by specifying variant weights. For more information on production variants, check [Production variants](#).

## Contents

### VariantName

The name of the production variant.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### AcceleratorType

The size of the Elastic Inference (EI) instance to use for the production variant. EI instances provide on-demand GPU computing for inference. For more information, see [Using Elastic Inference in Amazon SageMaker](#).

Type: String

Valid Values: `ml.eia1.medium | ml.eia1.large | ml.eia1.xlarge | ml.eia2.medium | ml.eia2.large | ml.eia2.xlarge`

Required: No

### ContainerStartupHealthCheckTimeoutInSeconds

The timeout value, in seconds, for your inference container to pass health check by SageMaker Hosting. For more information about health check, see [How Your Container Should Respond to Health Check \(Ping\) Requests](#).

Type: Integer

Valid Range: Minimum value of 60. Maximum value of 3600.

Required: No

### **CoreDumpConfig**

Specifies configuration for a core dump from the model container when the process crashes.

Type: [ProductionVariantCoreDumpConfig](#) object

Required: No

### **EnableSSMAccess**

You can use this parameter to turn on native AWS Systems Manager (SSM) access for a production variant behind an endpoint. By default, SSM access is disabled for all production variants behind an endpoint. You can turn on or turn off SSM access for a production variant behind an existing endpoint by creating a new endpoint configuration and calling `UpdateEndpoint`.

Type: Boolean

Required: No

### **InferenceAmiVersion**

Specifies an option from a collection of preconfigured Amazon Machine Image (AMI) images. Each image is configured by AWS with a set of software and driver versions. AWS optimizes these configurations for different machine learning workloads.

By selecting an AMI version, you can ensure that your inference environment is compatible with specific software requirements, such as CUDA driver versions, Linux kernel versions, or AWS Neuron driver versions.

Type: String

Valid Values: `a12-ami-sagemaker-inference-gpu-2`

Required: No

### **InitialInstanceCount**

Number of instances to launch initially.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## InitialVariantWeight

Determines initial traffic distribution among all of the models that you specify in the endpoint configuration. The traffic to a production variant is determined by the ratio of the VariantWeight to the sum of all VariantWeight values across all ProductionVariants. If unspecified, it defaults to 1.0.

Type: Float

Valid Range: Minimum value of 0.

Required: No

## InstanceType

The ML compute instance type.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.12xlarge | ml.m5d.24xlarge | ml.c4.large | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.large | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.12xlarge | ml.r5.24xlarge | ml.r5d.large | ml.r5d.xlarge | ml.r5d.2xlarge | ml.r5d.4xlarge | ml.r5d.12xlarge | ml.r5d.24xlarge | ml.inf1.xlarge | ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge | ml.d11.24xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge

| ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge |  
ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge  
| ml.g6.xlarge | ml.g6.2xlarge | ml.g6.4xlarge | ml.g6.8xlarge |  
ml.g6.12xlarge | ml.g6.16xlarge | ml.g6.24xlarge | ml.g6.48xlarge  
| ml.p4d.24xlarge | ml.c7g.large | ml.c7g.xlarge | ml.c7g.2xlarge |  
ml.c7g.4xlarge | ml.c7g.8xlarge | ml.c7g.12xlarge | ml.c7g.16xlarge  
| ml.m6g.large | ml.m6g.xlarge | ml.m6g.2xlarge | ml.m6g.4xlarge |  
ml.m6g.8xlarge | ml.m6g.12xlarge | ml.m6g.16xlarge | ml.m6gd.large |  
ml.m6gd.xlarge | ml.m6gd.2xlarge | ml.m6gd.4xlarge | ml.m6gd.8xlarge  
| ml.m6gd.12xlarge | ml.m6gd.16xlarge | ml.c6g.large | ml.c6g.xlarge  
| ml.c6g.2xlarge | ml.c6g.4xlarge | ml.c6g.8xlarge | ml.c6g.12xlarge  
| ml.c6g.16xlarge | ml.c6gd.large | ml.c6gd.xlarge | ml.c6gd.2xlarge |  
ml.c6gd.4xlarge | ml.c6gd.8xlarge | ml.c6gd.12xlarge | ml.c6gd.16xlarge  
| ml.c6gn.large | ml.c6gn.xlarge | ml.c6gn.2xlarge | ml.c6gn.4xlarge  
| ml.c6gn.8xlarge | ml.c6gn.12xlarge | ml.c6gn.16xlarge | ml.r6g.large  
| ml.r6g.xlarge | ml.r6g.2xlarge | ml.r6g.4xlarge | ml.r6g.8xlarge |  
ml.r6g.12xlarge | ml.r6g.16xlarge | ml.r6gd.large | ml.r6gd.xlarge |  
ml.r6gd.2xlarge | ml.r6gd.4xlarge | ml.r6gd.8xlarge | ml.r6gd.12xlarge  
| ml.r6gd.16xlarge | ml.p4de.24xlarge | ml.trn1.2xlarge |  
ml.trn1.32xlarge | ml.trn1n.32xlarge | ml.inf2.xlarge | ml.inf2.8xlarge  
| ml.inf2.24xlarge | ml.inf2.48xlarge | ml.p5.48xlarge | ml.m7i.large  
| ml.m7i.xlarge | ml.m7i.2xlarge | ml.m7i.4xlarge | ml.m7i.8xlarge |  
ml.m7i.12xlarge | ml.m7i.16xlarge | ml.m7i.24xlarge | ml.m7i.48xlarge  
| ml.c7i.large | ml.c7i.xlarge | ml.c7i.2xlarge | ml.c7i.4xlarge |  
ml.c7i.8xlarge | ml.c7i.12xlarge | ml.c7i.16xlarge | ml.c7i.24xlarge  
| ml.c7i.48xlarge | ml.r7i.large | ml.r7i.xlarge | ml.r7i.2xlarge |  
ml.r7i.4xlarge | ml.r7i.8xlarge | ml.r7i.12xlarge | ml.r7i.16xlarge |  
ml.r7i.24xlarge | ml.r7i.48xlarge

Required: No

## ManagedInstanceScaling

Settings that control the range in the number of instances that the endpoint provisions as it scales up or down to accommodate traffic.

Type: [ProductionVariantManagedInstanceScaling](#) object

Required: No



## ModelDataDownloadTimeoutInSeconds

The timeout value, in seconds, to download and extract the model that you want to host from Amazon S3 to the individual inference instance associated with this production variant.

Type: Integer

Valid Range: Minimum value of 60. Maximum value of 3600.

Required: No

## ModelName

The name of the model that you want to host. This is the name that you specified when creating the model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9]*[a-zA-Z0-9] )?`

Required: No

## RoutingConfig

Settings that control how the endpoint routes incoming traffic to the instances that the endpoint hosts.

Type: [ProductionVariantRoutingConfig](#) object

Required: No

## ServerlessConfig

The serverless configuration for an endpoint. Specifies a serverless endpoint configuration instead of an instance-based endpoint configuration.

Type: [ProductionVariantServerlessConfig](#) object

Required: No

## VolumeSizeInGB

The size, in GB, of the ML storage volume attached to individual inference instance associated with the production variant. Currently only Amazon EBS gp2 storage volumes are supported.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 512.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProductionVariantCoreDumpConfig

Service: Amazon SageMaker Service

Specifies configuration for a core dump from the model container when the process crashes.

## Contents

### DestinationS3Uri

The Amazon S3 bucket to send the core dump to.

Type: String

Length Constraints: Maximum length of 512.

Pattern: `^(https|s3):\/\/([^\.]\/)?(.*)$`

Required: Yes

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that SageMaker uses to encrypt the core dump data at rest using Amazon S3 server-side encryption. The KmsKeyId can be any of the following formats:

- // KMS Key ID

```
"1234abcd-12ab-34cd-56ef-1234567890ab"
```

- // Amazon Resource Name (ARN) of a KMS Key

```
"arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"
```

- // KMS Key Alias

```
"alias/ExampleAlias"
```

- // Amazon Resource Name (ARN) of a KMS Key Alias

```
"arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias"
```

If you use a KMS key ID or an alias of your KMS key, the SageMaker execution role must include permissions to call `kms:Encrypt`. If you don't provide a KMS key ID, SageMaker uses the default KMS key for Amazon S3 for your role's account. SageMaker uses server-

side encryption with KMS-managed keys for `OutputDataConfig`. If you use a bucket policy with an `s3:PutObject` permission that only allows objects with server-side encryption, set the condition key of `s3:x-amz-server-side-encryption` to `"aws:kms"`. For more information, see [KMS-Managed Encryption Keys](#) in the *Amazon Simple Storage Service Developer Guide*.

The KMS key policy must grant permission to the IAM role that you specify in your `CreateEndpoint` and `UpdateEndpoint` requests. For more information, see [Using Key Policies in AWS KMS](#) in the *AWS Key Management Service Developer Guide*.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProductionVariantManagedInstanceScaling

Service: Amazon SageMaker Service

Settings that control the range in the number of instances that the endpoint provisions as it scales up or down to accommodate traffic.

## Contents

### MaxInstanceCount

The maximum number of instances that the endpoint can provision when it scales up to accommodate an increase in traffic.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### MinInstanceCount

The minimum number of instances that the endpoint must retain when it scales down to accommodate a decrease in traffic.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### Status

Indicates whether managed instance scaling is enabled.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProductionVariantRoutingConfig

Service: Amazon SageMaker Service

Settings that control how the endpoint routes incoming traffic to the instances that the endpoint hosts.

## Contents

### RoutingStrategy

Sets how the endpoint routes incoming traffic:

- **LEAST\_OUTSTANDING\_REQUESTS**: The endpoint routes requests to the specific instances that have more capacity to process them.
- **RANDOM**: The endpoint routes each request to a randomly chosen instance.

Type: String

Valid Values: LEAST\_OUTSTANDING\_REQUESTS | RANDOM

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProductionVariantServerlessConfig

Service: Amazon SageMaker Service

Specifies the serverless configuration for an endpoint variant.

## Contents

### MaxConcurrency

The maximum number of concurrent invocations your serverless endpoint can process.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 200.

Required: Yes

### MemorySizeInMB

The memory size of your serverless endpoint. Valid values are in 1 GB increments: 1024 MB, 2048 MB, 3072 MB, 4096 MB, 5120 MB, or 6144 MB.

Type: Integer

Valid Range: Minimum value of 1024. Maximum value of 6144.

Required: Yes

### ProvisionedConcurrency

The amount of provisioned concurrency to allocate for the serverless endpoint. Should be less than or equal to MaxConcurrency.

#### Note

This field is not supported for serverless endpoint recommendations for Inference Recommender jobs. For more information about creating an Inference Recommender job, see [CreateInferenceRecommendationsJobs](#).

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 200.



Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProductionVariantServerlessUpdateConfig

Service: Amazon SageMaker Service

Specifies the serverless update concurrency configuration for an endpoint variant.

## Contents

### MaxConcurrency

The updated maximum number of concurrent invocations your serverless endpoint can process.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 200.

Required: No

### ProvisionedConcurrency

The updated amount of provisioned concurrency to allocate for the serverless endpoint. Should be less than or equal to MaxConcurrency.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 200.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProductionVariantStatus

Service: Amazon SageMaker Service

Describes the status of the production variant.

## Contents

### Status

The endpoint variant status which describes the current deployment stage status or operational status.

- **Creating**: Creating inference resources for the production variant.
- **Deleting**: Terminating inference resources for the production variant.
- **Updating**: Updating capacity for the production variant.
- **ActivatingTraffic**: Turning on traffic for the production variant.
- **Baking**: Waiting period to monitor the CloudWatch alarms in the automatic rollback configuration.

Type: String

Valid Values: `Creating` | `Updating` | `Deleting` | `ActivatingTraffic` | `Baking`

Required: Yes

### StartTime

The start time of the current status change.

Type: Timestamp

Required: No

### StatusMessage

A message that describes the status of the production variant.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProductionVariantSummary

Service: Amazon SageMaker Service

Describes weight and capacities for a production variant associated with an endpoint. If you sent a request to the `UpdateEndpointWeightsAndCapacities` API and the endpoint status is `Updating`, you get different desired and current values.

## Contents

### VariantName

The name of the variant.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### CurrentInstanceCount

The number of instances associated with the variant.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### CurrentServerlessConfig

The serverless configuration for the endpoint.

Type: [ProductionVariantServerlessConfig](#) object

Required: No

### CurrentWeight

The weight associated with the variant.

Type: Float

Valid Range: Minimum value of 0.

Required: No

### **DeployedImages**

An array of `DeployedImage` objects that specify the Amazon EC2 Container Registry paths of the inference images deployed on instances of this `ProductionVariant`.

Type: Array of [DeployedImage](#) objects

Required: No

### **DesiredInstanceCount**

The number of instances requested in the `UpdateEndpointWeightsAndCapacities` request.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **DesiredServerlessConfig**

The serverless configuration requested for the endpoint update.

Type: [ProductionVariantServerlessConfig](#) object

Required: No

### **DesiredWeight**

The requested weight, as specified in the `UpdateEndpointWeightsAndCapacities` request.

Type: Float

Valid Range: Minimum value of 0.

Required: No

### **ManagedInstanceScaling**

Settings that control the range in the number of instances that the endpoint provisions as it scales up or down to accommodate traffic.

Type: [ProductionVariantManagedInstanceScaling](#) object

Required: No

## RoutingConfig

Settings that control how the endpoint routes incoming traffic to the instances that the endpoint hosts.

Type: [ProductionVariantRoutingConfig](#) object

Required: No

## VariantStatus

The endpoint variant status which describes the current deployment stage status or operational status.

Type: Array of [ProductionVariantStatus](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProfilerConfig

Service: Amazon SageMaker Service

Configuration information for Amazon SageMaker Debugger system monitoring, framework profiling, and storage paths.

## Contents

### DisableProfiler

Configuration to turn off Amazon SageMaker Debugger's system monitoring and profiling functionality. To turn it off, set to `True`.

Type: Boolean

Required: No

### ProfilingIntervalInMilliseconds

A time interval for capturing system metrics in milliseconds. Available values are 100, 200, 500, 1000 (1 second), 5000 (5 seconds), and 60000 (1 minute) milliseconds. The default value is 500 milliseconds.

Type: Long

Required: No

### ProfilingParameters

Configuration information for capturing framework metrics. Available key strings for different profiling options are `DetailedProfilingConfig`, `PythonProfilingConfig`, and `DataLoaderProfilingConfig`. The following codes are configuration structures for the `ProfilingParameters` parameter. To learn more about how to configure the `ProfilingParameters` parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 20 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: `. *`



Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

### **S3OutputPath**

Path to Amazon S3 storage location for system and framework metrics.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3):\/\/([^\/]\*)\/?(.\*)\$

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProfilerConfigForUpdate

Service: Amazon SageMaker Service

Configuration information for updating the Amazon SageMaker Debugger profile parameters, system and framework metrics configurations, and storage paths.

## Contents

### DisableProfiler

To turn off Amazon SageMaker Debugger monitoring and profiling while a training job is in progress, set to `True`.

Type: Boolean

Required: No

### ProfilingIntervalInMilliseconds

A time interval for capturing system metrics in milliseconds. Available values are 100, 200, 500, 1000 (1 second), 5000 (5 seconds), and 60000 (1 minute) milliseconds. The default value is 500 milliseconds.

Type: Long

Required: No

### ProfilingParameters

Configuration information for capturing framework metrics. Available key strings for different profiling options are `DetailedProfilingConfig`, `PythonProfilingConfig`, and `DataLoaderProfilingConfig`. The following codes are configuration structures for the `ProfilingParameters` parameter. To learn more about how to configure the `ProfilingParameters` parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 20 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: `. *`

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

### **S3OutputPath**

Path to Amazon S3 storage location for system and framework metrics.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3):\/\/([^\/]\*)\/?(.\*)\$

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProfilerRuleConfiguration

Service: Amazon SageMaker Service

Configuration information for profiling rules.

## Contents

### RuleConfigurationName

The name of the rule configuration. It must be unique relative to other rule configuration names.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\*

Required: Yes

### RuleEvaluatorImage

The Amazon Elastic Container Registry Image for the managed rule evaluation.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

### InstanceType

The instance type to deploy a custom rule for profiling a training job.

Type: String

Valid Values: ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge

| ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge  
| ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge |  
ml.m5.12xlarge | ml.m5.24xlarge | ml.r5.large | ml.r5.xlarge |  
ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge |  
ml.r5.16xlarge | ml.r5.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge |  
ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge

Required: No

### LocalPath

Path to local storage location for output of rules. Defaults to /opt/ml/processing/output/rule/.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .\*

Required: No

### RuleParameters

Runtime configuration for rule container.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

### S3OutputPath

Path to Amazon S3 storage location for rules.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: No

### **VolumeSizeInGB**

The size, in GB, of the ML storage volume attached to the processing instance.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProfilerRuleEvaluationStatus

Service: Amazon SageMaker Service

Information about the status of the rule evaluation.

## Contents

### LastModifiedTime

Timestamp when the rule evaluation status was last modified.

Type: Timestamp

Required: No

### RuleConfigurationName

The name of the rule configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\*

Required: No

### RuleEvaluationJobArn

The Amazon Resource Name (ARN) of the rule evaluation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:processing-job/.\*

Required: No

### RuleEvaluationStatus

Status of the rule evaluation.

Type: String

Valid Values: InProgress | NoIssuesFound | IssuesFound | Error | Stopping | Stopped

Required: No

### StatusDetails

Details from the rule evaluation.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# Project

Service: Amazon SageMaker Service

The properties of a project as returned by the Search API.

## Contents

### CreatedBy

Who created the project.

Type: [UserContext](#) object

Required: No

### CreationTime

A timestamp specifying when the project was created.

Type: Timestamp

Required: No

### LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

### LastModifiedTime

A timestamp container for when the project was last modified.

Type: Timestamp

Required: No

### ProjectArn

The Amazon Resource Name (ARN) of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9-]{9,16}:[0-9]{12}:project/[\S]{1,2048}$`

Required: No

### **ProjectDescription**

The description of the project.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

### **ProjectId**

The ID of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: No

### **ProjectName**

The name of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: No

### **ProjectStatus**

The status of the project.

Type: String

Valid Values: Pending | CreateInProgress | CreateCompleted | CreateFailed | DeleteInProgress | DeleteFailed | DeleteCompleted | UpdateInProgress | UpdateCompleted | UpdateFailed

Required: No

### **ServiceCatalogProvisionedProductDetails**

Details of a provisioned service catalog product. For information about service catalog, see [What is AWS Service Catalog](#).

Type: [ServiceCatalogProvisionedProductDetails](#) object

Required: No

### **ServiceCatalogProvisioningDetails**

Details that you specify to provision a service catalog product. For information about service catalog, see [What is AWS Service Catalog](#).

Type: [ServiceCatalogProvisioningDetails](#) object

Required: No

### **Tags**

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProjectSummary

Service: Amazon SageMaker Service

Information about a project.

## Contents

### CreationTime

The time that the project was created.

Type: Timestamp

Required: Yes

### ProjectArn

The Amazon Resource Name (ARN) of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)?:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:project/[\S]{1,2048}$`

Required: Yes

### ProjectId

The ID of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

### ProjectName

The name of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,31}`

Required: Yes

## ProjectStatus

The status of the project.

Type: String

Valid Values: Pending | CreateInProgress | CreateCompleted | CreateFailed | DeleteInProgress | DeleteFailed | DeleteCompleted | UpdateInProgress | UpdateCompleted | UpdateFailed

Required: Yes

## ProjectDescription

The description of the project.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PropertyNameQuery

Service: Amazon SageMaker Service

Part of the `SuggestionQuery` type. Specifies a hint for retrieving property names that begin with the specified text.

## Contents

### PropertyNameHint

Text that begins a property's name.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100.

Pattern: `.*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PropertyNameSuggestion

Service: Amazon SageMaker Service

A property name returned from a `GetSearchSuggestions` call that specifies a value in the `PropertyNameQuery` field.

## Contents

### PropertyName

A suggested property name based on what you entered in the search textbox in the SageMaker console.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ProvisioningParameter

Service: Amazon SageMaker Service

A key value pair used when you provision a project as a service catalog product. For information, see [What is AWS Service Catalog](#).

## Contents

### Key

The key that identifies a provisioning parameter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: .\*

Required: No

### Value

The value of the provisioning parameter.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## PublicWorkforceTaskPrice

Service: Amazon SageMaker Service

Defines the amount of money paid to an Amazon Mechanical Turk worker for each task performed.

Use one of the following prices for bounding box tasks. Prices are in US dollars and should be based on the complexity of the task; the longer it takes in your initial testing, the more you should offer.

- 0.036
- 0.048
- 0.060
- 0.072
- 0.120
- 0.240
- 0.360
- 0.480
- 0.600
- 0.720
- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for image classification, text classification, and custom tasks. Prices are in US dollars.

- 0.012
- 0.024
- 0.036
- 0.048
- 0.060
- 0.072

- 0.120
- 0.240
- 0.360
- 0.480
- 0.600
- 0.720
- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for semantic segmentation tasks. Prices are in US dollars.

- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for Textract AnalyzeDocument Important Form Key Amazon Augmented AI review tasks. Prices are in US dollars.

- 2.400
- 2.280
- 2.160
- 2.040
- 1.920
- 1.800
- 1.680
- 1.560
- 1.440
- 1.320
- 1.200

- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360
- 0.240
- 0.120
- 0.072
- 0.060
- 0.048
- 0.036
- 0.024
- 0.012

Use one of the following prices for Rekognition DetectModerationLabels Amazon Augmented AI review tasks. Prices are in US dollars.

- 1.200
- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360
- 0.240
- 0.120
- 0.072
- 0.060

- 0.048
- 0.036
- 0.024
- 0.012

Use one of the following prices for Amazon Augmented AI custom human review tasks. Prices are in US dollars.

- 1.200
- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360
- 0.240
- 0.120
- 0.072
- 0.060
- 0.048
- 0.036
- 0.024
- 0.012

## Contents

### AmountInUsd

Defines the amount of money paid to an Amazon Mechanical Turk worker in United States dollars.

Type: [USD](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# QualityCheckStepMetadata

Service: Amazon SageMaker Service

Container for the metadata for a Quality check step. For more information, see the topic on [QualityCheck step](#) in the *Amazon SageMaker Developer Guide*.

## Contents

### BaselineUsedForDriftCheckConstraints

The Amazon S3 URI of the baseline constraints file used for the drift check.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### BaselineUsedForDriftCheckStatistics

The Amazon S3 URI of the baseline statistics file used for the drift check.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### CalculatedBaselineConstraints

The Amazon S3 URI of the newly calculated baseline constraints file.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### CalculatedBaselineStatistics

The Amazon S3 URI of the newly calculated baseline statistics file.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **CheckJobArn**

The Amazon Resource Name (ARN) of the Quality check processing job that was run by this step execution.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### **CheckType**

The type of the Quality check step.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### **ModelPackageGroupName**

The model package group name.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### **RegisterNewBaseline**

This flag indicates if a newly calculated baseline can be accessed through step properties `BaselineUsedForDriftCheckConstraints` and `BaselineUsedForDriftCheckStatistics`. If it is set to `False`, the previous baseline of the configured check type must also be available. These can be accessed through the `BaselineUsedForDriftCheckConstraints` and `BaselineUsedForDriftCheckStatistics` properties.

Type: Boolean

Required: No



## SkipCheck

This flag indicates if the drift check against the previous baseline will be skipped or not. If it is set to `False`, the previous baseline of the configured check type must be available.

Type: Boolean

Required: No

## ViolationReport

The Amazon S3 URI of violation report if violations are detected.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# QueryFilters

Service: Amazon SageMaker Service

A set of filters to narrow the set of lineage entities connected to the `StartArn(s)` returned by the `QueryLineage` API action.

## Contents

### CreatedAfter

Filter the lineage entities connected to the `StartArn(s)` after the create date.

Type: Timestamp

Required: No

### CreatedBefore

Filter the lineage entities connected to the `StartArn(s)` by created date.

Type: Timestamp

Required: No

### LineageTypes

Filter the lineage entities connected to the `StartArn(s)` by the type of the lineage entity.

Type: Array of strings

Array Members: Maximum number of 4 items.

Valid Values: `TrialComponent` | `Artifact` | `Context` | `Action`

Required: No

### ModifiedAfter

Filter the lineage entities connected to the `StartArn(s)` after the last modified date.

Type: Timestamp

Required: No

## ModifiedBefore

Filter the lineage entities connected to the `StartArn(s)` before the last modified date.

Type: Timestamp

Required: No

## Properties

Filter the lineage entities connected to the `StartArn(s)` by a set of property key value pairs. If multiple pairs are provided, an entity is included in the results if it matches any of the provided pairs.

Type: String to string map

Map Entries: Maximum number of 5 items.

Key Length Constraints: Maximum length of 256.

Value Length Constraints: Maximum length of 256.

Required: No

## Types

Filter the lineage entities connected to the `StartArn` by type. For example: `DataSet`, `Model`, `Endpoint`, or `ModelDeployment`.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Maximum length of 40.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RealTimeInferenceConfig

Service: Amazon SageMaker Service

The infrastructure configuration for deploying the model to a real-time inference endpoint.

## Contents

### InstanceCount

The number of instances of the type specified by InstanceType.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

### InstanceType

The instance type the model is deployed to.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.8xlarge | ml.m5d.12xlarge | ml.m5d.16xlarge | ml.m5d.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.inf1.xlarge | ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge

| ml.p4d.24xlarge | ml.p4de.24xlarge | ml.p5.48xlarge | ml.m6i.large  
| ml.m6i.xlarge | ml.m6i.2xlarge | ml.m6i.4xlarge | ml.m6i.8xlarge |  
ml.m6i.12xlarge | ml.m6i.16xlarge | ml.m6i.24xlarge | ml.m6i.32xlarge  
| ml.m7i.large | ml.m7i.xlarge | ml.m7i.2xlarge | ml.m7i.4xlarge |  
ml.m7i.8xlarge | ml.m7i.12xlarge | ml.m7i.16xlarge | ml.m7i.24xlarge  
| ml.m7i.48xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge |  
ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge  
| ml.c6i.24xlarge | ml.c6i.32xlarge | ml.c7i.large | ml.c7i.xlarge  
| ml.c7i.2xlarge | ml.c7i.4xlarge | ml.c7i.8xlarge | ml.c7i.12xlarge  
| ml.c7i.16xlarge | ml.c7i.24xlarge | ml.c7i.48xlarge | ml.r6i.large  
| ml.r6i.xlarge | ml.r6i.2xlarge | ml.r6i.4xlarge | ml.r6i.8xlarge |  
ml.r6i.12xlarge | ml.r6i.16xlarge | ml.r6i.24xlarge | ml.r6i.32xlarge  
| ml.r7i.large | ml.r7i.xlarge | ml.r7i.2xlarge | ml.r7i.4xlarge |  
ml.r7i.8xlarge | ml.r7i.12xlarge | ml.r7i.16xlarge | ml.r7i.24xlarge  
| ml.r7i.48xlarge | ml.m6id.large | ml.m6id.xlarge | ml.m6id.2xlarge |  
ml.m6id.4xlarge | ml.m6id.8xlarge | ml.m6id.12xlarge | ml.m6id.16xlarge  
| ml.m6id.24xlarge | ml.m6id.32xlarge | ml.c6id.large | ml.c6id.xlarge  
| ml.c6id.2xlarge | ml.c6id.4xlarge | ml.c6id.8xlarge | ml.c6id.12xlarge  
| ml.c6id.16xlarge | ml.c6id.24xlarge | ml.c6id.32xlarge |  
ml.r6id.large | ml.r6id.xlarge | ml.r6id.2xlarge | ml.r6id.4xlarge |  
ml.r6id.8xlarge | ml.r6id.12xlarge | ml.r6id.16xlarge | ml.r6id.24xlarge  
| ml.r6id.32xlarge | ml.g6.xlarge | ml.g6.2xlarge | ml.g6.4xlarge |  
ml.g6.8xlarge | ml.g6.12xlarge | ml.g6.16xlarge | ml.g6.24xlarge |  
ml.g6.48xlarge

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RealTimeInferenceRecommendation

Service: Amazon SageMaker Service

The recommended configuration to use for Real-Time Inference.

## Contents

### InstanceType

The recommended instance type for Real-Time Inference.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.12xlarge | ml.m5d.24xlarge | ml.c4.large | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.large | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.12xlarge | ml.r5.24xlarge | ml.r5d.large | ml.r5d.xlarge | ml.r5d.2xlarge | ml.r5d.4xlarge | ml.r5d.12xlarge | ml.r5d.24xlarge | ml.inf1.xlarge | ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge | ml.dl1.24xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.g6.xlarge | ml.g6.2xlarge | ml.g6.4xlarge | ml.g6.8xlarge | ml.g6.12xlarge | ml.g6.16xlarge | ml.g6.24xlarge | ml.g6.48xlarge | ml.p4d.24xlarge | ml.c7g.large | ml.c7g.xlarge | ml.c7g.2xlarge | ml.c7g.4xlarge | ml.c7g.8xlarge | ml.c7g.12xlarge | ml.c7g.16xlarge

| ml.m6g.large | ml.m6g.xlarge | ml.m6g.2xlarge | ml.m6g.4xlarge | ml.m6g.8xlarge | ml.m6g.12xlarge | ml.m6g.16xlarge | ml.m6gd.large | ml.m6gd.xlarge | ml.m6gd.2xlarge | ml.m6gd.4xlarge | ml.m6gd.8xlarge | ml.m6gd.12xlarge | ml.m6gd.16xlarge | ml.c6g.large | ml.c6g.xlarge | ml.c6g.2xlarge | ml.c6g.4xlarge | ml.c6g.8xlarge | ml.c6g.12xlarge | ml.c6g.16xlarge | ml.c6gd.large | ml.c6gd.xlarge | ml.c6gd.2xlarge | ml.c6gd.4xlarge | ml.c6gd.8xlarge | ml.c6gd.12xlarge | ml.c6gd.16xlarge | ml.c6gn.large | ml.c6gn.xlarge | ml.c6gn.2xlarge | ml.c6gn.4xlarge | ml.c6gn.8xlarge | ml.c6gn.12xlarge | ml.c6gn.16xlarge | ml.r6g.large | ml.r6g.xlarge | ml.r6g.2xlarge | ml.r6g.4xlarge | ml.r6g.8xlarge | ml.r6g.12xlarge | ml.r6g.16xlarge | ml.r6gd.large | ml.r6gd.xlarge | ml.r6gd.2xlarge | ml.r6gd.4xlarge | ml.r6gd.8xlarge | ml.r6gd.12xlarge | ml.r6gd.16xlarge | ml.p4de.24xlarge | ml.trn1.2xlarge | ml.trn1.32xlarge | ml.trn1n.32xlarge | ml.inf2.xlarge | ml.inf2.8xlarge | ml.inf2.24xlarge | ml.inf2.48xlarge | ml.p5.48xlarge | ml.m7i.large | ml.m7i.xlarge | ml.m7i.2xlarge | ml.m7i.4xlarge | ml.m7i.8xlarge | ml.m7i.12xlarge | ml.m7i.16xlarge | ml.m7i.24xlarge | ml.m7i.48xlarge | ml.c7i.large | ml.c7i.xlarge | ml.c7i.2xlarge | ml.c7i.4xlarge | ml.c7i.8xlarge | ml.c7i.12xlarge | ml.c7i.16xlarge | ml.c7i.24xlarge | ml.c7i.48xlarge | ml.r7i.large | ml.r7i.xlarge | ml.r7i.2xlarge | ml.r7i.4xlarge | ml.r7i.8xlarge | ml.r7i.12xlarge | ml.r7i.16xlarge | ml.r7i.24xlarge | ml.r7i.48xlarge

Required: Yes

### RecommendationId

The recommendation ID which uniquely identifies each recommendation.

Type: String

Required: Yes

### Environment

The recommended environment variables to set in the model container for Real-Time Inference.

Type: String to string map

Map Entries: Maximum number of 100 items.



Key Length Constraints: Maximum length of 1024.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 1024.

Value Pattern: `[\S\s]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobCompiledOutputConfig

Service: Amazon SageMaker Service

Provides information about the output configuration for the compiled model.

## Contents

### S3OutputUri

Identifies the Amazon S3 bucket where you want SageMaker to store the compiled model artifacts.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\s/]+)?/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobContainerConfig

Service: Amazon SageMaker Service

Specifies mandatory fields for running an Inference Recommender job directly in the [CreateInferenceRecommendationsJob](#) API. The fields specified in `ContainerConfig` override the corresponding fields in the model package. Use `ContainerConfig` if you want to specify these fields for the recommendation job but don't want to edit them in your model package.

## Contents

### DataInputConfig

Specifies the name and shape of the expected data inputs for your trained model with a JSON dictionary form. This field is used for optimizing your model using SageMaker Neo. For more information, see [DataInputConfig](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[\S\s]+`

Required: No

### Domain

The machine learning domain of the model and its components.

Valid Values: `COMPUTER_VISION` | `NATURAL_LANGUAGE_PROCESSING` | `MACHINE_LEARNING`

Type: String

Required: No

### Framework

The machine learning framework of the container image.

Valid Values: `TENSORFLOW` | `PYTORCH` | `XGBOOST` | `SAGEMAKER-SCIKIT-LEARN`

Type: String

Required: No

## FrameworkVersion

The framework version of the container image.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 10.

Pattern: `[0-9]\.[A-Za-z0-9.-]+`

Required: No

## NearestModelName

The name of a pre-trained machine learning model benchmarked by Amazon SageMaker Inference Recommender that matches your model.

Valid Values: `efficientnetb7 | unet | xgboost | faster-rcnn-resnet101 | nasnetlarge | vgg16 | inception-v3 | mask-rcnn | sagemaker-scikit-learn | densenet201-gluon | resnet18v2-gluon | xception | densenet201 | yolov4 | resnet152 | bert-base-cased | xceptionV1-keras | resnet50 | retinanet`

Type: String

Required: No

## PayloadConfig

Specifies the `SamplePayloadUrl` and all other sample payload-related fields.

Type: [RecommendationJobPayloadConfig](#) object

Required: No

## SupportedEndpointType

The endpoint type to receive recommendations for. By default this is null, and the results of the inference recommendation job return a combined list of both real-time and serverless benchmarks. By specifying a value for this field, you can receive a longer list of benchmarks for the desired endpoint type.

Type: String

Valid Values: `RealTime | Serverless`

Required: No

### **SupportedInstanceTypes**

A list of the instance types that are used to generate inferences in real-time.

Type: Array of strings

Required: No

### **SupportedResponseMIMETypes**

The supported MIME types for the output data.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Pattern: `^[-\w]+\./\.\+$`

Required: No

### **Task**

The machine learning task that the model accomplishes.

Valid Values: `IMAGE_CLASSIFICATION | OBJECT_DETECTION | TEXT_GENERATION | IMAGE_SEGMENTATION | FILL_MASK | CLASSIFICATION | REGRESSION | OTHER`

Type: String

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobInferenceBenchmark

Service: Amazon SageMaker Service

The details for a specific benchmark from an Inference Recommender job.

## Contents

### ModelConfiguration

Defines the model configuration. Includes the specification name and environment parameters.

Type: [ModelConfiguration](#) object

Required: Yes

### EndpointConfiguration

The endpoint configuration made by Inference Recommender during a recommendation job.

Type: [EndpointOutputConfiguration](#) object

Required: No

### EndpointMetrics

The metrics for an existing endpoint compared in an Inference Recommender job.

Type: [InferenceMetrics](#) object

Required: No

### FailureReason

The reason why a benchmark failed.

Type: String

Required: No

### InvocationEndTime

A timestamp that shows when the benchmark completed.

Type: Timestamp

Required: No

## InvocationStartTime

A timestamp that shows when the benchmark started.

Type: Timestamp

Required: No

## Metrics

The metrics of recommendations.

Type: [RecommendationMetrics](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobInputConfig

Service: Amazon SageMaker Service

The input configuration of the recommendation job.

## Contents

### ContainerConfig

Specifies mandatory fields for running an Inference Recommender job. The fields specified in `ContainerConfig` override the corresponding fields in the model package.

Type: [RecommendationJobContainerConfig](#) object

Required: No

### EndpointConfigurations

Specifies the endpoint configuration to use for a job.

Type: Array of [EndpointInputConfiguration](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

### Endpoints

Existing customer endpoints on which to run an Inference Recommender job.

Type: Array of [EndpointInfo](#) objects

Array Members: Maximum number of 1 item.

Required: No

### JobDurationInSeconds

Specifies the maximum duration of the job, in seconds. The maximum value is 18,000 seconds.

Type: Integer

Valid Range: Minimum value of 1.

Required: No



## ModelName

The name of the created model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\ -a-zA-Z0-9 ] * [a-zA-Z0-9] ) ?`

Required: No

## ModelPackageVersionArn

The Amazon Resource Name (ARN) of a versioned model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `^arn:aws(-cn|-us-gov)? :sagemaker:[a-z0-9\ -]{9,16} : [0-9]{12} : model-package/[ \ S ] {1,2048} $`

Required: No

## ResourceLimit

Defines the resource limit of the job.

Type: [RecommendationJobResourceLimit](#) object

Required: No

## TrafficPattern

Specifies the traffic pattern of the job.

Type: [TrafficPattern](#) object

Required: No

## VolumeKmsKeyId

The Amazon Resource Name (ARN) of a AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute

instance that hosts the endpoint. This key will be passed to SageMaker Hosting for endpoint creation.

The SageMaker execution role must have `kms:CreateGrant` permission in order to encrypt data on the storage volume of the endpoints created for inference recommendation. The inference recommendation job will fail asynchronously during endpoint configuration creation if the role passed does not have `kms:CreateGrant` permission.

The `KmsKeyId` can be any of the following formats:

- // KMS Key ID

```
"1234abcd-12ab-34cd-56ef-1234567890ab"
```

- // Amazon Resource Name (ARN) of a KMS Key

```
"arn:aws:kms:<region>:<account>:key/<key-id-12ab-34cd-56ef-1234567890ab>"
```

- // KMS Key Alias

```
"alias/ExampleAlias"
```

- // Amazon Resource Name (ARN) of a KMS Key Alias

```
"arn:aws:kms:<region>:<account>:alias/<ExampleAlias>"
```

For more information about key identifiers, see [Key identifiers \(KeyID\)](#) in the AWS Key Management Service (AWS KMS) documentation.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## VpcConfig

Inference Recommender provisions SageMaker endpoints with access to VPC in the inference recommendation job.

Type: [RecommendationJobVpcConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobOutputConfig

Service: Amazon SageMaker Service

Provides information about the output configuration for the compiled model.

## Contents

### CompiledOutputConfig

Provides information about the output configuration for the compiled model.

Type: [RecommendationJobCompiledOutputConfig](#) object

Required: No

### KmsKeyId

The Amazon Resource Name (ARN) of a AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt your output artifacts with Amazon S3 server-side encryption. The SageMaker execution role must have `kms:GenerateDataKey` permission.

The KmsKeyId can be any of the following formats:

- // KMS Key ID

```
"1234abcd-12ab-34cd-56ef-1234567890ab"
```

- // Amazon Resource Name (ARN) of a KMS Key

```
"arn:aws:kms:<region>:<account>:key/<key-id-12ab-34cd-56ef-1234567890ab>"
```

- // KMS Key Alias

```
"alias/ExampleAlias"
```

- // Amazon Resource Name (ARN) of a KMS Key Alias

```
"arn:aws:kms:<region>:<account>:alias/<ExampleAlias>"
```

For more information about key identifiers, see [Key identifiers \(KeyID\)](#) in the AWS Key Management Service (AWS KMS) documentation.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_-]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobPayloadConfig

Service: Amazon SageMaker Service

The configuration for the payload for a recommendation job.

## Contents

### SamplePayloadUrl

The Amazon Simple Storage Service (Amazon S3) path where the sample payload is stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\s/]+)?/?(.*)$`

Required: No

### SupportedContentTypes

The supported MIME types for the input data.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: `.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobResourceLimit

Service: Amazon SageMaker Service

Specifies the maximum number of jobs that can run in parallel and the maximum number of jobs that can run.

## Contents

### MaxNumberOfTests

Defines the maximum number of load tests.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### MaxParallelOfTests

Defines the maximum number of parallel load tests.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobStoppingConditions

Service: Amazon SageMaker Service

Specifies conditions for stopping a job. When a job reaches a stopping condition limit, SageMaker ends the job.

## Contents

### FlatInvocations

Stops a load test when the number of invocations (TPS) peaks and flattens, which means that the instance has reached capacity. The default value is `Stop`. If you want the load test to continue after invocations have flattened, set the value to `Continue`.

Type: String

Valid Values: `Continue` | `Stop`

Required: No

### MaxInvocations

The maximum number of requests per minute expected for the endpoint.

Type: Integer

Required: No

### ModelLatencyThresholds

The interval of time taken by a model to respond as viewed from SageMaker. The interval includes the local communication time taken to send the request and to fetch the response from the container of a model and the time taken to complete the inference in the container.

Type: Array of [ModelLatencyThreshold](#) objects

Array Members: Fixed number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobVpcConfig

Service: Amazon SageMaker Service

Inference Recommender provisions SageMaker endpoints with access to VPC in the inference recommendation job.

## Contents

### SecurityGroupIds

The VPC security group IDs. IDs have the form of `sg-xxxxxxx`. Specify the security groups for the VPC that is specified in the `Subnets` field.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

Required: Yes

### Subnets

The ID of the subnets in the VPC to which you want to connect your model.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationMetrics

Service: Amazon SageMaker Service

The metrics of recommendations.

## Contents

### CostPerHour

Defines the cost per hour for the instance.

Type: Float

Required: No

### CostPerInference

Defines the cost per inference for the instance .

Type: Float

Required: No

### CpuUtilization

The expected CPU utilization at maximum invocations per minute for the instance.

NaN indicates that the value is not available.

Type: Float

Valid Range: Minimum value of 0.0.

Required: No

### MaxInvocations

The expected maximum number of requests per minute for the instance.

Type: Integer

Required: No

### MemoryUtilization

The expected memory utilization at maximum invocations per minute for the instance.

NaN indicates that the value is not available.

Type: Float

Valid Range: Minimum value of 0.0.

Required: No

### **ModelLatency**

The expected model latency at maximum invocation per minute for the instance.

Type: Integer

Required: No

### **ModelSetupTime**

The time it takes to launch new compute resources for a serverless endpoint. The time can vary depending on the model size, how long it takes to download the model, and the start-up time of the container.

NaN indicates that the value is not available.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RedshiftDatasetDefinition

Service: Amazon SageMaker Service

Configuration for Redshift Dataset Definition input.

## Contents

### ClusterId

The Redshift cluster Identifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: .\*

Required: Yes

### ClusterRoleArn

The IAM role attached to your Redshift cluster that Amazon SageMaker uses to generate datasets.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.\@-\\_/\]]+\$

Required: Yes

### Database

The name of the Redshift database used in Redshift query execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\*

Required: Yes

## DbUser

The database user name used in Redshift query execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .\*

Required: Yes

## OutputFormat

The data storage format for Redshift query results.

Type: String

Valid Values: PARQUET | CSV

Required: Yes

## OutputS3Uri

The location in Amazon S3 where the Redshift query results are stored.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3):\/\/([^\/]+)\/?(.\*)\$

Required: Yes

## QueryString

The SQL query statements to be executed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 4096.

Pattern: [\\s\\S]+

Required: Yes

## KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data from a Redshift execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## OutputCompression

The compression used for Redshift query results.

Type: String

Valid Values: None | GZIP | BZIP2 | ZSTD | SNAPPY

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# RegisterModelStepMetadata

Service: Amazon SageMaker Service

Metadata for a register model job step.

## Contents

### Arn

The Amazon Resource Name (ARN) of the model package.

Type: String

Length Constraints: Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RemoteDebugConfig

Service: Amazon SageMaker Service

Configuration for remote debugging for the [CreateTrainingJob](#) API. To learn more about the remote debugging functionality of SageMaker, see [Access a training container through AWS Systems Manager \(SSM\) for remote debugging](#).

## Contents

### EnableRemoteDebug

If set to True, enables remote debugging.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RemoteDebugConfigForUpdate

Service: Amazon SageMaker Service

Configuration for remote debugging for the [UpdateTrainingJob](#) API. To learn more about the remote debugging functionality of SageMaker, see [Access a training container through AWS Systems Manager \(SSM\) for remote debugging](#).

## Contents

### EnableRemoteDebug

If set to True, enables remote debugging.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RenderableTask

Service: Amazon SageMaker Service

Contains input values for a task.

## Contents

### Input

A JSON object that contains values for the variables defined in the template. It is made available to the template under the substitution variable `task.input`. For example, if you define a variable `task.input.text` in your template, you can supply the variable in the JSON object as `"text": "sample text"`.

Type: String

Length Constraints: Minimum length of 2. Maximum length of 128000.

Pattern: `[\S\s]+`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RenderingError

Service: Amazon SageMaker Service

A description of an error that occurred while rendering the template.

## Contents

### Code

A unique identifier for a specific class of errors.

Type: String

Required: Yes

### Message

A human-readable message describing the error.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RepositoryAuthConfig

Service: Amazon SageMaker Service

Specifies an authentication configuration for the private docker registry where your model image is hosted. Specify a value for this property only if you specified `Vpc` as the value for the `RepositoryAccessMode` field of the `ImageConfig` object that you passed to a call to `CreateModel` and the private Docker registry where the model image is hosted requires authentication.

## Contents

### RepositoryCredentialsProviderArn

The Amazon Resource Name (ARN) of an AWS Lambda function that provides credentials to authenticate to the private Docker registry where your model image is hosted. For information about how to create an AWS Lambda function, see [Create a Lambda function with the console](#) in the *AWS Lambda Developer Guide*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ResolvedAttributes

Service: Amazon SageMaker Service

The resolved attributes.

## Contents

### AutoMLJobObjective

Specifies a metric to minimize or maximize as the objective of an AutoML job.

Type: [AutoMLJobObjective](#) object

Required: No

### CompletionCriteria

How long a job is allowed to run, or how many candidates a job is allowed to generate.

Type: [AutoMLJobCompletionCriteria](#) object

Required: No

### ProblemType

The problem type.

Type: String

Valid Values: BinaryClassification | MulticlassClassification | Regression

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ResourceCatalog

Service: Amazon SageMaker Service

A resource catalog containing all of the resources of a specific resource type within a resource owner account. For an example on sharing the Amazon SageMaker Feature Store DefaultFeatureGroupCatalog, see [Share Amazon SageMaker Catalog resource type](#) in the Amazon SageMaker Developer Guide.

## Contents

### CreationTime

The time the ResourceCatalog was created.

Type: Timestamp

Required: Yes

### Description

A free form description of the ResourceCatalog.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

### ResourceCatalogArn

The Amazon Resource Name (ARN) of the ResourceCatalog.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:sagemaker-catalog/.*`

Required: Yes

### ResourceCatalogName

The name of the ResourceCatalog.



Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ResourceConfig

Service: Amazon SageMaker Service

Describes the resources, including machine learning (ML) compute instances and ML storage volumes, to use for model training.

## Contents

### VolumeSizeInGB

The size of the ML storage volume that you want to provision.

ML storage volumes store model artifacts and incremental states. Training algorithms might also use the ML storage volume for scratch space. If you want to store the training data in the ML storage volume, choose `File` as the `TrainingInputMode` in the algorithm specification.

When using an ML instance with [NVMe SSD volumes](#), SageMaker doesn't provision Amazon EBS General Purpose SSD (gp2) storage. Available storage is fixed to the NVMe-type instance's storage capacity. SageMaker configures storage paths for training datasets, checkpoints, model artifacts, and outputs to use the entire capacity of the instance storage. For example, ML instance families with the NVMe-type instance storage include `m1.p4d`, `m1.g4dn`, and `m1.g5`.

When using an ML instance with the EBS-only storage option and without instance storage, you must define the size of EBS volume through `VolumeSizeInGB` in the `ResourceConfig` API. For example, ML instance families that use EBS volumes include `m1.c5` and `m1.p2`.

To look up instance types and their instance storage types and volumes, see [Amazon EC2 Instance Types](#).

To find the default local paths defined by the SageMaker training platform, see [Amazon SageMaker Training Storage Folders for Training Datasets, Checkpoints, Model Artifacts, and Outputs](#).

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

### InstanceCount

The number of ML compute instances to use. For distributed training, provide a value greater than 1.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### InstanceGroups

The configuration of a heterogeneous cluster in JSON format.

Type: Array of [InstanceGroup](#) objects

Array Members: Maximum number of 5 items.

Required: No

### InstanceType

The ML compute instance type.

#### Note

SageMaker Training on Amazon Elastic Compute Cloud (EC2) P4de instances is in preview release starting December 9th, 2022.

[Amazon EC2 P4de instances](#) (currently in preview) are powered by 8 NVIDIA A100 GPUs with 80GB high-performance HBM2e GPU memory, which accelerate the speed of training ML models that need to be trained on large datasets of high-resolution data. In this preview release, Amazon SageMaker supports ML training jobs on P4de instances (m1.p4de.24xlarge) to reduce model training time. The m1.p4de.24xlarge instances are available in the following AWS Regions.

- US East (N. Virginia) (us-east-1)
- US West (Oregon) (us-west-2)

To request quota limit increase and start using P4de instances, contact the SageMaker Training service team through your account team.

Type: String

Valid Values: m1.m4.xlarge | m1.m4.2xlarge | m1.m4.4xlarge | m1.m4.10xlarge | m1.m4.16xlarge | m1.g4dn.xlarge | m1.g4dn.2xlarge | m1.g4dn.4xlarge | m1.g4dn.8xlarge | m1.g4dn.12xlarge | m1.g4dn.16xlarge | m1.m5.large

| ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge  
| ml.m5.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge  
| ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge |  
ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge |  
ml.p4d.24xlarge | ml.p4de.24xlarge | ml.p5.48xlarge | ml.c5.xlarge  
| ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge  
| ml.c5n.xlarge | ml.c5n.2xlarge | ml.c5n.4xlarge | ml.c5n.9xlarge  
| ml.c5n.18xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge |  
ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge |  
ml.g5.48xlarge | ml.trn1.2xlarge | ml.trn1.32xlarge | ml.trn1n.32xlarge  
| ml.m6i.large | ml.m6i.xlarge | ml.m6i.2xlarge | ml.m6i.4xlarge |  
ml.m6i.8xlarge | ml.m6i.12xlarge | ml.m6i.16xlarge | ml.m6i.24xlarge  
| ml.m6i.32xlarge | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.8xlarge |  
ml.c6i.4xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge |  
ml.c6i.32xlarge

Required: No

### KeepAlivePeriodInSeconds

The duration of time in seconds to retain configured resources in a warm pool for subsequent training jobs.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 3600.

Required: No

### VolumeKmsKeyId

The AWS KMS key that SageMaker uses to encrypt data on the storage volume attached to the ML compute instance(s) that run the training job.

#### Note

Certain Nitro-based instances include local storage, dependent on the instance type. Local storage volumes are encrypted using a hardware module on the instance. You can't request a `VolumeKmsKeyId` when using an instance type with local storage. For a list of instance types that support local instance storage, see [Instance Store Volumes](#).

For more information about local instance storage encryption, see [SSD Instance Store Volumes](#).

The `VolumeKmsKeyId` can be in any of the following formats:

- // KMS Key ID

```
"1234abcd-12ab-34cd-56ef-1234567890ab"
```

- // Amazon Resource Name (ARN) of a KMS Key

```
"arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"
```

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ResourceConfigForUpdate

Service: Amazon SageMaker Service

The ResourceConfig to update KeepAlivePeriodInSeconds. Other fields in the ResourceConfig cannot be updated.

## Contents

### KeepAlivePeriodInSeconds

The KeepAlivePeriodInSeconds value specified in the ResourceConfig to update.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 3600.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ResourceLimits

Service: Amazon SageMaker Service

Specifies the maximum number of training jobs and parallel training jobs that a hyperparameter tuning job can launch.

### Contents

#### MaxParallelTrainingJobs

The maximum number of concurrent training jobs that a hyperparameter tuning job can launch.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

#### MaxNumberOfTrainingJobs

The maximum number of training jobs that a hyperparameter tuning job can launch.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

#### MaxRuntimeInSeconds

The maximum time in seconds that a hyperparameter tuning job can run.

Type: Integer

Valid Range: Minimum value of 120. Maximum value of 15768000.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ResourceSpec

Service: Amazon SageMaker Service

Specifies the ARN's of a SageMaker image and SageMaker image version, and the instance type that the version runs on.

## Contents

### InstanceType

The instance type that the image version runs on.

#### Note

**JupyterServer apps** only support the system value.  
For **KernelGateway apps**, the system value is translated to `m1.t3.medium`.  
KernelGateway apps also support all other values for available instance types.

Type: String

Valid Values: `system` | `m1.t3.micro` | `m1.t3.small` | `m1.t3.medium` | `m1.t3.large` | `m1.t3.xlarge` | `m1.t3.2xlarge` | `m1.m5.large` | `m1.m5.xlarge` | `m1.m5.2xlarge` | `m1.m5.4xlarge` | `m1.m5.8xlarge` | `m1.m5.12xlarge` | `m1.m5.16xlarge` | `m1.m5.24xlarge` | `m1.m5d.large` | `m1.m5d.xlarge` | `m1.m5d.2xlarge` | `m1.m5d.4xlarge` | `m1.m5d.8xlarge` | `m1.m5d.12xlarge` | `m1.m5d.16xlarge` | `m1.m5d.24xlarge` | `m1.c5.large` | `m1.c5.xlarge` | `m1.c5.2xlarge` | `m1.c5.4xlarge` | `m1.c5.9xlarge` | `m1.c5.12xlarge` | `m1.c5.18xlarge` | `m1.c5.24xlarge` | `m1.p3.2xlarge` | `m1.p3.8xlarge` | `m1.p3.16xlarge` | `m1.p3dn.24xlarge` | `m1.g4dn.xlarge` | `m1.g4dn.2xlarge` | `m1.g4dn.4xlarge` | `m1.g4dn.8xlarge` | `m1.g4dn.12xlarge` | `m1.g4dn.16xlarge` | `m1.r5.large` | `m1.r5.xlarge` | `m1.r5.2xlarge` | `m1.r5.4xlarge` | `m1.r5.8xlarge` | `m1.r5.12xlarge` | `m1.r5.16xlarge` | `m1.r5.24xlarge` | `m1.g5.xlarge` | `m1.g5.2xlarge` | `m1.g5.4xlarge` | `m1.g5.8xlarge` | `m1.g5.16xlarge` | `m1.g5.12xlarge` | `m1.g5.24xlarge` | `m1.g5.48xlarge` | `m1.g6.xlarge` | `m1.g6.2xlarge` | `m1.g6.4xlarge` | `m1.g6.8xlarge` | `m1.g6.12xlarge` | `m1.g6.16xlarge` | `m1.g6.24xlarge` | `m1.g6.48xlarge` | `m1.geospatial.interactive` | `m1.p4d.24xlarge` | `m1.p4de.24xlarge` |

ml.trn1.2xlarge | ml.trn1.32xlarge | ml.trn1n.32xlarge | ml.p5.48xlarge  
| ml.m6i.large | ml.m6i.xlarge | ml.m6i.2xlarge | ml.m6i.4xlarge |  
ml.m6i.8xlarge | ml.m6i.12xlarge | ml.m6i.16xlarge | ml.m6i.24xlarge  
| ml.m6i.32xlarge | ml.m7i.large | ml.m7i.xlarge | ml.m7i.2xlarge |  
ml.m7i.4xlarge | ml.m7i.8xlarge | ml.m7i.12xlarge | ml.m7i.16xlarge  
| ml.m7i.24xlarge | ml.m7i.48xlarge | ml.c6i.large | ml.c6i.xlarge  
| ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge  
| ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge | ml.c7i.large  
| ml.c7i.xlarge | ml.c7i.2xlarge | ml.c7i.4xlarge | ml.c7i.8xlarge |  
ml.c7i.12xlarge | ml.c7i.16xlarge | ml.c7i.24xlarge | ml.c7i.48xlarge  
| ml.r6i.large | ml.r6i.xlarge | ml.r6i.2xlarge | ml.r6i.4xlarge |  
ml.r6i.8xlarge | ml.r6i.12xlarge | ml.r6i.16xlarge | ml.r6i.24xlarge  
| ml.r6i.32xlarge | ml.r7i.large | ml.r7i.xlarge | ml.r7i.2xlarge |  
ml.r7i.4xlarge | ml.r7i.8xlarge | ml.r7i.12xlarge | ml.r7i.16xlarge |  
ml.r7i.24xlarge | ml.r7i.48xlarge | ml.m6id.large | ml.m6id.xlarge |  
ml.m6id.2xlarge | ml.m6id.4xlarge | ml.m6id.8xlarge | ml.m6id.12xlarge  
| ml.m6id.16xlarge | ml.m6id.24xlarge | ml.m6id.32xlarge | ml.c6id.large  
| ml.c6id.xlarge | ml.c6id.2xlarge | ml.c6id.4xlarge | ml.c6id.8xlarge  
| ml.c6id.12xlarge | ml.c6id.16xlarge | ml.c6id.24xlarge |  
ml.c6id.32xlarge | ml.r6id.large | ml.r6id.xlarge | ml.r6id.2xlarge |  
ml.r6id.4xlarge | ml.r6id.8xlarge | ml.r6id.12xlarge | ml.r6id.16xlarge  
| ml.r6id.24xlarge | ml.r6id.32xlarge

Required: No

### **LifecycleConfigArn**

The Amazon Resource Name (ARN) of the Lifecycle Configuration attached to the Resource.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:studio-lifecycle-config/.\*

Required: No

### **SageMakerImageArn**

The ARN of the SageMaker image that the image version belongs to.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws(-[\w]+)*:sagemaker:.+:[0-9]{12}:image/[a-z0-9]([-.]?[a-z0-9])*$`

Required: No

### SageMakerImageVersionAlias

The SageMakerImageVersionAlias of the image to launch with. This value is in SemVer 2.0.0 versioning format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `(^\d+$)|(^d+.\d+$)|(^(\d|[1-9]\d*)\.(0|[1-9]\d*)\.(0|[1-9]\d*)(?:-((?:0|[1-9]\d*|\d*[a-zA-Z-][0-9a-zA-Z-]*)?(?:\.(?:0|[1-9]\d*|\d*[a-zA-Z-][0-9a-zA-Z-]*)*)?)?(?:\+([0-9a-zA-Z-]+(?:\.[0-9a-zA-Z-]+)*)?)?)?$`

Required: No

### SageMakerImageVersionArn

The ARN of the image version created on the instance.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws(-[\w]+)*:sagemaker:.+:[0-9]{12}:image-version/[a-z0-9]([-.]?[a-z0-9])*/[0-9]+$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RetentionPolicy

Service: Amazon SageMaker Service

The retention policy for data stored on an Amazon Elastic File System volume.

## Contents

### HomeEfsFileSystem

The default is `Retain`, which specifies to keep the data stored on the Amazon EFS volume.

Specify `Delete` to delete the data stored on the Amazon EFS volume.

Type: String

Valid Values: `Retain` | `Delete`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RetryStrategy

Service: Amazon SageMaker Service

The retry strategy to use when a training job fails due to an `InternalServerError`.

`RetryStrategy` is specified as part of the `CreateTrainingJob` and `CreateHyperParameterTuningJob` requests. You can add the `StoppingCondition` parameter to the request to limit the training time for the complete job.

## Contents

### MaximumRetryAttempts

The number of times to retry the job. When the job is retried, its `SecondaryStatus` is changed to `STARTING`.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 30.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RollingUpdatePolicy

Service: Amazon SageMaker Service

Specifies a rolling deployment strategy for updating a SageMaker endpoint.

## Contents

### MaximumBatchSize

Batch size for each rolling step to provision capacity and turn on traffic on the new endpoint fleet, and terminate capacity on the old endpoint fleet. Value must be between 5% to 50% of the variant's total instance count.

Type: [CapacitySize](#) object

Required: Yes

### WaitIntervalInSeconds

The length of the baking period, during which SageMaker monitors alarms for each batch on the new fleet.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 3600.

Required: Yes

### MaximumExecutionTimeoutInSeconds

The time limit for the total deployment. Exceeding this limit causes a timeout.

Type: Integer

Valid Range: Minimum value of 600. Maximum value of 28800.

Required: No

### RollbackMaximumBatchSize

Batch size for rollback to the old endpoint fleet. Each rolling step to provision capacity and turn on traffic on the old endpoint fleet, and terminate capacity on the new endpoint fleet. If this field is absent, the default value will be set to 100% of total capacity which means to bring up the whole capacity of the old fleet at once during rollback.

Type: [CapacitySize](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# RSessionAppSettings

Service: Amazon SageMaker Service

A collection of settings that apply to an RSessionGateway app.

## Contents

### CustomImages

A list of custom SageMaker images that are configured to run as a RSession app.

Type: Array of [CustomImage](#) objects

Array Members: Maximum number of 200 items.

Required: No

### DefaultResourceSpec

Specifies the ARN's of a SageMaker image and SageMaker image version, and the instance type that the version runs on.

Type: [ResourceSpec](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RStudioServerProAppSettings

Service: Amazon SageMaker Service

A collection of settings that configure user interaction with the RStudioServerPro app.

## Contents

### AccessStatus

Indicates whether the current user has access to the RStudioServerPro app.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

### UserGroup

The level of permissions that the user has within the RStudioServerPro app. This value defaults to `User`. The `Admin` value allows the user access to the RStudio Administrative Dashboard.

Type: String

Valid Values: R\_STUDIO\_ADMIN | R\_STUDIO\_USER

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RStudioServerProDomainSettings

Service: Amazon SageMaker Service

A collection of settings that configure the RStudioServerPro Domain-level app.

## Contents

### DomainExecutionRoleArn

The ARN of the execution role for the RStudioServerPro Domain-level app.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: Yes

### DefaultResourceSpec

Specifies the ARN's of a SageMaker image and SageMaker image version, and the instance type that the version runs on.

Type: [ResourceSpec](#) object

Required: No

### RStudioConnectUrl

A URL pointing to an RStudio Connect server.

Type: String

Required: No

### RStudioPackageManagerUrl

A URL pointing to an RStudio Package Manager server.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RStudioServerProDomainSettingsForUpdate

Service: Amazon SageMaker Service

A collection of settings that update the current configuration for the RStudioServerPro Domain-level app.

## Contents

### DomainExecutionRoleArn

The execution role for the RStudioServerPro Domain-level app.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]]+$`

Required: Yes

### DefaultResourceSpec

Specifies the ARN's of a SageMaker image and SageMaker image version, and the instance type that the version runs on.

Type: [ResourceSpec](#) object

Required: No

### RStudioConnectUrl

A URL pointing to an RStudio Connect server.

Type: String

Required: No

### RStudioPackageManagerUrl

A URL pointing to an RStudio Package Manager server.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## S3DataSource

Service: Amazon SageMaker Service

Describes the S3 data source.

Your input bucket must be in the same AWS region as your training job.

### Contents

#### S3DataType

If you choose `S3Prefix`, `S3Uri` identifies a key name prefix. SageMaker uses all objects that match the specified key name prefix for model training.

If you choose `ManifestFile`, `S3Uri` identifies an object that is a manifest file containing a list of object keys that you want SageMaker to use for model training.

If you choose `AugmentedManifestFile`, `S3Uri` identifies an object that is an augmented manifest file in JSON lines format. This file contains the data you want to use for model training. `AugmentedManifestFile` can only be used if the Channel's input mode is Pipe.

Type: String

Valid Values: `ManifestFile` | `S3Prefix` | `AugmentedManifestFile`

Required: Yes

#### S3Uri

Depending on the value specified for the `S3DataType`, identifies either a key name prefix or a manifest. For example:

- A key name prefix might look like this: `s3://bucketname/exampleprefix/`
- A manifest might look like this: `s3://bucketname/example.manifest`

A manifest is an S3 object which is a JSON file consisting of an array of elements. The first element is a prefix which is followed by one or more suffixes. SageMaker appends the suffix elements to the prefix to get a full set of `S3Uri`. Note that the prefix must be a valid non-empty `S3Uri` that precludes users from specifying a manifest whose individual `S3Uri` is sourced from different S3 buckets.

The following code example shows a valid manifest format:

```
[ {"prefix": "s3://customer_bucket/some/prefix/"},  
  "relative/path/to/custdata-1",  
  "relative/path/custdata-2",  
  ...  
  "relative/path/custdata-N"  
]
```

This JSON is equivalent to the following `S3Uri` list:

```
s3://customer_bucket/some/prefix/relative/path/to/custdata-1  
s3://customer_bucket/some/prefix/relative/path/custdata-2  
...  
s3://customer_bucket/some/prefix/relative/path/custdata-N
```

The complete set of `S3Uri` in this manifest is the input data for the channel for this data source. The object that each `S3Uri` points to must be readable by the IAM role that SageMaker uses to perform tasks on your behalf.

Your input bucket must be located in same AWS region as your training job.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: Yes

### **AttributeNames**

A list of one or more attribute names to use that are found in a specified augmented manifest file.

Type: Array of strings

Array Members: Maximum number of 16 items.



Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: . +

Required: No

### **InstanceGroupNames**

A list of names of instance groups that get data from the S3 data source.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: . +

Required: No

### **S3DataDistributionType**

If you want SageMaker to replicate the entire dataset on each ML compute instance that is launched for model training, specify `FullyReplicated`.

If you want SageMaker to replicate a subset of data on each ML compute instance that is launched for model training, specify `ShardedByS3Key`. If there are  $n$  ML compute instances launched for a training job, each instance gets approximately  $1/n$  of the number of S3 objects. In this case, model training on each machine uses only the subset of training data.

Don't choose more ML compute instances for training than available S3 objects. If you do, some nodes won't get any data and you will pay for nodes that aren't getting any training data. This applies in both File and Pipe modes. Keep this in mind when developing algorithms.

In distributed training, where you use multiple ML compute EC2 instances, you might choose `ShardedByS3Key`. If the algorithm requires copying training data to the ML storage volume (when `TrainingInputMode` is set to `File`), this copies  $1/n$  of the number of objects.

Type: String

Valid Values: `FullyReplicated` | `ShardedByS3Key`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3ModelDataSource

Service: Amazon SageMaker Service

Specifies the S3 location of ML model data to deploy.

## Contents

### CompressionType

Specifies how the ML model data is prepared.

If you choose `Gzip` and choose `S3Object` as the value of `S3DataType`, `S3Uri` identifies an object that is a gzip-compressed TAR archive. SageMaker will attempt to decompress and untar the object during model deployment.

If you choose `None` and choose `S3Object` as the value of `S3DataType`, `S3Uri` identifies an object that represents an uncompressed ML model to deploy.

If you choose `None` and choose `S3Prefix` as the value of `S3DataType`, `S3Uri` identifies a key name prefix, under which all objects represents the uncompressed ML model to deploy.

If you choose `None`, then SageMaker will follow rules below when creating model data files under `/opt/ml/model` directory for use by your inference code:

- If you choose `S3Object` as the value of `S3DataType`, then SageMaker will split the key of the S3 object referenced by `S3Uri` by slash (/), and use the last part as the filename of the file holding the content of the S3 object.
- If you choose `S3Prefix` as the value of `S3DataType`, then for each S3 object under the key name prefix referenced by `S3Uri`, SageMaker will trim its key by the prefix, and use the remainder as the path (relative to `/opt/ml/model`) of the file holding the content of the S3 object. SageMaker will split the remainder by slash (/), using intermediate parts as directory names and the last part as filename of the file holding the content of the S3 object.
- Do not use any of the following as file names or directory names:
  - An empty or blank string
  - A string which contains null bytes
  - A string longer than 255 bytes
  - A single dot (.)
  - A double dot (..)

- Ambiguous file names will result in model deployment failure. For example, if your uncompressed ML model consists of two S3 objects `s3://mybucket/model/weights` and `s3://mybucket/model/weights/part1` and you specify `s3://mybucket/model/` as the value of `S3Uri` and `S3Prefix` as the value of `S3DataType`, then it will result in name clash between `/opt/ml/model/weights` (a regular file) and `/opt/ml/model/weights/` (a directory).
- Do not organize the model artifacts in [S3 console using folders](#). When you create a folder in S3 console, S3 creates a 0-byte object with a key set to the folder name you provide. The key of the 0-byte object ends with a slash (/) which violates SageMaker restrictions on model artifact file names, leading to model deployment failure.

Type: String

Valid Values: None | Gzip

Required: Yes

### **S3DataType**

Specifies the type of ML model data to deploy.

If you choose `S3Prefix`, `S3Uri` identifies a key name prefix. SageMaker uses all objects that match the specified key name prefix as part of the ML model data to deploy. A valid key name prefix identified by `S3Uri` always ends with a forward slash (/).

If you choose `S3Object`, `S3Uri` identifies an object that is the ML model data to deploy.

Type: String

Valid Values: `S3Prefix` | `S3Object`

Required: Yes

### **S3Uri**

Specifies the S3 path of ML model data to deploy.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

### **HubAccessConfig**

Configuration information for hub access.

Type: [InferenceHubAccessConfig](#) object

Required: No

### **ModelAccessConfig**

Specifies the access configuration file for the ML model. You can explicitly accept the model end-user license agreement (EULA) within the `ModelAccessConfig`. You are responsible for reviewing and complying with any applicable license terms and making sure they are acceptable for your use case before downloading or using a model.

Type: [ModelAccessConfig](#) object

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# S3Presign

Service: Amazon SageMaker Service

This object defines the access restrictions to Amazon S3 resources that are included in custom worker task templates using the Liquid filter, `grant_read_access`.

To learn more about how custom templates are created, see [Create custom worker task templates](#).

## Contents

### iamPolicyConstraints

Use this parameter to specify the allowed request source. Possible sources are either `SourceIp` or `VpcSourceIp`.

Type: [iamPolicyConstraints](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## S3StorageConfig

Service: Amazon SageMaker Service

The Amazon Simple Storage (Amazon S3) location and security configuration for `OfflineStore`.

### Contents

#### S3Uri

The S3 URI, or location in Amazon S3, of `OfflineStore`.

S3 URIs have a format similar to the following: `s3://example-bucket/prefix/`.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

#### KmsKeyId

The AWS Key Management Service (KMS) key ARN of the key used to encrypt any objects written into the `OfflineStore` S3 location.

The IAM `roleARN` that is passed as a parameter to `CreateFeatureGroup` must have below permissions to the `KmsKeyId`:

- `"kms:GenerateDataKey"`

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_-]*$`

Required: No

#### ResolvedOutputS3Uri

The S3 path where offline records are written.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://[^(/)]+/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ScalingPolicy

Service: Amazon SageMaker Service

An object containing a recommended scaling policy.

## Contents

### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

## TargetTracking

A target tracking scaling policy. Includes support for predefined or customized metrics.

Type: [TargetTrackingScalingPolicyConfiguration](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ScalingPolicyMetric

Service: Amazon SageMaker Service

The metric for a scaling policy.

## Contents

### InvocationsPerInstance

The number of invocations sent to a model, normalized by InstanceCount in each ProductionVariant.  $1/\text{numberOfInstances}$  is sent as the value on each request, where numberOfInstances is the number of active instances for the ProductionVariant behind the endpoint at the time of the request.

Type: Integer

Required: No

### ModelLatency

The interval of time taken by a model to respond as viewed from SageMaker. This interval includes the local communication times taken to send the request and to fetch the response from the container of a model and the time taken to complete the inference in the container.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ScalingPolicyObjective

Service: Amazon SageMaker Service

An object where you specify the anticipated traffic pattern for an endpoint.

## Contents

### MaxInvocationsPerMinute

The maximum number of expected requests to your endpoint per minute.

Type: Integer

Required: No

### MinInvocationsPerMinute

The minimum number of expected requests to your endpoint per minute.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ScheduleConfig

Service: Amazon SageMaker Service

Configuration details about the monitoring schedule.

## Contents

### ScheduleExpression

A cron expression that describes details about the monitoring schedule.

The supported cron expressions are:

- If you want to set the job to start every hour, use the following:

```
Hourly: cron(0 * ? * * *)
```

- If you want to start the job daily:

```
cron(0 [00-23] ? * * *)
```

- If you want to run the job one time, immediately, use the following keyword:

```
NOW
```

For example, the following are valid cron expressions:

- Daily at noon UTC: `cron(0 12 ? * * *)`
- Daily at midnight UTC: `cron(0 0 ? * * *)`

To support running every 6, 12 hours, the following are also supported:

```
cron(0 [00-23]/[01-24] ? * * *)
```

For example, the following are valid cron expressions:

- Every 12 hours, starting at 5pm UTC: `cron(0 17/12 ? * * *)`
- Every two hours starting at midnight: `cron(0 0/2 ? * * *)`

#### Note

- Even though the cron expression is set to start at 5PM UTC, note that there could be a delay of 0-20 minutes from the actual requested time to run the execution.

- We recommend that if you would like a daily schedule, you do not provide this parameter. Amazon SageMaker will pick a time for running every day.

You can also specify the keyword `NOW` to run the monitoring job immediately, one time, without recurring.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

### **DataAnalysisEndTime**

Sets the end time for a monitoring job window. Express this time as an offset to the times that you schedule your monitoring jobs to run. You schedule monitoring jobs with the `ScheduleExpression` parameter. Specify this offset in ISO 8601 duration format. For example, if you want to end the window one hour before the start of each monitoring job, you would specify: `"-PT1H"`.

The end time that you specify must not follow the start time that you specify by more than 24 hours. You specify the start time with the `DataAnalysisStartTime` parameter.

If you set `ScheduleExpression` to `NOW`, this parameter is required.

Type: String

Required: No

### **DataAnalysisStartTime**

Sets the start time for a monitoring job window. Express this time as an offset to the times that you schedule your monitoring jobs to run. You schedule monitoring jobs with the `ScheduleExpression` parameter. Specify this offset in ISO 8601 duration format. For example, if you want to monitor the five hours of data in your dataset that precede the start of each monitoring job, you would specify: `"-PT5H"`.

The start time that you specify must not precede the end time that you specify by more than 24 hours. You specify the end time with the `DataAnalysisEndTime` parameter.

If you set `ScheduleExpression` to `NOW`, this parameter is required.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SearchExpression

Service: Amazon SageMaker Service

A multi-expression that searches for the specified resource or resources in a search. All resource objects that satisfy the expression's condition are included in the search results. You must specify at least one subexpression, filter, or nested filter. A `SearchExpression` can contain up to twenty elements.

A `SearchExpression` contains the following components:

- A list of `Filter` objects. Each filter defines a simple Boolean expression comprised of a resource property name, Boolean operator, and value.
- A list of `NestedFilter` objects. Each nested filter defines a list of Boolean expressions using a list of resource properties. A nested filter is satisfied if a single object in the list satisfies all Boolean expressions.
- A list of `SearchExpression` objects. A search expression object can be nested in a list of search expression objects.
- A Boolean operator: `And` or `Or`.

## Contents

### Filters

A list of filter objects.

Type: Array of [Filter](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

### NestedFilters

A list of nested filter objects.

Type: Array of [NestedFilters](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

## Operator

A Boolean operator used to evaluate the search expression. If you want every conditional statement in all lists to be satisfied for the entire search expression to be true, specify `And`. If only a single conditional statement needs to be true for the entire search expression to be true, specify `Or`. The default value is `And`.

Type: String

Valid Values: `And` | `Or`

Required: No

## SubExpressions

A list of search expression objects.

Type: Array of [SearchExpression](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# SearchRecord

Service: Amazon SageMaker Service

A single resource returned as part of the [Search](#) API response.

## Contents

### Endpoint

A hosted endpoint for real-time inference.

Type: [Endpoint](#) object

Required: No

### Experiment

The properties of an experiment.

Type: [Experiment](#) object

Required: No

### FeatureGroup

Amazon SageMaker Feature Store stores features in a collection called Feature Group. A Feature Group can be visualized as a table which has rows, with a unique identifier for each row where each column in the table is a feature. In principle, a Feature Group is composed of features and values per features.

Type: [FeatureGroup](#) object

Required: No

### FeatureMetadata

The feature metadata used to search through the features.

Type: [FeatureMetadata](#) object

Required: No

### HyperParameterTuningJob

The properties of a hyperparameter tuning job.

Type: [HyperParameterTuningJobSearchEntity](#) object

Required: No

## Model

A model displayed in the Amazon SageMaker Model Dashboard.

Type: [ModelDashboardModel](#) object

Required: No

## ModelCard

An Amazon SageMaker Model Card that documents details about a machine learning model.

Type: [ModelCard](#) object

Required: No

## ModelPackage

A versioned model that can be deployed for SageMaker inference.

Type: [ModelPackage](#) object

Required: No

## ModelPackageGroup

A group of versioned models in the model registry.

Type: [ModelPackageGroup](#) object

Required: No

## Pipeline

A SageMaker Model Building Pipeline instance.

Type: [Pipeline](#) object

Required: No

## PipelineExecution

An execution of a pipeline.

Type: [PipelineExecution](#) object

Required: No

## Project

The properties of a project.

Type: [Project](#) object

Required: No

## TrainingJob

The properties of a training job.

Type: [TrainingJob](#) object

Required: No

## Trial

The properties of a trial.

Type: [Trial](#) object

Required: No

## TrialComponent

The properties of a trial component.

Type: [TrialComponent](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



## SecondaryStatusTransition

Service: Amazon SageMaker Service

An array element of `SecondaryStatusTransitions` for [DescribeTrainingJob](#). It provides additional details about a status that the training job has transitioned through. A training job can be in one of several states, for example, starting, downloading, training, or uploading. Within each state, there are a number of intermediate states. For example, within the starting state, SageMaker could be starting the training job or launching the ML instances. These transitional states are referred to as the job's secondary status.

### Contents

#### StartTime

A timestamp that shows when the training job transitioned to the current secondary status state.

Type: Timestamp

Required: Yes

#### Status

Contains a secondary status information from a training job.

Status might be one of the following secondary statuses:

##### InProgress

- `Starting` - Starting the training job.
- `Downloading` - An optional stage for algorithms that support File training input mode. It indicates that data is being downloaded to the ML storage volumes.
- `Training` - Training is in progress.
- `Uploading` - Training is complete and the model artifacts are being uploaded to the S3 location.

##### Completed

- `Completed` - The training job has completed.

##### Failed

- `Failed` - The training job has failed. The reason for the failure is returned in the `FailureReason` field of `DescribeTrainingJobResponse`.

## Stopped

- `MaxRuntimeExceeded` - The job stopped because it exceeded the maximum allowed runtime.
- `Stopped` - The training job has stopped.

## Stopping

- `Stopping` - Stopping the training job.

We no longer support the following secondary statuses:

- `LaunchingMLInstances`
- `PreparingTrainingStack`
- `DownloadingTrainingImage`

Type: String

Valid Values: `Starting` | `LaunchingMLInstances` | `PreparingTrainingStack` | `Downloading` | `DownloadingTrainingImage` | `Training` | `Uploading` | `Stopping` | `Stopped` | `MaxRuntimeExceeded` | `Completed` | `Failed` | `Interrupted` | `MaxWaitTimeExceeded` | `Updating` | `Restarting` | `Pending`

Required: Yes

## EndTime

A timestamp that shows when the training job transitioned out of this secondary status state into another secondary status state or when the training job has ended.

Type: Timestamp

Required: No

## StatusMessage

A detailed description of the progress within a secondary status.

SageMaker provides secondary statuses and status messages that apply to each of them:

### Starting

- Starting the training job.
- Launching requested ML instances.
- Insufficient capacity error from EC2 while launching instances, retrying!

- Launched instance was unhealthy, replacing it!
- Preparing the instances for training.

### Training

- Training image download completed. Training in progress.

#### **Important**

Status messages are subject to change. Therefore, we recommend not including them in code that programmatically initiates actions. For examples, don't use status messages in if statements.

To have an overview of your training job's progress, view `TrainingJobStatus` and `SecondaryStatus` in [DescribeTrainingJob](#), and `StatusMessage` together. For example, at the start of a training job, you might see the following:

- `TrainingJobStatus` - InProgress
- `SecondaryStatus` - Training
- `StatusMessage` - Downloading the training image

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SelectedStep

Service: Amazon SageMaker Service

A step selected to run in selective execution mode.

## Contents

### StepName

The name of the pipeline step.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# SelectiveExecutionConfig

Service: Amazon SageMaker Service

The selective execution configuration applied to the pipeline run.

## Contents

### SelectedSteps

A list of pipeline steps to run. All step(s) in all path(s) between two selected steps should be included.

Type: Array of [SelectedStep](#) objects

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Required: Yes

### SourcePipelineExecutionArn

The ARN from a reference execution of the current pipeline. Used to copy input collaterals needed for the selected steps to run. The execution status of the pipeline can be either Failed or Success.

This field is required if the steps you specify for SelectedSteps depend on output collaterals from any non-specified pipeline steps. For more information, see [Selective Execution for Pipeline Steps](#).

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:pipeline\./.*\ execution\./.*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SelectiveExecutionResult

Service: Amazon SageMaker Service

The ARN from an execution of the current pipeline.

## Contents

### SourcePipelineExecutionArn

The ARN from an execution of the current pipeline.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:pipeline\./.*\./execution\./.*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ServiceCatalogProvisionedProductDetails

Service: Amazon SageMaker Service

Details of a provisioned service catalog product. For information about service catalog, see [What is AWS Service Catalog](#).

## Contents

### ProvisionedProductId

The ID of the provisioned product.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^[a-zA-Z0-9_\-]*`

Required: No

### ProvisionedProductStatusMessage

The current status of the product.

- **AVAILABLE** - Stable state, ready to perform any operation. The most recent operation succeeded and completed.
- **UNDER\_CHANGE** - Transitive state. Operations performed might not have valid results. Wait for an **AVAILABLE** status before performing operations.
- **TAINTED** - Stable state, ready to perform any operation. The stack has completed the requested operation but is not exactly what was requested. For example, a request to update to a new version failed and the stack rolled back to the current version.
- **ERROR** - An unexpected error occurred. The provisioned product exists but the stack is not running. For example, CloudFormation received a parameter value that was not valid and could not launch the stack.
- **PLAN\_IN\_PROGRESS** - Transitive state. The plan operations were performed to provision a new product, but resources have not yet been created. After reviewing the list of resources to be created, execute the plan. Wait for an **AVAILABLE** status before performing operations.

Type: String

Pattern: `.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ServiceCatalogProvisioningDetails

Service: Amazon SageMaker Service

Details that you specify to provision a service catalog product. For information about service catalog, see [What is AWS Service Catalog](#).

## Contents

### ProductId

The ID of the product to provision.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^[a-zA-Z0-9_\-]*`

Required: Yes

### PathId

The path identifier of the product. This value is optional if the product has a default path, and required if the product has more than one path.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^[a-zA-Z0-9_\-]*`

Required: No

### ProvisioningArtifactId

The ID of the provisioning artifact.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^[a-zA-Z0-9_\-]*`

Required: No

## ProvisioningParameters

A list of key value pairs that you specify when you provision a product.

Type: Array of [ProvisioningParameter](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ServiceCatalogProvisioningUpdateDetails

Service: Amazon SageMaker Service

Details that you specify to provision a service catalog product. For information about service catalog, see [What is AWS Service Catalog](#).

## Contents

### ProvisioningArtifactId

The ID of the provisioning artifact.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: `^[a-zA-Z0-9_\-\ ]*`

Required: No

### ProvisioningParameters

A list of key value pairs that you specify when you provision a product.

Type: Array of [ProvisioningParameter](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# SessionChainingConfig

Service: Amazon SageMaker Service

Contains information about attribute-based access control (ABAC) for a training job. The session chaining configuration uses Amazon Security Token Service (STS) for your training job to request temporary, limited-privilege credentials to tenants. For more information, see [Attribute-based access control \(ABAC\) for multi-tenancy training](#).

## Contents

### EnableSessionTagChaining

Set to `True` to allow SageMaker to extract session tags from a training job creation role and reuse these tags when assuming the training job execution role.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ShadowModeConfig

Service: Amazon SageMaker Service

The configuration of ShadowMode inference experiment type, which specifies a production variant to take all the inference requests, and a shadow variant to which Amazon SageMaker replicates a percentage of the inference requests. For the shadow variant it also specifies the percentage of requests that Amazon SageMaker replicates.

## Contents

### ShadowModelVariants

List of shadow variant configurations.

Type: Array of [ShadowModelVariantConfig](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

### SourceModelVariantName

The name of the production variant, which takes all the inference requests.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9]* [a-zA-Z0-9] )?`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ShadowModelVariantConfig

Service: Amazon SageMaker Service

The name and sampling percentage of a shadow variant.

## Contents

### SamplingPercentage

The percentage of inference requests that Amazon SageMaker replicates from the production variant to the shadow variant.

Type: Integer

Valid Range: Maximum value of 100.

Required: Yes

### ShadowModelVariantName

The name of the shadow variant.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\-a-zA-Z0-9] * [a-zA-Z0-9] )?`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SharingSettings

Service: Amazon SageMaker Service

Specifies options for sharing Amazon SageMaker Studio notebooks. These settings are specified as part of `DefaultUserSettings` when the `CreateDomain` API is called, and as part of `UserSettings` when the `CreateUserProfile` API is called. When `SharingSettings` is not specified, notebook sharing isn't allowed.

## Contents

### NotebookOutputOption

Whether to include the notebook cell output when sharing the notebook. The default is `Disabled`.

Type: String

Valid Values: `Allowed` | `Disabled`

Required: No

### S3KmsKeyId

When `NotebookOutputOption` is `Allowed`, the AWS Key Management Service (KMS) encryption key ID used to encrypt the notebook cell output in the Amazon S3 bucket.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

### S3OutputPath

When `NotebookOutputOption` is `Allowed`, the Amazon S3 bucket used to store the shared notebook snapshots.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\s/]+)?/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ShuffleConfig

Service: Amazon SageMaker Service

A configuration for a shuffle option for input data in a channel. If you use `S3Prefix` for `S3DataType`, the results of the S3 key prefix matches are shuffled. If you use `ManifestFile`, the order of the S3 object references in the `ManifestFile` is shuffled. If you use `AugmentedManifestFile`, the order of the JSON lines in the `AugmentedManifestFile` is shuffled. The shuffling order is determined using the `Seed` value.

For Pipe input mode, when `ShuffleConfig` is specified shuffling is done at the start of every epoch. With large datasets, this ensures that the order of the training data is different for each epoch, and it helps reduce bias and possible overfitting. In a multi-node training job when `ShuffleConfig` is combined with `S3DataDistributionType` of `ShardedByS3Key`, the data is shuffled across nodes so that the content sent to a particular node on the first epoch might be sent to a different node on the second epoch.

## Contents

### Seed

Determines the shuffling order in `ShuffleConfig` value.

Type: Long

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SourceAlgorithm

Service: Amazon SageMaker Service

Specifies an algorithm that was used to create the model package. The algorithm must be either an algorithm resource in your SageMaker account or an algorithm in AWS Marketplace that you are subscribed to.

## Contents

### AlgorithmName

The name of an algorithm that was used to create the model package. The algorithm must be either an algorithm resource in your SageMaker account or an algorithm in AWS Marketplace that you are subscribed to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: `(arn:aws[a-z\-\ ]*:sagemaker:[a-z0-9\-\ ]*:[0-9]{12}:[a-z\-\ ]*\w/)?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!--)$`

Required: Yes

### ModelDataSource

Specifies the location of ML model data to deploy during endpoint creation.

Type: [ModelDataSource](#) object

Required: No

### ModelDataUrl

The Amazon S3 path where the model artifacts, which result from model training, are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

#### Note

The model artifacts must be in an S3 bucket that is in the same AWS region as the algorithm.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\s]+)/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# SourceAlgorithmSpecification

Service: Amazon SageMaker Service

A list of algorithms that were used to create a model package.

## Contents

### SourceAlgorithms

A list of the algorithms that were used to create a model package.

Type: Array of [SourceAlgorithm](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SourceIpConfig

Service: Amazon SageMaker Service

A list of IP address ranges ([CIDRs](#)). Used to create an allow list of IP addresses for a private workforce. Workers will only be able to log in to their worker portal from an IP address within this range. By default, a workforce isn't restricted to specific IP addresses.

## Contents

### Cidrs

A list of one to ten [Classless Inter-Domain Routing](#) (CIDR) values.

Maximum: Ten CIDR values

#### Note

The following Length Constraints apply to individual CIDR values in the CIDR value list.

Type: Array of strings

Length Constraints: Minimum length of 4. Maximum length of 64.

Pattern: `(^(([0-9]|[1-9][0-9]|1[0-9]{2}|2[0-4][0-9]|25[0-5])\.){3}([0-9]|[1-9][0-9]|1[0-9]{2}|2[0-4][0-9]|25[0-5])\/(3[0-2]|[1-2][0-9]|[0-9]))$)|(^s*(([0-9A-Fa-f]{1,4}:){7}([0-9A-Fa-f]{1,4}|:))|(([0-9A-Fa-f]{1,4}:){6}(:[0-9A-Fa-f]{1,4}|((25[0-5]|2[0-4]d|1dd|[1-9]?d)(.25[0-5]|2[0-4]d|1dd|[1-9]?d)){3})|:))|(([0-9A-Fa-f]{1,4}:){5}((:[0-9A-Fa-f]{1,4}){1,2})|:(25[0-5]|2[0-4]d|1dd|[1-9]?d)(.25[0-5]|2[0-4]d|1dd|[1-9]?d)){3})|:))|(([0-9A-Fa-f]{1,4}:){4}(((:[0-9A-Fa-f]{1,4}){1,3})|((:[0-9A-Fa-f]{1,4})?:((25[0-5]|2[0-4]d|1dd|[1-9]?d)(.25[0-5]|2[0-4]d|1dd|[1-9]?d)){3}))|:))|(([0-9A-Fa-f]{1,4}:){3}(((:[0-9A-Fa-f]{1,4}){1,4})|((:[0-9A-Fa-f]{1,4}){0,2}:((25[0-5]|2[0-4]d|1dd|[1-9]?d)(.25[0-5]|2[0-4]d|1dd|[1-9]?d)){3}))|:))|(([0-9A-Fa-f]{1,4}:){2}(((:[0-9A-Fa-f]{1,4}){1,5})|((:[0-9A-Fa-f]{1,4}){0,3}:((25[0-5]|2[0-4]d|1dd|[1-9]?d)(.25[0-5]|2[0-4]d|1dd|[1-9]?d)){3}))|:))|(([0-9A-Fa-f]{1,4}:){1}(((:[0-9A-Fa-f]{1,4}){1,6})|((:[0-9A-Fa-f]{1,4}){0,4}:((25[0-5]|2[0-4]d|1dd|[1-9]?d)(.25[0-5]|2[0-4]d|1dd|[1-9]?d)){3}))|:))|(:((:[0-9A-Fa-f]`

```
{1,4}{1,7})|((:[0-9A-Za-f]{1,4}){0,5}:((25[0-5]|2[0-4]d|1dd|[1-9]?d)(.
(25[0-5]|2[0-4]d|1dd|[1-9]?d)){3}))|:)))(%.+)?s*(\/(12[0-8]|1[0-1][0-9]|
[1-9][0-9]|[0-9]))$)
```

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SpaceCodeEditorAppSettings

Service: Amazon SageMaker Service

The application settings for a Code Editor space.

## Contents

### DefaultResourceSpec

Specifies the ARN's of a SageMaker image and SageMaker image version, and the instance type that the version runs on.

Type: [ResourceSpec](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## SpaceDetails

Service: Amazon SageMaker Service

The space's details.

### Contents

#### CreationTime

The creation time.

Type: Timestamp

Required: No

#### DomainId

The ID of the associated domain.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-( -*[a-z0-9]){1,61}`

Required: No

#### LastModifiedTime

The last modified time.

Type: Timestamp

Required: No

#### OwnershipSettingsSummary

Specifies summary information about the ownership settings.

Type: [OwnershipSettingsSummary](#) object

Required: No

#### SpaceDisplayName

The name of the space that appears in the Studio UI.

Type: String

Length Constraints: Maximum length of 64.

Pattern: `^(?!\\s*$).+`

Required: No

### SpaceName

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### SpaceSettingsSummary

Specifies summary information about the space settings.

Type: [SpaceSettingsSummary](#) object

Required: No

### SpaceSharingSettingsSummary

Specifies summary information about the space sharing settings.

Type: [SpaceSharingSettingsSummary](#) object

Required: No

### Status

The status.

Type: String

Valid Values: `Deleting | Failed | InService | Pending | Updating | Update_Failed | Delete_Failed`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SpaceJupyterLabAppSettings

Service: Amazon SageMaker Service

The settings for the JupyterLab application within a space.

## Contents

### CodeRepositories

A list of Git repositories that SageMaker automatically displays to users for cloning in the JupyterLab application.

Type: Array of [CodeRepository](#) objects

Array Members: Maximum number of 10 items.

Required: No

### DefaultResourceSpec

Specifies the ARN's of a SageMaker image and SageMaker image version, and the instance type that the version runs on.

Type: [ResourceSpec](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# SpaceSettings

Service: Amazon SageMaker Service

A collection of space settings.

## Contents

### AppType

The type of app created within the space.

Type: String

Valid Values: JupyterServer | KernelGateway | DetailedProfiler | TensorBoard | CodeEditor | JupyterLab | RStudioServerPro | RSessionGateway | Canvas

Required: No

### CodeEditorAppSettings

The Code Editor application settings.

Type: [SpaceCodeEditorAppSettings](#) object

Required: No

### CustomFileSystems

A file system, created by you, that you assign to a space for an Amazon SageMaker Domain. Permitted users can access this file system in Amazon SageMaker Studio.

Type: Array of [CustomFileSystem](#) objects

Array Members: Maximum number of 5 items.

Required: No

### JupyterLabAppSettings

The settings for the JupyterLab application.

Type: [SpaceJupyterLabAppSettings](#) object

Required: No

## JupyterServerAppSettings

The JupyterServer app settings.

Type: [JupyterServerAppSettings](#) object

Required: No

## KernelGatewayAppSettings

The KernelGateway app settings.

Type: [KernelGatewayAppSettings](#) object

Required: No

## SpaceStorageSettings

The storage settings for a space.

Type: [SpaceStorageSettings](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SpaceSettingsSummary

Service: Amazon SageMaker Service

Specifies summary information about the space settings.

## Contents

### AppType

The type of app created within the space.

Type: String

Valid Values: JupyterServer | KernelGateway | DetailedProfiler | TensorBoard  
| CodeEditor | JupyterLab | RStudioServerPro | RSessionGateway | Canvas

Required: No

### SpaceStorageSettings

The storage settings for a space.

Type: [SpaceStorageSettings](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SpaceSharingSettings

Service: Amazon SageMaker Service

A collection of space sharing settings.

## Contents

### SharingType

Specifies the sharing type of the space.

Type: String

Valid Values: `Private` | `Shared`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SpaceSharingSettingsSummary

Service: Amazon SageMaker Service

Specifies summary information about the space sharing settings.

## Contents

### SharingType

Specifies the sharing type of the space.

Type: String

Valid Values: `Private` | `Shared`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SpaceStorageSettings

Service: Amazon SageMaker Service

The storage settings for a space.

## Contents

### EbsStorageSettings

A collection of EBS storage settings for a space.

Type: [EbsStorageSettings](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Stairs

Service: Amazon SageMaker Service

Defines the stairs traffic pattern for an Inference Recommender load test. This pattern type consists of multiple steps where the number of users increases at each step.

Specify either the stairs or phases traffic pattern.

### Contents

#### DurationInSeconds

Defines how long each traffic step should be.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

#### NumberOfSteps

Specifies how many steps to perform during traffic.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

#### UsersPerStep

Specifies how many new users to spawn in each step.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 3.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# StoppingCondition

Service: Amazon SageMaker Service

Specifies a limit to how long a model training job or model compilation job can run. It also specifies how long a managed spot training job has to complete. When the job reaches the time limit, SageMaker ends the training or compilation job. Use this API to cap model training costs.

To stop a training job, SageMaker sends the algorithm the SIGTERM signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts, so the results of training are not lost.

The training algorithms provided by SageMaker automatically save the intermediate results of a model training job when possible. This attempt to save artifacts is only a best effort case as model might not be in a state from which it can be saved. For example, if training has just started, the model might not be ready to save. When saved, this intermediate data is a valid model artifact. You can use it to create a model with `CreateModel`.

## Note

The Neural Topic Model (NTM) currently does not support saving intermediate model artifacts. When training NTMs, make sure that the maximum runtime is sufficient for the training job to complete.

## Contents

### MaxPendingTimeInSeconds

The maximum length of time, in seconds, that a training or compilation job can be pending before it is stopped.

Type: Integer

Valid Range: Minimum value of 7200. Maximum value of 2419200.

Required: No

### MaxRuntimeInSeconds

The maximum length of time, in seconds, that a training or compilation job can run before it is stopped.

For compilation jobs, if the job does not complete during this time, a `Timeout` error is generated. We recommend starting with 900 seconds and increasing as necessary based on your model.

For all other jobs, if the job does not complete during this time, SageMaker ends the job. When `RetryStrategy` is specified in the job request, `MaxRuntimeInSeconds` specifies the maximum time for all of the attempts in total, not each individual attempt. The default value is 1 day. The maximum value is 28 days.

The maximum time that a `TrainingJob` can run in total, including any time spent publishing metrics or archiving and uploading models after it has been stopped, is 30 days.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### **MaxWaitTimeInSeconds**

The maximum length of time, in seconds, that a managed Spot training job has to complete. It is the amount of time spent waiting for Spot capacity plus the amount of time the job can run. It must be equal to or greater than `MaxRuntimeInSeconds`. If the job does not complete during this time, SageMaker ends the job.

When `RetryStrategy` is specified in the job request, `MaxWaitTimeInSeconds` specifies the maximum time for all of the attempts in total, not each individual attempt.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# StudioLifecycleConfigDetails

Service: Amazon SageMaker Service

Details of the Amazon SageMaker Studio Lifecycle Configuration.

## Contents

### CreationTime

The creation time of the Amazon SageMaker Studio Lifecycle Configuration.

Type: Timestamp

Required: No

### LastModifiedTime

This value is equivalent to CreationTime because Amazon SageMaker Studio Lifecycle Configurations are immutable.

Type: Timestamp

Required: No

### StudioLifecycleConfigAppType

The App type to which the Lifecycle Configuration is attached.

Type: String

Valid Values: JupyterServer | KernelGateway | CodeEditor | JupyterLab

Required: No

### StudioLifecycleConfigArn

The Amazon Resource Name (ARN) of the Lifecycle Configuration.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:studio-lifecycle-config/.*`

Required: No

## StudioLifecycleConfigName

The name of the Amazon SageMaker Studio Lifecycle Configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# StudioWebPortalSettings

Service: Amazon SageMaker Service

Studio settings. If these settings are applied on a user level, they take priority over the settings applied on a domain level.

## Contents

### HiddenAppTypes

The [Applications supported in Studio](#) that are hidden from the Studio left navigation pane.

Type: Array of strings

Valid Values: JupyterServer | KernelGateway | DetailedProfiler | TensorBoard | CodeEditor | JupyterLab | RStudioServerPro | RSessionGateway | Canvas

Required: No

### HiddenMLTools

The machine learning tools that are hidden from the Studio left navigation pane.

Type: Array of strings

Valid Values: DataWrangler | FeatureStore | EmrClusters | AutoML | Experiments | Training | ModelEvaluation | Pipelines | Models | JumpStart | InferenceRecommender | Endpoints | Projects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SubscribedWorkteam

Service: Amazon SageMaker Service

Describes a work team of a vendor that does the labelling job.

## Contents

### WorkteamArn

The Amazon Resource Name (ARN) of the vendor that you have subscribed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:workteam/.*`

Required: Yes

### ListingId

Marketplace product listing ID.

Type: String

Required: No

### MarketplaceDescription

The description of the vendor from the Amazon Marketplace.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: `.+`

Required: No

### MarketplaceTitle

The title of the service provided by the vendor in the Amazon Marketplace.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: . +

Required: No

### **SellerName**

The name of the vendor in the Amazon Marketplace.

Type: String

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# SuggestionQuery

Service: Amazon SageMaker Service

Specified in the [GetSearchSuggestions](#) request. Limits the property names that are included in the response.

## Contents

### PropertyNameQuery

Defines a property name hint. Only property names that begin with the specified hint are included in the response.

Type: [PropertyNameQuery](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TabularJobConfig

Service: Amazon SageMaker Service

The collection of settings used by an AutoML job V2 for the tabular problem type.

## Contents

### TargetAttributeName

The name of the target variable in supervised learning, usually represented by 'y'.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

### CandidateGenerationConfig

The configuration information of how model candidates are generated.

Type: [CandidateGenerationConfig](#) object

Required: No

### CompletionCriteria

How long a job is allowed to run, or how many candidates a job is allowed to generate.

Type: [AutoMLJobCompletionCriteria](#) object

Required: No

### FeatureSpecificationS3Uri

A URL to the Amazon S3 data source containing selected features from the input data source to run an Autopilot job V2. You can input FeatureAttributeNames (optional) in JSON format as shown below:

```
{ "FeatureAttributeNames":["col1", "col2", ...] }.
```

You can also specify the data type of the feature (optional) in the format shown below:

```
{ "FeatureDataTypes":{"col1":"numeric", "col2":"categorical" ... } }
```

**Note**

These column keys may not include the target column.

In ensembling mode, Autopilot only supports the following data types: `numeric`, `categorical`, `text`, and `datetime`. In HPO mode, Autopilot can support `numeric`, `categorical`, `text`, `datetime`, and `sequence`.

If only `FeatureDataTypes` is provided, the column keys (`col1`, `col2`,..) should be a subset of the column names in the input data.

If both `FeatureDataTypes` and `FeatureAttributeNames` are provided, then the column keys should be a subset of the column names provided in `FeatureAttributeNames`.

The key name `FeatureAttributeNames` is fixed. The values listed in [`"col1"`, `"col2"`, ...] are case sensitive and should be a list of strings containing unique values that are a subset of the column names in the input data. The list of columns provided must not include the target column.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: No

**GenerateCandidateDefinitionsOnly**

Generates possible candidates without training the models. A model candidate is a combination of data preprocessors, algorithms, and algorithm parameter settings.

Type: Boolean

Required: No

**Mode**

The method that Autopilot uses to train the data. You can either specify the mode manually or let Autopilot choose for you based on the dataset size by selecting `AUTO`. In `AUTO` mode, Autopilot chooses `ENSEMBLING` for datasets smaller than 100 MB, and `HYPERPARAMETER_TUNING` for larger ones.

The ENSEMBLING mode uses a multi-stack ensemble model to predict classification and regression tasks directly from your dataset. This machine learning mode combines several base models to produce an optimal predictive model. It then uses a stacking ensemble method to combine predictions from contributing members. A multi-stack ensemble model can provide better performance over a single model by combining the predictive capabilities of multiple models. See [Autopilot algorithm support](#) for a list of algorithms supported by ENSEMBLING mode.

The HYPERPARAMETER\_TUNING (HPO) mode uses the best hyperparameters to train the best version of a model. HPO automatically selects an algorithm for the type of problem you want to solve. Then HPO finds the best hyperparameters according to your objective metric. See [Autopilot algorithm support](#) for a list of algorithms supported by HYPERPARAMETER\_TUNING mode.

Type: String

Valid Values: AUTO | ENSEMBLING | HYPERPARAMETER\_TUNING

Required: No

### ProblemType

The type of supervised learning problem available for the model candidates of the AutoML job V2. For more information, see [SageMaker Autopilot problem types](#).

#### Note

You must either specify the type of supervised learning problem in ProblemType and provide the [AutoMLJobObjective](#) metric, or none at all.

Type: String

Valid Values: BinaryClassification | MulticlassClassification | Regression

Required: No

### SampleWeightAttributeName

If specified, this column name indicates which column of the dataset should be treated as sample weights for use by the objective metric during the training, evaluation, and the selection

of the best model. This column is not considered as a predictive feature. For more information on Autopilot metrics, see [Metrics and validation](#).

Sample weights should be numeric, non-negative, with larger values indicating which rows are more important than others. Data points that have invalid or no weight value are excluded.

Support for sample weights is available in [Ensembling](#) mode only.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9_-]+$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TabularResolvedAttributes

Service: Amazon SageMaker Service

The resolved attributes specific to the tabular problem type.

## Contents

### ProblemType

The type of supervised learning problem available for the model candidates of the AutoML job V2 (Binary Classification, Multiclass Classification, Regression). For more information, see [SageMaker Autopilot problem types](#).

Type: String

Valid Values: BinaryClassification | MulticlassClassification | Regression

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Tag

Service: Amazon SageMaker Service

A tag object that consists of a key and an optional value, used to manage metadata for SageMaker AWS resources.

You can add tags to notebook instances, training jobs, hyperparameter tuning jobs, batch transform jobs, models, labeling jobs, work teams, endpoint configurations, and endpoints. For more information on adding tags to SageMaker resources, see [AddTags](#).

For more information on adding metadata to your AWS resources with tagging, see [Tagging AWS resources](#). For advice on best practices for managing AWS resources with tagging, see [Tagging Best Practices: Implement an Effective AWS Resource Tagging Strategy](#).

## Contents

### Key

The tag key. Tag keys must be unique per resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^([\p{L}\p{Z}\p{N}_ . :/=+\-@]*)$`

Required: Yes

### Value

The tag value.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: `^([\p{L}\p{Z}\p{N}_ . :/=+\-@]*)$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# TargetPlatform

Service: Amazon SageMaker Service

Contains information about a target platform that you want your model to run on, such as OS, architecture, and accelerators. It is an alternative of TargetDevice.

## Contents

### Arch

Specifies a target platform architecture.

- X86\_64: 64-bit version of the x86 instruction set.
- X86: 32-bit version of the x86 instruction set.
- ARM64: ARMv8 64-bit CPU.
- ARM\_EABIHF: ARMv7 32-bit, Hard Float.
- ARM\_EABI: ARMv7 32-bit, Soft Float. Used by Android 32-bit ARM platform.

Type: String

Valid Values: X86\_64 | X86 | ARM64 | ARM\_EABI | ARM\_EABIHF

Required: Yes

### Os

Specifies a target platform OS.

- LINUX: Linux-based operating systems.
- ANDROID: Android operating systems. Android API level can be specified using the ANDROID\_PLATFORM compiler option. For example, "CompilerOptions":  

```
{ 'ANDROID_PLATFORM' : 28}
```

Type: String

Valid Values: ANDROID | LINUX

Required: Yes

### Accelerator

Specifies a target platform accelerator (optional).

- **NVIDIA:** Nvidia graphics processing unit. It also requires `gpu-code`, `trt-ver`, `cuda-ver` compiler options
- **MALI:** ARM Mali graphics processor
- **INTEL\_GRAPHICS:** Integrated Intel graphics

Type: String

Valid Values: INTEL\_GRAPHICS | MALI | NVIDIA | NNA

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TargetTrackingScalingPolicyConfiguration

Service: Amazon SageMaker Service

A target tracking scaling policy. Includes support for predefined or customized metrics.

When using the [PutScalingPolicy](#) API, this parameter is required when you are creating a policy with the policy type `TargetTrackingScaling`.

## Contents

### MetricSpecification

An object containing information about a metric.

Type: [MetricSpecification](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: No

### TargetValue

The recommended target value to specify for the metric when creating a scaling policy.

Type: Double

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TensorBoardAppSettings

Service: Amazon SageMaker Service

The TensorBoard app settings.

## Contents

### DefaultResourceSpec

The default instance type and the Amazon Resource Name (ARN) of the SageMaker image created on the instance.

Type: [ResourceSpec](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TensorBoardOutputConfig

Service: Amazon SageMaker Service

Configuration of storage locations for the Amazon SageMaker Debugger TensorBoard output data.

## Contents

### S3OutputPath

Path to Amazon S3 storage location for TensorBoard output.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: Yes

### LocalPath

Path to local storage location for tensorBoard output. Defaults to `/opt/ml/output/tensorboard`.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: `.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TextClassificationJobConfig

Service: Amazon SageMaker Service

The collection of settings used by an AutoML job V2 for the text classification problem type.

## Contents

### ContentColumn

The name of the column used to provide the sentences to be classified. It should not be the same as the target column.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

### TargetLabelColumn

The name of the column used to provide the class labels. It should not be same as the content column.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

### CompletionCriteria

How long a job is allowed to run, or how many candidates a job is allowed to generate.

Type: [AutoMLJobCompletionCriteria](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TextGenerationJobConfig

Service: Amazon SageMaker Service

The collection of settings used by an AutoML job V2 for the text generation problem type.

## Note

The text generation models that support fine-tuning in Autopilot are currently accessible exclusively in regions supported by Canvas. Refer to the documentation of Canvas for the [full list of its supported Regions](#).

## Contents

### BaseModelName

The name of the base model to fine-tune. Autopilot supports fine-tuning a variety of large language models. For information on the list of supported models, see [Text generation models supporting fine-tuning in Autopilot](#). If no `BaseModelName` is provided, the default model used is **Falcon7BInstruct**.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: No

### CompletionCriteria

How long a fine-tuning job is allowed to run. For `TextGenerationJobConfig` problem types, the `MaxRuntimePerTrainingJobInSeconds` attribute of `AutoMLJobCompletionCriteria` defaults to 72h (259200s).

Type: [AutoMLJobCompletionCriteria](#) object

Required: No

### ModelAccessConfig

The access configuration file to control access to the ML model. You can explicitly accept the model end-user license agreement (EULA) within the `ModelAccessConfig`.



- If you are a Jumpstart user, see the [End-user license agreements](#) section for more details on accepting the EULA.
- If you are an AutoML user, see the *Optional Parameters* section of *Create an AutoML job to fine-tune text generation models using the API* for details on [How to set the EULA acceptance when fine-tuning a model using the AutoML API](#).

Type: [ModelAccessConfig](#) object

Required: No

## TextGenerationHyperParameters

The hyperparameters used to configure and optimize the learning process of the base model. You can set any combination of the following hyperparameters for all base models. For more information on each supported hyperparameter, see [Optimize the learning process of your text generation models with hyperparameters](#).

- "epochCount": The number of times the model goes through the entire training dataset. Its value should be a string containing an integer value within the range of "1" to "10".
- "batchSize": The number of data samples used in each iteration of training. Its value should be a string containing an integer value within the range of "1" to "64".
- "learningRate": The step size at which a model's parameters are updated during training. Its value should be a string containing a floating-point value within the range of "0" to "1".
- "learningRateWarmupSteps": The number of training steps during which the learning rate gradually increases before reaching its target or maximum value. Its value should be a string containing an integer value within the range of "0" to "250".

Here is an example where all four hyperparameters are configured.

```
{ "epochCount": "5", "learningRate": "0.5", "batchSize": "32",  
  "learningRateWarmupSteps": "10" }
```

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 30 items.

Key Length Constraints: Maximum length of 32.

Key Pattern: `^[a-zA-Z0-9._-]+$`

Value Length Constraints: Maximum length of 16.

Value Pattern: `^[a-zA-Z0-9._-]+$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TextGenerationResolvedAttributes

Service: Amazon SageMaker Service

The resolved attributes specific to the text generation problem type.

## Contents

### BaseModelName

The name of the base model to fine-tune.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ThroughputConfig

Service: Amazon SageMaker Service

Used to set feature group throughput configuration. There are two modes: ON\_DEMAND and PROVISIONED. With on-demand mode, you are charged for data reads and writes that your application performs on your feature group. You do not need to specify read and write throughput because Feature Store accommodates your workloads as they ramp up and down. You can switch a feature group to on-demand only once in a 24 hour period. With provisioned throughput mode, you specify the read and write capacity per second that you expect your application to require, and you are billed based on those limits. Exceeding provisioned throughput will result in your requests being throttled.

Note: PROVISIONED throughput mode is supported only for feature groups that are offline-only, or use the [Standard](#) tier online store.

## Contents

### ThroughputMode

The mode used for your feature group throughput: ON\_DEMAND or PROVISIONED.

Type: String

Valid Values: OnDemand | Provisioned

Required: Yes

### ProvisionedReadCapacityUnits

For provisioned feature groups with online store enabled, this indicates the read throughput you are billed for and can consume without throttling.

This field is not applicable for on-demand feature groups.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10000000.

Required: No

### ProvisionedWriteCapacityUnits

For provisioned feature groups, this indicates the write throughput you are billed for and can consume without throttling.

This field is not applicable for on-demand feature groups.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10000000.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ThroughputConfigDescription

Service: Amazon SageMaker Service

Active throughput configuration of the feature group. There are two modes: ON\_DEMAND and PROVISIONED. With on-demand mode, you are charged for data reads and writes that your application performs on your feature group. You do not need to specify read and write throughput because Feature Store accommodates your workloads as they ramp up and down. You can switch a feature group to on-demand only once in a 24 hour period. With provisioned throughput mode, you specify the read and write capacity per second that you expect your application to require, and you are billed based on those limits. Exceeding provisioned throughput will result in your requests being throttled.

Note: PROVISIONED throughput mode is supported only for feature groups that are offline-only, or use the [Standard](#) tier online store.

## Contents

### ThroughputMode

The mode used for your feature group throughput: ON\_DEMAND or PROVISIONED.

Type: String

Valid Values: OnDemand | Provisioned

Required: Yes

### ProvisionedReadCapacityUnits

For provisioned feature groups with online store enabled, this indicates the read throughput you are billed for and can consume without throttling.

This field is not applicable for on-demand feature groups.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10000000.

Required: No

### ProvisionedWriteCapacityUnits

For provisioned feature groups, this indicates the write throughput you are billed for and can consume without throttling.

This field is not applicable for on-demand feature groups.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10000000.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ThroughputConfigUpdate

Service: Amazon SageMaker Service

The new throughput configuration for the feature group. You can switch between on-demand and provisioned modes or update the read / write capacity of provisioned feature groups. You can switch a feature group to on-demand only once in a 24 hour period.

## Contents

### ProvisionedReadCapacityUnits

For provisioned feature groups with online store enabled, this indicates the read throughput you are billed for and can consume without throttling.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10000000.

Required: No

### ProvisionedWriteCapacityUnits

For provisioned feature groups, this indicates the write throughput you are billed for and can consume without throttling.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10000000.

Required: No

### ThroughputMode

Target throughput mode of the feature group. Throughput update is an asynchronous operation, and the outcome should be monitored by polling LastUpdateStatus field in DescribeFeatureGroup response. You cannot update a feature group's throughput while another update is in progress.

Type: String

Valid Values: OnDemand | Provisioned

Required: No



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TimeSeriesConfig

Service: Amazon SageMaker Service

The collection of components that defines the time-series.

## Contents

### ItemIdentifierAttributeName

The name of the column that represents the set of item identifiers for which you want to predict the target value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

### TargetAttributeName

The name of the column representing the target variable that you want to predict for each item in your dataset. The data type of the target variable must be numerical.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

### TimestampAttributeName

The name of the column indicating a point in time at which the target value of a given item is recorded.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

### GroupingAttributeNames

A set of columns names that can be grouped with the item identifier column to create a composite key for which a target value is predicted.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TimeSeriesForecastingJobConfig

Service: Amazon SageMaker Service

The collection of settings used by an AutoML job V2 for the time-series forecasting problem type.

## Contents

### ForecastFrequency

The frequency of predictions in a forecast.

Valid intervals are an integer followed by Y (Year), M (Month), W (Week), D (Day), H (Hour), and min (Minute). For example, 1D indicates every day and 15min indicates every 15 minutes. The value of a frequency must not overlap with the next larger frequency. For example, you must use a frequency of 1H instead of 60min.

The valid values for each frequency are the following:

- Minute - 1-59
- Hour - 1-23
- Day - 1-6
- Week - 1-4
- Month - 1-11
- Year - 1

Type: String

Length Constraints: Minimum length of 1. Maximum length of 5.

Pattern: `^1Y|Y|([1-9]|1[0-1])M|M|[1-4]W|W|[1-6]D|D|([1-9]|1[0-9]|2[0-3])H|H|([1-9]|1[1-5][0-9])min$`

Required: Yes

### ForecastHorizon

The number of time-steps that the model predicts. The forecast horizon is also called the prediction length. The maximum forecast horizon is the lesser of 500 time-steps or 1/4 of the time-steps in the dataset.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

### TimeSeriesConfig

The collection of components that defines the time-series.

Type: [TimeSeriesConfig](#) object

Required: Yes

### CandidateGenerationConfig

Stores the configuration information for how model candidates are generated using an AutoML job V2.

Type: [CandidateGenerationConfig](#) object

Required: No

### CompletionCriteria

How long a job is allowed to run, or how many candidates a job is allowed to generate.

Type: [AutoMLJobCompletionCriteria](#) object

Required: No

### FeatureSpecificationS3Uri

A URL to the Amazon S3 data source containing additional selected features that complement the target, itemID, timestamp, and grouped columns set in `TimeSeriesConfig`. When not provided, the AutoML job V2 includes all the columns from the original dataset that are not already declared in `TimeSeriesConfig`. If provided, the AutoML job V2 only considers these additional columns as a complement to the ones declared in `TimeSeriesConfig`.

You can input `FeatureAttributeNames` (optional) in JSON format as shown below:

```
{ "FeatureAttributeNames":["col1", "col2", ...] }.
```

You can also specify the data type of the feature (optional) in the format shown below:

```
{ "FeatureDataTypes":{"col1":"numeric", "col2":"categorical" ... } }
```

Autopilot supports the following data types: `numeric`, `categorical`, `text`, and `datetime`.

**Note**

These column keys must not include any column set in `TimeSeriesConfig`.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: No

**ForecastQuantiles**

The quantiles used to train the model for forecasts at a specified quantile. You can specify quantiles from 0.01 (p1) to 0.99 (p99), by increments of 0.01 or higher. Up to five forecast quantiles can be specified. When `ForecastQuantiles` is not provided, the AutoML job uses the quantiles p10, p50, and p90 as default.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Minimum length of 2. Maximum length of 4.

Pattern: `(^p[1-9]\d?$)`

Required: No

**HolidayConfig**

The collection of holiday featurization attributes used to incorporate national holiday information into your forecasting model.

Type: Array of [HolidayConfigAttributes](#) objects

Array Members: Fixed number of 1 item.

Required: No

**Transformations**

The transformations modifying specific attributes of the time-series, such as filling strategies for missing values.

Type: [TimeSeriesTransformations](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TimeSeriesForecastingSettings

Service: Amazon SageMaker Service

Time series forecast settings for the SageMaker Canvas application.

## Contents

### AmazonForecastRoleArn

The IAM role that Canvas passes to Amazon Forecast for time series forecasting. By default, Canvas uses the execution role specified in the `UserProfile` that launches the Canvas application. If an execution role is not specified in the `UserProfile`, Canvas uses the execution role specified in the `Domain` that owns the `UserProfile`. To allow time series forecasting, this IAM role should have the [AmazonSageMakerCanvasForecastAccess](#) policy attached and `forecast.amazonaws.com` added in the trust relationship as a service principal.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: No

### Status

Describes whether time series forecasting is enabled or disabled in the Canvas application.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)



- [AWS SDK for Ruby V3](#)

# TimeSeriesTransformations

Service: Amazon SageMaker Service

Transformations allowed on the dataset. Supported transformations are **Filling** and **Aggregation**. **Filling** specifies how to add values to missing values in the dataset. **Aggregation** defines how to aggregate data that does not align with forecast frequency.

## Contents

### Aggregation

A key value pair defining the aggregation method for a column, where the key is the column name and the value is the aggregation method.

The supported aggregation methods are `sum` (default), `avg`, `first`, `min`, `max`.

#### Note

Aggregation is only supported for the target column.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Valid Values: `sum` | `avg` | `first` | `min` | `max`

Required: No

### Filling

A key value pair defining the filling method for a column, where the key is the column name and the value is an object which defines the filling logic. You can specify multiple filling methods for a single column.

The supported filling methods and their corresponding options are:

- `frontfill`: `none` (Supported only for target column)
- `middlefill`: `zero`, `value`, `median`, `mean`, `min`, `max`
- `backfill`: `zero`, `value`, `median`, `mean`, `min`, `max`

- `futurefill`: zero, value, median, mean, min, max

To set a filling method to a specific value, set the `fill` parameter to the chosen filling method value (for example `"backfill" : "value"`), and define the filling value in an additional parameter prefixed with `"_value"`. For example, to set `backfill` to a value of 2, you must include two parameters: `"backfill": "value"` and `"backfill_value": "2"`.

Type: String to string to string map map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Map Entries: Maximum number of 6 items.

Valid Keys: `frontfill | middlefill | backfill | futurefill | frontfill_value | middlefill_value | backfill_value | futurefill_value`

Value Length Constraints: Minimum length of 1. Maximum length of 256.

Value Pattern: `^[a-zA-Z0-9\_\-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrackingServerSummary

Service: Amazon SageMaker Service

The summary of the tracking server to list.

## Contents

### CreationTime

The creation time of a listed tracking server.

Type: Timestamp

Required: No

### IsActive

The activity status of a listed tracking server.

Type: String

Valid Values: Active | Inactive

Required: No

### LastModifiedTime

The last modified time of a listed tracking server.

Type: Timestamp

Required: No

### MlflowVersion

The MLflow version used for a listed tracking server.

Type: String

Length Constraints: Maximum length of 16.

Pattern: `^[0-9]*.[0-9]*.[0-9]*`

Required: No

## TrackingServerArn

The ARN of a listed tracking server.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:mlflow-tracking-server/.*`

Required: No

## TrackingServerName

The name of a listed tracking server.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,255}`

Required: No

## TrackingServerStatus

The creation status of a listed tracking server.

Type: String

Valid Values: `Creating | Created | CreateFailed | Updating | Updated | UpdateFailed | Deleting | DeleteFailed | Stopping | Stopped | StopFailed | Starting | Started | StartFailed | MaintenanceInProgress | MaintenanceComplete | MaintenanceFailed`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrafficPattern

Service: Amazon SageMaker Service

Defines the traffic pattern of the load test.

## Contents

### Phases

Defines the phases traffic specification.

Type: Array of [Phase](#) objects

Array Members: Minimum number of 1 item.

Required: No

### Stairs

Defines the stairs traffic pattern.

Type: [Stairs](#) object

Required: No

### TrafficType

Defines the traffic patterns. Choose either PHASES or STAIRS.

Type: String

Valid Values: PHASES | STAIRS

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)





# TrafficRoutingConfig

Service: Amazon SageMaker Service

Defines the traffic routing strategy during an endpoint deployment to shift traffic from the old fleet to the new fleet.

## Contents

### Type

Traffic routing strategy type.

- **ALL\_AT\_ONCE**: Endpoint traffic shifts to the new fleet in a single step.
- **CANARY**: Endpoint traffic shifts to the new fleet in two steps. The first step is the canary, which is a small portion of the traffic. The second step is the remainder of the traffic.
- **LINEAR**: Endpoint traffic shifts to the new fleet in n steps of a configurable size.

Type: String

Valid Values: ALL\_AT\_ONCE | CANARY | LINEAR

Required: Yes

### WaitIntervalInSeconds

The waiting time (in seconds) between incremental steps to turn on traffic on the new endpoint fleet.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 3600.

Required: Yes

### CanarySize

Batch size for the first step to turn on traffic on the new endpoint fleet. Value must be less than or equal to 50% of the variant's total instance count.

Type: [CapacitySize](#) object

Required: No

## LinearStepSize

Batch size for each step to turn on traffic on the new endpoint fleet. Value must be 10-50% of the variant's total instance count.

Type: [CapacitySize](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrainingImageConfig

Service: Amazon SageMaker Service

The configuration to use an image from a private Docker registry for a training job.

## Contents

### TrainingRepositoryAccessMode

The method that your training job will use to gain access to the images in your private Docker registry. For access to an image in a private Docker registry, set to Vpc.

Type: String

Valid Values: Platform | Vpc

Required: Yes

### TrainingRepositoryAuthConfig

An object containing authentication information for a private Docker registry containing your training images.

Type: [TrainingRepositoryAuthConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrainingJob

Service: Amazon SageMaker Service

Contains information about a training job.

## Contents

### AlgorithmSpecification

Information about the algorithm used for training, and algorithm metadata.

Type: [AlgorithmSpecification](#) object

Required: No

### AutoMLJobArn

The Amazon Resource Name (ARN) of the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:automl-job/.*`

Required: No

### BillableTimeInSeconds

The billable time in seconds.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### CheckpointConfig

Contains information about the output location for managed spot training checkpoint data.

Type: [CheckpointConfig](#) object

Required: No

## CreationTime

A timestamp that indicates when the training job was created.

Type: Timestamp

Required: No

## DebugHookConfig

Configuration information for the Amazon SageMaker Debugger hook parameters, metric and tensor collections, and storage paths. To learn more about how to configure the DebugHookConfig parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

Type: [DebugHookConfig](#) object

Required: No

## DebugRuleConfigurations

Information about the debug rule configuration.

Type: Array of [DebugRuleConfiguration](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

## DebugRuleEvaluationStatuses

Information about the evaluation status of the rules for the training job.

Type: Array of [DebugRuleEvaluationStatus](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

## EnableInterContainerTrafficEncryption

To encrypt all communications between ML compute instances in distributed training, choose `True`. Encryption provides greater security for distributed training, but training might take longer. How long it takes depends on the amount of communication between compute instances, especially if you use a deep learning algorithm in distributed training.

Type: Boolean

Required: No

### **EnableManagedSpotTraining**

When true, enables managed spot training using Amazon EC2 Spot instances to run training jobs instead of on-demand instances. For more information, see [Managed Spot Training](#).

Type: Boolean

Required: No

### **EnableNetworkIsolation**

If the `TrainingJob` was created with network isolation, the value is set to `true`. If network isolation is enabled, nodes can't communicate beyond the VPC they run in.

Type: Boolean

Required: No

### **Environment**

The environment variables to set in the Docker container.

Type: String to string map

Map Entries: Maximum number of 100 items.

Key Length Constraints: Maximum length of 512.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 512.

Value Pattern: `[\S\s]*`

Required: No

### **ExperimentConfig**

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob](#)

- [CreateTrainingJob](#)
- [CreateTransformJob](#)

Type: [ExperimentConfig](#) object

Required: No

### **FailureReason**

If the training job failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **FinalMetricDataList**

A list of final metric values that are set when the training job completes. Used only if the training job was configured to use metrics.

Type: Array of [MetricData](#) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

Required: No

### **HyperParameters**

Algorithm-specific parameters.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 2500.

Value Pattern: .\*

Required: No

## InputDataConfig

An array of `Channel` objects that describes each data input channel.

Your input must be in the same AWS region as your training job.

Type: Array of [Channel](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

## LabelingJobArn

The Amazon Resource Name (ARN) of the labeling job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:labeling-job/.*`

Required: No

## LastModifiedTime

A timestamp that indicates when the status of the training job was last modified.

Type: Timestamp

Required: No

## ModelArtifacts

Information about the Amazon S3 location that is configured for storing model artifacts.

Type: [ModelArtifacts](#) object

Required: No

## OutputDataConfig

The S3 path where model artifacts that you configured when creating the job are stored. SageMaker creates subfolders for model artifacts.

Type: [OutputDataConfig](#) object



Required: No

### **ProfilerConfig**

Configuration information for Amazon SageMaker Debugger system monitoring, framework profiling, and storage paths.

Type: [ProfilerConfig](#) object

Required: No

### **ResourceConfig**

Resources, including ML compute instances and ML storage volumes, that are configured for model training.

Type: [ResourceConfig](#) object

Required: No

### **RetryStrategy**

The number of times to retry the job when the job fails due to an `InternalServerError`.

Type: [RetryStrategy](#) object

Required: No

### **RoleArn**

The AWS Identity and Access Management (IAM) role configured for the training job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\]*:iam:~\d{12}:role/?[a-zA-Z_0-9+=,.\@-\_/\]+$`

Required: No

### **SecondaryStatus**

Provides detailed information about the state of the training job. For detailed information about the secondary status of the training job, see `StatusMessage` under [SecondaryStatusTransition](#).

SageMaker provides primary statuses and secondary statuses that apply to each of them:

### InProgress

- **Starting** - Starting the training job.
- **Downloading** - An optional stage for algorithms that support File training input mode. It indicates that data is being downloaded to the ML storage volumes.
- **Training** - Training is in progress.
- **Uploading** - Training is complete and the model artifacts are being uploaded to the S3 location.

### Completed

- **Completed** - The training job has completed.

### Failed

- **Failed** - The training job has failed. The reason for the failure is returned in the `FailureReason` field of `DescribeTrainingJobResponse`.

### Stopped

- **MaxRuntimeExceeded** - The job stopped because it exceeded the maximum allowed runtime.
- **Stopped** - The training job has stopped.

### Stopping

- **Stopping** - Stopping the training job.

#### **Important**

Valid values for `SecondaryStatus` are subject to change.

We no longer support the following secondary statuses:

- `LaunchingMLInstances`
- `PreparingTrainingStack`
- `DownloadingTrainingImage`

Type: String

Valid Values: `Starting` | `LaunchingMLInstances` | `PreparingTrainingStack` | `Downloading` | `DownloadingTrainingImage` | `Training` | `Uploading` | `Stopping`

| Stopped | MaxRuntimeExceeded | Completed | Failed | Interrupted |  
MaxWaitTimeExceeded | Updating | Restarting | Pending

Required: No

### SecondaryStatusTransitions

A history of all of the secondary statuses that the training job has transitioned through.

Type: Array of [SecondaryStatusTransition](#) objects

Required: No

### StoppingCondition

Specifies a limit to how long a model training job can run. It also specifies how long a managed Spot training job has to complete. When the job reaches the time limit, SageMaker ends the training job. Use this API to cap model training costs.

To stop a job, SageMaker sends the algorithm the SIGTERM signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts, so the results of training are not lost.

Type: [StoppingCondition](#) object

Required: No

### Tags

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### TensorBoardOutputConfig

Configuration of storage locations for the Amazon SageMaker Debugger TensorBoard output data.

Type: [TensorBoardOutputConfig](#) object

Required: No

### **TrainingEndTime**

Indicates the time when the training job ends on training instances. You are billed for the time interval between the value of `TrainingStartTime` and this time. For successful jobs and stopped jobs, this is the time after model artifacts are uploaded. For failed jobs, this is the time when SageMaker detects a job failure.

Type: Timestamp

Required: No

### **TrainingJobArn**

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:training-job/.*`

Required: No

### **TrainingJobName**

The name of the training job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### **TrainingJobStatus**

The status of the training job.

Training job statuses are:

- `InProgress` - The training is in progress.
- `Completed` - The training job has completed.

- **Failed** - The training job has failed. To see the reason for the failure, see the `FailureReason` field in the response to a `DescribeTrainingJobResponse` call.
- **Stopping** - The training job is stopping.
- **Stopped** - The training job has stopped.

For more detailed information, see `SecondaryStatus`.

Type: String

Valid Values: `InProgress` | `Completed` | `Failed` | `Stopping` | `Stopped`

Required: No

### **TrainingStartTime**

Indicates the time when the training job starts on training instances. You are billed for the time interval between this time and the value of `TrainingEndTime`. The start time in CloudWatch Logs might be later than this time. The difference is due to the time it takes to download the training data and to the size of the training container.

Type: Timestamp

Required: No

### **TrainingTimeInSeconds**

The training time in seconds.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### **TuningJobArn**

The Amazon Resource Name (ARN) of the associated hyperparameter tuning job if the training job was launched by a hyperparameter tuning job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:hyper-parameter-tuning-job/.*`

Required: No

## VpcConfig

A [VpcConfig](#) object that specifies the VPC that this training job has access to. For more information, see [Protect Training Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [VpcConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrainingJobDefinition

Service: Amazon SageMaker Service

Defines the input needed to run a training job using the algorithm.

## Contents

### InputDataConfig

An array of `Channel` objects, each of which specifies an input source.

Type: Array of [Channel](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: Yes

### OutputDataConfig

the path to the S3 bucket where you want to store model artifacts. SageMaker creates subfolders for the artifacts.

Type: [OutputDataConfig](#) object

Required: Yes

### ResourceConfig

The resources, including the ML compute instances and ML storage volumes, to use for model training.

Type: [ResourceConfig](#) object

Required: Yes

### StoppingCondition

Specifies a limit to how long a model training job can run. It also specifies how long a managed Spot training job has to complete. When the job reaches the time limit, SageMaker ends the training job. Use this API to cap model training costs.

To stop a job, SageMaker sends the algorithm the SIGTERM signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts.

Type: [StoppingCondition](#) object

Required: Yes

## TrainingInputMode

The training input mode that the algorithm supports. For more information about input modes, see [Algorithms](#).

### Pipe mode

If an algorithm supports Pipe mode, Amazon SageMaker streams data directly from Amazon S3 to the container.

### File mode

If an algorithm supports File mode, SageMaker downloads the training data from S3 to the provisioned ML storage volume, and mounts the directory to the Docker volume for the training container.

You must provision the ML storage volume with sufficient capacity to accommodate the data downloaded from S3. In addition to the training data, the ML storage volume also stores the output model. The algorithm container uses the ML storage volume to also store intermediate information, if any.

For distributed algorithms, training data is distributed uniformly. Your training duration is predictable if the input data objects sizes are approximately the same. SageMaker does not split the files any further for model training. If the object sizes are skewed, training won't be optimal as the data distribution is also skewed when one host in a training cluster is overloaded, thus becoming a bottleneck in training.

### FastFile mode

If an algorithm supports FastFile mode, SageMaker streams data directly from S3 to the container with no code changes, and provides file system access to the data. Users can author their training script to interact with these files as if they were stored on disk.

FastFile mode works best when the data is read sequentially. Augmented manifest files aren't supported. The startup time is lower when there are fewer files in the S3 bucket provided.

Type: String



Valid Values: Pipe | File | FastFile

Required: Yes

## HyperParameters

The hyperparameters used for the training job.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 2500.

Value Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrainingJobStatusCounters

Service: Amazon SageMaker Service

The numbers of training jobs launched by a hyperparameter tuning job, categorized by status.

## Contents

### Completed

The number of completed training jobs launched by the hyperparameter tuning job.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### InProgress

The number of in-progress training jobs launched by a hyperparameter tuning job.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### NonRetryableError

The number of training jobs that failed and can't be retried. A failed training job can't be retried if it failed because a client error occurred.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### RetryableError

The number of training jobs that failed, but can be retried. A failed training job can be retried only if it failed because an internal service error occurred.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## Stopped

The number of training jobs launched by a hyperparameter tuning job that were manually stopped.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrainingJobStepMetadata

Service: Amazon SageMaker Service

Metadata for a training job step.

## Contents

### Arn

The Amazon Resource Name (ARN) of the training job that was run by this step execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:training-job/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrainingJobSummary

Service: Amazon SageMaker Service

Provides summary information about a training job.

## Contents

### CreationTime

A timestamp that shows when the training job was created.

Type: Timestamp

Required: Yes

### TrainingJobArn

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:training-job/.*`

Required: Yes

### TrainingJobName

The name of the training job that you want a summary for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### TrainingJobStatus

The status of the training job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: Yes

### **LastModifiedTime**

Timestamp when the training job was last modified.

Type: Timestamp

Required: No

### **TrainingEndTime**

A timestamp that shows when the training job ended. This field is set only if the training job has one of the terminal statuses (Completed, Failed, or Stopped).

Type: Timestamp

Required: No

### **WarmPoolStatus**

The status of the warm pool associated with the training job.

Type: [WarmPoolStatus](#) object

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrainingRepositoryAuthConfig

Service: Amazon SageMaker Service

An object containing authentication information for a private Docker registry.

## Contents

### TrainingRepositoryCredentialsProviderArn

The Amazon Resource Name (ARN) of an AWS Lambda function used to give SageMaker access credentials to your private Docker registry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:[\p{Alnum}\-]+:lambda:[\p{Alnum}\-]+:[0-9]{12}:function:.*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrainingSpecification

Service: Amazon SageMaker Service

Defines how the algorithm is used for a training job.

## Contents

### SupportedTrainingInstanceTypes

A list of the instance types that this algorithm can use for training.

Type: Array of strings

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.p4d.24xlarge | ml.p4de.24xlarge | ml.p5.48xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5n.xlarge | ml.c5n.2xlarge | ml.c5n.4xlarge | ml.c5n.9xlarge | ml.c5n.18xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.trn1.2xlarge | ml.trn1.32xlarge | ml.trn1n.32xlarge | ml.m6i.large | ml.m6i.xlarge | ml.m6i.2xlarge | ml.m6i.4xlarge | ml.m6i.8xlarge | ml.m6i.12xlarge | ml.m6i.16xlarge | ml.m6i.24xlarge | ml.m6i.32xlarge | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.8xlarge | ml.c6i.4xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge

Required: Yes

### TrainingChannels

A list of ChannelSpecification objects, which specify the input sources to be used by the algorithm.

Type: Array of [ChannelSpecification](#) objects



Array Members: Minimum number of 1 item. Maximum number of 8 items.

Required: Yes

### **TrainingImage**

The Amazon ECR registry path of the Docker image that contains the training algorithm.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `[\S]+`

Required: Yes

### **AdditionalS3DataSource**

The additional data source used during the training job.

Type: [AdditionalS3DataSource](#) object

Required: No

### **MetricDefinitions**

A list of `MetricDefinition` objects, which are used for parsing metrics generated by the algorithm.

Type: Array of [MetricDefinition](#) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

Required: No

### **SupportedHyperParameters**

A list of the `HyperParameterSpecification` objects, that define the supported hyperparameters. This is required if the algorithm supports automatic model tuning.>

Type: Array of [HyperParameterSpecification](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Required: No

## SupportedTuningJobObjectiveMetrics

A list of the metrics that the algorithm emits that can be used as the objective metric in a hyperparameter tuning job.

Type: Array of [HyperParameterTuningJobObjective](#) objects

Required: No

## SupportsDistributedTraining

Indicates whether the algorithm supports distributed training. If set to false, buyers can't request more than one instance during training.

Type: Boolean

Required: No

## TrainingImageDigest

An MD5 hash of the training algorithm that identifies the Docker image used for training.

Type: String

Length Constraints: Maximum length of 72.

Pattern: `^[Ss][Hh][Aa]256:[0-9a-fA-F]{64}$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformDataSource

Service: Amazon SageMaker Service

Describes the location of the channel data.

## Contents

### S3DataSource

The S3 location of the data source that is associated with a channel.

Type: [TransformS3DataSource](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformInput

Service: Amazon SageMaker Service

Describes the input source of a transform job and the way the transform job consumes it.

## Contents

### DataSource

Describes the location of the channel data, which is, the S3 location of the input data that the model can consume.

Type: [TransformDataSource](#) object

Required: Yes

### CompressionType

If your transform data is compressed, specify the compression type. Amazon SageMaker automatically decompresses the data for the transform job accordingly. The default value is None.

Type: String

Valid Values: None | Gzip

Required: No

### ContentType

The multipurpose internet mail extension (MIME) type of the data. Amazon SageMaker uses the MIME type with each http call to transfer data to the transform job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### SplitType

The method to use to split the transform job's data files into smaller batches. Splitting is necessary when the total size of each object is too large to fit in a single request. You can also

use data splitting to improve performance by processing multiple concurrent mini-batches. The default value for `SplitType` is `None`, which indicates that input data files are not split, and request payloads contain the entire contents of an input object. Set the value of this parameter to `Line` to split records on a newline character boundary. `SplitType` also supports a number of record-oriented binary data formats. Currently, the supported record formats are:

- `RecordIO`
- `TFRecord`

When splitting is enabled, the size of a mini-batch depends on the values of the `BatchStrategy` and `MaxPayloadInMB` parameters. When the value of `BatchStrategy` is `MultiRecord`, Amazon SageMaker sends the maximum number of records in each request, up to the `MaxPayloadInMB` limit. If the value of `BatchStrategy` is `SingleRecord`, Amazon SageMaker sends individual records in each request.

#### Note

Some data formats represent a record as a binary payload wrapped with extra padding bytes. When splitting is applied to a binary data format, padding is removed if the value of `BatchStrategy` is set to `SingleRecord`. Padding is not removed if the value of `BatchStrategy` is set to `MultiRecord`.

For more information about `RecordIO`, see [Create a Dataset Using RecordIO](#) in the MXNet documentation. For more information about `TFRecord`, see [Consuming TFRecord data](#) in the TensorFlow documentation.

Type: String

Valid Values: `None` | `Line` | `RecordIO` | `TFRecord`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# TransformJob

Service: Amazon SageMaker Service

A batch transform job. For information about SageMaker batch transform, see [Use Batch Transform](#).

## Contents

### AutoMLJobArn

The Amazon Resource Name (ARN) of the AutoML job that created the transform job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-*:]*:sagemaker:[a-z0-9\-*:]*:[0-9]{12}:automl-job/.*`

Required: No

### BatchStrategy

Specifies the number of records to include in a mini-batch for an HTTP inference request. A record is a single unit of input data that inference can be made on. For example, a single line in a CSV file is a record.

Type: String

Valid Values: `MultiRecord` | `SingleRecord`

Required: No

### CreationTime

A timestamp that shows when the transform Job was created.

Type: Timestamp

Required: No

### DataCaptureConfig

Configuration to control how SageMaker captures inference data for batch transform jobs.

Type: [BatchDataCaptureConfig](#) object

Required: No

## DataProcessing

The data structure used to specify the data to be used for inference in a batch transform job and to associate the data that is relevant to the prediction results in the output. The input filter provided allows you to exclude input data that is not needed for inference in a batch transform job. The output filter provided allows you to include input data relevant to interpreting the predictions in the output from the job. For more information, see [Associate Prediction Results with their Corresponding Input Records](#).

Type: [DataProcessing](#) object

Required: No

## Environment

The environment variables to set in the Docker container. We support up to 16 key and values entries in the map.

Type: String to string map

Map Entries: Maximum number of 16 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]{0,1023}`

Value Length Constraints: Maximum length of 10240.

Value Pattern: `[\S\s]*`

Required: No

## ExperimentConfig

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob](#)
- [CreateTrainingJob](#)
- [CreateTransformJob](#)

Type: [ExperimentConfig](#) object



Required: No

### **FailureReason**

If the transform job failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **LabelingJobArn**

The Amazon Resource Name (ARN) of the labeling job that created the transform job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:labeling-job/.*`

Required: No

### **MaxConcurrentTransforms**

The maximum number of parallel requests that can be sent to each instance in a transform job. If `MaxConcurrentTransforms` is set to 0 or left unset, SageMaker checks the optional `execution-parameters` to determine the settings for your chosen algorithm. If the `execution-parameters` endpoint is not enabled, the default value is 1. For built-in algorithms, you don't need to set a value for `MaxConcurrentTransforms`.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **MaxPayloadInMB**

The maximum allowed size of the payload, in MB. A payload is the data portion of a record (without metadata). The value in `MaxPayloadInMB` must be greater than, or equal to, the size of a single record. To estimate the size of a record in MB, divide the size of your dataset by the number of records. To ensure that the records fit within the maximum payload size, we recommend using a slightly larger value. The default value is 6 MB. For cases where the payload

might be arbitrarily large and is transmitted using HTTP chunked encoding, set the value to 0. This feature works only in supported algorithms. Currently, SageMaker built-in algorithms do not support HTTP chunked encoding.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **ModelClientConfig**

Configures the timeout and maximum number of retries for processing a transform job invocation.

Type: [ModelClientConfig](#) object

Required: No

### **ModelName**

The name of the model associated with the transform job.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9]( [\ -a-zA-Z0-9 ] * [a-zA-Z0-9] ) ?`

Required: No

### **Tags**

A list of tags associated with the transform job.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### **TransformEndTime**

Indicates when the transform job has been completed, or has stopped or failed. You are billed for the time interval between this time and the value of `TransformStartTime`.

Type: Timestamp

Required: No

### **TransformInput**

Describes the input source of a transform job and the way the transform job consumes it.

Type: [TransformInput](#) object

Required: No

### **TransformJobArn**

The Amazon Resource Name (ARN) of the transform job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:transform-job/.*`

Required: No

### **TransformJobName**

The name of the transform job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

### **TransformJobStatus**

The status of the transform job.

Transform job statuses are:

- `InProgress` - The job is in progress.
- `Completed` - The job has completed.
- `Failed` - The transform job has failed. To see the reason for the failure, see the `FailureReason` field in the response to a `DescribeTransformJob` call.

- Stopping - The transform job is stopping.
- Stopped - The transform job has stopped.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: No

### **TransformOutput**

Describes the results of a transform job.

Type: [TransformOutput](#) object

Required: No

### **TransformResources**

Describes the resources, including ML instance types and ML instance count, to use for transform job.

Type: [TransformResources](#) object

Required: No

### **TransformStartTime**

Indicates when the transform job starts on ML instances. You are billed for the time interval between this time and the value of `TransformEndTime`.

Type: Timestamp

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# TransformJobDefinition

Service: Amazon SageMaker Service

Defines the input needed to run a transform job using the inference specification specified in the algorithm.

## Contents

### TransformInput

A description of the input source and the way the transform job consumes it.

Type: [TransformInput](#) object

Required: Yes

### TransformOutput

Identifies the Amazon S3 location where you want Amazon SageMaker to save the results from the transform job.

Type: [TransformOutput](#) object

Required: Yes

### TransformResources

Identifies the ML compute instances for the transform job.

Type: [TransformResources](#) object

Required: Yes

### BatchStrategy

A string that determines the number of records included in a single mini-batch.

SingleRecord means only one record is used per mini-batch. MultiRecord means a mini-batch is set to contain as many records that can fit within the MaxPayloadInMB limit.

Type: String

Valid Values: MultiRecord | SingleRecord

Required: No

## Environment

The environment variables to set in the Docker container. We support up to 16 key and values entries in the map.

Type: String to string map

Map Entries: Maximum number of 16 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]{0,1023}`

Value Length Constraints: Maximum length of 10240.

Value Pattern: `[\S\s]*`

Required: No

## MaxConcurrentTransforms

The maximum number of parallel requests that can be sent to each instance in a transform job. The default value is 1.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## MaxPayloadInMB

The maximum payload size allowed, in MB. A payload is the data portion of a record (without metadata).

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# TransformJobStepMetadata

Service: Amazon SageMaker Service

Metadata for a transform job step.

## Contents

### Arn

The Amazon Resource Name (ARN) of the transform job that was run by this step execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:transform-job/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformJobSummary

Service: Amazon SageMaker Service

Provides a summary of a transform job. Multiple TransformJobSummary objects are returned as a list after in response to a [ListTransformJobs](#) call.

## Contents

### CreationTime

A timestamp that shows when the transform Job was created.

Type: Timestamp

Required: Yes

### TransformJobArn

The Amazon Resource Name (ARN) of the transform job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:transform-job/.*`

Required: Yes

### TransformJobName

The name of the transform job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

### TransformJobStatus

The status of the transform job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: Yes

### **FailureReason**

If the transform job failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **LastModifiedTime**

Indicates when the transform job was last modified.

Type: Timestamp

Required: No

### **TransformEndTime**

Indicates when the transform job ends on compute instances. For successful jobs and stopped jobs, this is the exact time recorded after the results are uploaded. For failed jobs, this is when Amazon SageMaker detected that the job failed.

Type: Timestamp

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformOutput

Service: Amazon SageMaker Service

Describes the results of a transform job.

## Contents

### S3OutputPath

The Amazon S3 path where you want Amazon SageMaker to store the results of the transform job. For example, `s3://bucket-name/key-name-prefix`.

For every S3 object used as input for the transform job, batch transform stores the transformed data with an `.out` suffix in a corresponding subfolder in the location in the output prefix. For example, for the input data stored at `s3://bucket-name/input-name-prefix/dataset01/data.csv`, batch transform stores the transformed data at `s3://bucket-name/output-name-prefix/input-name-prefix/data.csv.out`. Batch transform doesn't upload partially processed objects. For an input S3 object that contains multiple records, it creates an `.out` file only if the transform job succeeds on the entire file. When the input contains multiple S3 objects, the batch transform job processes the listed S3 objects and uploads only the output for successfully processed objects. If any object fails in the transform job batch transform marks the job as failed to prompt investigation.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: Yes

### Accept

The MIME type used to specify the output data. Amazon SageMaker uses the MIME type with each http call to transfer data from the transform job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `.*`

Required: No

### AssembleWith

Defines how to assemble the results of the transform job as a single S3 object. Choose a format that is most convenient to you. To concatenate the results in binary format, specify `None`. To add a newline character at the end of every transformed record, specify `Line`.

Type: String

Valid Values: `None` | `Line`

Required: No

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt the model artifacts at rest using Amazon S3 server-side encryption. The `KmsKeyId` can be any of the following formats:

- Key ID: `1234abcd-12ab-34cd-56ef-1234567890ab`
- Key ARN: `arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab`
- Alias name: `alias/ExampleAlias`
- Alias name ARN: `arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias`

If you don't provide a KMS key ID, Amazon SageMaker uses the default KMS key for Amazon S3 for your role's account. For more information, see [KMS-Managed Encryption Keys](#) in the *Amazon Simple Storage Service Developer Guide*.

The KMS key policy must grant permission to the IAM role that you specify in your [CreateModel](#) request. For more information, see [Using Key Policies in AWS KMS](#) in the *AWS Key Management Service Developer Guide*.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformResources

Service: Amazon SageMaker Service

Describes the resources, including ML instance types and ML instance count, to use for transform job.

## Contents

### InstanceCount

The number of ML compute instances to use in the transform job. The default value is 1, and the maximum is 100. For distributed transform jobs, specify a value greater than 1.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

### InstanceType

The ML compute instance type for the transform job. If you are using built-in algorithms to transform moderately sized datasets, we recommend using ml.m4.xlarge or ml.m5.large instance types.

Type: String

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m6i.large | ml.m6i.xlarge | ml.m6i.2xlarge | ml.m6i.4xlarge | ml.m6i.8xlarge | ml.m6i.12xlarge | ml.m6i.16xlarge | ml.m6i.24xlarge | ml.m6i.32xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge | ml.r6i.large | ml.r6i.xlarge | ml.r6i.2xlarge | ml.r6i.4xlarge | ml.r6i.8xlarge | ml.r6i.12xlarge | ml.r6i.16xlarge | ml.r6i.24xlarge | ml.r6i.32xlarge | ml.m7i.large | ml.m7i.xlarge | ml.m7i.2xlarge |

ml.m7i.4xlarge | ml.m7i.8xlarge | ml.m7i.12xlarge | ml.m7i.16xlarge  
| ml.m7i.24xlarge | ml.m7i.48xlarge | ml.c7i.large | ml.c7i.xlarge  
| ml.c7i.2xlarge | ml.c7i.4xlarge | ml.c7i.8xlarge | ml.c7i.12xlarge  
| ml.c7i.16xlarge | ml.c7i.24xlarge | ml.c7i.48xlarge | ml.r7i.large  
| ml.r7i.xlarge | ml.r7i.2xlarge | ml.r7i.4xlarge | ml.r7i.8xlarge |  
ml.r7i.12xlarge | ml.r7i.16xlarge | ml.r7i.24xlarge | ml.r7i.48xlarge  
| ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge  
| ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.g5.xlarge | ml.g5.2xlarge  
| ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.12xlarge | ml.g5.16xlarge |  
ml.g5.24xlarge | ml.g5.48xlarge

Required: Yes

### VolumeKmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt model data on the storage volume attached to the ML compute instance(s) that run the batch transform job.

#### Note

Certain Nitro-based instances include local storage, dependent on the instance type. Local storage volumes are encrypted using a hardware module on the instance. You can't request a VolumeKmsKeyId when using an instance type with local storage. For a list of instance types that support local instance storage, see [Instance Store Volumes](#). For more information about local instance storage encryption, see [SSD Instance Store Volumes](#).

The VolumeKmsKeyId can be any of the following formats:

- Key ID: 1234abcd-12ab-34cd-56ef-1234567890ab
- Key ARN: arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab
- Alias name: alias/ExampleAlias
- Alias name ARN: arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias

Type: String



Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_-]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformS3DataSource

Service: Amazon SageMaker Service

Describes the S3 data source.

## Contents

### S3DataType

If you choose `S3Prefix`, `S3Uri` identifies a key name prefix. Amazon SageMaker uses all objects with the specified key name prefix for batch transform.

If you choose `ManifestFile`, `S3Uri` identifies an object that is a manifest file containing a list of object keys that you want Amazon SageMaker to use for batch transform.

The following values are compatible: `ManifestFile`, `S3Prefix`

The following value is not compatible: `AugmentedManifestFile`

Type: String

Valid Values: `ManifestFile` | `S3Prefix` | `AugmentedManifestFile`

Required: Yes

### S3Uri

Depending on the value specified for the `S3DataType`, identifies either a key name prefix or a manifest. For example:

- A key name prefix might look like this: `s3://bucketname/exampleprefix/`.
- A manifest might look like this: `s3://bucketname/example.manifest`

The manifest is an S3 object which is a JSON file with the following format:

```
[ {"prefix": "s3://customer_bucket/some/prefix/"},  
  "relative/path/to/custdata-1",  
  "relative/path/custdata-2",  
  ...  
  "relative/path/custdata-N"
```

```
]
```

The preceding JSON matches the following S3Uri:

```
s3://customer_bucket/some/prefix/relative/path/to/custdata-1
```

```
s3://customer_bucket/some/prefix/relative/path/custdata-2
```

```
...
```

```
s3://customer_bucket/some/prefix/relative/path/custdata-N
```

The complete set of S3Uri in this manifest constitutes the input data for the channel for this datasource. The object that each S3Uri points to must be readable by the IAM role that Amazon SageMaker uses to perform tasks on your behalf.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]+)\/?(.*)$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Trial

Service: Amazon SageMaker Service

The properties of a trial as returned by the [Search](#) API.

## Contents

### CreatedBy

Who created the trial.

Type: [UserContext](#) object

Required: No

### CreationTime

When the trial was created.

Type: Timestamp

Required: No

### DisplayName

The name of the trial as displayed. If `DisplayName` isn't specified, `TrialName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### ExperimentName

The name of the experiment the trial is part of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### **LastModifiedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

### **LastModifiedTime**

Who last modified the trial.

Type: Timestamp

Required: No

### **MetadataProperties**

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties](#) object

Required: No

### **Source**

The source of the trial.

Type: [TrialSource](#) object

Required: No

### **Tags**

The list of tags that are associated with the trial. You can use [Search](#) API to search on the tags.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### **TrialArn**

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial/.*`

Required: No

### **TrialComponentSummaries**

A list of the components associated with the trial. For each component, a summary of the component's properties is included.

Type: Array of [TrialComponentSimpleSummary](#) objects

Required: No

### **TrialName**

The name of the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponent

Service: Amazon SageMaker Service

The properties of a trial component as returned by the [Search](#) API.

## Contents

### CreatedBy

Who created the trial component.

Type: [UserContext](#) object

Required: No

### CreationTime

When the component was created.

Type: Timestamp

Required: No

### DisplayName

The name of the component as displayed. If `DisplayName` isn't specified, `TrialComponentName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### EndTime

When the component ended.

Type: Timestamp

Required: No

### InputArtifacts

The input artifacts of the component.

Type: String to [TrialComponentArtifact](#) object map

Map Entries: Maximum number of 60 items.

Key Length Constraints: Maximum length of 128.

Key Pattern: . \*

Required: No

### **LastModifiedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

### **LastModifiedTime**

When the component was last modified.

Type: Timestamp

Required: No

### **LineageGroupArn**

The Amazon Resource Name (ARN) of the lineage group resource.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:lineage-group/. \*

Required: No

### **MetadataProperties**

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties](#) object

Required: No



## Metrics

The metrics for the component.

Type: Array of [TrialComponentMetricSummary](#) objects

Required: No

## OutputArtifacts

The output artifacts of the component.

Type: String to [TrialComponentArtifact](#) object map

Map Entries: Maximum number of 60 items.

Key Length Constraints: Maximum length of 128.

Key Pattern: . \*

Required: No

## Parameters

The hyperparameters of the component.

Type: String to [TrialComponentParameterValue](#) object map

Map Entries: Maximum number of 300 items.

Key Length Constraints: Maximum length of 320.

Key Pattern: . \*

Required: No

## Parents

An array of the parents of the component. A parent is a trial the component is associated with and the experiment the trial is part of. A component might not have any parents.

Type: Array of [Parent](#) objects

Required: No

## RunName

The name of the experiment run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

## Source

The Amazon Resource Name (ARN) and job type of the source of the component.

Type: [TrialComponentSource](#) object

Required: No

## SourceDetail

Details of the source of the component.

Type: [TrialComponentSourceDetail](#) object

Required: No

## StartTime

When the component started.

Type: Timestamp

Required: No

## Status

The status of the trial component.

Type: [TrialComponentStatus](#) object

Required: No

## Tags

The list of tags that are associated with the component. You can use [Search](#) API to search on the tags.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### **TrialComponentArn**

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial-component/.*`

Required: No

### **TrialComponentName**

The name of the trial component.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentArtifact

Service: Amazon SageMaker Service

Represents an input or output artifact of a trial component. You specify `TrialComponentArtifact` as part of the `InputArtifacts` and `OutputArtifacts` parameters in the [CreateTrialComponent](#) request.

Examples of input artifacts are datasets, algorithms, hyperparameters, source code, and instance types. Examples of output artifacts are metrics, snapshots, logs, and images.

## Contents

### Value

The location of the artifact.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: Yes

### MediaType

The media type of the artifact, which indicates the type of data in the artifact file. The media type consists of a *type* and a *subtype* concatenated with a slash (/) character, for example, `text/csv`, `image/jpeg`, and `s3/uri`. The type specifies the category of the media. The subtype specifies the kind of data.

Type: String

Length Constraints: Maximum length of 64.

Pattern: ^[-\w]+\\[[-\w]+\]\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentMetricSummary

Service: Amazon SageMaker Service

A summary of the metrics of a trial component.

## Contents

### Avg

The average value of the metric.

Type: Double

Required: No

### Count

The number of samples used to generate the metric.

Type: Integer

Required: No

### Last

The most recent value of the metric.

Type: Double

Required: No

### Max

The maximum value of the metric.

Type: Double

Required: No

### MetricName

The name of the metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: . +

Required: No

### Min

The minimum value of the metric.

Type: Double

Required: No

### SourceArn

The Amazon Resource Name (ARN) of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\*]:sagemaker:[a-z0-9\-\*]:[0-9]{12}:.\*

Required: No

### StdDev

The standard deviation of the metric.

Type: Double

Required: No

### TimeStamp

When the metric was last updated.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# TrialComponentParameterValue

Service: Amazon SageMaker Service

The value of a hyperparameter. Only one of `NumberValue` or `StringValue` can be specified.

This object is specified in the [CreateTrialComponent](#) request.

## Contents

### NumberValue

The numeric value of a numeric hyperparameter. If you specify a value for this parameter, you can't specify the `StringValue` parameter.

Type: Double

Required: No

### StringValue

The string value of a categorical hyperparameter. If you specify a value for this parameter, you can't specify the `NumberValue` parameter.

Type: String

Length Constraints: Maximum length of 2500.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentSimpleSummary

Service: Amazon SageMaker Service

A short summary of a trial component.

## Contents

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext](#) object

Required: No

### CreationTime

When the component was created.

Type: Timestamp

Required: No

### TrialComponentArn

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial-component/.*`

Required: No

### TrialComponentName

The name of the trial component.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### **TrialComponentSource**

The Amazon Resource Name (ARN) and job type of the source of a trial component.

Type: [TrialComponentSource](#) object

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentSource

Service: Amazon SageMaker Service

The Amazon Resource Name (ARN) and job type of the source of a trial component.

## Contents

### SourceArn

The source Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:.*`

Required: Yes

### SourceType

The source job type.

Type: String

Length Constraints: Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentSourceDetail

Service: Amazon SageMaker Service

Detailed information about the source of a trial component. Either `ProcessingJob` or `TrainingJob` is returned.

## Contents

### ProcessingJob

Information about a processing job that's the source of a trial component.

Type: [ProcessingJob](#) object

Required: No

### SourceArn

The Amazon Resource Name (ARN) of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:.*`

Required: No

### TrainingJob

Information about a training job that's the source of a trial component.

Type: [TrainingJob](#) object

Required: No

### TransformJob

Information about a transform job that's the source of a trial component.

Type: [TransformJob](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentStatus

Service: Amazon SageMaker Service

The status of the trial component.

## Contents

### Message

If the component failed, a message describing why.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### PrimaryStatus

The status of the trial component.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentSummary

Service: Amazon SageMaker Service

A summary of the properties of a trial component. To get all the properties, call the [DescribeTrialComponent](#) API and provide the `TrialComponentName`.

## Contents

### CreatedBy

Who created the trial component.

Type: [UserContext](#) object

Required: No

### CreationTime

When the component was created.

Type: Timestamp

Required: No

### DisplayName

The name of the component as displayed. If `DisplayName` isn't specified, `TrialComponentName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### EndTime

When the component ended.

Type: Timestamp

Required: No



## LastModifiedBy

Who last modified the component.

Type: [UserContext](#) object

Required: No

## LastModifiedTime

When the component was last modified.

Type: Timestamp

Required: No

## StartTime

When the component started.

Type: Timestamp

Required: No

## Status

The status of the component. States include:

- InProgress
- Completed
- Failed

Type: [TrialComponentStatus](#) object

Required: No

## TrialComponentArn

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial-component/.*`

Required: No

### **TrialComponentName**

The name of the trial component.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### **TrialComponentSource**

The Amazon Resource Name (ARN) and job type of the source of a trial component.

Type: [TrialComponentSource](#) object

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialSource

Service: Amazon SageMaker Service

The source of the trial.

## Contents

### SourceArn

The Amazon Resource Name (ARN) of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:.*`

Required: Yes

### SourceType

The source job type.

Type: String

Length Constraints: Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialSummary

Service: Amazon SageMaker Service

A summary of the properties of a trial. To get the complete set of properties, call the [DescribeTrial](#) API and provide the `TrialName`.

## Contents

### CreationTime

When the trial was created.

Type: Timestamp

Required: No

### DisplayName

The name of the trial as displayed. If `DisplayName` isn't specified, `TrialName` is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### LastModifiedTime

When the trial was last modified.

Type: Timestamp

Required: No

### TrialArn

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:experiment-trial/.*`

Required: No

### **TrialName**

The name of the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,119}`

Required: No

### **TrialSource**

The source of the trial.

Type: [TrialSource](#) object

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TtlDuration

Service: Amazon SageMaker Service

Time to live duration, where the record is hard deleted after the expiration time is reached;  $\text{ExpiresAt} = \text{EventTime} + \text{TtlDuration}$ . For information on `HardDelete`, see the [DeleteRecord](#) API in the Amazon SageMaker API Reference guide.

## Contents

### Unit

`TtlDuration` time unit.

Type: String

Valid Values: Seconds | Minutes | Hours | Days | Weeks

Required: No

### Value

`TtlDuration` time value.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TuningJobCompletionCriteria

Service: Amazon SageMaker Service

The job completion criteria.

## Contents

### BestObjectiveNotImproving

A flag to stop your hyperparameter tuning job if model performance fails to improve as evaluated against an objective function.

Type: [BestObjectiveNotImproving](#) object

Required: No

### ConvergenceDetected

A flag to top your hyperparameter tuning job if automatic model tuning (AMT) has detected that your model has converged as evaluated against your objective function.

Type: [ConvergenceDetected](#) object

Required: No

### TargetObjectiveMetricValue

The value of the objective metric.

Type: Float

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TuningJobStepMetaData

Service: Amazon SageMaker Service

Metadata for a tuning step.

## Contents

### Arn

The Amazon Resource Name (ARN) of the tuning job that was run by this step execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:hyper-parameter-tuning-job/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# UiConfig

Service: Amazon SageMaker Service

Provided configuration information for the worker UI for a labeling job. Provide either `HumanTaskUiArn` or `UiTemplateS3Uri`.

For named entity recognition, 3D point cloud and video frame labeling jobs, use `HumanTaskUiArn`.

For all other Ground Truth built-in task types and custom task types, use `UiTemplateS3Uri` to specify the location of a worker task template in Amazon S3.

## Contents

### HumanTaskUiArn

The ARN of the worker task template used to render the worker UI and tools for labeling job tasks.

Use this parameter when you are creating a labeling job for named entity recognition, 3D point cloud and video frame labeling jobs. Use your labeling job task type to select one of the following ARNs and use it with this parameter when you create a labeling job. Replace `aws-region` with the AWS Region you are creating your labeling job in. For example, replace `aws-region` with `us-west-1` if you create a labeling job in US West (N. California).

### Named Entity Recognition

Use the following `HumanTaskUiArn` for named entity recognition labeling jobs:

```
arn:aws:sagemaker:aws-region:394669845002:human-task-ui/  
NamedEntityRecognition
```

### 3D Point Cloud HumanTaskUiArns

Use this `HumanTaskUiArn` for 3D point cloud object detection and 3D point cloud object detection adjustment labeling jobs.

- `arn:aws:sagemaker:aws-region:394669845002:human-task-ui/  
PointCloudObjectDetection`

Use this `HumanTaskUiArn` for 3D point cloud object tracking and 3D point cloud object tracking adjustment labeling jobs.

- `arn:aws:sagemaker:aws-region:394669845002:human-task-ui/PointCloudObjectTracking`

Use this `HumanTaskUiArn` for 3D point cloud semantic segmentation and 3D point cloud semantic segmentation adjustment labeling jobs.

- `arn:aws:sagemaker:aws-region:394669845002:human-task-ui/PointCloudSemanticSegmentation`

### Video Frame HumanTaskUiArns

Use this `HumanTaskUiArn` for video frame object detection and video frame object detection adjustment labeling jobs.

- `arn:aws:sagemaker:region:394669845002:human-task-ui/VideoObjectDetection`

Use this `HumanTaskUiArn` for video frame object tracking and video frame object tracking adjustment labeling jobs.

- `arn:aws:sagemaker:aws-region:394669845002:human-task-ui/VideoObjectTracking`

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]+:[0-9]{12}:human-task-ui/.*`

Required: No

### UiTemplateS3Uri

The Amazon S3 bucket location of the UI template, or worker task template. This is the template used to render the worker UI and tools for labeling job tasks. For more information about the contents of a UI template, see [Creating Your Custom Labeling Task Template](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3):\/\/([^\/]*)\/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# UiTemplate

Service: Amazon SageMaker Service

The Liquid template for the worker user interface.

## Contents

### Content

The content of the Liquid template for the worker user interface.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128000.

Pattern: `[\S\s]+`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# UiTemplateInfo

Service: Amazon SageMaker Service

Container for user interface template information.

## Contents

### ContentSha256

The SHA-256 digest of the contents of the template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128000.

Required: No

### Url

The URL for the user interface template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## USD

Service: Amazon SageMaker Service

Represents an amount of money in United States dollars.

### Contents

#### Cents

The fractional portion, in cents, of the amount.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 99.

Required: No

#### Dollars

The whole number of dollars in the amount.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 2.

Required: No

#### TenthFractionsOfACent

Fractions of a cent, in tenths.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 9.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# UserContext

Service: Amazon SageMaker Service

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

## Contents

### DomainId

The domain associated with the user.

Type: String

Required: No

### IamIdentity

The IAM Identity details associated with the user. These details are associated with model package groups, model packages, and project entities only.

Type: [IamIdentity](#) object

Required: No

### UserProfileArn

The Amazon Resource Name (ARN) of the user's profile.

Type: String

Required: No

### UserProfileName

The name of the user's profile.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:



- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## UserProfileDetails

Service: Amazon SageMaker Service

The user profile details.

### Contents

#### CreationTime

The creation time.

Type: Timestamp

Required: No

#### DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^d-(-*[a-z0-9]){1,61}`

Required: No

#### LastModifiedTime

The last modified time.

Type: Timestamp

Required: No

#### Status

The status.

Type: String

Valid Values: `Deleting` | `Failed` | `InService` | `Pending` | `Updating` | `Update_Failed` | `Delete_Failed`

Required: No

## UserProfileName

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# UserSettings

Service: Amazon SageMaker Service

A collection of settings that apply to users in a domain. These settings are specified when the `CreateUserProfile` API is called, and as `DefaultUserSettings` when the `CreateDomain` API is called.

`SecurityGroups` is aggregated when specified in both calls. For all other settings in `UserSettings`, the values specified in `CreateUserProfile` take precedence over those specified in `CreateDomain`.

## Contents

### CanvasAppSettings

The Canvas app settings.

Type: [CanvasAppSettings](#) object

Required: No

### CodeEditorAppSettings

The Code Editor application settings.

Type: [CodeEditorAppSettings](#) object

Required: No

### CustomFileSystemConfigs

The settings for assigning a custom file system to a user profile. Permitted users can access this file system in Amazon SageMaker Studio.

Type: Array of [CustomFileSystemConfig](#) objects

Array Members: Maximum number of 10 items.

Required: No

### CustomPosixUserConfig

Details about the POSIX identity that is used for file system operations.

Type: [CustomPosixUserConfig](#) object

Required: No

### DefaultLandingUri

The default experience that the user is directed to when accessing the domain. The supported values are:

- `studio::` Indicates that Studio is the default experience. This value can only be passed if `StudioWebPortal` is set to `ENABLED`.
- `app:JupyterServer::` Indicates that Studio Classic is the default experience.

Type: String

Length Constraints: Maximum length of 1023.

Required: No

### ExecutionRole

The execution role for the user.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\ ]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.\@\-\_/\ ]+\$`

Required: No

### JupyterLabAppSettings

The settings for the JupyterLab application.

Type: [JupyterLabAppSettings](#) object

Required: No

### JupyterServerAppSettings

The Jupyter server's app settings.

Type: [JupyterServerAppSettings](#) object

Required: No

## KernelGatewayAppSettings

The kernel gateway app settings.

Type: [KernelGatewayAppSettings](#) object

Required: No

## RSessionAppSettings

A collection of settings that configure the RSessionGateway app.

Type: [RSessionAppSettings](#) object

Required: No

## RStudioServerProAppSettings

A collection of settings that configure user interaction with the RStudioServerPro app.

Type: [RStudioServerProAppSettings](#) object

Required: No

## SecurityGroups

The security groups for the Amazon Virtual Private Cloud (VPC) that the domain uses for communication.

Optional when the `CreateDomain.AppNetworkAccessType` parameter is set to `PublicInternetOnly`.

Required when the `CreateDomain.AppNetworkAccessType` parameter is set to `VpcOnly`, unless specified as part of the `DefaultUserSettings` for the domain.

Amazon SageMaker adds a security group to allow NFS traffic from Amazon SageMaker Studio. Therefore, the number of security groups that you can specify is one less than the maximum number shown.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: No

### SharingSettings

Specifies options for sharing Amazon SageMaker Studio notebooks.

Type: [SharingSettings](#) object

Required: No

### SpaceStorageSettings

The storage settings for a space.

Type: [DefaultSpaceStorageSettings](#) object

Required: No

### StudioWebPortal

Whether the user can access Studio. If this value is set to DISABLED, the user cannot access Studio, even if that is the default experience for the domain.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

### StudioWebPortalSettings

Studio settings. If these settings are applied on a user level, they take priority over the settings applied on a domain level.

Type: [StudioWebPortalSettings](#) object

Required: No

### TensorBoardAppSettings

The TensorBoard app settings.

Type: [TensorBoardAppSettings](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# VariantProperty

Service: Amazon SageMaker Service

Specifies a production variant property type for an Endpoint.

If you are updating an endpoint with the `RetainAllVariantProperties` option of [UpdateEndpointInput](#) set to true, the `VariantProperty` objects listed in the `ExcludeRetainedVariantProperties` parameter of [UpdateEndpointInput](#) override the existing variant properties of the endpoint.

## Contents

### VariantPropertyType

The type of variant property. The supported values are:

- `DesiredInstanceCount`: Overrides the existing variant instance counts using the `InitialInstanceCount` values in the `ProductionVariants` of [CreateEndpointConfig](#).
- `DesiredWeight`: Overrides the existing variant weights using the `InitialVariantWeight` values in the `ProductionVariants` of [CreateEndpointConfig](#).
- `DataCaptureConfig`: (Not currently supported.)

Type: String

Valid Values: `DesiredInstanceCount` | `DesiredWeight` | `DataCaptureConfig`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# VectorConfig

Service: Amazon SageMaker Service

Configuration for your vector collection type.

## Contents

### Dimension

The number of elements in your vector.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 8192.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Vertex

Service: Amazon SageMaker Service

A lineage entity connected to the starting entity(ies).

### Contents

#### Arn

The Amazon Resource Name (ARN) of the lineage entity resource.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

Required: No

#### LineageType

The type of resource of the lineage entity.

Type: String

Valid Values: `TrialComponent | Artifact | Context | Action`

Required: No

#### Type

The type of the lineage entity resource. For example: `DataSet`, `Model`, `Endpoint`, etc...

Type: String

Length Constraints: Maximum length of 40.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# VisibilityConditions

Service: Amazon SageMaker Service

The list of key-value pairs used to filter your search results. If a search result contains a key from your list, it is included in the final search response if the value associated with the key in the result matches the value you specified. If the value doesn't match, the result is excluded from the search response. Any resources that don't have a key from the list that you've provided will also be included in the search response.

## Contents

### Key

The key that specifies the tag that you're using to filter the search results. It must be in the following format: Tags .<key>.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-@]^*)\$$

Required: No

### Value

The value for the tag that you're using to filter the search results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern:  $^([\p{L}\p{Z}\p{N}_\cdot :/=+\-@]^*)\$$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# VpcConfig

Service: Amazon SageMaker Service

Specifies an Amazon Virtual Private Cloud (VPC) that your SageMaker jobs, hosted models, and compute resources have access to. You can control access to and from your resources by configuring a VPC. For more information, see [Give SageMaker Access to Resources in your Amazon VPC](#).

## Contents

### SecurityGroupIds

The VPC security group IDs, in the form `sg-xxxxxxx`. Specify the security groups for the VPC that is specified in the `Subnets` field.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

Required: Yes

### Subnets

The ID of the subnets in the VPC to which you want to connect your training job or model. For information about the availability of specific instance types, see [Supported Instance Types and Availability Zones](#).

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



## WarmPoolStatus

Service: Amazon SageMaker Service

Status and billing information about the warm pool.

### Contents

#### Status

The status of the warm pool.

- **InUse**: The warm pool is in use for the training job.
- **Available**: The warm pool is available to reuse for a matching training job.
- **Reused**: The warm pool moved to a matching training job for reuse.
- **Terminated**: The warm pool is no longer available. Warm pools are unavailable if they are terminated by a user, terminated for a patch update, or terminated for exceeding the specified `KeepAlivePeriodInSeconds`.

Type: String

Valid Values: Available | Terminated | Reused | InUse

Required: Yes

#### ResourceRetainedBillableTimeInSeconds

The billable time in seconds used by the warm pool. Billable time refers to the absolute wall-clock time.

Multiply `ResourceRetainedBillableTimeInSeconds` by the number of instances (`InstanceCount`) in your training cluster to get the total compute time SageMaker bills you if you run warm pool training. The formula is as follows:  
`ResourceRetainedBillableTimeInSeconds * InstanceCount`.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

#### ReusedByJob

The name of the matching training job that reused the warm pool.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# WorkerAccessConfiguration

Service: Amazon SageMaker Service

Use this optional parameter to constrain access to an Amazon S3 resource based on the IP address using supported IAM global condition keys. The Amazon S3 resource is accessed in the worker portal using a Amazon S3 presigned URL.

## Contents

### S3Presign

Defines any Amazon S3 resource constraints.

Type: [S3Presign](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Workforce

Service: Amazon SageMaker Service

A single private workforce, which is automatically created when you create your first private work team. You can create one private work force in each AWS Region. By default, any workforce-related API operation used in a specific region will apply to the workforce created in that region. To learn how to create a private workforce, see [Create a Private Workforce](#).

## Contents

### WorkforceArn

The Amazon Resource Name (ARN) of the private workforce.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:workforce/.*`

Required: Yes

### WorkforceName

The name of the private workforce.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([a-zA-Z0-9\-*]){0,62}$`

Required: Yes

### CognitoConfig

The configuration of an Amazon Cognito workforce. A single Cognito workforce is created using and corresponds to a single [Amazon Cognito user pool](#).

Type: [CognitoConfig](#) object

Required: No

## CreateDate

The date that the workforce is created.

Type: Timestamp

Required: No

## FailureReason

The reason your workforce failed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: .+

Required: No

## LastUpdatedDate

The most recent date that [UpdateWorkforce](#) was used to successfully add one or more IP address ranges ([CIDRs](#)) to a private workforce's allow list.

Type: Timestamp

Required: No

## OidcConfig

The configuration of an OIDC Identity Provider (IdP) private workforce.

Type: [OidcConfigForResponse](#) object

Required: No

## SourceIpConfig

A list of one to ten IP address ranges ([CIDRs](#)) to be added to the workforce allow list. By default, a workforce isn't restricted to specific IP addresses.

Type: [SourceIpConfig](#) object

Required: No

## Status

The status of your workforce.

Type: String

Valid Values: Initializing | Updating | Deleting | Failed | Active

Required: No

## SubDomain

The subdomain for your OIDC Identity Provider.

Type: String

Required: No

## WorkforceVpcConfig

The configuration of a VPC workforce.

Type: [WorkforceVpcConfigResponse](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# WorkforceVpcConfigRequest

Service: Amazon SageMaker Service

The VPC object you use to create or update a workforce.

## Contents

### SecurityGroupIds

The VPC security group IDs, in the form `sg-xxxxxxx`. The security groups must be for the same VPC as specified in the subnet.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: `^sg-[0-9a-z]*$`

Required: No

### Subnets

The ID of the subnets in the VPC that you want to connect.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: `^subnet-[0-9a-z]*$`

Required: No

### VpcId

The ID of the VPC that the workforce uses for communication.

Type: String

Length Constraints: Maximum length of 32.

Pattern: `^vpc-[0-9a-z]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# WorkforceVpcConfigResponse

Service: Amazon SageMaker Service

A VpcConfig object that specifies the VPC that you want your workforce to connect to.

## Contents

### SecurityGroupIds

The VPC security group IDs, in the form sg-xxxxxxx. The security groups must be for the same VPC as specified in the subnet.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: `^sg-[0-9a-z]*$`

Required: Yes

### Subnets

The ID of the subnets in the VPC that you want to connect.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: `^subnet-[0-9a-z]*$`

Required: Yes

### VpcId

The ID of the VPC that the workforce uses for communication.

Type: String

Length Constraints: Maximum length of 32.

Pattern: `^vpc-[0-9a-z]*$`

Required: Yes

## VpcEndpointId

The IDs for the VPC service endpoints of your VPC workforce when it is created and updated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^vpce-[0-9a-z]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# WorkspaceSettings

Service: Amazon SageMaker Service

The workspace settings for the SageMaker Canvas application.

## Contents

### S3ArtifactPath

The Amazon S3 bucket used to store artifacts generated by Canvas. Updating the Amazon S3 location impacts existing configuration settings, and Canvas users no longer have access to their artifacts. Canvas users must log out and log back in to apply the new location.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\s]+)/?(.*)$`

Required: No

### S3KmsKeyId

The AWS Key Management Service (KMS) encryption key ID that is used to encrypt artifacts generated by Canvas in the Amazon S3 bucket.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `^[a-zA-Z0-9:/_]*$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# Workteam

Service: Amazon SageMaker Service

Provides details about a labeling work team.

## Contents

### Description

A description of the work team.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: .+

Required: Yes

### MemberDefinitions

A list of `MemberDefinition` objects that contains objects that identify the workers that make up the work team.

Workforces can be created using Amazon Cognito or your own OIDC Identity Provider (IdP). For private workforces created using Amazon Cognito use `CognitoMemberDefinition`. For workforces created using your own OIDC identity provider (IdP) use `OidcMemberDefinition`.

Type: Array of [MemberDefinition](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

### WorkteamArn

The Amazon Resource Name (ARN) that identifies the work team.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:workteam/.*`

Required: Yes

## WorkteamName

The name of the work team.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9]){0,62}`

Required: Yes

## CreateDate

The date and time that the work team was created (timestamp).

Type: Timestamp

Required: No

## LastUpdatedDate

The date and time that the work team was last updated (timestamp).

Type: Timestamp

Required: No

## NotificationConfiguration

Configures SNS notifications of available or expiring work items for work teams.

Type: [NotificationConfiguration](#) object

Required: No

## ProductListingIds

The Amazon Marketplace identifier for a vendor's work team.

Type: Array of strings

Required: No

## SubDomain

The URI of the labeling job's user interface. Workers open this URI to start labeling your data objects.

Type: String

Required: No

### **WorkerAccessConfiguration**

Describes any access constraints that have been defined for Amazon S3 resources.

Type: [WorkerAccessConfiguration](#) object

Required: No

### **WorkforceArn**

The Amazon Resource Name (ARN) of the workforce.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-*]:sagemaker:[a-z0-9\-*]:[0-9]{12}:workforce/.*`

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## **Amazon SageMaker Runtime**

The following data types are supported by Amazon SageMaker Runtime:

- [PayloadPart](#)
- [ResponseStream](#)

# PayloadPart

Service: Amazon SageMaker Runtime

A wrapper for pieces of the payload that's returned in response to a streaming inference request. A streaming inference response consists of one or more payload parts.

## Contents

### Bytes

A blob that contains part of the response for your streaming inference request.

Type: Base64-encoded binary data object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ResponseStream

Service: Amazon SageMaker Runtime

A stream of payload parts. Each part contains a portion of the response for a streaming inference request.

## Contents

### InternalStreamFailure

The stream processing failed because of an unknown error, exception or failure. Try your request again.

Type: Exception

HTTP Status Code:

Required: No

### ModelStreamError

An error occurred while streaming the response body. This error can have the following error codes:

#### ModelInvocationTimeExceeded

The model failed to finish sending the response within the timeout period allowed by Amazon SageMaker.

#### StreamBroken

The Transmission Control Protocol (TCP) connection between the client and the model was reset or closed.

Type: Exception

HTTP Status Code:

Required: No

### PayloadPart

A wrapper for pieces of the payload that's returned in response to a streaming inference request. A streaming inference response consists of one or more payload parts.

Type: [PayloadPart](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Amazon Sagemaker Edge Manager

The following data types are supported by Amazon Sagemaker Edge Manager:

- [Checksum](#)
- [Definition](#)
- [DeploymentModel](#)
- [DeploymentResult](#)
- [EdgeDeployment](#)
- [EdgeMetric](#)
- [Model](#)

# Checksum

Service: Amazon Sagemaker Edge Manager

Information about the checksum of a model deployed on a device.

## Contents

### Sum

The checksum of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-z0-9](-*[a-z0-9])*$`

Required: No

### Type

The type of the checksum.

Type: String

Valid Values: SHA1

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Definition

Service: Amazon Sagemaker Edge Manager

Information about deployment details based on the deployment type.

## Contents

### Checksum

The checksum information of the model.

Type: [Checksum](#) object

Required: No

### ModelHandle

The unique model handle.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: No

### S3Url

The absolute S3 location of the model.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^s3://([^\s]+)?/?(.*)$`

Required: No

### State

The desired state of the model.

Type: String

Valid Values: DEPLOY | UNDEPLOY

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeploymentModel

Service: Amazon Sagemaker Edge Manager

Information about a model deployed on an edge device that is registered with SageMaker Edge Manager.

## Contents

### DesiredState

The desired state of the model.

Type: String

Valid Values: DEPLOY | UNDEPLOY

Required: No

### ModelHandle

The name by which the device refers to the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: No

### ModelName

The name of the model.

Type: String

Length Constraints: Minimum length of 4. Maximum length of 255.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: No

### ModelVersion

The version of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `[a-zA-Z0-9\ \_\.\ ]+`

Required: No

### **RollbackFailureReason**

Returns the error message if there is a rollback.

Type: String

Required: No

### **State**

Returns the current state of the model.

Type: String

Valid Values: DEPLOY | UNDEPLOY

Required: No

### **Status**

Returns the deployment status of the model.

Type: String

Valid Values: SUCCESS | FAIL

Required: No

### **StatusReason**

Returns the error message for the deployment status result.

Type: String

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# DeploymentResult

Service: Amazon Sagemaker Edge Manager

Information about the result of a deployment on an edge device that is registered with SageMaker Edge Manager.

## Contents

### DeploymentEndTime

The timestamp of when the deployment was ended, and the agent got the deployment results.

Type: Timestamp

Required: No

### DeploymentModels

Returns a list of models deployed on the agent.

Type: Array of [DeploymentModel](#) objects

Required: No

### DeploymentName

The name and unique ID of the deployment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: No

### DeploymentStartTime

The timestamp of when the deployment was started on the agent.

Type: Timestamp

Required: No

### DeploymentStatus

Returns the bucket error code.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: No

### **DeploymentStatusMessage**

Returns the detailed error message.

Type: String

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeDeployment

Service: Amazon Sagemaker Edge Manager

Information about a deployment on an edge device that is registered with SageMaker Edge Manager.

## Contents

### Definitions

Returns a list of Definition objects.

Type: Array of [Definition](#) objects

Required: No

### DeploymentName

The name and unique ID of the deployment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: No

### FailureHandlingPolicy

Determines whether to rollback to previous configuration if deployment fails.

Type: String

Valid Values: `ROLLBACK_ON_FAILURE` | `DO_NOTHING`

Required: No

### Type

The type of the deployment.

Type: String

Valid Values: `Model`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeMetric

Service: Amazon Sagemaker Edge Manager

Information required for edge device metrics.

## Contents

### Dimension

The dimension of metrics published.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9\./])*$`

Required: No

### MetricName

Returns the name of the metric.

Type: String

Length Constraints: Minimum length of 4. Maximum length of 100.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: No

### Timestamp

Timestamp of when the metric was requested.

Type: Timestamp

Required: No

### Value

Returns the value of the metric.

Type: Double

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Model

Service: Amazon Sagemaker Edge Manager

Information about a model deployed on an edge device that is registered with SageMaker Edge Manager.

## Contents

### LatestInference

The timestamp of the last inference that was made.

Type: Timestamp

Required: No

### LatestSampleTime

The timestamp of the last data sample taken.

Type: Timestamp

Required: No

### ModelMetrics

Information required for model metrics.

Type: Array of [EdgeMetric](#) objects

Required: No

### ModelName

The name of the model.

Type: String

Length Constraints: Minimum length of 4. Maximum length of 255.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*$`

Required: No

### ModelVersion

The version of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: [a-zA-Z0-9\ \\_\.]+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Amazon SageMaker Feature Store Runtime

The following data types are supported by Amazon SageMaker Feature Store Runtime:

- [BatchGetRecordError](#)
- [BatchGetRecordIdentifier](#)
- [BatchGetRecordResultDetail](#)
- [FeatureValue](#)
- [TtlDuration](#)



# BatchGetRecordError

Service: Amazon SageMaker Feature Store Runtime

The error that has occurred when attempting to retrieve a batch of Records.

## Contents

### ErrorCode

The error code of an error that has occurred when attempting to retrieve a batch of Records. For more information on errors, see [Errors](#).

Type: String

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: Yes

### ErrorMessage

The error message of an error that has occurred when attempting to retrieve a record in the batch.

Type: String

Length Constraints: Maximum length of 2048.

Required: Yes

### FeatureGroupName

The name of the feature group that the record belongs to.

Type: String

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: Yes

## RecordIdentifierValueAsString

The value for the `RecordIdentifier` in string format of a `Record` from a `FeatureGroup` that is causing an error when attempting to be retrieved.

Type: String

Length Constraints: Maximum length of 358400.

Pattern: . \*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchGetRecordIdentifier

Service: Amazon SageMaker Feature Store Runtime

The identifier that identifies the batch of Records you are retrieving in a batch.

## Contents

### FeatureGroupName

The name or Amazon Resource Name (ARN) of the FeatureGroup containing the records you are retrieving in a batch.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 150.

Pattern: `(arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:feature-group/)?([a-zA-Z0-9]([-_]*[a-zA-Z0-9])){0,63}`

Required: Yes

### RecordIdentifiersValueAsString

The value for a list of record identifiers in string format.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 358400.

Pattern: `.*`

Required: Yes

### FeatureNames

List of names of Features to be retrieved. If not specified, the latest value for all the Features are returned.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,63}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchGetRecordResultDetail

Service: Amazon SageMaker Feature Store Runtime

The output of records that have been retrieved in a batch.

## Contents

### FeatureGroupName

The FeatureGroupName containing Records you retrieved in a batch.

Type: String

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: Yes

### Record

The Record retrieved.

Type: Array of [FeatureValue](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

### RecordIdentifierValueAsString

The value of the record identifier in string format.

Type: String

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: Yes

### ExpiresAt

The ExpiresAt ISO string of the requested record.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FeatureValue

Service: Amazon SageMaker Feature Store Runtime

The value associated with a feature.

## Contents

### FeatureName

The name of a feature that a feature value corresponds to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9]){0,63}`

Required: Yes

### ValueAsString

The value in string format associated with a feature. Used when your `CollectionType` is `None`. Note that features types can be `String`, `Integral`, or `Fractional`. This value represents all three types as a string.

Type: String

Length Constraints: Maximum length of 358400.

Pattern: `.*`

Required: No

### ValueAsStringList

The list of values in string format associated with a feature. Used when your `CollectionType` is a `List`, `Set`, or `Vector`. Note that features types can be `String`, `Integral`, or `Fractional`. These values represents all three types as a string.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 358400 items.

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



## TtlDuration

Service: Amazon SageMaker Feature Store Runtime

Time to live duration, where the record is hard deleted after the expiration time is reached;

$\text{ExpiresAt} = \text{EventTime} + \text{TtlDuration}$ . For information on `HardDelete`, see the [DeleteRecord](#) API in the Amazon SageMaker API Reference guide.

### Contents

#### Unit

`TtlDuration` time unit.

Type: String

Valid Values: Seconds | Minutes | Hours | Days | Weeks

Required: Yes

#### Value

`TtlDuration` time value.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Amazon SageMaker geospatial capabilities

The following data types are supported by Amazon SageMaker geospatial capabilities:

- [AreaOfInterest](#)
- [AreaOfInterestGeometry](#)
- [AssetValue](#)
- [BandMathConfigInput](#)
- [CloudMaskingConfigInput](#)
- [CloudRemovalConfigInput](#)
- [CustomIndicesInput](#)
- [EarthObservationJobErrorDetails](#)
- [EoCloudCoverInput](#)
- [ExportErrorDetails](#)
- [ExportErrorDetailsOutput](#)
- [ExportS3DataInput](#)
- [ExportVectorEnrichmentJobOutputConfig](#)
- [Filter](#)
- [Geometry](#)
- [GeoMosaicConfigInput](#)
- [InputConfigInput](#)
- [InputConfigOutput](#)
- [ItemSource](#)
- [JobConfigInput](#)
- [LandCoverSegmentationConfigInput](#)
- [LandsatCloudCoverLandInput](#)
- [ListEarthObservationJobOutputConfig](#)
- [ListVectorEnrichmentJobOutputConfig](#)
- [MapMatchingConfig](#)
- [MultiPolygonGeometryInput](#)
- [Operation](#)
- [OutputBand](#)
- [OutputConfigInput](#)
- [OutputResolutionResamplingInput](#)

- [OutputResolutionStackInput](#)
- [PlatformInput](#)
- [PolygonGeometryInput](#)
- [Properties](#)
- [Property](#)
- [PropertyFilter](#)
- [PropertyFilters](#)
- [RasterDataCollectionMetadata](#)
- [RasterDataCollectionQueryInput](#)
- [RasterDataCollectionQueryOutput](#)
- [RasterDataCollectionQueryWithBandFilterInput](#)
- [ResamplingConfigInput](#)
- [ReverseGeocodingConfig](#)
- [StackConfigInput](#)
- [TemporalStatisticsConfigInput](#)
- [TimeRangeFilterInput](#)
- [TimeRangeFilterOutput](#)
- [UserDefined](#)
- [VectorEnrichmentJobConfig](#)
- [VectorEnrichmentJobDataSourceConfigInput](#)
- [VectorEnrichmentJobErrorDetails](#)
- [VectorEnrichmentJobExportErrorDetails](#)
- [VectorEnrichmentJobInputConfig](#)
- [VectorEnrichmentJobS3Data](#)
- [ViewOffNadirInput](#)
- [ViewSunAzimuthInput](#)
- [ViewSunElevationInput](#)
- [ZonalStatisticsConfigInput](#)

## AreaOfInterest

Service: Amazon SageMaker geospatial capabilities

The geographic extent of the Earth Observation job.

### Contents

#### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

### AreaOfInterestGeometry

A GeoJSON object representing the geographic extent in the coordinate space.

Type: [AreaOfInterestGeometry](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## AreaOfInterestGeometry

Service: Amazon SageMaker geospatial capabilities

A GeoJSON object representing the geographic extent in the coordinate space.

### Contents

#### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

### MultiPolygonGeometry

The structure representing the MultiPolygon Geometry.

Type: [MultiPolygonGeometryInput](#) object

Required: No

### PolygonGeometry

The structure representing Polygon Geometry.

Type: [PolygonGeometryInput](#) object

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AssetValue

Service: Amazon SageMaker geospatial capabilities

The structure containing the asset properties.

## Contents

### Href

Link to the asset object.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BandMathConfigInput

Service: Amazon SageMaker geospatial capabilities

Input structure for the BandMath operation type. Defines Predefined and CustomIndices to be computed using BandMath.

## Contents

### CustomIndices

CustomIndices that are computed.

Type: [CustomIndicesInput](#) object

Required: No

### PredefinedIndices

One or many of the supported predefined indices to compute. Allowed values: NDVI, EVI2, MSAVI, NDWI, NDMI, NDSI, and WDRVI.

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CloudMaskingConfigInput

Service: Amazon SageMaker geospatial capabilities

Input structure for CloudMasking operation type.

## Contents

The members of this exception structure are context-dependent.

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# CloudRemovalConfigInput

Service: Amazon SageMaker geospatial capabilities

Input structure for Cloud Removal Operation type

## Contents

### AlgorithmName

The name of the algorithm used for cloud removal.

Type: String

Valid Values: INTERPOLATION

Required: No

### InterpolationValue

The interpolation value you provide for cloud removal.

Type: String

Required: No

### TargetBands

TargetBands to be returned in the output of CloudRemoval operation.

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# CustomIndicesInput

Service: Amazon SageMaker geospatial capabilities

Input object defining the custom BandMath indices to compute.

## Contents

### Operations

A list of BandMath indices to compute.

Type: Array of [Operation](#) objects

Array Members: Minimum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EarthObservationJobErrorDetails

Service: Amazon SageMaker geospatial capabilities

The structure representing the errors in an EarthObservationJob.

## Contents

### Message

A detailed message describing the error in an Earth Observation job.

Type: String

Required: No

### Type

The type of error in an Earth Observation job.

Type: String

Valid Values: CLIENT\_ERROR | SERVER\_ERROR

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EoCloudCoverInput

Service: Amazon SageMaker geospatial capabilities

The structure representing the EoCloudCover filter.

## Contents

### LowerBound

Lower bound for EoCloudCover.

Type: Float

Required: Yes

### UpperBound

Upper bound for EoCloudCover.

Type: Float

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ExportErrorDetails

Service: Amazon SageMaker geospatial capabilities

The structure for returning the export error details in a GetEarthObservationJob.

### Contents

#### ExportResults

The structure for returning the export error details while exporting results of an Earth Observation job.

Type: [ExportErrorDetailsOutput](#) object

Required: No

#### ExportSourceImages

The structure for returning the export error details while exporting the source images of an Earth Observation job.

Type: [ExportErrorDetailsOutput](#) object

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ExportErrorDetailsOutput

Service: Amazon SageMaker geospatial capabilities

The structure representing the errors in an export EarthObservationJob operation.

## Contents

### Message

A detailed message describing the error in an export EarthObservationJob operation.

Type: String

Required: No

### Type

The type of error in an export EarthObservationJob operation.

Type: String

Valid Values: CLIENT\_ERROR | SERVER\_ERROR

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ExportS3DataInput

Service: Amazon SageMaker geospatial capabilities

The structure containing the Amazon S3 path to export the Earth Observation job output.

## Contents

### S3Uri

The URL to the Amazon S3 data input.

Type: String

Pattern: `^s3://([^\s]+)?/?(.*)$`

Required: Yes

### KmsKeyId

The Key Management Service key ID for server-side encryption.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ExportVectorEnrichmentJobOutputConfig

Service: Amazon SageMaker geospatial capabilities

An object containing information about the output file.

## Contents

### S3Data

The input structure for Amazon S3 data; representing the Amazon S3 location of the input data objects.

Type: [VectorEnrichmentJobS3Data](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Filter

Service: Amazon SageMaker geospatial capabilities

The structure representing the filters supported by a RasterDataCollection.

### Contents

#### Name

The name of the filter.

Type: String

Required: Yes

#### Type

The type of the filter being used.

Type: String

Required: Yes

#### Maximum

The maximum value of the filter.

Type: Float

Required: No

#### Minimum

The minimum value of the filter.

Type: Float

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Geometry

Service: Amazon SageMaker geospatial capabilities

The structure representing a Geometry in terms of Type and Coordinates as per GeoJson spec.

## Contents

### Coordinates

The coordinates of the GeoJson Geometry.

Type: Array of arrays of arrays of doubles

Array Members: Minimum number of 1 item.

Array Members: Minimum number of 4 items.

Array Members: Fixed number of 2 items.

Required: Yes

### Type

GeoJson Geometry types like Polygon and MultiPolygon.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# GeoMosaicConfigInput

Service: Amazon SageMaker geospatial capabilities

Input configuration information for the geomosaic.

## Contents

### AlgorithmName

The name of the algorithm being used for geomosaic.

Type: String

Valid Values: NEAR | BILINEAR | CUBIC | CUBICSPLINE | LANCZOS | AVERAGE | RMS | MODE | MAX | MIN | MED | Q1 | Q3 | SUM

Required: No

### TargetBands

The target bands for geomosaic.

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InputConfigInput

Service: Amazon SageMaker geospatial capabilities

Input configuration information.

## Contents

### PreviousEarthObservationJobArn

The Amazon Resource Name (ARN) of the previous Earth Observation job.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:earth-observation-job/[a-z0-9]{12,}$`

Required: No

### RasterDataCollectionQuery

The structure representing the RasterDataCollection Query consisting of the Area of Interest, RasterDataCollectionArn, TimeRange and Property Filters.

Type: [RasterDataCollectionQueryInput](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InputConfigOutput

Service: Amazon SageMaker geospatial capabilities

The InputConfig for an EarthObservationJob response.

## Contents

### PreviousEarthObservationJobArn

The Amazon Resource Name (ARN) of the previous Earth Observation job.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:earth-observation-job/[a-z0-9]{12,}$`

Required: No

### RasterDataCollectionQuery

The structure representing the RasterDataCollection Query consisting of the Area of Interest, RasterDataCollectionArn, RasterDataCollectionName, TimeRange, and Property Filters.

Type: [RasterDataCollectionQueryOutput](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ItemSource

Service: Amazon SageMaker geospatial capabilities

The structure representing the items in the response for SearchRasterDataCollection.

### Contents

#### DateTime

The searchable date and time of the item, in UTC.

Type: Timestamp

Required: Yes

#### Geometry

The item Geometry in GeoJson format.

Type: [Geometry](#) object

Required: Yes

#### Id

A unique Id for the source item.

Type: String

Required: Yes

#### Assets

This is a dictionary of Asset Objects data associated with the Item that can be downloaded or streamed, each with a unique key.

Type: String to [AssetValue](#) object map

Required: No

#### Properties

This field contains additional properties of the item.

Type: [Properties](#) object



Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JobConfigInput

Service: Amazon SageMaker geospatial capabilities

The input structure for the JobConfig in an EarthObservationJob.

## Contents

### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

### BandMathConfig

An object containing information about the job configuration for BandMath.

Type: [BandMathConfigInput](#) object

Required: No

### CloudMaskingConfig

An object containing information about the job configuration for cloud masking.

Type: [CloudMaskingConfigInput](#) object

Required: No

### CloudRemovalConfig

An object containing information about the job configuration for cloud removal.

Type: [CloudRemovalConfigInput](#) object

Required: No

### GeoMosaicConfig

An object containing information about the job configuration for geomosaic.

Type: [GeoMosaicConfigInput](#) object

Required: No

## LandCoverSegmentationConfig

An object containing information about the job configuration for land cover segmentation.

Type: [LandCoverSegmentationConfigInput](#) object

Required: No

## ResamplingConfig

An object containing information about the job configuration for resampling.

Type: [ResamplingConfigInput](#) object

Required: No

## StackConfig

An object containing information about the job configuration for a Stacking Earth Observation job.

Type: [StackConfigInput](#) object

Required: No

## TemporalStatisticsConfig

An object containing information about the job configuration for temporal statistics.

Type: [TemporalStatisticsConfigInput](#) object

Required: No

## ZonalStatisticsConfig

An object containing information about the job configuration for zonal statistics.

Type: [ZonalStatisticsConfigInput](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LandCoverSegmentationConfigInput

Service: Amazon SageMaker geospatial capabilities

The input structure for Land Cover Operation type.

## Contents

The members of this exception structure are context-dependent.

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LandsatCloudCoverLandInput

Service: Amazon SageMaker geospatial capabilities

The structure representing Land Cloud Cover property for Landsat data collection.

## Contents

### LowerBound

The minimum value for Land Cloud Cover property filter. This will filter items having Land Cloud Cover greater than or equal to this value.

Type: Float

Required: Yes

### UpperBound

The maximum value for Land Cloud Cover property filter. This will filter items having Land Cloud Cover less than or equal to this value.

Type: Float

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ListEarthObservationJobOutputConfig

Service: Amazon SageMaker geospatial capabilities

An object containing information about the output file.

## Contents

### Arn

The Amazon Resource Name (ARN) of the list of the Earth Observation jobs.

Type: String

Required: Yes

### CreationTime

The creation time.

Type: Timestamp

Required: Yes

### DurationInSeconds

The duration of the session, in seconds.

Type: Integer

Required: Yes

### Name

The names of the Earth Observation jobs in the list.

Type: String

Required: Yes

### OperationType

The operation type for an Earth Observation job.

Type: String

Required: Yes

## Status

The status of the list of the Earth Observation jobs.

Type: String

Valid Values: INITIALIZING | IN\_PROGRESS | STOPPING | COMPLETED | STOPPED | FAILED | DELETING | DELETED

Required: Yes

## Tags

Each tag consists of a key and a value.

Type: String to string map

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ListVectorEnrichmentJobOutputConfig

Service: Amazon SageMaker geospatial capabilities

An object containing information about the output file.

## Contents

### Arn

The Amazon Resource Name (ARN) of the list of the Vector Enrichment jobs.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:vector-enrichment-job/[a-z0-9]{12,}$`

Required: Yes

### CreationTime

The creation time.

Type: Timestamp

Required: Yes

### DurationInSeconds

The duration of the session, in seconds.

Type: Integer

Required: Yes

### Name

The names of the Vector Enrichment jobs in the list.

Type: String

Required: Yes

### Status

The status of the Vector Enrichment jobs list.

Type: String

Valid Values: INITIALIZING | IN\_PROGRESS | STOPPING | STOPPED | COMPLETED | FAILED | DELETING | DELETED

Required: Yes

## Type

The type of the list of Vector Enrichment jobs.

Type: String

Valid Values: REVERSE\_GEOCODING | MAP\_MATCHING

Required: Yes

## Tags

Each tag consists of a key and a value.

Type: String to string map

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MapMatchingConfig

Service: Amazon SageMaker geospatial capabilities

The input structure for Map Matching operation type.

## Contents

### IdAttributeName

The field name for the data that describes the identifier representing a collection of GPS points belonging to an individual trace.

Type: String

Required: Yes

### TimestampAttributeName

The name of the timestamp attribute.

Type: String

Required: Yes

### XAttributeName

The name of the X-attribute

Type: String

Required: Yes

### YAttributeName

The name of the Y-attribute

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MultiPolygonGeometryInput

Service: Amazon SageMaker geospatial capabilities

The structure representing Polygon Geometry based on the [GeoJson spec](#).

## Contents

### Coordinates

The coordinates of the multipolygon geometry.

Type: Array of arrays of arrays of arrays of doubles

Array Members: Minimum number of 1 item.

Array Members: Minimum number of 4 items.

Array Members: Fixed number of 2 items.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Operation

Service: Amazon SageMaker geospatial capabilities

Represents an arithmetic operation to compute spectral index.

### Contents

#### Equation

Textual representation of the math operation; Equation used to compute the spectral index.

Type: String

Required: Yes

#### Name

The name of the operation.

Type: String

Required: Yes

#### OutputType

The type of the operation.

Type: String

Valid Values: INT32 | FLOAT32 | INT16 | FLOAT64 | UINT16

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OutputBand

Service: Amazon SageMaker geospatial capabilities

A single EarthObservationJob output band.

## Contents

### BandName

The name of the band.

Type: String

Required: Yes

### OutputDataType

The datatype of the output band.

Type: String

Valid Values: INT32 | FLOAT32 | INT16 | FLOAT64 | UINT16

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OutputConfigInput

Service: Amazon SageMaker geospatial capabilities

The response structure for an OutputConfig returned by an ExportEarthObservationJob.

## Contents

### S3Data

Path to Amazon S3 storage location for the output configuration file.

Type: [ExportS3DataInput](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# OutputResolutionResamplingInput

Service: Amazon SageMaker geospatial capabilities

OutputResolution Configuration indicating the target resolution for the output of Resampling operation.

## Contents

### UserDefined

User Defined Resolution for the output of Resampling operation defined by value and unit.

Type: [UserDefined](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OutputResolutionStackInput

Service: Amazon SageMaker geospatial capabilities

The input structure representing Output Resolution for Stacking Operation.

## Contents

### Predefined

A string value representing Predefined Output Resolution for a stacking operation. Allowed values are HIGHEST, LOWEST, and AVERAGE.

Type: String

Valid Values: HIGHEST | LOWEST | AVERAGE

Required: No

### UserDefined

The structure representing User Output Resolution for a Stacking operation defined as a value and unit.

Type: [UserDefined](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PlatformInput

Service: Amazon SageMaker geospatial capabilities

The input structure for specifying Platform. Platform refers to the unique name of the specific platform the instrument is attached to. For satellites it is the name of the satellite, eg. landsat-8 (Landsat-8), sentinel-2a.

## Contents

### Value

The value of the platform.

Type: String

Required: Yes

### ComparisonOperator

The ComparisonOperator to use with PlatformInput.

Type: String

Valid Values: EQUALS | NOT\_EQUALS | STARTS\_WITH

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PolygonGeometryInput

Service: Amazon SageMaker geospatial capabilities

The structure representing Polygon Geometry based on the [GeoJson spec](#).

## Contents

### Coordinates

Coordinates representing a Polygon based on the [GeoJson spec](#).

Type: Array of arrays of arrays of doubles

Array Members: Minimum number of 1 item.

Array Members: Minimum number of 4 items.

Array Members: Fixed number of 2 items.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Properties

Service: Amazon SageMaker geospatial capabilities

Properties associated with the Item.

### Contents

#### EoCloudCover

Estimate of cloud cover.

Type: Float

Required: No

#### LandsatCloudCoverLand

Land cloud cover for Landsat Data Collection.

Type: Float

Required: No

#### Platform

Platform property. Platform refers to the unique name of the specific platform the instrument is attached to. For satellites it is the name of the satellite, eg. landsat-8 (Landsat-8), sentinel-2a.

Type: String

Required: No

#### ViewOffNadir

The angle from the sensor between nadir (straight down) and the scene center. Measured in degrees (0-90).

Type: Float

Required: No

#### ViewSunAzimuth

The sun azimuth angle. From the scene center point on the ground, this is the angle between truth north and the sun. Measured clockwise in degrees (0-360).

Type: Float

Required: No

### **ViewSunElevation**

The sun elevation angle. The angle from the tangent of the scene center point to the sun. Measured from the horizon in degrees (-90-90). Negative values indicate the sun is below the horizon, e.g. sun elevation of -10° means the data was captured during [nautical twilight](#).

Type: Float

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Property

Service: Amazon SageMaker geospatial capabilities

Represents a single searchable property to search on.

### Contents

#### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

#### **EoCloudCover**

The structure representing EoCloudCover property filter containing a lower bound and upper bound.

Type: [EoCloudCoverInput](#) object

Required: No

#### **LandsatCloudCoverLand**

The structure representing Land Cloud Cover property filter for Landsat collection containing a lower bound and upper bound.

Type: [LandsatCloudCoverLandInput](#) object

Required: No

#### **Platform**

The structure representing Platform property filter consisting of value and comparison operator.

Type: [PlatformInput](#) object

Required: No

#### **ViewOffNadir**

The structure representing ViewOffNadir property filter containing a lower bound and upper bound.

Type: [ViewOffNadirInput](#) object

Required: No

### **ViewSunAzimuth**

The structure representing ViewSunAzimuth property filter containing a lower bound and upper bound.

Type: [ViewSunAzimuthInput](#) object

Required: No

### **ViewSunElevation**

The structure representing ViewSunElevation property filter containing a lower bound and upper bound.

Type: [ViewSunElevationInput](#) object

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# PropertyFilter

Service: Amazon SageMaker geospatial capabilities

The structure representing a single PropertyFilter.

## Contents

### Property

Represents a single property to match with when searching a raster data collection.

Type: [Property](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PropertyFilters

Service: Amazon SageMaker geospatial capabilities

A list of PropertyFilter objects.

## Contents

### LogicalOperator

The Logical Operator used to combine the Property Filters.

Type: String

Valid Values: AND

Required: No

### Properties

A list of Property Filters.

Type: Array of [PropertyFilter](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RasterDataCollectionMetadata

Service: Amazon SageMaker geospatial capabilities

Response object containing details for a specific RasterDataCollection.

## Contents

### Arn

The Amazon Resource Name (ARN) of the raster data collection.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:raster-data-collection/(public|premium|user)/[a-z0-9]{12,}$`

Required: Yes

### Description

A description of the raster data collection.

Type: String

Required: Yes

### Name

The name of the raster data collection.

Type: String

Required: Yes

### SupportedFilters

The list of filters supported by the raster data collection.

Type: Array of [Filter](#) objects

Required: Yes

### Type

The type of raster data collection.

Type: String

Valid Values: PUBLIC | PREMIUM | USER

Required: Yes

### **DescriptionPageUrl**

The description URL of the raster data collection.

Type: String

Required: No

### **Tags**

Each tag consists of a key and a value.

Type: String to string map

Required: No

### **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RasterDataCollectionQueryInput

Service: Amazon SageMaker geospatial capabilities

The input structure for Raster Data Collection Query containing the Area of Interest, TimeRange Filters, and Property Filters.

## Contents

### RasterDataCollectionArn

The Amazon Resource Name (ARN) of the raster data collection.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:raster-data-collection/(public|premium|user)/[a-z0-9]{12,}$`

Required: Yes

### TimeRangeFilter

The TimeRange Filter used in the RasterDataCollection Query.

Type: [TimeRangeFilterInput](#) object

Required: Yes

### AreaOfInterest

The area of interest being queried for the raster data collection.

Type: [AreaOfInterest](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: No

### PropertyFilters

The list of Property filters used in the Raster Data Collection Query.

Type: [PropertyFilters](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RasterDataCollectionQueryOutput

Service: Amazon SageMaker geospatial capabilities

The output structure contains the Raster Data Collection Query input along with some additional metadata.

## Contents

### RasterDataCollectionArn

The ARN of the Raster Data Collection against which the search is done.

Type: String

Pattern: `^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:raster-data-collection/(public|premium|user)/[a-z0-9]{12,}$`

Required: Yes

### RasterDataCollectionName

The name of the raster data collection.

Type: String

Required: Yes

### TimeRangeFilter

The TimeRange filter used in the search.

Type: [TimeRangeFilterOutput](#) object

Required: Yes

### AreaOfInterest

The Area of Interest used in the search.

Type: [AreaOfInterest](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: No

## PropertyFilters

Property filters used in the search.

Type: [PropertyFilters](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# RasterDataCollectionQueryWithBandFilterInput

Service: Amazon SageMaker geospatial capabilities

This is a RasterDataCollectionQueryInput containing AreaOfInterest, Time Range filter and Property filters.

## Contents

### TimeRangeFilter

The TimeRange Filter used in the search query.

Type: [TimeRangeFilterInput](#) object

Required: Yes

### AreaOfInterest

The Area of interest to be used in the search query.

Type: [AreaOfInterest](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: No

### BandFilter

The list of Bands to be displayed in the result for each item.

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

### PropertyFilters

The Property Filters used in the search query.

Type: [PropertyFilters](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ResamplingConfigInput

Service: Amazon SageMaker geospatial capabilities

The structure representing input for resampling operation.

## Contents

### OutputResolution

The structure representing output resolution (in target georeferenced units) of the result of resampling operation.

Type: [OutputResolutionResamplingInput](#) object

Required: Yes

### AlgorithmName

The name of the algorithm used for resampling.

Type: String

Valid Values: NEAR | BILINEAR | CUBIC | CUBICSPLINE | LANCZOS | AVERAGE | RMS | MODE | MAX | MIN | MED | Q1 | Q3 | SUM

Required: No

### TargetBands

Bands used in the operation. If no target bands are specified, it uses all bands available in the input.

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ReverseGeocodingConfig

Service: Amazon SageMaker geospatial capabilities

The input structure for Reverse Geocoding operation type.

## Contents

### XAttributeName

The field name for the data that describes x-axis coordinate, eg. longitude of a point.

Type: String

Required: Yes

### YAttributeName

The field name for the data that describes y-axis coordinate, eg. latitude of a point.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# StackConfigInput

Service: Amazon SageMaker geospatial capabilities

The input structure for Stacking Operation.

## Contents

### OutputResolution

The structure representing output resolution (in target georeferenced units) of the result of stacking operation.

Type: [OutputResolutionStackInput](#) object

Required: No

### TargetBands

A list of bands to be stacked in the specified order. When the parameter is not provided, all the available bands in the data collection are stacked in the alphabetical order of their asset names.

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TemporalStatisticsConfigInput

Service: Amazon SageMaker geospatial capabilities

The structure representing the configuration for Temporal Statistics operation.

## Contents

### Statistics

The list of the statistics method options.

Type: Array of strings

Array Members: Minimum number of 1 item.

Valid Values: MEAN | MEDIAN | STANDARD\_DEVIATION

Required: Yes

### GroupBy

The input for the temporal statistics grouping by time frequency option.

Type: String

Valid Values: ALL | YEARLY

Required: No

### TargetBands

The list of target band names for the temporal statistic to calculate.

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# TimeRangeFilterInput

Service: Amazon SageMaker geospatial capabilities

The input for the time-range filter.

## Contents

### EndTime

The end time for the time-range filter.

Type: Timestamp

Required: Yes

### StartTime

The start time for the time-range filter.

Type: Timestamp

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TimeRangeFilterOutput

Service: Amazon SageMaker geospatial capabilities

The output structure of the time range filter.

## Contents

### EndTime

The ending time for the time range filter.

Type: Timestamp

Required: Yes

### StartTime

The starting time for the time range filter.

Type: Timestamp

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## UserDefined

Service: Amazon SageMaker geospatial capabilities

The output resolution (in target georeferenced units) of the result of the operation

### Contents

#### Unit

The units for output resolution of the result.

Type: String

Valid Values: METERS

Required: Yes

#### Value

The value for output resolution of the result.

Type: Float

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# VectorEnrichmentJobConfig

Service: Amazon SageMaker geospatial capabilities

It contains configs such as ReverseGeocodingConfig and MapMatchingConfig.

## Contents

### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

## MapMatchingConfig

The input structure for Map Matching operation type.

Type: [MapMatchingConfig](#) object

Required: No

## ReverseGeocodingConfig

The input structure for Reverse Geocoding operation type.

Type: [ReverseGeocodingConfig](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# VectorEnrichmentJobDataSourceConfigInput

Service: Amazon SageMaker geospatial capabilities

The input structure for the data source that represents the storage type of the input data objects.

## Contents

### Important

This data type is a UNION, so only one of the following members can be specified when used or returned.

## S3Data

The input structure for the Amazon S3 data that represents the Amazon S3 location of the input data objects.

Type: [VectorEnrichmentJobS3Data](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# VectorEnrichmentJobErrorDetails

Service: Amazon SageMaker geospatial capabilities

VectorEnrichmentJob error details in response from GetVectorEnrichmentJob.

## Contents

### ErrorMessage

A message that you define and then is processed and rendered by the Vector Enrichment job when the error occurs.

Type: String

Required: No

### ErrorType

The type of error generated during the Vector Enrichment job.

Type: String

Valid Values: CLIENT\_ERROR | SERVER\_ERROR

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# VectorEnrichmentJobExportErrorDetails

Service: Amazon SageMaker geospatial capabilities

VectorEnrichmentJob export error details in response from GetVectorEnrichmentJob.

## Contents

### Message

The message providing details about the errors generated during the Vector Enrichment job.

Type: String

Required: No

### Type

The output error details for an Export operation on a Vector Enrichment job.

Type: String

Valid Values: CLIENT\_ERROR | SERVER\_ERROR

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# VectorEnrichmentJobInputConfig

Service: Amazon SageMaker geospatial capabilities

The input structure for the InputConfig in a VectorEnrichmentJob.

## Contents

### DataSourceConfig

The input structure for the data source that represents the storage type of the input data objects.

Type: [VectorEnrichmentJobDataSourceConfigInput](#) object

**Note:** This object is a Union. Only one member of this object can be specified or returned.

Required: Yes

### DocumentType

The input structure that defines the data source file type.

Type: String

Valid Values: CSV

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



## VectorEnrichmentJobS3Data

Service: Amazon SageMaker geospatial capabilities

The Amazon S3 data for the Vector Enrichment job.

### Contents

#### S3Uri

The URL to the Amazon S3 data for the Vector Enrichment job.

Type: String

Pattern: `^s3://([^\s]+)?/?(.*)$`

Required: Yes

#### KmsKeyId

The Key Management Service key ID for server-side encryption.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ViewOffNadirInput

Service: Amazon SageMaker geospatial capabilities

The input structure for specifying ViewOffNadir property filter. ViewOffNadir refers to the angle from the sensor between nadir (straight down) and the scene center. Measured in degrees (0-90).

## Contents

### LowerBound

The minimum value for ViewOffNadir property filter. This filters items having ViewOffNadir greater than or equal to this value.

Type: Float

Required: Yes

### UpperBound

The maximum value for ViewOffNadir property filter. This filters items having ViewOffNadir lesser than or equal to this value.

Type: Float

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ViewSunAzimuthInput

Service: Amazon SageMaker geospatial capabilities

The input structure for specifying ViewSunAzimuth property filter. ViewSunAzimuth refers to the Sun azimuth angle. From the scene center point on the ground, this is the angle between truth north and the sun. Measured clockwise in degrees (0-360).

## Contents

### LowerBound

The minimum value for ViewSunAzimuth property filter. This filters items having ViewSunAzimuth greater than or equal to this value.

Type: Float

Required: Yes

### UpperBound

The maximum value for ViewSunAzimuth property filter. This filters items having ViewSunAzimuth lesser than or equal to this value.

Type: Float

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ViewSunElevationInput

Service: Amazon SageMaker geospatial capabilities

The input structure for specifying ViewSunElevation angle property filter.

## Contents

### LowerBound

The lower bound to view the sun elevation.

Type: Float

Required: Yes

### UpperBound

The upper bound to view the sun elevation.

Type: Float

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ZonalStatisticsConfigInput

Service: Amazon SageMaker geospatial capabilities

The structure representing input configuration of ZonalStatistics operation.

## Contents

### Statistics

List of zonal statistics to compute.

Type: Array of strings

Array Members: Minimum number of 1 item.

Valid Values: MEAN | MEDIAN | STANDARD\_DEVIATION | MAX | MIN | SUM

Required: Yes

### ZoneS3Path

The Amazon S3 path pointing to the GeoJSON containing the polygonal zones.

Type: String

Pattern: `^s3://([^/]+)/?(.*)$`

Required: Yes

### TargetBands

Bands used in the operation. If no target bands are specified, it uses all bands available input.

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

### ZoneS3PathKmsKeyId

The Amazon Resource Name (ARN) or an ID of a AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to decrypt your output artifacts with Amazon S3 server-side encryption. The SageMaker execution role must have `kms:GenerateDataKey` permission.

The `KmsKeyId` can be any of the following formats:

- `// KMS Key ID`  
`"1234abcd-12ab-34cd-56ef-1234567890ab"`
- `// Amazon Resource Name (ARN) of a KMS Key`  
`"arn:aws:kms:<region>:<account>:key/<key-id-12ab-34cd-56ef-1234567890ab>"`

For more information about key identifiers, see [Key identifiers \(KeyID\)](#) in the AWS Key Management Service (AWS KMS) documentation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Amazon SageMaker Metrics Service

The following data types are supported by Amazon SageMaker Metrics Service:

- [BatchPutMetricsError](#)
- [RawMetricData](#)

# BatchPutMetricsError

Service: Amazon SageMaker Metrics Service

An error that occurred when putting the metric data.

## Contents

### Code

The error code of an error that occurred when attempting to put metrics.

- `METRIC_LIMIT_EXCEEDED`: The maximum amount of metrics per resource is exceeded.
- `INTERNAL_ERROR`: An internal error occurred.
- `VALIDATION_ERROR`: The metric data failed validation.
- `CONFLICT_ERROR`: Multiple requests attempted to modify the same data simultaneously.

Type: String

Valid Values: `METRIC_LIMIT_EXCEEDED` | `INTERNAL_ERROR` | `VALIDATION_ERROR` | `CONFLICT_ERROR`

Required: No

### MetricIndex

An index that corresponds to the metric in the request.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RawMetricData

Service: Amazon SageMaker Metrics Service

The raw metric data to associate with the resource.

## Contents

### MetricName

The name of the metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: Yes

### Timestamp

The time that the metric was recorded.

Type: Timestamp

Required: Yes

### Value

The metric value.

Type: Double

Required: Yes

### Step

The metric step (epoch).

Type: Integer

Valid Range: Minimum value of 0.

Required: No



## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [Signing AWS API requests](#) in the *IAM User Guide*.

## Action

The action to be performed.

Type: string

Required: Yes

## Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

## X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: AWS4-HMAC-SHA256

Required: Conditional

## X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4\_request"). The value is expressed in the following format: *access\_key/YYYYMMDD/region/service/aws4\_request*.

For more information, see [Create a signed AWS API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

### **X-Amz-Date**

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: 20120325T120000Z.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see [Elements of an AWS API request signature](#) in the *IAM User Guide*.

Type: string

Required: Conditional

### **X-Amz-Security-Token**

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see [AWS services that work with IAM](#) in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

### **X-Amz-Signature**

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

### **X-Amz-SignedHeaders**

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see [Create a signed AWS API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

# Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

## **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 400

## **IncompleteSignature**

The request signature does not conform to AWS standards.

HTTP Status Code: 400

## **InternalFailure**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

## **InvalidAction**

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

## **InvalidClientTokenId**

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

## **NotAuthorized**

You do not have permission to perform this action.

HTTP Status Code: 400

## **OptInRequired**

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

**RequestExpired**

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

**ServiceUnavailable**

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 400

**ValidationError**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400