



Management API Reference

# Amazon FinSpace



# Amazon FinSpace: Management API Reference

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# Table of Contents

.....	<b>vi</b>
<b>What is Amazon FinSpace</b> .....	<b>1</b>
<b>API Operations by Topic</b> .....	<b>2</b>
Dataset browser environment operations .....	2
Managed kdb environment operations .....	2
Managed kdb database operations .....	3
Managed kdb volumes operations .....	3
Managed kdb scaling groups operations .....	3
Managed kdb cluster operations .....	4
Tagging operations .....	4
<b>API Reference Index</b> .....	<b>5</b>
Actions .....	5
CreateEnvironment .....	8
CreateKxChangeset .....	14
CreateKxCluster .....	21
CreateKxDatabase .....	39
CreateKxDataview .....	45
CreateKxEnvironment .....	55
CreateKxScalingGroup .....	61
CreateKxUser .....	68
CreateKxVolume .....	73
DeleteEnvironment .....	81
DeleteKxCluster .....	83
DeleteKxClusterNode .....	86
DeleteKxDatabase .....	89
DeleteKxDataview .....	92
DeleteKxEnvironment .....	95
DeleteKxScalingGroup .....	98
DeleteKxUser .....	101
DeleteKxVolume .....	104
GetEnvironment .....	107
GetKxChangeset .....	110
GetKxCluster .....	115
GetKxConnectionString .....	125

---

GetKxDatabase .....	128
GetKxDataview .....	133
GetKxEnvironment .....	140
GetKxScalingGroup .....	147
GetKxUser .....	153
GetKxVolume .....	157
ListEnvironments .....	163
ListKxChangesets .....	166
ListKxClusterNodes .....	170
ListKxClusters .....	174
ListKxDatabases .....	179
ListKxDataviews .....	182
ListKxEnvironments .....	186
ListKxScalingGroups .....	190
ListKxUsers .....	194
ListKxVolumes .....	197
ListTagsForResource .....	201
TagResource .....	204
UntagResource .....	207
UpdateEnvironment .....	210
UpdateKxClusterCodeConfiguration .....	215
UpdateKxClusterDatabases .....	220
UpdateKxDatabase .....	224
UpdateKxDataview .....	229
UpdateKxEnvironment .....	237
UpdateKxEnvironmentNetwork .....	245
UpdateKxUser .....	253
UpdateKxVolume .....	258
Data Types .....	264
AutoScalingConfiguration .....	267
CapacityConfiguration .....	270
ChangeRequest .....	272
CodeConfiguration .....	274
CustomDNSServer .....	276
Environment .....	278
ErrorInfo .....	282

FederationParameters .....	284
IcmpTypeCode .....	287
KxAttachedCluster .....	288
KxCacheStorageConfiguration .....	290
KxChangesetListEntry .....	292
KxCluster .....	294
KxClusterCodeDeploymentConfiguration .....	299
KxCommandLineArgument .....	301
KxDatabaseCacheConfiguration .....	303
KxDatabaseConfiguration .....	305
KxDatabaseListEntry .....	307
KxDataviewActiveVersion .....	309
KxDataviewConfiguration .....	311
KxDataviewListEntry .....	313
KxDataviewSegmentConfiguration .....	318
KxDeploymentConfiguration .....	320
KxEnvironment .....	322
KxNAS1Configuration .....	327
KxNode .....	329
KxSavedownStorageConfiguration .....	331
KxScalingGroup .....	333
KxScalingGroupConfiguration .....	336
KxUser .....	338
KxVolume .....	340
NetworkACLEntry .....	343
PortRange .....	345
SuperuserParameters .....	346
TickerplantLogConfiguration .....	348
TransitGatewayConfiguration .....	349
Volume .....	351
VpcConfiguration .....	353
Common Errors .....	354
Common Parameters .....	356
<b>AWS Glossary .....</b>	<b>359</b>

Amazon FinSpace Dataset Browser will be discontinued on *November 29, 2024*. Starting *November 29, 2023*, FinSpace will no longer accept the creation of new Dataset Browser environments. Customers using [Amazon FinSpace with Managed Kdb Insights](#) will not be affected. For more information, review the [FAQ](#) or contact [AWS Support](#) to assist with your transition.

# What is Amazon FinSpace

Amazon FinSpace is a data management and analytics service for the financial services industry (FSI). It reduces the time to find and prepare all types of financial data to be ready for analysis from months to minutes.

FinSpace is a fully managed data management and analytics service that makes it easy to store, catalog, and prepare financial industry data at scale. FinSpace provides a Managed kdb Insights analytics engine powered by the industry recognized kdb analytics engine. It also features the Dataset browser that you can use to collect data and catalog it by relevant business concepts such as asset class, risk classification, or geographic region.

This API Reference provides descriptions, syntax, and usage examples for each of the operations and data types for use of FinSpace. You can use the API operations to programmatically expand and manage your FinSpace deployments.

You can also use one of the AWS SDKs to access an API operation that's tailored to the programming language or platform that you're using. For more information, see [AWS SDKs](#).

# API Operations by Topic

Use this section to locate API operations by topic.

## Topics

- [Dataset browser environment operations](#)
- [Managed kdb environment operations](#)
- [Managed kdb database operations](#)
- [Managed kdb volumes operations](#)
- [Managed kdb scaling groups operations](#)
- [Managed kdb cluster operations](#)
- [Tagging operations](#)

## Dataset browser environment operations

The API operations in this section control FinSpace environment.

- [CreateEnvironment](#)
- [ListEnvironments](#)
- [GetEnvironment](#)
- [DeleteEnvironment](#)
- [UpdateEnvironment](#)

## Managed kdb environment operations

The API operations in this section control Managed kdb environment.

- [CreateKxEnvironment](#)
- [UpdateKxEnvironment](#)
- [DeleteKxEnvironment](#)
- [GetKxEnvironment](#)
- [ListKxEnvironments](#)
- [UpdateKxEnvironmentNetwork](#)



## Managed kdb database operations

The API operations in this section control Managed kdb database.

- [CreateKxDatabase](#)
- [UpdateKxDatabase](#)
- [DeleteKxDatabase](#)
- [GetKxDatabase](#)
- [ListKxDatabases](#)
- [CreateKxChangeset](#)
- [GetKxChangeset](#)
- [ListKxChangesets](#)
- [CreateKxDataview](#)
- [DeleteKxDataview](#)
- [GetKxDataview](#)
- [ListKxDataviews](#)
- [UpdateKxDataview](#)

## Managed kdb volumes operations

The API operations in this section control Managed kdb volumes.

- [CreateKxVolume](#)
- [DeleteKxVolume](#)
- [GetKxVolume](#)
- [ListKxVolumes](#)
- [UpdateKxVolume](#)

## Managed kdb scaling groups operations

The API operations in this section control Managed kdb scaling groups.

- [CreateKxScalingGroup](#)

- [DeleteKxScalingGroup](#)
- [GetKxScalingGroup](#)
- [ListKxScalingGroups](#)

## Managed kdb cluster operations

The API operations in this section control Managed kdb cluster.

- [CreateKxCluster](#)
- [DeleteKxCluster](#)
- [GetKxCluster](#)
- [ListKxClusters](#)
- [ListKxClusterNodes](#)
- [DeleteKxClusterNode](#)
- [UpdateKxClusterCodeConfiguration](#)
- [UpdateKxClusterDatabases](#)
- [CreateKxUser](#)
- [DeleteKxUser](#)
- [GetKxUser](#)
- [ListKxUsers](#)
- [UpdateKxUser](#)

## Tagging operations

The API operations in this section control tagging in FinSpace.

- [TagResource](#)
- [UntagResource](#)
- [ListTagsForResource](#)

# API Reference Index

This section contains the API Reference documentation.

## Topics

- [Actions](#)
- [Data Types](#)
- [Common Errors](#)
- [Common Parameters](#)

## Actions

The following actions are supported:

- [CreateEnvironment](#)
- [CreateKxChangeset](#)
- [CreateKxCluster](#)
- [CreateKxDatabase](#)
- [CreateKxDataview](#)
- [CreateKxEnvironment](#)
- [CreateKxScalingGroup](#)
- [CreateKxUser](#)
- [CreateKxVolume](#)
- [DeleteEnvironment](#)
- [DeleteKxCluster](#)
- [DeleteKxClusterNode](#)
- [DeleteKxDatabase](#)
- [DeleteKxDataview](#)
- [DeleteKxEnvironment](#)
- [DeleteKxScalingGroup](#)
- [DeleteKxUser](#)
- [DeleteKxVolume](#)

- [GetEnvironment](#)
- [GetKxChangeset](#)
- [GetKxCluster](#)
- [GetKxConnectionString](#)
- [GetKxDatabase](#)
- [GetKxDataview](#)
- [GetKxEnvironment](#)
- [GetKxScalingGroup](#)
- [GetKxUser](#)
- [GetKxVolume](#)
- [ListEnvironments](#)
- [ListKxChangesets](#)
- [ListKxClusterNodes](#)
- [ListKxClusters](#)
- [ListKxDatabases](#)
- [ListKxDataviews](#)
- [ListKxEnvironments](#)
- [ListKxScalingGroups](#)
- [ListKxUsers](#)
- [ListKxVolumes](#)
- [ListTagsForResource](#)
- [TagResource](#)
- [UntagResource](#)
- [UpdateEnvironment](#)
- [UpdateKxClusterCodeConfiguration](#)
- [UpdateKxClusterDatabases](#)
- [UpdateKxDatabase](#)
- [UpdateKxDataview](#)
- [UpdateKxEnvironment](#)
- [UpdateKxEnvironmentNetwork](#)

- [UpdateKxUser](#)
- [UpdateKxVolume](#)

# CreateEnvironment

Create a new FinSpace environment.

## Request Syntax

```
POST /environment HTTP/1.1
Content-type: application/json

{
  "dataBundles": [ "string" ],
  "description": "string",
  "federationMode": "string",
  "federationParameters": {
    "applicationCallbackURL": "string",
    "attributeMap": {
      "string" : "string"
    },
    "federationProviderName": "string",
    "federationURN": "string",
    "samlMetadataDocument": "string",
    "samlMetadataURL": "string"
  },
  "kmsKeyId": "string",
  "name": "string",
  "superuserParameters": {
    "emailAddress": "string",
    "firstName": "string",
    "lastName": "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.

## name

The name of the FinSpace environment to be created.

Type: String

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

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

Required: Yes

## dataBundles

The list of Amazon Resource Names (ARN) of the data bundles to install. Currently supported data bundle ARNs:

- `arn:aws:finpace:${Region}::data-bundle/capital-markets-sample` - Contains sample Capital Markets datasets, categories and controlled vocabularies.
- `arn:aws:finpace:${Region}::data-bundle/taq` (default) - Contains trades and quotes data in addition to sample Capital Markets data.

Type: Array of strings

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

Pattern: `^arn:aws:finpace:[A-Za-z0-9_/.-]{0,63}:\d*:data-bundle/[0-9A-Za-z_-]{1,128}$`

Required: No

## description

The description of the FinSpace environment to be created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

## federationMode

Authentication mode for the environment.

- **FEDERATED** - Users access FinSpace through Single Sign On (SSO) via your Identity provider.
- **LOCAL** - Users access FinSpace via email and password managed within the FinSpace environment.

Type: String

Valid Values: FEDERATED | LOCAL

Required: No

### federationParameters

Configuration information when authentication mode is FEDERATED.

Type: [FederationParameters](#) object

Required: No

### kmsKeyId

The KMS key id to encrypt your data in the FinSpace environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9-:\|]*$`

Required: No

### superuserParameters

Configuration information for the superuser.

Type: [SuperuserParameters](#) object

Required: No

### tags

Add tags to your FinSpace environment.

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:  $^(?!aws:)[a-zA-Z+-. _:/]+$

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

Value Pattern:  $^[a-zA-Z0-9+-. _:@ ]+$

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "environmentArn": "string",
  "environmentId": "string",
  "environmentUrl": "string"
}
```

## Response Elements

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

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

### environmentArn

The Amazon Resource Name (ARN) of the FinSpace environment that you created.

Type: String

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

Pattern:  $^arn:aws:finspace:[A-Za-z0-9_/.-]{0,63}:\d+:environment/[0-9A-Za-z_-]{1,128}$

### environmentId

The unique identifier for FinSpace environment that you created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

### environmentUrl

The sign-in URL for the web application of the FinSpace environment you created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^https?:\/\/[-a-zA-Z0-9+&@#/%?~_|!:,.;]*[-a-zA-Z0-9+&@#/%?~_|]`

## 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

### **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

### **ServiceQuotaExceededException**

You have exceeded your service quota. To perform the requested action, remove some of the relevant resources, or use Service Quotas to request a service quota increase.

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](#)

## CreateKxChangeset

Creates a changeset for a kdb database. A changeset allows you to add and delete existing files by using an ordered list of change requests.

### Request Syntax

```
POST /kx/environments/environmentId/databases/databaseName/changesets HTTP/1.1
Content-type: application/json
```

```
{
  "changeRequests": [
    {
      "changeType": "string",
      "dbPath": "string",
      "s3Path": "string"
    }
  ],
  "clientToken": "string"
}
```

### URI Request Parameters

The request uses the following URI parameters.

#### databaseName

The name of the kdb database.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

#### environmentId

A unique identifier of the kdb environment.

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

Pattern: `.*\S.*`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### changeRequests

A list of change request objects that are run in order. A change request object consists of `changeType`, `s3Path`, and `dbPath`. A `changeType` can have the following values:

- PUT – Adds or updates files in a database.
- DELETE – Deletes files in a database.

All the change requests require a mandatory `dbPath` attribute that defines the path within the database directory. All database paths must start with a leading `/` and end with a trailing `/`. The `s3Path` attribute defines the `s3` source file path and is required for a PUT change type. The `s3Path` must end with a trailing `/` if it is a directory and must end without a trailing `/` if it is a file.

Here are few examples of how you can use the change request object:

1. This request adds a single `sym` file at database root location.

```
{ "changeType": "PUT", "s3Path":"s3://bucket/db/sym", "dbPath":"/"}
```

2. This request adds files in the given `s3Path` under the `2020.01.02` partition of the database.

```
{ "changeType": "PUT", "s3Path":"s3://bucket/db/2020.01.02/", "dbPath":"/2020.01.02/"}
```

3. This request adds files in the given `s3Path` under the `taq` table partition of the database.

```
[ { "changeType": "PUT", "s3Path":"s3://bucket/db/2020.01.02/taq/", "dbPath":"/2020.01.02/taq/" } ]
```

4. This request deletes the `2020.01.02` partition of the database.

```
[ { "changeType": "DELETE", "dbPath": "/2020.01.02/" } ]
```

5. The *DELETE* request allows you to delete the existing files under the `2020.01.02` partition of the database, and the *PUT* request adds a new `taq` table under it.

```
[ { "changeType": "DELETE", "dbPath":"/2020.01.02/" }, { "changeType": "PUT", "s3Path":"s3://bucket/db/2020.01.02/taq/", "dbPath":"/2020.01.02/taq/" } ]
```

Type: Array of [ChangeRequest](#) objects

Array Members: Minimum number of 1 item. Maximum number of 32 items.

Required: Yes

### [clientToken](#)

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

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

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "changeRequests": [
    {
      "changeType": "string",
      "dbPath": "string",
      "s3Path": "string"
    }
  ],
  "changesetId": "string",
  "createdTimestamp": number,
  "databaseName": "string",
  "environmentId": "string",
  "errorInfo": {
    "errorMessage": "string",
    "errorType": "string"
  },
  "lastModifiedTimestamp": number,
  "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.

### changeRequests

A list of change requests.

Type: Array of [ChangeRequest](#) objects

Array Members: Minimum number of 1 item. Maximum number of 32 items.

### changesetId

A unique identifier for the changeset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

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

### createdTimestamp

The timestamp at which the changeset was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

### databaseName

The name of the kdb database.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### environmentId

A unique identifier for the kdb environment.

Type: String

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

Pattern: .\*\\S.\*

### errorInfo

The details of the error that you receive when creating a changeset. It consists of the type of error and the error message.

Type: [ErrorInfo](#) object

### lastModifiedTimestamp

The timestamp at which the changeset was updated in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

### status

Status of the changeset creation process.

- Pending – Changeset creation is pending.
- Processing – Changeset creation is running.
- Failed – Changeset creation has failed.
- Complete – Changeset creation has succeeded.

Type: String

Valid Values: PENDING | PROCESSING | FAILED | COMPLETED

## 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

## **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

## **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

## **ResourceNotFoundException**

One or more resources can't be found.

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](#)

# CreateKxCluster

Creates a new kdb cluster.

## Request Syntax

```
POST /kx/environments/environmentId/clusters HTTP/1.1
```

```
Content-type: application/json
```

```
{
  "autoScalingConfiguration": {
    "autoScalingMetric": "string",
    "maxNodeCount": number,
    "metricTarget": number,
    "minNodeCount": number,
    "scaleInCooldownSeconds": number,
    "scaleOutCooldownSeconds": number
  },
  "availabilityZoneId": "string",
  "azMode": "string",
  "cacheStorageConfigurations": [
    {
      "size": number,
      "type": "string"
    }
  ],
  "capacityConfiguration": {
    "nodeCount": number,
    "nodeType": "string"
  },
  "clientToken": "string",
  "clusterDescription": "string",
  "clusterName": "string",
  "clusterType": "string",
  "code": {
    "s3Bucket": "string",
    "s3Key": "string",
    "s3ObjectVersion": "string"
  },
  "commandLineArguments": [
    {
      "key": "string",
      "value": "string"
    }
  ]
}
```

```

    }
  ],
  "databases": [
    {
      "cacheConfigurations": [
        {
          "cacheType": "string",
          "dataviewName": "string",
          "dbPaths": [ "string" ]
        }
      ],
      "changesetId": "string",
      "databaseName": "string",
      "dataviewConfiguration": {
        "changesetId": "string",
        "dataviewName": "string",
        "dataviewVersionId": "string",
        "segmentConfigurations": [
          {
            "dbPaths": [ "string" ],
            "onDemand": boolean,
            "volumeName": "string"
          }
        ]
      },
      "dataviewName": "string"
    }
  ],
  "executionRole": "string",
  "initializationScript": "string",
  "releaseLabel": "string",
  "savedownStorageConfiguration": {
    "size": number,
    "type": "string",
    "volumeName": "string"
  },
  "scalingGroupConfiguration": {
    "cpu": number,
    "memoryLimit": number,
    "memoryReservation": number,
    "nodeCount": number,
    "scalingGroupName": "string"
  },
  "tags": {

```

```
    "string" : "string"
  },
  "tickerplantLogConfiguration": {
    "tickerplantLogVolumes": [ "string" ]
  },
  "vpcConfiguration": {
    "ipAddressType": "string",
    "securityGroupIds": [ "string" ],
    "subnetIds": [ "string" ],
    "vpcId": "string"
  }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### environmentId

A unique identifier for the kdb environment.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### azMode

The number of availability zones you want to assign per cluster. This can be one of the following

- SINGLE – Assigns one availability zone per cluster.
- MULTI – Assigns all the availability zones per cluster.

Type: String

Valid Values: SINGLE | MULTI

Required: Yes

### clusterName

A unique name for the cluster that you want to create.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### clusterType

Specifies the type of KDB database that is being created. The following types are available:

- **HDB** – A Historical Database. The data is only accessible with read-only permissions from one of the FinSpace managed kdb databases mounted to the cluster.
- **RDB** – A Realtime Database. This type of database captures all the data from a ticker plant and stores it in memory until the end of day, after which it writes all of its data to a disk and reloads the HDB. This cluster type requires local storage for temporary storage of data during the savedown process. If you specify this field in your request, you must provide the `savedownStorageConfiguration` parameter.
- **GATEWAY** – A gateway cluster allows you to access data across processes in kdb systems. It allows you to create your own routing logic using the initialization scripts and custom code. This type of cluster does not require a writable local storage.
- **GP** – A general purpose cluster allows you to quickly iterate on code during development by granting greater access to system commands and enabling a fast reload of custom code. This cluster type can optionally mount databases including cache and savedown storage. For this cluster type, the node count is fixed at 1. It does not support autoscaling and supports only SINGLE AZ mode.
- **Tickerplant** – A tickerplant cluster allows you to subscribe to feed handlers based on IAM permissions. It can publish to RDBs, other Tickerplants, and real-time subscribers (RTS). Tickerplants can persist messages to log, which is readable by any RDB environment. It supports only single-node that is only one kdb process.

Type: String

Valid Values: HDB | RDB | GATEWAY | GP | TICKERPLANT

Required: Yes

### releaseLabel

The version of FinSpace managed kdb to run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16.

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

Required: Yes

### vpcConfiguration

Configuration details about the network where the Privatelink endpoint of the cluster resides.

Type: [VpcConfiguration](#) object

Required: Yes

### autoScalingConfiguration

The configuration based on which FinSpace will scale in or scale out nodes in your cluster.

Type: [AutoScalingConfiguration](#) object

Required: No

### availabilityZoneId

The availability zone identifiers for the requested regions.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 12.

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

Required: No

### cacheStorageConfigurations

The configurations for a read only cache storage associated with a cluster. This cache will be stored as an FSx Lustre that reads from the S3 store.

Type: Array of [KxCacheStorageConfiguration](#) objects

Required: No

### [capacityConfiguration](#)

A structure for the metadata of a cluster. It includes information like the CPUs needed, memory of instances, and number of instances.

Type: [CapacityConfiguration](#) object

Required: No

### [clientToken](#)

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

Pattern: `.*\S.*`

Required: No

### [clusterDescription](#)

A description of the cluster.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

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

Required: No

### [code](#)

The details of the custom code that you want to use inside a cluster when analyzing a data. It consists of the S3 source bucket, location, S3 object version, and the relative path from where the custom code is loaded into the cluster.

Type: [CodeConfiguration](#) object



Required: No

### commandLineArguments

Defines the key-value pairs to make them available inside the cluster.

Type: Array of [KxCommandLineArgument](#) objects

Required: No

### databases

A list of databases that will be available for querying.

Type: Array of [KxDatabaseConfiguration](#) objects

Required: No

### executionRole

An IAM role that defines a set of permissions associated with a cluster. These permissions are assumed when a cluster attempts to access another cluster.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^arn:aws[a-z0-9-]*:iam::\d{12}:role\[/\w-\./@+=,]{1,1017}$`

Required: No

### initializationScript

Specifies a Q program that will be run at launch of a cluster. It is a relative path within *.zip* file that contains the custom code, which will be loaded on the cluster. It must include the file name itself. For example, `somedir/init.q`.

Type: String

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

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

Required: No

## savedownStorageConfiguration

The size and type of the temporary storage that is used to hold data during the savedown process. This parameter is required when you choose `clusterType` as RDB. All the data written to this storage space is lost when the cluster node is restarted.

Type: [KxSavedownStorageConfiguration](#) object

Required: No

## scalingGroupConfiguration

The structure that stores the configuration details of a scaling group.

Type: [KxScalingGroupConfiguration](#) object

Required: No

## tags

A list of key-value pairs to label the cluster. You can add up to 50 tags to a cluster.

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: `^(?!aws:)[a-zA-Z+-. _:/]+$`

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

Value Pattern: `^[a-zA-Z0-9+-. _:@ ]+$`

Required: No

## tickerplantLogConfiguration

A configuration to store Tickerplant logs. It consists of a list of volumes that will be mounted to your cluster. For the cluster type `Tickerplant`, the location of the TP volume on the cluster will be available by using the global variable `.aws.tp_log_path`.

Type: [TickerplantLogConfiguration](#) object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "autoScalingConfiguration": {
    "autoScalingMetric": "string",
    "maxNodeCount": number,
    "metricTarget": number,
    "minNodeCount": number,
    "scaleInCooldownSeconds": number,
    "scaleOutCooldownSeconds": number
  },
  "availabilityZoneId": "string",
  "azMode": "string",
  "cacheStorageConfigurations": [
    {
      "size": number,
      "type": "string"
    }
  ],
  "capacityConfiguration": {
    "nodeCount": number,
    "nodeType": "string"
  },
  "clusterDescription": "string",
  "clusterName": "string",
  "clusterType": "string",
  "code": {
    "s3Bucket": "string",
    "s3Key": "string",
    "s3ObjectVersion": "string"
  },
  "commandLineArguments": [
    {
      "key": "string",
      "value": "string"
    }
  ],
  "createdTimestamp": number,
  "databases": [
    {
```

```

    "cacheConfigurations": [
      {
        "cacheType": "string",
        "dataviewName": "string",
        "dbPaths": [ "string" ]
      }
    ],
    "changesetId": "string",
    "databaseName": "string",
    "dataviewConfiguration": {
      "changesetId": "string",
      "dataviewName": "string",
      "dataviewVersionId": "string",
      "segmentConfigurations": [
        {
          "dbPaths": [ "string" ],
          "onDemand": boolean,
          "volumeName": "string"
        }
      ]
    },
    "dataviewName": "string"
  }
],
"environmentId": "string",
"executionRole": "string",
"initializationScript": "string",
"lastModifiedTimestamp": number,
"releaseLabel": "string",
"savedownStorageConfiguration": {
  "size": number,
  "type": "string",
  "volumeName": "string"
},
"scalingGroupConfiguration": {
  "cpu": number,
  "memoryLimit": number,
  "memoryReservation": number,
  "nodeCount": number,
  "scalingGroupName": "string"
},
"status": "string",
"statusReason": "string",
"tickerplantLogConfiguration": {

```

```

    "tickerplantLogVolumes": [ "string" ]
  },
  "volumes": [
    {
      "volumeName": "string",
      "volumeType": "string"
    }
  ],
  "vpcConfiguration": {
    "ipAddressType": "string",
    "securityGroupIds": [ "string" ],
    "subnetIds": [ "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.

### autoScalingConfiguration

The configuration based on which FinSpace will scale in or scale out nodes in your cluster.

Type: [AutoScalingConfiguration](#) object

### availabilityZoneId

The availability zone identifiers for the requested regions.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 12.

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

### azMode

The number of availability zones you want to assign per cluster. This can be one of the following

- SINGLE – Assigns one availability zone per cluster.
- MULTI – Assigns all the availability zones per cluster.

Type: String

Valid Values: SINGLE | MULTI

### cacheStorageConfigurations

The configurations for a read only cache storage associated with a cluster. This cache will be stored as an FSx Lustre that reads from the S3 store.

Type: Array of [KxCacheStorageConfiguration](#) objects

### capacityConfiguration

A structure for the metadata of a cluster. It includes information like the CPUs needed, memory of instances, and number of instances.

Type: [CapacityConfiguration](#) object

### clusterDescription

A description of the cluster.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

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

### clusterName

A unique name for the cluster.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### clusterType

Specifies the type of KDB database that is being created. The following types are available:

- HDB – A Historical Database. The data is only accessible with read-only permissions from one of the FinSpace managed kdb databases mounted to the cluster.
- RDB – A Realtime Database. This type of database captures all the data from a ticker plant and stores it in memory until the end of day, after which it writes all of its data to a disk

and reloads the HDB. This cluster type requires local storage for temporary storage of data during the savedown process. If you specify this field in your request, you must provide the `savedownStorageConfiguration` parameter.

- **GATEWAY** – A gateway cluster allows you to access data across processes in kdb systems. It allows you to create your own routing logic using the initialization scripts and custom code. This type of cluster does not require a writable local storage.
- **GP** – A general purpose cluster allows you to quickly iterate on code during development by granting greater access to system commands and enabling a fast reload of custom code. This cluster type can optionally mount databases including cache and savedown storage. For this cluster type, the node count is fixed at 1. It does not support autoscaling and supports only SINGLE AZ mode.
- **Tickerplant** – A tickerplant cluster allows you to subscribe to feed handlers based on IAM permissions. It can publish to RDBs, other Tickerplants, and real-time subscribers (RTS). Tickerplants can persist messages to log, which is readable by any RDB environment. It supports only single-node that is only one kdb process.

Type: String

Valid Values: HDB | RDB | GATEWAY | GP | TICKERPLANT

### code

The details of the custom code that you want to use inside a cluster when analyzing a data. It consists of the S3 source bucket, location, S3 object version, and the relative path from where the custom code is loaded into the cluster.

Type: [CodeConfiguration](#) object

### commandLineArguments

Defines the key-value pairs to make them available inside the cluster.

Type: Array of [KxCommandLineArgument](#) objects

### createdTimestamp

The timestamp at which the cluster was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

## databases

A list of databases that will be available for querying.

Type: Array of [KxDatabaseConfiguration](#) objects

## environmentId

A unique identifier for the kdb environment.

Type: String

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

Pattern: `^[a-z0-9]+$`

## executionRole

An IAM role that defines a set of permissions associated with a cluster. These permissions are assumed when a cluster attempts to access another cluster.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^arn:aws[a-z0-9-]*:iam::\d{12}:role\[/\w-\./@+=,]{1,1017}$`

## initializationScript

Specifies a Q program that will be run at launch of a cluster. It is a relative path within *.zip* file that contains the custom code, which will be loaded on the cluster. It must include the file name itself. For example, `somedir/init.q`.

Type: String

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

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

## lastModifiedTimestamp

The last time that the cluster was modified. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.



Type: Timestamp

### releaseLabel

A version of the FinSpace managed kdb to run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16.

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

### savedownStorageConfiguration

The size and type of the temporary storage that is used to hold data during the savedown process. This parameter is required when you choose `clusterType` as RDB. All the data written to this storage space is lost when the cluster node is restarted.

Type: [KxSavedownStorageConfiguration](#) object

### scalingGroupConfiguration

The structure that stores the configuration details of a scaling group.

Type: [KxScalingGroupConfiguration](#) object

### status

The status of cluster creation.

- PENDING – The cluster is pending creation.
- CREATING – The cluster creation process is in progress.
- CREATE\_FAILED – The cluster creation process has failed.
- RUNNING – The cluster creation process is running.
- UPDATING – The cluster is in the process of being updated.
- DELETING – The cluster is in the process of being deleted.
- DELETED – The cluster has been deleted.
- DELETE\_FAILED – The cluster failed to delete.

Type: String

Valid Values: PENDING | CREATING | CREATE\_FAILED | RUNNING | UPDATING | DELETING | DELETED | DELETE\_FAILED

## statusReason

The error message when a failed state occurs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 250.

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

## tickerplantLogConfiguration

A configuration to store the Tickerplant logs. It consists of a list of volumes that will be mounted to your cluster. For the cluster type `Tickerplant`, the location of the TP volume on the cluster will be available by using the global variable `.aws.tp_log_path`.

Type: [TickerplantLogConfiguration](#) object

## volumes

A list of volumes mounted on the cluster.

Type: Array of [Volume](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

## vpcConfiguration

Configuration details about the network where the Privatelink endpoint of the cluster resides.

Type: [VpcConfiguration](#) 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

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **ConflictException**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

# CreateKxDatabase

Creates a new kdb database in the environment.

## Request Syntax

```
POST /kx/environments/environmentId/databases HTTP/1.1
Content-type: application/json
```

```
{
  "clientToken": "string",
  "databaseName": "string",
  "description": "string",
  "tags": {
    "string" : "string"
  }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### environmentId

A unique identifier for the kdb environment.

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

Pattern: `.*\S.*`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

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

Required: Yes

### databaseName

The name of the kdb database.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### description

A description of the database.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

### tags

A list of key-value pairs to label the kdb database. You can add up to 50 tags to your kdb database

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: `^(?!aws:)[a-zA-Z+-. _:/]+$`

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

Value Pattern: `^[a-zA-Z0-9+-. _:@ ]+$`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "createdTimestamp": number,
  "databaseArn": "string",
  "databaseName": "string",
  "description": "string",
  "environmentId": "string",
  "lastModifiedTimestamp": 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.

### createdTimestamp

The timestamp at which the database is created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

### databaseArn

The ARN identifier of the database.

Type: String

### databaseName

The name of the kdb database.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### description

A description of the database.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

### environmentId

A unique identifier for the kdb environment.

Type: String

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

Pattern: `.*\S.*`

### lastModifiedTimestamp

The last time that the database was updated in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

## 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409



## **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

## **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

## **ResourceAlreadyExistsException**

The specified resource group already exists.

HTTP Status Code: 409

## **ResourceNotFoundException**

One or more resources can't be found.

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](#)

## CreateKxDataview

Creates a snapshot of kdb database with tiered storage capabilities and a pre-warmed cache, ready for mounting on kdb clusters. Dataviews are only available for clusters running on a scaling group. They are not supported on dedicated clusters.

### Request Syntax

```
POST /kx/environments/environmentId/databases/databaseName/dataviews HTTP/1.1
Content-type: application/json
```

```
{
  "autoUpdate": boolean,
  "availabilityZoneId": "string",
  "azMode": "string",
  "changesetId": "string",
  "clientToken": "string",
  "dataviewName": "string",
  "description": "string",
  "readWrite": boolean,
  "segmentConfigurations": [
    {
      "dbPaths": [ "string" ],
      "onDemand": boolean,
      "volumeName": "string"
    }
  ],
  "tags": {
    "string" : "string"
  }
}
```

### URI Request Parameters

The request uses the following URI parameters.

#### databaseName

The name of the database where you want to create a dataview.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### environmentId

A unique identifier for the kdb environment, where you want to create the dataview.

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

Pattern: `.*\S.*`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### azMode

The number of availability zones you want to assign per volume. Currently, FinSpace only supports SINGLE for volumes. This places dataview in a single AZ.

Type: String

Valid Values: SINGLE | MULTI

Required: Yes

### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

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

Required: Yes

### dataviewName

A unique identifier for the dataview.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### autoUpdate

The option to specify whether you want to apply all the future additions and corrections automatically to the dataview, when you ingest new changesets. The default value is false.

Type: Boolean

Required: No

### availabilityZoneId

The identifier of the availability zones.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 12.

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

Required: No

### changesetId

A unique identifier of the changeset that you want to use to ingest data.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

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

Required: No

### description

A description of the dataview.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

### readWrite

The option to specify whether you want to make the dataview writable to perform database maintenance. The following are some considerations related to writable dataviews.

- You cannot create partial writable dataviews. When you create writeable dataviews you must provide the entire database path.
- You cannot perform updates on a writeable dataview. Hence, `autoUpdate` must be set as **False** if `readWrite` is **True** for a dataview.
- You must also use a unique volume for creating a writeable dataview. So, if you choose a volume that is already in use by another dataview, the dataview creation fails.
- Once you create a dataview as writeable, you cannot change it to read-only. So, you cannot update the `readWrite` parameter later.

Type: Boolean

Required: No

### segmentConfigurations

The configuration that contains the database path of the data that you want to place on each selected volume. Each segment must have a unique database path for each volume. If you do not explicitly specify any database path for a volume, they are accessible from the cluster through the default S3/object store segment.

Type: Array of [KxDataviewSegmentConfiguration](#) objects

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

Required: No

### tags

A list of key-value pairs to label the dataview. You can add up to 50 tags to a dataview.

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: `^(?!aws:)[a-zA-Z+-. _:/]+$`

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

Value Pattern: `^[a-zA-Z0-9+-. _:@ ]+$`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "autoUpdate": boolean,
  "availabilityZoneId": "string",
  "azMode": "string",
  "changesetId": "string",
  "createdTimestamp": number,
  "databaseName": "string",
  "dataviewName": "string",
  "description": "string",
  "environmentId": "string",
  "lastModifiedTimestamp": number,
  "readWrite": boolean,
  "segmentConfigurations": [
    {
      "dbPaths": [ "string" ],
      "onDemand": boolean,
      "volumeName": "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.

## autoUpdate

The option to select whether you want to apply all the future additions and corrections automatically to the dataview when you ingest new changesets. The default value is false.

Type: Boolean

## availabilityZoneId

The identifier of the availability zones.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 12.

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

## azMode

The number of availability zones you want to assign per volume. Currently, FinSpace only supports SINGLE for volumes. This places dataview in a single AZ.

Type: String

Valid Values: SINGLE | MULTI

## changesetId

A unique identifier for the changeset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

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

## createdTimestamp

The timestamp at which the dataview was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

## databaseName

The name of the database where you want to create a dataview.



Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### dataviewName

A unique identifier for the dataview.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### description

A description of the dataview.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

### environmentId

A unique identifier for the kdb environment, where you want to create the dataview.

Type: String

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

Pattern: `.*\S.*`

### lastModifiedTimestamp

The last time that the dataview was updated in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

### readWrite

Returns True if the dataview is created as writeable and False otherwise.

Type: Boolean

### segmentConfigurations

The configuration that contains the database path of the data that you want to place on each selected volume. Each segment must have a unique database path for each volume. If you do not explicitly specify any database path for a volume, they are accessible from the cluster through the default S3/object store segment.

Type: Array of [KxDataviewSegmentConfiguration](#) objects

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

### status

The status of dataview creation.

- CREATING – The dataview creation is in progress.
- UPDATING – The dataview is in the process of being updated.
- ACTIVE – The dataview is active.

Type: String

Valid Values: CREATING | ACTIVE | UPDATING | FAILED | DELETING

## 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

### **ResourceAlreadyExistsException**

The specified resource group already exists.

HTTP Status Code: 409

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

# CreateKxEnvironment

Creates a managed kdb environment for the account.

## Request Syntax

```
POST /kx/environments HTTP/1.1
Content-type: application/json
```

```
{
  "clientToken": "string",
  "description": "string",
  "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.

### kmsKeyId

The KMS key ID to encrypt your data in the FinSpace environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^arn:aws:kms:.*:\d+.*$`

Required: Yes

### name

The name of the kdb environment that you want to create.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

Pattern: `.*\S.*`

Required: No

### description

A description for the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

### tags

A list of key-value pairs to label the kdb environment. You can add up to 50 tags to your kdb environment.

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: `^(?!aws:)[a-zA-Z+-._: /]+$`

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

Value Pattern: `^[a-zA-Z0-9+-. _:@ ]+$`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "creationTimestamp": number,
  "description": "string",
  "environmentArn": "string",
  "environmentId": "string",
  "kmsKeyId": "string",
  "name": "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.

### creationTimestamp

The timestamp at which the kdb environment was created in FinSpace.

Type: Timestamp

### description

A description for the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

### environmentArn

The ARN identifier of the environment.

Type: String

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

Pattern: `^arn:aws:finpace:[A-Za-z0-9_/.-]{0,63}:\d+:environment/[0-9A-Za-z_-]{1,128}$`

### environmentId

A unique identifier for the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

### kmsKeyId

The KMS key ID to encrypt your data in the FinSpace environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

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

### name

The name of the kdb environment.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### status

The status of the kdb environment.

Type: String

Valid Values: CREATE\_REQUESTED | CREATING | CREATED | DELETE\_REQUESTED | DELETING | DELETED | FAILED\_CREATION | RETRY\_DELETION | FAILED\_DELETION



| UPDATE\_NETWORK\_REQUESTED | UPDATING\_NETWORK | FAILED\_UPDATING\_NETWORK  
| SUSPENDED

## 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

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### InternalServerError

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### LimitExceededException

A service limit or quota is exceeded.

HTTP Status Code: 400

### ServiceQuotaExceededException

You have exceeded your service quota. To perform the requested action, remove some of the relevant resources, or use Service Quotas to request a service quota increase.

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](#)

# CreateKxScalingGroup

Creates a new scaling group.

## Request Syntax

```
POST /kx/environments/environmentId/scalingGroups HTTP/1.1
Content-type: application/json
```

```
{
  "availabilityZoneId": "string",
  "clientToken": "string",
  "hostType": "string",
  "scalingGroupName": "string",
  "tags": {
    "string" : "string"
  }
}
```

## URI Request Parameters

The request uses the following URI parameters.

### environmentId

A unique identifier for the kdb environment, where you want to create the scaling group.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### availabilityZoneId

The identifier of the availability zones.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 12.

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

Required: Yes

### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

### hostType

The memory and CPU capabilities of the scaling group host on which FinSpace Managed kdb clusters will be placed.

You can add one of the following values:

- `kx.sg.4xlarge` – The host type with a configuration of 108 GiB memory and 16 vCPUs.
- `kx.sg.8xlarge` – The host type with a configuration of 216 GiB memory and 32 vCPUs.
- `kx.sg.16xlarge` – The host type with a configuration of 432 GiB memory and 64 vCPUs.
- `kx.sg.32xlarge` – The host type with a configuration of 864 GiB memory and 128 vCPUs.
- `kx.sg1.16xlarge` – The host type with a configuration of 1949 GiB memory and 64 vCPUs.
- `kx.sg1.24xlarge` – The host type with a configuration of 2948 GiB memory and 96 vCPUs.

Type: String

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

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

Required: Yes

### scalingGroupName

A unique identifier for the kdb scaling group.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

## tags

A list of key-value pairs to label the scaling group. You can add up to 50 tags to a scaling group.

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: `^(?!aws:)[a-zA-Z+-._: /]+$`

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

Value Pattern: `^[a-zA-Z0-9+-._:@ ]+$`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "availabilityZoneId": "string",
  "createdTimestamp": number,
  "environmentId": "string",
  "hostType": "string",
  "lastModifiedTimestamp": number,
  "scalingGroupName": "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.

### availabilityZoneId

The identifier of the availability zones.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 12.

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

### createdTimestamp

The timestamp at which the scaling group was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

### environmentId

A unique identifier for the kdb environment, where you create the scaling group.

Type: String

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

Pattern: `^[a-z0-9]+$`

### hostType

The memory and CPU capabilities of the scaling group host on which FinSpace Managed kdb clusters will be placed.

Type: String

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

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

### lastModifiedTimestamp

The last time that the scaling group was updated in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

### scalingGroupName

A unique identifier for the kdb scaling group.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### status

The status of scaling group.

- **CREATING** – The scaling group creation is in progress.
- **CREATE\_FAILED** – The scaling group creation has failed.
- **ACTIVE** – The scaling group is active.
- **UPDATING** – The scaling group is in the process of being updated.
- **UPDATE\_FAILED** – The update action failed.
- **DELETING** – The scaling group is in the process of being deleted.
- **DELETE\_FAILED** – The system failed to delete the scaling group.
- **DELETED** – The scaling group is successfully deleted.

Type: String

Valid Values: **CREATING** | **CREATE\_FAILED** | **ACTIVE** | **DELETING** | **DELETED** | **DELETE\_FAILED**

## 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

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **ConflictException**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

# CreateKxUser

Creates a user in FinSpace kdb environment with an associated IAM role.

## Request Syntax

```
POST /kx/environments/environmentId/users HTTP/1.1
Content-type: application/json
```

```
{
  "clientToken": "string",
  "iamRole": "string",
  "tags": {
    "string" : "string"
  },
  "userName": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### environmentId

A unique identifier for the kdb environment where you want to create a user.

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### iamRole

The IAM role ARN that will be associated with 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: Yes

### userName

A unique identifier for the user.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^[0-9A-Za-z_-]{1,50}$`

Required: Yes

### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

Pattern: `.*\S.*`

Required: No

### tags

A list of key-value pairs to label the user. You can add up to 50 tags to a user.

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: `^(?!aws:)[a-zA-Z+ -=._:/]+$`

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

Value Pattern: `^[a-zA-Z0-9+ -=._:@ ]+$`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "environmentId": "string",
  "iamRole": "string",
  "userArn": "string",
  "userName": "string"
}
```

## Response Elements

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

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

### environmentId

A unique identifier for the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

### iamRole

The IAM role ARN that will be associated with 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+=,.\@-\_/\]]+$`

### userArn

The Amazon Resource Name (ARN) that identifies the user. For more information about ARNs and how to use ARNs in policies, see [IAM Identifiers](#) in the *IAM User Guide*.

Type: String

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

Pattern: `^arn:aws:finpace:[A-Za-z0-9_/.-]{0,63}:\d+:kxEnvironment/[0-9A-Za-z_-]{1,128}/kxUser/[0-9A-Za-z_-]{1,128}$`

### userName

A unique identifier for the user.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^[0-9A-Za-z_-]{1,50}$`

## 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

### **ResourceAlreadyExistsException**

The specified resource group already exists.

HTTP Status Code: 409

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

# CreateKxVolume

Creates a new volume with a specific amount of throughput and storage capacity.

## Request Syntax

```
POST /kx/environments/environmentId/kxvolumes HTTP/1.1
Content-type: application/json
```

```
{
  "availabilityZoneIds": [ "string" ],
  "azMode": "string",
  "clientToken": "string",
  "description": "string",
  "nas1Configuration": {
    "size": number,
    "type": "string"
  },
  "tags": {
    "string" : "string"
  },
  "volumeName": "string",
  "volumeType": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### environmentId

A unique identifier for the kdb environment, whose clusters can attach to the volume.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

## availabilityZoneIds

The identifier of the availability zones.

Type: Array of strings

Length Constraints: Minimum length of 8. Maximum length of 12.

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

Required: Yes

## azMode

The number of availability zones you want to assign per volume. Currently, FinSpace only supports SINGLE for volumes. This places dataview in a single AZ.

Type: String

Valid Values: SINGLE | MULTI

Required: Yes

## volumeName

A unique identifier for the volume.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

## volumeType

The type of file system volume. Currently, FinSpace only supports NAS\_1 volume type. When you select NAS\_1 volume type, you must also provide `nas1Configuration`.

Type: String

Valid Values: NAS\_1

Required: Yes



## clientToken

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

Pattern: `.*\S.*`

Required: No

## description

A description of the volume.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

## nas1Configuration

Specifies the configuration for the Network attached storage (NAS\_1) file system volume. This parameter is required when you choose `volumeType` as `NAS_1`.

Type: [KxNAS1Configuration](#) object

Required: No

## tags

A list of key-value pairs to label the volume. You can add up to 50 tags to a volume.

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: `^(?!aws:)[a-zA-Z+-. _:/]+$`

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

Value Pattern: `^[a-zA-Z0-9+-. _:@ ]+$`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "availabilityZoneIds": [ "string" ],
  "azMode": "string",
  "createdTimestamp": number,
  "description": "string",
  "environmentId": "string",
  "nas1Configuration": {
    "size": number,
    "type": "string"
  },
  "status": "string",
  "statusReason": "string",
  "volumeArn": "string",
  "volumeName": "string",
  "volumeType": "string"
}
```

## Response Elements

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

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

### availabilityZoneIds

The identifier of the availability zones.

Type: Array of strings

Length Constraints: Minimum length of 8. Maximum length of 12.

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

## azMode

The number of availability zones you want to assign per volume. Currently, FinSpace only supports SINGLE for volumes. This places dataview in a single AZ.

Type: String

Valid Values: SINGLE | MULTI

## createdTimestamp

The timestamp at which the volume was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

## description

A description of the volume.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

## environmentId

A unique identifier for the kdb environment, whose clusters can attach to the volume.

Type: String

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

Pattern: `^[a-z0-9]+$`

## nas1Configuration

Specifies the configuration for the Network attached storage (NAS\_1) file system volume.

Type: [KxNAS1Configuration](#) object

## status

The status of volume creation.

- CREATING – The volume creation is in progress.
- CREATE\_FAILED – The volume creation has failed.
- ACTIVE – The volume is active.
- UPDATING – The volume is in the process of being updated.
- UPDATE\_FAILED – The update action failed.
- UPDATED – The volume is successfully updated.
- DELETING – The volume is in the process of being deleted.
- DELETE\_FAILED – The system failed to delete the volume.
- DELETED – The volume is successfully deleted.

Type: String

Valid Values: CREATING | CREATE\_FAILED | ACTIVE | UPDATING | UPDATED | UPDATE\_FAILED | DELETING | DELETED | DELETE\_FAILED

### statusReason

The error message when a failed state occurs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 250.

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

### volumeArn

The ARN identifier of the volume.

Type: String

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

Pattern: `^arn:aws:finpace:[A-Za-z0-9_/.-]{0,63}:\d+:kxEnvironment/[0-9A-Za-z_-]{1,128}(/kxSharedVolume/[a-zA-Z0-9_-]{1,255})?$`

### volumeName

A unique identifier for the volume.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### volumeType

The type of file system volume. Currently, FinSpace only supports NAS\_1 volume type.

Type: String

Valid Values: NAS\_1

## 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

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **ConflictException**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

## ResourceAlreadyExistsException

The specified resource group already exists.

HTTP Status Code: 409

## ResourceNotFoundException

One or more resources can't be found.

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](#)

## DeleteEnvironment

Delete an FinSpace environment.

### Request Syntax

```
DELETE /environment/environmentId HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### environmentId

The identifier for the FinSpace environment.

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

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

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)



# DeleteKxCluster

Deletes a kdb cluster.

## Request Syntax

```
DELETE /kx/environments/environmentId/clusters/clusterName?clientToken=clientToken  
HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

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

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

### clusterName

The name of the cluster that you want to delete.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### environmentId

A unique identifier for the kdb environment.

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

Pattern: `^[a-z0-9]+$`

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

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### InternalServerErrorException

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### LimitExceededException

A service limit or quota is exceeded.

HTTP Status Code: 400

### ResourceNotFoundException

One or more resources can't be found.

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](#)

# DeleteKxClusterNode

Deletes the specified nodes from a cluster.

## Request Syntax

```
DELETE /kx/environments/environmentId/clusters/clusterName/nodes/nodeId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### clusterName

The name of the cluster, for which you want to delete the nodes.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### environmentId

A unique identifier for the kdb environment.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

### nodeId

A unique identifier for the node that you want to delete.

Length Constraints: Minimum length of 1. Maximum length of 40.

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

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

## DeleteKxDatabase

Deletes the specified database and all of its associated data. This action is irreversible. You must copy any data out of the database before deleting it if the data is to be retained.

### Request Syntax

```
DELETE /kx/environments/environmentId/databases/databaseName?clientToken=clientToken
HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

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

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

Required: Yes

#### databaseName

The name of the kdb database that you want to delete.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

#### environmentId

A unique identifier for the kdb environment.

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

Pattern: `.*\S.*`

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

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### InternalServerError

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### ResourceNotFoundException

One or more resources can't be found.

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](#)

## DeleteKxDataview

Deletes the specified dataview. Before deleting a dataview, make sure that it is not in use by any cluster.

### Request Syntax

```
DELETE /kx/environments/environmentId/databases/databaseName/dataviews/dataviewName?  
clientToken=clientToken HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

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

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

Required: Yes

#### databaseName

The name of the database whose dataview you want to delete.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

#### dataviewName

The name of the dataview that you want to delete.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

## environmentId

A unique identifier for the kdb environment, from where you want to delete the dataview.

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

Pattern: `.*\S.*`

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

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### InternalServerError

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

## ResourceNotFoundException

One or more resources can't be found.

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](#)

## DeleteKxEnvironment

Deletes the kdb environment. This action is irreversible. Deleting a kdb environment will remove all the associated data and any services running in it.

### Request Syntax

```
DELETE /kx/environments/environmentId?clientToken=clientToken HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

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

Pattern: `.*\S.*`

#### environmentId

A unique identifier for the kdb environment.

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

## DeleteKxScalingGroup

Deletes the specified scaling group. This action is irreversible. You cannot delete a scaling group until all the clusters running on it have been deleted.

### Request Syntax

```
DELETE /kx/environments/environmentId/scalingGroups/scalingGroupName?  
clientToken=clientToken HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

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

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

#### environmentId

A unique identifier for the kdb environment, from where you want to delete the dataview.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

#### scalingGroupName

A unique identifier for the kdb scaling group.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

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

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### InternalServerError

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### LimitExceededException

A service limit or quota is exceeded.

HTTP Status Code: 400

### ResourceNotFoundException

One or more resources can't be found.

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](#)

## DeleteKxUser

Deletes a user in the specified kdb environment.

### Request Syntax

```
DELETE /kx/environments/environmentId/users/userName?clientToken=clientToken HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

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

Pattern: `.*\S.*`

#### environmentId

A unique identifier for the kdb environment.

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: Yes

#### userName

A unique identifier for the user that you want to delete.

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^[0-9A-Za-z_-]{1,50}$`

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

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### InternalServerErrorException

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### ResourceNotFoundException

One or more resources can't be found.

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](#)

# DeleteKxVolume

Deletes a volume. You can only delete a volume if it's not attached to a cluster or a dataview. When a volume is deleted, any data on the volume is lost. This action is irreversible.

## Request Syntax

```
DELETE /kx/environments/environmentId/kxvolumes/volumeName?clientToken=clientToken
HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

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

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

### environmentId

A unique identifier for the kdb environment, whose clusters can attach to the volume.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

### volumeName

The name of the volume that you want to delete.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

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

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### InternalServerError

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### LimitExceededException

A service limit or quota is exceeded.

HTTP Status Code: 400

### ResourceNotFoundException

One or more resources can't be found.

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](#)



# GetEnvironment

Returns the FinSpace environment object.

## Request Syntax

```
GET /environment/environmentId HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### environmentId

The identifier of the FinSpace environment.

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "environment": {
    "awsAccountId": "string",
    "dedicatedServiceAccountId": "string",
    "description": "string",
    "environmentArn": "string",
    "environmentId": "string",
    "environmentUrl": "string",
    "federationMode": "string",
    "federationParameters": {
```

```
    "applicationCallbackURL": "string",
    "attributeMap": {
      "string": "string"
    },
    "federationProviderName": "string",
    "federationURN": "string",
    "samlMetadataDocument": "string",
    "samlMetadataURL": "string"
  },
  "kmsKeyId": "string",
  "name": "string",
  "sageMakerStudioDomainUrl": "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.

### environment

The name of the FinSpace environment.

Type: [Environment](#) 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

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

## ResourceNotFoundException

One or more resources can't be found.

HTTP Status Code: 404

## 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](#)

# GetKxChangeset

Returns information about a kdb changeset.

## Request Syntax

```
GET /kx/environments/environmentId/databases/databaseName/changesets/changesetId
HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### changesetId

A unique identifier of the changeset for which you want to retrieve data.

Length Constraints: Minimum length of 1. Maximum length of 26.

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

Required: Yes

### databaseName

The name of the kdb database.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### environmentId

A unique identifier for the kdb environment.

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

Pattern: `.*\S.*`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "activeFromTimestamp": number,
  "changeRequests": [
    {
      "changeType": "string",
      "dbPath": "string",
      "s3Path": "string"
    }
  ],
  "changesetId": "string",
  "createdTimestamp": number,
  "databaseName": "string",
  "environmentId": "string",
  "errorInfo": {
    "errorMessage": "string",
    "errorType": "string"
  },
  "lastModifiedTimestamp": number,
  "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.

### activeFromTimestamp

Beginning time from which the changeset is active. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

## changeRequests

A list of change request objects that are run in order.

Type: Array of [ChangeRequest](#) objects

Array Members: Minimum number of 1 item. Maximum number of 32 items.

## changesetId

A unique identifier for the changeset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

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

## createdTimestamp

The timestamp at which the changeset was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

## databaseName

The name of the kdb database.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

## environmentId

A unique identifier for the kdb environment.

Type: String

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

Pattern: `.*\S.*`

## errorInfo

Provides details in the event of a failed flow, including the error type and the related error message.

Type: [ErrorInfo](#) object

## lastModifiedTimestamp

The timestamp at which the changeset was updated in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

## status

Status of the changeset creation process.

- Pending – Changeset creation is pending.
- Processing – Changeset creation is running.
- Failed – Changeset creation has failed.
- Complete – Changeset creation has succeeded.

Type: String

Valid Values: PENDING | PROCESSING | FAILED | COMPLETED

## 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

One or more resources can't be found.

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](#)



## GetKxCluster

Retrieves information about a kdb cluster.

### Request Syntax

```
GET /kx/environments/environmentId/clusters/clusterName HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### clusterName

The name of the cluster that you want to retrieve.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

#### environmentId

A unique identifier for the kdb environment.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "autoScalingConfiguration": {
    "autoScalingMetric": "string",
```

```

    "maxNodeCount": number,
    "metricTarget": number,
    "minNodeCount": number,
    "scaleInCooldownSeconds": number,
    "scaleOutCooldownSeconds": number
  },
  "availabilityZoneId": "string",
  "azMode": "string",
  "cacheStorageConfigurations": [
    {
      "size": number,
      "type": "string"
    }
  ],
  "capacityConfiguration": {
    "nodeCount": number,
    "nodeType": "string"
  },
  "clusterDescription": "string",
  "clusterName": "string",
  "clusterType": "string",
  "code": {
    "s3Bucket": "string",
    "s3Key": "string",
    "s3ObjectVersion": "string"
  },
  "commandLineArguments": [
    {
      "key": "string",
      "value": "string"
    }
  ],
  "createdTimestamp": number,
  "databases": [
    {
      "cacheConfigurations": [
        {
          "cacheType": "string",
          "dataviewName": "string",
          "dbPaths": [ "string" ]
        }
      ],
      "changesetId": "string",
      "databaseName": "string",

```

```

    "dataviewConfiguration": {
      "changesetId": "string",
      "dataviewName": "string",
      "dataviewVersionId": "string",
      "segmentConfigurations": [
        {
          "dbPaths": [ "string" ],
          "onDemand": boolean,
          "volumeName": "string"
        }
      ]
    },
    "dataviewName": "string"
  }
],
"executionRole": "string",
"initializationScript": "string",
"lastModifiedTimestamp": number,
"releaseLabel": "string",
"savedownStorageConfiguration": {
  "size": number,
  "type": "string",
  "volumeName": "string"
},
"scalingGroupConfiguration": {
  "cpu": number,
  "memoryLimit": number,
  "memoryReservation": number,
  "nodeCount": number,
  "scalingGroupName": "string"
},
"status": "string",
"statusReason": "string",
"tickerplantLogConfiguration": {
  "tickerplantLogVolumes": [ "string" ]
},
"volumes": [
  {
    "volumeName": "string",
    "volumeType": "string"
  }
],
"vpcConfiguration": {
  "ipAddressType": "string",

```

```
    "securityGroupIds": [ "string" ],
    "subnetIds": [ "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.

### autoScalingConfiguration

The configuration based on which FinSpace will scale in or scale out nodes in your cluster.

Type: [AutoScalingConfiguration](#) object

### availabilityZoneId

The availability zone identifiers for the requested regions.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 12.

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

### azMode

The number of availability zones you want to assign per cluster. This can be one of the following

- SINGLE – Assigns one availability zone per cluster.
- MULTI – Assigns all the availability zones per cluster.

Type: String

Valid Values: SINGLE | MULTI

### cacheStorageConfigurations

The configurations for a read only cache storage associated with a cluster. This cache will be stored as an FSx Lustre that reads from the S3 store.

Type: Array of [KxCacheStorageConfiguration](#) objects

## capacityConfiguration

A structure for the metadata of a cluster. It includes information like the CPUs needed, memory of instances, and number of instances.

Type: [CapacityConfiguration](#) object

## clusterDescription

A description of the cluster.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

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

## clusterName

A unique name for the cluster.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

## clusterType

Specifies the type of KDB database that is being created. The following types are available:

- HDB – A Historical Database. The data is only accessible with read-only permissions from one of the FinSpace managed kdb databases mounted to the cluster.
- RDB – A Realtime Database. This type of database captures all the data from a ticker plant and stores it in memory until the end of day, after which it writes all of its data to a disk and reloads the HDB. This cluster type requires local storage for temporary storage of data during the savedown process. If you specify this field in your request, you must provide the `savdownStorageConfiguration` parameter.
- GATEWAY – A gateway cluster allows you to access data across processes in kdb systems. It allows you to create your own routing logic using the initialization scripts and custom code. This type of cluster does not require a writable local storage.
- GP – A general purpose cluster allows you to quickly iterate on code during development by granting greater access to system commands and enabling a fast reload of custom code. This

cluster type can optionally mount databases including cache and savedown storage. For this cluster type, the node count is fixed at 1. It does not support autoscaling and supports only SINGLE AZ mode.

- Tickerplant – A tickerplant cluster allows you to subscribe to feed handlers based on IAM permissions. It can publish to RDBs, other Tickerplants, and real-time subscribers (RTS). Tickerplants can persist messages to log, which is readable by any RDB environment. It supports only single-node that is only one kdb process.

Type: String

Valid Values: HDB | RDB | GATEWAY | GP | TICKERPLANT

### code

The details of the custom code that you want to use inside a cluster when analyzing a data. It consists of the S3 source bucket, location, S3 object version, and the relative path from where the custom code is loaded into the cluster.

Type: [CodeConfiguration](#) object

### commandLineArguments

Defines key-value pairs to make them available inside the cluster.

Type: Array of [KxCommandLineArgument](#) objects

### createdTimestamp

The timestamp at which the cluster was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

### databases

A list of databases mounted on the cluster.

Type: Array of [KxDATABASEConfiguration](#) objects

### executionRole

An IAM role that defines a set of permissions associated with a cluster. These permissions are assumed when a cluster attempts to access another cluster.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^arn:aws[a-z0-9]*:iam::\d{12}:role\[w-\[.@+=,]{1,1017}$`

### initializationScript

Specifies a Q program that will be run at launch of a cluster. It is a relative path within `.zip` file that contains the custom code, which will be loaded on the cluster. It must include the file name itself. For example, `somedir/init.q`.

Type: String

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

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

### lastModifiedTimestamp

The last time that the cluster was modified. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

### releaseLabel

The version of FinSpace managed kdb to run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16.

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

### savedownStorageConfiguration

The size and type of the temporary storage that is used to hold data during the savedown process. This parameter is required when you choose `clusterType` as RDB. All the data written to this storage space is lost when the cluster node is restarted.

Type: [KxSavedownStorageConfiguration](#) object

### scalingGroupConfiguration

The structure that stores the capacity configuration details of a scaling group.

Type: [KxScalingGroupConfiguration](#) object

### status

The status of cluster creation.

- PENDING – The cluster is pending creation.
- CREATING – The cluster creation process is in progress.
- CREATE\_FAILED – The cluster creation process has failed.
- RUNNING – The cluster creation process is running.
- UPDATING – The cluster is in the process of being updated.
- DELETING – The cluster is in the process of being deleted.
- DELETED – The cluster has been deleted.
- DELETE\_FAILED – The cluster failed to delete.

Type: String

Valid Values: PENDING | CREATING | CREATE\_FAILED | RUNNING | UPDATING | DELETING | DELETED | DELETE\_FAILED

### statusReason

The error message when a failed state occurs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 250.

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

### tickerplantLogConfiguration

A configuration to store the Tickerplant logs. It consists of a list of volumes that will be mounted to your cluster. For the cluster type `Tickerplant`, the location of the TP volume on the cluster will be available by using the global variable `.aws.tp_log_path`.

Type: [TickerplantLogConfiguration](#) object

### volumes

A list of volumes attached to the cluster.

Type: Array of [Volume](#) objects



Array Members: Minimum number of 0 items. Maximum number of 5 items.

## vpcConfiguration

Configuration details about the network where the Privatelink endpoint of the cluster resides.

Type: [VpcConfiguration](#) 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

## GetKxConnectionString

Retrieves a connection string for a user to connect to a kdb cluster. You must call this API using the same role that you have defined while creating a user.

### Request Syntax

```
GET /kx/environments/environmentId/connectionString?  
clusterName=clusterName&userArn=userArn HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### clusterName

A name of the kdb cluster.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

#### environmentId

A unique identifier for the kdb environment.

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: Yes

#### userArn

The Amazon Resource Name (ARN) that identifies the user. For more information about ARNs and how to use ARNs in policies, see [IAM Identifiers](#) in the *IAM User Guide*.

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

Pattern: `^arn:aws:finpace:[A-Za-z0-9_/.-]{0,63}:\d+:kxEnvironment/[0-9A-Za-z_-]{1,128}/kxUser/[0-9A-Za-z_-]{1,128}$`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "signedConnectionString": "string"
}
```

## Response Elements

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

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

### [signedConnectionString](#)

The signed connection string that you can use to connect to clusters.

Type: String

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

Pattern: `^(?:|:tcps:\|\|)[a-zA-Z0-9-\.\_]+\d+:[a-zA-Z0-9-\.\_]+\S+$`

## 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

One or more resources can't be found.

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](#)

## GetKxDatabase

Returns database information for the specified environment ID.

### Request Syntax

```
GET /kx/environments/environmentId/databases/databaseName HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### databaseName

The name of the kdb database.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

#### environmentId

A unique identifier for the kdb environment.

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

Pattern: `.*\S.*`

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
```

```
"createdTimestamp": number,
"databaseArn": "string",
"databaseName": "string",
"description": "string",
"environmentId": "string",
"lastCompletedChangesetId": "string",
"lastModifiedTimestamp": number,
"numBytes": number,
"numChangesets": number,
"numFiles": 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.

### createdTimestamp

The timestamp at which the database is created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

### databaseArn

The ARN identifier of the database.

Type: String

### databaseName

The name of the kdb database for which the information is retrieved.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### description

A description of the database.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

### environmentId

A unique identifier for the kdb environment.

Type: String

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

Pattern: `.*\S.*`

### lastCompletedChangesetId

A unique identifier for the changeset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

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

### lastModifiedTimestamp

The last time that the database was modified. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

### numBytes

The total number of bytes in the database.

Type: Long

### numChangesets

The total number of changesets in the database.

Type: Integer



## numFiles

The total number of files in the database.

Type: Integer

## 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**

One or more resources can't be found.

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](#)

# GetKxDataview

Retrieves details of the dataview.

## Request Syntax

```
GET /kx/environments/environmentId/databases/databaseName/dataviews/dataviewName
HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### databaseName

The name of the database where you created the dataview.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### dataviewName

A unique identifier for the dataview.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### environmentId

A unique identifier for the kdb environment, from where you want to retrieve the dataview details.

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

Pattern: `.*\S.*`

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "activeVersions": [
    {
      "attachedClusters": [ "string" ],
      "changesetId": "string",
      "createdTimestamp": number,
      "segmentConfigurations": [
        {
          "dbPaths": [ "string" ],
          "onDemand": boolean,
          "volumeName": "string"
        }
      ],
      "versionId": "string"
    }
  ],
  "autoUpdate": boolean,
  "availabilityZoneId": "string",
  "azMode": "string",
  "changesetId": "string",
  "createdTimestamp": number,
  "databaseName": "string",
  "dataviewName": "string",
  "description": "string",
  "environmentId": "string",
  "lastModifiedTimestamp": number,
  "readWrite": boolean,
  "segmentConfigurations": [
    {
      "dbPaths": [ "string" ],
      "onDemand": boolean,
      "volumeName": "string"
    }
  ]
}
```

```
    }  
  ],  
  "status": "string",  
  "statusReason": "string"  
}
```

## Response Elements

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

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

### activeVersions

The current active changeset versions of the database on the given dataview.

Type: Array of [KxDataviewActiveVersion](#) objects

### autoUpdate

The option to specify whether you want to apply all the future additions and corrections automatically to the dataview when new changesets are ingested. The default value is false.

Type: Boolean

### availabilityZoneId

The identifier of the availability zones.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 12.

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

### azMode

The number of availability zones you want to assign per volume. Currently, FinSpace only supports SINGLE for volumes. This places dataview in a single AZ.

Type: String

Valid Values: SINGLE | MULTI

## changesetId

A unique identifier of the changeset that you want to use to ingest data.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

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

## createdTimestamp

The timestamp at which the dataview was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

## databaseName

The name of the database where you created the dataview.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

## dataviewName

A unique identifier for the dataview.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

## description

A description of the dataview.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

### environmentId

A unique identifier for the kdb environment, from where you want to retrieve the dataview details.

Type: String

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

Pattern: `.*\S.*`

### lastModifiedTimestamp

The last time that the dataview was updated in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

### readWrite

Returns True if the dataview is created as writeable and False otherwise.

Type: Boolean

### segmentConfigurations

The configuration that contains the database path of the data that you want to place on each selected volume. Each segment must have a unique database path for each volume. If you do not explicitly specify any database path for a volume, they are accessible from the cluster through the default S3/object store segment.

Type: Array of [KxDataviewSegmentConfiguration](#) objects

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

### status

The status of dataview creation.

- CREATING – The dataview creation is in progress.
- UPDATING – The dataview is in the process of being updated.
- ACTIVE – The dataview is active.

Type: String

Valid Values: CREATING | ACTIVE | UPDATING | FAILED | DELETING

### statusReason

The error message when a failed state occurs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 250.

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

## 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

One or more resources can't be found.

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](#)

## GetKxEnvironment

Retrieves all the information for the specified kdb environment.

### Request Syntax

```
GET /kx/environments/environmentId HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### environmentId

A unique identifier for the kdb environment.

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "availabilityZoneIds": [ "string" ],
  "awsAccountId": "string",
  "certificateAuthorityArn": "string",
  "creationTimestamp": number,
  "customDNSConfiguration": [
    {
      "customDNSServerIP": "string",
      "customDNSServerName": "string"
    }
  ],
}
```

```

    "dedicatedServiceAccountId": "string",
    "description": "string",
    "dnsStatus": "string",
    "environmentArn": "string",
    "environmentId": "string",
    "errorMessage": "string",
    "kmsKeyId": "string",
    "name": "string",
    "status": "string",
    "tgwStatus": "string",
    "transitGatewayConfiguration": {
      "attachmentNetworkAclConfiguration": [
        {
          "cidrBlock": "string",
          "icmpTypeCode": {
            "code": number,
            "type": number
          },
          "portRange": {
            "from": number,
            "to": number
          },
          "protocol": "string",
          "ruleAction": "string",
          "ruleNumber": number
        }
      ],
      "routableCIDRSpace": "string",
      "transitGatewayID": "string"
    },
    "updateTimestamp": 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.

### availabilityZoneIds

The identifier of the availability zones where subnets for the environment are created.

Type: Array of strings

Length Constraints: Minimum length of 8. Maximum length of 12.

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

### [awsAccountId](#)

The unique identifier of the AWS account that is used to create the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

### [certificateAuthorityArn](#)

The Amazon Resource Name (ARN) of the certificate authority of the kdb environment.

Type: String

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

### [creationTimestamp](#)

The timestamp at which the kdb environment was created in FinSpace.

Type: Timestamp

### [customDNSConfiguration](#)

A list of DNS server name and server IP. This is used to set up Route-53 outbound resolvers.

Type: Array of [CustomDNSServer](#) objects

### [dedicatedServiceAccountId](#)

A unique identifier for the AWS environment infrastructure account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

### [description](#)

A description for the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

### dnsStatus

The status of DNS configuration.

Type: String

Valid Values: NONE | UPDATE\_REQUESTED | UPDATING | FAILED\_UPDATE | SUCCESSFULLY\_UPDATED

### environmentArn

The ARN identifier of the environment.

Type: String

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

Pattern: `^arn:aws:finpace:[A-Za-z0-9_/.-]{0,63}:\d+:environment/[0-9A-Za-z_-]{1,128}$`

### environmentId

A unique identifier for the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

### errorMessage

Specifies the error message that appears if a flow fails.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

## kmsKeyId

The KMS key ID to encrypt your data in the FinSpace environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

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

## name

The name of the kdb environment.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

## status

The status of the kdb environment.

Type: String

Valid Values: CREATE\_REQUESTED | CREATING | CREATED | DELETE\_REQUESTED | DELETING | DELETED | FAILED\_CREATION | RETRY\_DELETION | FAILED\_DELETION | UPDATE\_NETWORK\_REQUESTED | UPDATING\_NETWORK | FAILED\_UPDATING\_NETWORK | SUSPENDED

## tgwStatus

The status of the network configuration.

Type: String

Valid Values: NONE | UPDATE\_REQUESTED | UPDATING | FAILED\_UPDATE | SUCCESSFULLY\_UPDATED

## transitGatewayConfiguration

The structure of the transit gateway and network configuration that is used to connect the kdb environment to an internal network.

Type: [TransitGatewayConfiguration](#) object

## updateTimestamp

The timestamp at which the kdb environment was updated.

Type: Timestamp

## 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

One or more resources can't be found.

HTTP Status Code: 404

### **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](#)



## GetKxScalingGroup

Retrieves details of a scaling group.

### Request Syntax

```
GET /kx/environments/environmentId/scalingGroups/scalingGroupName HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### environmentId

A unique identifier for the kdb environment.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

#### scalingGroupName

A unique identifier for the kdb scaling group.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
```

```
"availabilityZoneId": "string",
"clusters": [ "string" ],
"createdTimestamp": number,
"hostType": "string",
"lastModifiedTimestamp": number,
"scalingGroupArn": "string",
"scalingGroupName": "string",
"status": "string",
"statusReason": "string"
}
```

## Response Elements

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

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

### availabilityZoneId

The identifier of the availability zones.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 12.

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

### clusters

The list of Managed kdb clusters that are currently active in the given scaling group.

Type: Array of strings

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### createdTimestamp

The timestamp at which the scaling group was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

## hostType

The memory and CPU capabilities of the scaling group host on which FinSpace Managed kdb clusters will be placed.

It can have one of the following values:

- `kx.sg.4xlarge` – The host type with a configuration of 108 GiB memory and 16 vCPUs.
- `kx.sg.8xlarge` – The host type with a configuration of 216 GiB memory and 32 vCPUs.
- `kx.sg.16xlarge` – The host type with a configuration of 432 GiB memory and 64 vCPUs.
- `kx.sg.32xlarge` – The host type with a configuration of 864 GiB memory and 128 vCPUs.
- `kx.sg1.16xlarge` – The host type with a configuration of 1949 GiB memory and 64 vCPUs.
- `kx.sg1.24xlarge` – The host type with a configuration of 2948 GiB memory and 96 vCPUs.

Type: String

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

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

## lastModifiedTimestamp

The last time that the scaling group was updated in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

## scalingGroupArn

The ARN identifier for the scaling group.

Type: String

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

Pattern: `^arn:.*:.*:.*:.*:.*`

## scalingGroupName

A unique identifier for the kdb scaling group.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### status

The status of scaling group.

- **CREATING** – The scaling group creation is in progress.
- **CREATE\_FAILED** – The scaling group creation has failed.
- **ACTIVE** – The scaling group is active.
- **UPDATING** – The scaling group is in the process of being updated.
- **UPDATE\_FAILED** – The update action failed.
- **DELETING** – The scaling group is in the process of being deleted.
- **DELETE\_FAILED** – The system failed to delete the scaling group.
- **DELETED** – The scaling group is successfully deleted.

Type: String

Valid Values: **CREATING** | **CREATE\_FAILED** | **ACTIVE** | **DELETING** | **DELETED** | **DELETE\_FAILED**

### statusReason

The error message when a failed state occurs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 250.

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

## **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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

## **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

## **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

## **ResourceNotFoundException**

One or more resources can't be found.

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](#)

## GetKxUser

Retrieves information about the specified kdb user.

### Request Syntax

```
GET /kx/environments/environmentId/users/userName HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### environmentId

A unique identifier for the kdb environment.

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: Yes

#### userName

A unique identifier for the user.

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^[0-9A-Za-z_-]{1,50}$`

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "environmentId": "string",
```

```
"iamRole": "string",  
"userArn": "string",  
"userName": "string"  
}
```

## Response Elements

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

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

### environmentId

A unique identifier for the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

### iamRole

The IAM role ARN that is associated with 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+=,.\@\-\_/\]+$`

### userArn

The Amazon Resource Name (ARN) that identifies the user. For more information about ARNs and how to use ARNs in policies, see [IAM Identifiers](#) in the *IAM User Guide*.

Type: String

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

Pattern: `^arn:aws:finSpace:[A-Za-z0-9_/.-]{0,63}:\d+:\d+kxEnvironment/[0-9A-Za-z_-]{1,128}/kxUser/[0-9A-Za-z_-]{1,128}$`

### userName

A unique identifier for the user.



Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

## 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

One or more resources can't be found.

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](#)

## GetKxVolume

Retrieves the information about the volume.

### Request Syntax

```
GET /kx/environments/environmentId/kxvolumes/volumeName HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### environmentId

A unique identifier for the kdb environment, whose clusters can attach to the volume.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

#### volumeName

A unique identifier for the volume.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200  
Content-type: application/json
```

```

{
  "attachedClusters": [
    {
      "clusterName": "string",
      "clusterStatus": "string",
      "clusterType": "string"
    }
  ],
  "availabilityZoneIds": [ "string" ],
  "azMode": "string",
  "createdTimestamp": number,
  "description": "string",
  "environmentId": "string",
  "lastModifiedTimestamp": number,
  "nas1Configuration": {
    "size": number,
    "type": "string"
  },
  "status": "string",
  "statusReason": "string",
  "volumeArn": "string",
  "volumeName": "string",
  "volumeType": "string"
}

```

## Response Elements

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

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

### attachedClusters

A list of cluster identifiers that a volume is attached to.

Type: Array of [KxAttachedCluster](#) objects

### availabilityZoneIds

The identifier of the availability zones.

Type: Array of strings

Length Constraints: Minimum length of 8. Maximum length of 12.

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

### azMode

The number of availability zones you want to assign per volume. Currently, FinSpace only supports SINGLE for volumes. This places dataview in a single AZ.

Type: String

Valid Values: SINGLE | MULTI

### createdTimestamp

The timestamp at which the volume was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

### description

A description of the volume.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

### environmentId

A unique identifier for the kdb environment, whose clusters can attach to the volume.

Type: String

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

Pattern: `^[a-z0-9]+$`

### lastModifiedTimestamp

The last time that the volume was updated in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

## nas1Configuration

Specifies the configuration for the Network attached storage (NAS\_1) file system volume.

Type: [KxNAS1Configuration](#) object

### status

The status of volume creation.

- CREATING – The volume creation is in progress.
- CREATE\_FAILED – The volume creation has failed.
- ACTIVE – The volume is active.
- UPDATING – The volume is in the process of being updated.
- UPDATE\_FAILED – The update action failed.
- UPDATED – The volume is successfully updated.
- DELETING – The volume is in the process of being deleted.
- DELETE\_FAILED – The system failed to delete the volume.
- DELETED – The volume is successfully deleted.

Type: String

Valid Values: CREATING | CREATE\_FAILED | ACTIVE | UPDATING | UPDATED | UPDATE\_FAILED | DELETING | DELETED | DELETE\_FAILED

### statusReason

The error message when a failed state occurs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 250.

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

### volumeArn

The ARN identifier of the volume.

Type: String

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

Pattern: `^arn:aws:finspace:[A-Za-z0-9_/.-]{0,63}:\d+:kxEnvironment/[0-9A-Za-z_-]{1,128}(/kxSharedVolume/[a-zA-Z0-9_-]{1,255})?$`

### volumeName

A unique identifier for the volume.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### volumeType

The type of file system volume. Currently, FinSpace only supports NAS\_1 volume type.

Type: String

Valid Values: NAS\_1

## 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerError**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)



## ListEnvironments

A list of all of your FinSpace environments.

### Request Syntax

```
GET /environment?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### [maxResults](#)

The maximum number of results to return in this request.

Valid Range: Minimum value of 0. Maximum value of 100.

#### [nextToken](#)

A token generated by FinSpace that specifies where to continue pagination if a previous request was truncated. To get the next set of pages, pass in the `nextToken` value from the response object of the previous page call.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `.*`

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "environments": [
    {
      "awsAccountId": "string",
```

```

    "dedicatedServiceAccountId": "string",
    "description": "string",
    "environmentArn": "string",
    "environmentId": "string",
    "environmentUrl": "string",
    "federationMode": "string",
    "federationParameters": {
      "applicationCallbackURL": "string",
      "attributeMap": {
        "string": "string"
      },
      "federationProviderName": "string",
      "federationURN": "string",
      "samlMetadataDocument": "string",
      "samlMetadataURL": "string"
    },
    "kmsKeyId": "string",
    "name": "string",
    "sageMakerStudioDomainUrl": "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.

### environments

A list of all of your FinSpace environments.

Type: Array of [Environment](#) objects

### nextToken

A token that you can use in a subsequent call to retrieve the next set of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: .\*

## 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

### 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](#)

# ListKxChangesets

Returns a list of all the changesets for a database.

## Request Syntax

```
GET /kx/environments/environmentId/databases/databaseName/changesets?  
maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### databaseName

The name of the kdb database.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### environmentId

A unique identifier for the kdb environment.

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

Pattern: `.*\S.*`

Required: Yes

### maxResults

The maximum number of results to return in this request.

Valid Range: Minimum value of 0. Maximum value of 100.

### nextToken

A token that indicates where a results page should begin.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: .\*

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "kxChangesets": [
    {
      "activeFromTimestamp": number,
      "changesetId": "string",
      "createdTimestamp": number,
      "lastModifiedTimestamp": 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.

### kxChangesets

A list of changesets for a database.

Type: Array of [KxChangesetListEntry](#) objects

### nextToken

A token that indicates where a results page should begin.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: .\*

## 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**

One or more resources can't be found.

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](#)

## ListKxClusterNodes

Lists all the nodes in a kdb cluster.

### Request Syntax

```
GET /kx/environments/environmentId/clusters/clusterName/nodes?  
maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### clusterName

A unique name for the cluster.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

#### environmentId

A unique identifier for the kdb environment.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

#### maxResults

The maximum number of results to return in this request.

Valid Range: Minimum value of 0. Maximum value of 100.

#### nextToken

A token that indicates where a results page should begin.

Length Constraints: Minimum length of 1. Maximum length of 1000.



Pattern: .\*

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "nextToken": "string",
  "nodes": [
    {
      "availabilityZoneId": "string",
      "launchTime": number,
      "nodeId": "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

A token that indicates where a results page should begin.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: .\*

### nodes

A list of nodes associated with the cluster.

Type: Array of [KxNode](#) 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

### **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

# ListKxClusters

Returns a list of clusters.

## Request Syntax

```
GET /kx/environments/environmentId/clusters?  
clusterType=clusterType&maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### clusterType

Specifies the type of KDB database that is being created. The following types are available:

- HDB – A Historical Database. The data is only accessible with read-only permissions from one of the FinSpace managed kdb databases mounted to the cluster.
- RDB – A Realtime Database. This type of database captures all the data from a ticker plant and stores it in memory until the end of day, after which it writes all of its data to a disk and reloads the HDB. This cluster type requires local storage for temporary storage of data during the savedown process. If you specify this field in your request, you must provide the `savedownStorageConfiguration` parameter.
- GATEWAY – A gateway cluster allows you to access data across processes in kdb systems. It allows you to create your own routing logic using the initialization scripts and custom code. This type of cluster does not require a writable local storage.
- GP – A general purpose cluster allows you to quickly iterate on code during development by granting greater access to system commands and enabling a fast reload of custom code. This cluster type can optionally mount databases including cache and savedown storage. For this cluster type, the node count is fixed at 1. It does not support autoscaling and supports only SINGLE AZ mode.
- Tickerplant – A tickerplant cluster allows you to subscribe to feed handlers based on IAM permissions. It can publish to RDBs, other Tickerplants, and real-time subscribers (RTS). Tickerplants can persist messages to log, which is readable by any RDB environment. It supports only single-node that is only one kdb process.

Valid Values: HDB | RDB | GATEWAY | GP | TICKERPLANT

## environmentId

A unique identifier for the kdb environment.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

## maxResults

The maximum number of results to return in this request.

Valid Range: Minimum value of 0. Maximum value of 100.

## nextToken

A token that indicates where a results page should begin.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `.*`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "kxClusterSummaries": [
    {
      "availabilityZoneId": "string",
      "azMode": "string",
      "clusterDescription": "string",
      "clusterName": "string",
      "clusterType": "string",
      "createdTimestamp": number,
      "executionRole": "string",
      "initializationScript": "string",
```

```
    "lastModifiedTimestamp": number,
    "releaseLabel": "string",
    "status": "string",
    "statusReason": "string",
    "volumes": [
      {
        "volumeName": "string",
        "volumeType": "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.

### [KxClusterSummaries](#)

Lists the cluster details.

Type: Array of [KxCluster](#) objects

### [nextToken](#)

A token that indicates where a results page should begin.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: .\*

## 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)



## ListKxDatabases

Returns a list of all the databases in the kdb environment.

### Request Syntax

```
GET /kx/environments/environmentId/databases?maxResults=maxResults&nextToken=nextToken
HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### environmentId

A unique identifier for the kdb environment.

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

Pattern: `.*\S.*`

Required: Yes

#### maxResults

The maximum number of results to return in this request.

Valid Range: Minimum value of 0. Maximum value of 100.

#### nextToken

A token that indicates where a results page should begin.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `.*`

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
  "kxDatabases": [
    {
      "createdTimestamp": number,
      "databaseName": "string",
      "lastModifiedTimestamp": 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.

### kxDatabases

A list of databases in the kdb environment.

Type: Array of [KxDatabaseListEntry](#) objects

### nextToken

A token that indicates where a results page should begin.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: .\*

## 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

One or more resources can't be found.

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](#)

# ListKxDataviews

Returns a list of all the dataviews in the database.

## Request Syntax

```
GET /kx/environments/environmentId/databases/databaseName/dataviews?  
maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### databaseName

The name of the database where the dataviews were created.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### environmentId

A unique identifier for the kdb environment, for which you want to retrieve a list of dataviews.

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

Pattern: `.*\S.*`

Required: Yes

### maxResults

The maximum number of results to return in this request.

Valid Range: Minimum value of 0. Maximum value of 100.

### nextToken

A token that indicates where a results page should begin.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: .\*

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "kxDataviews": [
    {
      "activeVersions": [
        {
          "attachedClusters": [ "string" ],
          "changesetId": "string",
          "createdTimestamp": number,
          "segmentConfigurations": [
            {
              "dbPaths": [ "string" ],
              "onDemand": boolean,
              "volumeName": "string"
            }
          ],
          "versionId": "string"
        }
      ],
      "autoUpdate": boolean,
      "availabilityZoneId": "string",
      "azMode": "string",
      "changesetId": "string",
      "createdTimestamp": number,
      "databaseName": "string",
      "dataviewName": "string",
      "description": "string",
      "environmentId": "string",
      "lastModifiedTimestamp": number,
      "readWrite": boolean,
      "segmentConfigurations": [
        {
          "dbPaths": [ "string" ],
```

```
        "onDemand": boolean,
        "volumeName": "string"
    }
],
"status": "string",
"statusReason": "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.

### kxDataviews

The list of kdb dataviews that are currently active for the given database.

Type: Array of [KxDataviewListEntry](#) objects

### nextToken

A token that indicates where a results page should begin.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: .\*

## 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

One or more resources can't be found.

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](#)

## ListKxEnvironments

Returns a list of kdb environments created in an account.

### Request Syntax

```
GET /kx/environments?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### maxResults

The maximum number of results to return in this request.

#### nextToken

A token that indicates where a results page should begin.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: . \*

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "environments": [
    {
      "availabilityZoneIds": [ "string" ],
      "awsAccountId": "string",
      "certificateAuthorityArn": "string",
      "creationTimestamp": number,
      "customDNSConfiguration": [
        {
          "customDNSServerIP": "string",
```



```

        "customDNSServerName": "string"
    }
],
"dedicatedServiceAccountId": "string",
"description": "string",
"dnsStatus": "string",
"environmentArn": "string",
"environmentId": "string",
"errorMessage": "string",
"kmsKeyId": "string",
"name": "string",
"status": "string",
"tgwStatus": "string",
"transitGatewayConfiguration": {
    "attachmentNetworkAclConfiguration": [
        {
            "cidrBlock": "string",
            "icmpTypeCode": {
                "code": number,
                "type": number
            },
            "portRange": {
                "from": number,
                "to": number
            },
            "protocol": "string",
            "ruleAction": "string",
            "ruleNumber": number
        }
    ],
    "routableCIDRSpace": "string",
    "transitGatewayID": "string"
},
"updateTimestamp": 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.

## environments

A list of environments in an account.

Type: Array of [KxEnvironment](#) objects

## nextToken

A token that indicates where a results page should begin.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: .\*

## 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

### **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](#)

# ListKxScalingGroups

Returns a list of scaling groups in a kdb environment.

## Request Syntax

```
GET /kx/environments/environmentId/scalingGroups?  
maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### environmentId

A unique identifier for the kdb environment, for which you want to retrieve a list of scaling groups.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

### maxResults

The maximum number of results to return in this request.

Valid Range: Minimum value of 0. Maximum value of 100.

### nextToken

A token that indicates where a results page should begin.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `.*`

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "nextToken": "string",
  "scalingGroups": [
    {
      "availabilityZoneId": "string",
      "clusters": [ "string" ],
      "createdTimestamp": number,
      "hostType": "string",
      "lastModifiedTimestamp": number,
      "scalingGroupName": "string",
      "status": "string",
      "statusReason": "string"
    }
  ]
}
```

## Response Elements

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 indicates where a results page should begin.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: .\*

### scalingGroups

A list of scaling groups available in a kdb environment.

Type: Array of [KxScalingGroup](#) 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

### **ConflictException**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

## ListKxUsers

Lists all the users in a kdb environment.

### Request Syntax

```
GET /kx/environments/environmentId/users?maxResults=maxResults&nextToken=nextToken  
HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### environmentId

A unique identifier for the kdb environment.

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: Yes

#### maxResults

The maximum number of results to return in this request.

Valid Range: Minimum value of 0. Maximum value of 100.

#### nextToken

A token that indicates where a results page should begin.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `.*`

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
```



```
Content-type: application/json

{
  "nextToken": "string",
  "users": [
    {
      "createTimestamp": number,
      "iamRole": "string",
      "updateTimestamp": number,
      "userArn": "string",
      "userName": "string"
    }
  ]
}
```

## Response Elements

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 indicates where a results page should begin.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: .\*

### users

A list of users in a kdb environment.

Type: Array of [KxUser](#) 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**

One or more resources can't be found.

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](#)

## ListKxVolumes

Lists all the volumes in a kdb environment.

### Request Syntax

```
GET /kx/environments/environmentId/kxvolumes?  
maxResults=maxResults&nextToken=nextToken&volumeType=volumeType HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### environmentId

A unique identifier for the kdb environment, whose clusters can attach to the volume.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

#### maxResults

The maximum number of results to return in this request.

Valid Range: Minimum value of 0. Maximum value of 100.

#### nextToken

A token that indicates where a results page should begin.

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `.*`

#### volumeType

The type of file system volume. Currently, FinSpace only supports NAS\_1 volume type.

Valid Values: NAS\_1

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "kxVolumeSummaries": [
    {
      "availabilityZoneIds": [ "string" ],
      "azMode": "string",
      "createdTimestamp": number,
      "description": "string",
      "lastModifiedTimestamp": number,
      "status": "string",
      "statusReason": "string",
      "volumeName": "string",
      "volumeType": "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.

### [kxVolumeSummaries](#)

A summary of volumes.

Type: Array of [KxVolume](#) objects

### [nextToken](#)

A token that indicates where a results page should begin.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: .\*

## 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

### **ResourceNotFoundException**

One or more resources can't be found.

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

A list of all tags for a resource.

### Request Syntax

```
GET /tags/resourceArn HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### resourceArn

The Amazon Resource Name of the resource.

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

Pattern: `^arn:aws:finpace:[A-Za-z0-9_/.-]{0,63}:\d+:(environment|kxEnvironment)/[0-9A-Za-z_-]{1,128}/((kxCluster|kxUser|kxVolume|kxScalingGroup)/[a-zA-Z0-9_-]{1,255}|/(kxDatabase/[a-zA-Z0-9_-]{1,255}/kxDataview/[a-zA-Z0-9_-]{1,255}))?)?$`

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

A list of all tags for a resource.

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: `^(?!aws:)[a-zA-Z+-. _:/]+$`

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

Value Pattern: `^[a-zA-Z0-9+-. _:@ ]+$`

## Errors

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

### **InternalServerError**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **InvalidRequestException**

The request is invalid. Something is wrong with the input to the request.

HTTP Status Code: 400

### **ResourceNotFoundException**

One or more resources can't be found.

HTTP Status Code: 404



## See Also

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

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

Adds metadata tags to a FinSpace resource.

## Request Syntax

```
POST /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) for the resource.

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

Pattern: `^arn:aws:finspace:[A-Za-z0-9_/.-]{0,63}:\d+:(environment|kxEnvironment)/[0-9A-Za-z_-]{1,128}/((kxCluster|kxUser|kxVolume|kxScalingGroup)/[a-zA-Z0-9_-]{1,255}|/(kxDatabase/[a-zA-Z0-9_-]{1,255}/kxDataview/[a-zA-Z0-9_-]{1,255}))?)?$`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### tags

One or more tags to be assigned to the resource.

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: `^(?!aws:)[a-zA-Z+-. _:/]+$`

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

Value Pattern: `^[a-zA-Z0-9+-. _:@ ]+$`

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](#).

### InternalServerErrorException

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### InvalidRequestException

The request is invalid. Something is wrong with the input to the request.

HTTP Status Code: 400

### ResourceNotFoundException

One or more resources can't be found.

HTTP Status Code: 404

## See Also

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

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

Removes metadata tags from a FinSpace resource.

## Request Syntax

```
DELETE /tags/resourceArn?tagKeys=tagKeys HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### resourceArn

A FinSpace resource from which you want to remove a tag or tags. The value for this parameter is an Amazon Resource Name (ARN).

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

Pattern: `^arn:aws:finspace:[A-Za-z0-9_/.-]{0,63}:\d+:(environment|kxEnvironment)/[0-9A-Za-z_-]{1,128}(/(kxCluster|kxUser|kxVolume|kxScalingGroup)/[a-zA-Z0-9_-]{1,255}|/(kxDatabase/[a-zA-Z0-9_-]{1,255}(/kxDataview/[a-zA-Z0-9_-]{1,255}))?)?$`

Required: Yes

### tagKeys

The tag keys (names) of one or more tags to be removed.

Array Members: Minimum number of 1 item. Maximum number of 50 items.

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

Pattern: `^(?!aws:)[a-zA-Z+-. _:/]+$`

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](#).

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **InvalidRequestException**

The request is invalid. Something is wrong with the input to the request.

HTTP Status Code: 400

### **ResourceNotFoundException**

One or more resources can't be found.

HTTP Status Code: 404

## See Also

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

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

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

# UpdateEnvironment

Update your FinSpace environment.

## Request Syntax

```
PUT /environment/environmentId HTTP/1.1
Content-type: application/json

{
  "description": "string",
  "federationMode": "string",
  "federationParameters": {
    "applicationCallbackURL": "string",
    "attributeMap": {
      "string" : "string"
    },
    "federationProviderName": "string",
    "federationURN": "string",
    "samlMetadataDocument": "string",
    "samlMetadataURL": "string"
  },
  "name": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### environmentId

The identifier of the FinSpace environment.

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: Yes

## Request Body

The request accepts the following data in JSON format.



## description

The description of the environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

## federationMode

Authentication mode for the environment.

- **FEDERATED** - Users access FinSpace through Single Sign On (SSO) via your Identity provider.
- **LOCAL** - Users access FinSpace via email and password managed within the FinSpace environment.

Type: String

Valid Values: `FEDERATED | LOCAL`

Required: No

## federationParameters

Configuration information when authentication mode is **FEDERATED**.

Type: [FederationParameters](#) object

Required: No

## name

The name of the environment.

Type: String

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

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

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "environment": {
    "awsAccountId": "string",
    "dedicatedServiceAccountId": "string",
    "description": "string",
    "environmentArn": "string",
    "environmentId": "string",
    "environmentUrl": "string",
    "federationMode": "string",
    "federationParameters": {
      "applicationCallbackURL": "string",
      "attributeMap": {
        "string" : "string"
      },
      "federationProviderName": "string",
      "federationURN": "string",
      "samlMetadataDocument": "string",
      "samlMetadataURL": "string"
    },
    "kmsKeyId": "string",
    "name": "string",
    "sageMakerStudioDomainUrl": "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.

### environment

Returns the FinSpace environment object.

Type: [Environment](#) 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

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

## UpdateKxClusterCodeConfiguration

Allows you to update code configuration on a running cluster. By using this API you can update the code, the initialization script path, and the command line arguments for a specific cluster. The configuration that you want to update will override any existing configurations on the cluster.

### Request Syntax

```
PUT /kx/environments/environmentId/clusters/clusterName/configuration/code HTTP/1.1
Content-type: application/json
```

```
{
  "clientToken": "string",
  "code": {
    "s3Bucket": "string",
    "s3Key": "string",
    "s3ObjectVersion": "string"
  },
  "commandLineArguments": [
    {
      "key": "string",
      "value": "string"
    }
  ],
  "deploymentConfiguration": {
    "deploymentStrategy": "string"
  },
  "initializationScript": "string"
}
```

### URI Request Parameters

The request uses the following URI parameters.

#### clusterName

The name of the cluster.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

## environmentId

A unique identifier of the kdb environment.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### code

The structure of the customer code available within the running cluster.

Type: [CodeConfiguration](#) object

Required: Yes

### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

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

Required: No

### commandLineArguments

Specifies the key-value pairs to make them available inside the cluster.

You cannot update this parameter for a NO\_RESTART deployment.

Type: Array of [KxCommandLineArgument](#) objects

Required: No

## deploymentConfiguration

The configuration that allows you to choose how you want to update the code on a cluster.

Type: [KxClusterCodeDeploymentConfiguration](#) object

Required: No

## initializationScript

Specifies a Q program that will be run at launch of a cluster. It is a relative path within *.zip* file that contains the custom code, which will be loaded on the cluster. It must include the file name itself. For example, `somedir/init.q`.

You cannot update this parameter for a `NO_RESTART` deployment.

Type: String

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

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

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](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

## **ConflictException**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

## **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

## **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

## **ResourceNotFoundException**

One or more resources can't be found.

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](#)

## UpdateKxClusterDatabases

Updates the databases mounted on a kdb cluster, which includes the `changesetId` and all the `dbPaths` to be cached. This API does not allow you to change a database name or add a database if you created a cluster without one.

Using this API you can point a cluster to a different changeset and modify a list of partitions being cached.

### Request Syntax

```
PUT /kx/environments/environmentId/clusters/clusterName/configuration/databases
HTTP/1.1
Content-type: application/json
```

```
{
  "clientToken": "string",
  "databases": [
    {
      "cacheConfigurations": [
        {
          "cacheType": "string",
          "dataviewName": "string",
          "dbPaths": [ "string" ]
        }
      ],
      "changesetId": "string",
      "databaseName": "string",
      "dataviewConfiguration": {
        "changesetId": "string",
        "dataviewName": "string",
        "dataviewVersionId": "string",
        "segmentConfigurations": [
          {
            "dbPaths": [ "string" ],
            "onDemand": boolean,
            "volumeName": "string"
          }
        ]
      },
      "dataviewName": "string"
    }
  ],
}
```

```
"deploymentConfiguration": {  
  "deploymentStrategy": "string"  
}
```

## URI Request Parameters

The request uses the following URI parameters.

### clusterName

A unique name for the cluster that you want to modify.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### environmentId

The unique identifier of a kdb environment.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### databases

The structure of databases mounted on the cluster.

Type: Array of [KxDatabaseConfiguration](#) objects

Required: Yes

### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

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

Required: No

### deploymentConfiguration

The configuration that allows you to choose how you want to update the databases on a cluster.

Type: [KxDeploymentConfiguration](#) 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](#).

### AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### ConflictException

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### InternalServerError

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

# UpdateKxDatabase

Updates information for the given kdb database.

## Request Syntax

```
PUT /kx/environments/environmentId/databases/databaseName HTTP/1.1  
Content-type: application/json
```

```
{  
  "clientToken": "string",  
  "description": "string"  
}
```

## URI Request Parameters

The request uses the following URI parameters.

### databaseName

The name of the kdb database.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### environmentId

A unique identifier for the kdb environment.

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

Pattern: `.*\S.*`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

## clientToken

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

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

Required: Yes

## description

A description of the database.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "databaseName": "string",
  "description": "string",
  "environmentId": "string",
  "lastModifiedTimestamp": 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.

### databaseName

The name of the kdb database.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### description

A description of the database.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

### environmentId

A unique identifier for the kdb environment.

Type: String

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

Pattern: `.*\S.*`

### lastModifiedTimestamp

The last time that the database was modified. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

## 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

## UpdateKxDataview

Updates the specified dataview. The dataviews get automatically updated when any new changesets are ingested. Each update of the dataview creates a new version, including changeset details and cache configurations

### Request Syntax

```
PUT /kx/environments/environmentId/databases/databaseName/dataviews/dataviewName
HTTP/1.1
Content-type: application/json

{
  "changesetId": "string",
  "clientToken": "string",
  "description": "string",
  "segmentConfigurations": [
    {
      "dbPaths": [ "string" ],
      "onDemand": boolean,
      "volumeName": "string"
    }
  ]
}
```

### URI Request Parameters

The request uses the following URI parameters.

#### databaseName

The name of the database.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

#### dataviewName

The name of the dataview that you want to update.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### environmentId

A unique identifier for the kdb environment, where you want to update the dataview.

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

Pattern: `.*\S.*`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

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

Required: Yes

### changesetId

A unique identifier for the changeset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

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

Required: No

### description

The description for a dataview.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

### segmentConfigurations

The configuration that contains the database path of the data that you want to place on each selected volume. Each segment must have a unique database path for each volume. If you do not explicitly specify any database path for a volume, they are accessible from the cluster through the default S3/object store segment.

Type: Array of [KxDataviewSegmentConfiguration](#) objects

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

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "activeVersions": [
    {
      "attachedClusters": [ "string" ],
      "changesetId": "string",
      "createdTimestamp": number,
      "segmentConfigurations": [
        {
          "dbPaths": [ "string" ],
          "onDemand": boolean,
          "volumeName": "string"
        }
      ],
      "versionId": "string"
    }
  ],
  "autoUpdate": boolean,
```

```

"availabilityZoneId": "string",
"azMode": "string",
"changesetId": "string",
"createdTimestamp": number,
"databaseName": "string",
"dataviewName": "string",
"description": "string",
"environmentId": "string",
"lastModifiedTimestamp": number,
"readWrite": boolean,
"segmentConfigurations": [
  {
    "dbPaths": [ "string" ],
    "onDemand": boolean,
    "volumeName": "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.

### activeVersions

The current active changeset versions of the database on the given dataview.

Type: Array of [KxDataviewActiveVersion](#) objects

### autoUpdate

The option to specify whether you want to apply all the future additions and corrections automatically to the dataview when new changesets are ingested. The default value is false.

Type: Boolean

### availabilityZoneId

The identifier of the availability zones.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 12.

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

### azMode

The number of availability zones you want to assign per volume. Currently, FinSpace only supports SINGLE for volumes. This places dataview in a single AZ.

Type: String

Valid Values: SINGLE | MULTI

### changesetId

A unique identifier for the changeset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

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

### createdTimestamp

The timestamp at which the dataview was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

### databaseName

The name of the database.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### dataviewName

The name of the database under which the dataview was created.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### description

A description of the dataview.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

### environmentId

A unique identifier for the kdb environment, where you want to update the dataview.

Type: String

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

Pattern: `.*\S.*`

### lastModifiedTimestamp

The last time that the dataview was updated in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

### readWrite

Returns True if the dataview is created as writeable and False otherwise.

Type: Boolean

### segmentConfigurations

The configuration that contains the database path of the data that you want to place on each selected volume. Each segment must have a unique database path for each volume. If you do not explicitly specify any database path for a volume, they are accessible from the cluster through the default S3/object store segment.

Type: Array of [KxDataviewSegmentConfiguration](#) objects



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

### status

The status of dataview creation.

- CREATING – The dataview creation is in progress.
- UPDATING – The dataview is in the process of being updated.
- ACTIVE – The dataview is active.

Type: String

Valid Values: CREATING | ACTIVE | UPDATING | FAILED | DELETING

## 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **ResourceAlreadyExistsException**

The specified resource group already exists.

HTTP Status Code: 409

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

# UpdateKxEnvironment

Updates information for the given kdb environment.

## Request Syntax

```
PUT /kx/environments/environmentId HTTP/1.1
Content-type: application/json

{
  "clientToken": "string",
  "description": "string",
  "name": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### environmentId

A unique identifier for the kdb environment.

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

Pattern: `.*\S.*`

Required: No

### description

A description of the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

### name

The name of the kdb environment.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "availabilityZoneIds": [ "string" ],
  "awsAccountId": "string",
  "creationTimestamp": number,
  "customDNSConfiguration": [
    {
      "customDNSServerIP": "string",
      "customDNSServerName": "string"
    }
  ],
  "dedicatedServiceAccountId": "string",
  "description": "string",
```

```

"dnStatus": "string",
"environmentArn": "string",
"environmentId": "string",
"errorMessage": "string",
"kmsKeyId": "string",
"name": "string",
"status": "string",
"tgwStatus": "string",
"transitGatewayConfiguration": {
  "attachmentNetworkAclConfiguration": [
    {
      "cidrBlock": "string",
      "icmpTypeCode": {
        "code": number,
        "type": number
      },
      "portRange": {
        "from": number,
        "to": number
      },
      "protocol": "string",
      "ruleAction": "string",
      "ruleNumber": number
    }
  ],
  "routableCIDRSpace": "string",
  "transitGatewayID": "string"
},
"updateTimestamp": 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.

### availabilityZoneIds

The identifier of the availability zones where subnets for the environment are created.

Type: Array of strings

Length Constraints: Minimum length of 8. Maximum length of 12.

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

### awsAccountId

The unique identifier of the AWS account that is used to create the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

### creationTimestamp

The timestamp at which the kdb environment was created in FinSpace.

Type: Timestamp

### customDNSConfiguration

A list of DNS server name and server IP. This is used to set up Route-53 outbound resolvers.

Type: Array of [CustomDNSServer](#) objects

### dedicatedServiceAccountId

A unique identifier for the AWS environment infrastructure account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

### description

The description of the environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

### dnsStatus

The status of DNS configuration.

Type: String

Valid Values: NONE | UPDATE\_REQUESTED | UPDATING | FAILED\_UPDATE | SUCCESSFULLY\_UPDATED

### environmentArn

The ARN identifier of the environment.

Type: String

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

Pattern: `^arn:aws:finSpace:[A-Za-z0-9_/.-]{0,63}:\d+:environment/[0-9A-Za-z_-]{1,128}$`

### environmentId

A unique identifier for the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

### errorMessage

Specifies the error message that appears if a flow fails.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

### kmsKeyId

The KMS key ID to encrypt your data in the FinSpace environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

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

## name

The name of the kdb environment.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

## status

The status of the kdb environment.

Type: String

Valid Values: CREATE\_REQUESTED | CREATING | CREATED | DELETE\_REQUESTED | DELETING | DELETED | FAILED\_CREATION | RETRY\_DELETION | FAILED\_DELETION | UPDATE\_NETWORK\_REQUESTED | UPDATING\_NETWORK | FAILED\_UPDATING\_NETWORK | SUSPENDED

## tgwStatus

The status of the network configuration.

Type: String

Valid Values: NONE | UPDATE\_REQUESTED | UPDATING | FAILED\_UPDATE | SUCCESSFULLY\_UPDATED

## transitGatewayConfiguration

The structure of the transit gateway and network configuration that is used to connect the kdb environment to an internal network.

Type: [TransitGatewayConfiguration](#) object

## updateTimestamp

The timestamp at which the kdb environment was updated.

Type: Timestamp

## 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

## **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

## **ResourceNotFoundException**

One or more resources can't be found.

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](#)

## UpdateKxEnvironmentNetwork

Updates environment network to connect to your internal network by using a transit gateway. This API supports request to create a transit gateway attachment from FinSpace VPC to your transit gateway ID and create a custom Route-53 outbound resolvers.

Once you send a request to update a network, you cannot change it again. Network update might require termination of any clusters that are running in the existing network.

### Request Syntax

```
PUT /kx/environments/environmentId/network HTTP/1.1
Content-type: application/json
```

```
{
  "clientToken": "string",
  "customDNSConfiguration": [
    {
      "customDNSServerIP": "string",
      "customDNSServerName": "string"
    }
  ],
  "transitGatewayConfiguration": {
    "attachmentNetworkAclConfiguration": [
      {
        "cidrBlock": "string",
        "icmpTypeCode": {
          "code": number,
          "type": number
        },
        "portRange": {
          "from": number,
          "to": number
        },
        "protocol": "string",
        "ruleAction": "string",
        "ruleNumber": number
      }
    ],
    "routableCIDRSpace": "string",
    "transitGatewayID": "string"
  }
}
```

```
}
```

## URI Request Parameters

The request uses the following URI parameters.

### environmentId

A unique identifier for the kdb environment.

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

Pattern: `.*\S.*`

Required: No

### customDNSConfiguration

A list of DNS server name and server IP. This is used to set up Route-53 outbound resolvers.

Type: Array of [CustomDNSServer](#) objects

Required: No

### transitGatewayConfiguration

Specifies the transit gateway and network configuration to connect the kdb environment to an internal network.

Type: [TransitGatewayConfiguration](#) object

Required: No

## Response Syntax

HTTP/1.1 200

Content-type: application/json

```
{
  "availabilityZoneIds": [ "string" ],
  "awsAccountId": "string",
  "creationTimestamp": number,
  "customDNSConfiguration": [
    {
      "customDNSServerIP": "string",
      "customDNSServerName": "string"
    }
  ],
  "dedicatedServiceAccountId": "string",
  "description": "string",
  "dnsStatus": "string",
  "environmentArn": "string",
  "environmentId": "string",
  "errorMessage": "string",
  "kmsKeyId": "string",
  "name": "string",
  "status": "string",
  "tgwStatus": "string",
  "transitGatewayConfiguration": {
    "attachmentNetworkAclConfiguration": [
      {
        "cidrBlock": "string",
        "icmpTypeCode": {
          "code": number,
          "type": number
        },
        "portRange": {
          "from": number,
          "to": number
        },
        "protocol": "string",
        "ruleAction": "string",
```

```
        "ruleNumber": number
      }
    ],
    "routableCIDRSpace": "string",
    "transitGatewayID": "string"
  },
  "updateTimestamp": 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.

### availabilityZoneIds

The identifier of the availability zones where subnets for the environment are created.

Type: Array of strings

Length Constraints: Minimum length of 8. Maximum length of 12.

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

### awsAccountId

The unique identifier of the AWS account that is used to create the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

### creationTimestamp

The timestamp at which the kdb environment was created in FinSpace.

Type: Timestamp

### customDNSConfiguration

A list of DNS server name and server IP. This is used to set up Route-53 outbound resolvers.

Type: Array of [CustomDNSServer](#) objects

### dedicatedServiceAccountId

A unique identifier for the AWS environment infrastructure account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

### description

The description of the environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

### dnsStatus

The status of DNS configuration.

Type: String

Valid Values: NONE | UPDATE\_REQUESTED | UPDATING | FAILED\_UPDATE | SUCCESSFULLY\_UPDATED

### environmentArn

The ARN identifier of the environment.

Type: String

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

Pattern: `^arn:aws:finpace:[A-Za-z0-9_/.-]{0,63}:\d+:environment/[0-9A-Za-z_-]{1,128}$`

### environmentId

A unique identifier for the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

### errorMessage

Specifies the error message that appears if a flow fails.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

### kmsKeyId

The KMS key ID to encrypt your data in the FinSpace environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

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

### name

The name of the kdb environment.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### status

The status of the kdb environment.

Type: String

Valid Values: CREATE\_REQUESTED | CREATING | CREATED | DELETE\_REQUESTED | DELETING | DELETED | FAILED\_CREATION | RETRY\_DELETION | FAILED\_DELETION | UPDATE\_NETWORK\_REQUESTED | UPDATING\_NETWORK | FAILED\_UPDATING\_NETWORK | SUSPENDED

### tgwStatus

The status of the network configuration.



Type: String

Valid Values: NONE | UPDATE\_REQUESTED | UPDATING | FAILED\_UPDATE | SUCCESSFULLY\_UPDATED

### transitGatewayConfiguration

The structure of the transit gateway and network configuration that is used to connect the kdb environment to an internal network.

Type: [TransitGatewayConfiguration](#) object

### updateTimestamp

The timestamp at which the kdb environment was updated.

Type: Timestamp

## 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

# UpdateKxUser

Updates the user details. You can only update the IAM role associated with a user.

## Request Syntax

```
PUT /kx/environments/environmentId/users/userName HTTP/1.1
Content-type: application/json
```

```
{
  "clientToken": "string",
  "iamRole": "string"
}
```

## URI Request Parameters

The request uses the following URI parameters.

### environmentId

A unique identifier for the kdb environment.

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: Yes

### userName

A unique identifier for the user.

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^[0-9A-Za-z_-]{1,50}$`

Required: Yes

## Request Body

The request accepts the following data in JSON format.

## iamRole

The IAM role ARN that is associated with 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: Yes

## clientToken

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

Pattern: `.*\S.*`

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "environmentId": "string",
  "iamRole": "string",
  "userArn": "string",
  "userName": "string"
}
```

## Response Elements

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

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

## environmentId

A unique identifier for the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

## iamRole

The IAM role ARN that is associated with 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+=,.\@-\_/\]+$`

## userArn

The Amazon Resource Name (ARN) that identifies the user. For more information about ARNs and how to use ARNs in policies, see [IAM Identifiers](#) in the *IAM User Guide*.

Type: String

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

Pattern: `^arn:aws:finSpace:[A-Za-z0-9_/.-]{0,63}:\d+:kxEnvironment/[0-9A-Za-z_-]{1,128}/kxUser/[0-9A-Za-z_-]{1,128}$`

## userName

A unique identifier for the user.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^[0-9A-Za-z_-]{1,50}$`

## 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

**InternalServerErrorException**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

**LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

**ResourceNotFoundException**

One or more resources can't be found.

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](#)

## UpdateKxVolume

Updates the throughput or capacity of a volume. During the update process, the filesystem might be unavailable for a few minutes. You can retry any operations after the update is complete.

### Request Syntax

```
PATCH /kx/environments/environmentId/kxvolumes/volumeName HTTP/1.1
Content-type: application/json

{
  "clientToken": "string",
  "description": "string",
  "nas1Configuration": {
    "size": number,
    "type": "string"
  }
}
```

### URI Request Parameters

The request uses the following URI parameters.

#### environmentId

A unique identifier for the kdb environment where you created the storage volume.

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

Pattern: `^[a-z0-9]+$`

Required: Yes

#### volumeName

A unique identifier for the volume.

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes



## Request Body

The request accepts the following data in JSON format.

### clientToken

A token that ensures idempotency. This token expires in 10 minutes.

Type: String

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

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

Required: No

### description

A description of the volume.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

### nas1Configuration

Specifies the configuration for the Network attached storage (NAS\_1) file system volume.

Type: [KxNAS1Configuration](#) object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "attachedClusters": [
```

```

    {
      "clusterName": "string",
      "clusterStatus": "string",
      "clusterType": "string"
    }
  ],
  "availabilityZoneIds": [ "string" ],
  "azMode": "string",
  "createdTimestamp": number,
  "description": "string",
  "environmentId": "string",
  "lastModifiedTimestamp": number,
  "nas1Configuration": {
    "size": number,
    "type": "string"
  },
  "status": "string",
  "statusReason": "string",
  "volumeArn": "string",
  "volumeName": "string",
  "volumeType": "string"
}

```

## Response Elements

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

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

### attachedClusters

Specifies the clusters that a volume is attached to.

Type: Array of [KxAttachedCluster](#) objects

### availabilityZoneIds

The identifier of the availability zones.

Type: Array of strings

Length Constraints: Minimum length of 8. Maximum length of 12.

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

## azMode

The number of availability zones you want to assign per volume. Currently, FinSpace only supports SINGLE for volumes. This places dataview in a single AZ.

Type: String

Valid Values: SINGLE | MULTI

## createdTimestamp

The timestamp at which the volume was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

## description

The description for the volume.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

## environmentId

A unique identifier for the kdb environment where you want to update the volume.

Type: String

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

Pattern: `^[a-z0-9]+$`

## lastModifiedTimestamp

The last time that the volume was updated in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

## nas1Configuration

Specifies the configuration for the Network attached storage (NAS\_1) file system volume.

Type: [KxNAS1Configuration](#) object

### status

The status of the volume.

- CREATING – The volume creation is in progress.
- CREATE\_FAILED – The volume creation has failed.
- ACTIVE – The volume is active.
- UPDATING – The volume is in the process of being updated.
- UPDATE\_FAILED – The update action failed.
- UPDATED – The volume is successfully updated.
- DELETING – The volume is in the process of being deleted.
- DELETE\_FAILED – The system failed to delete the volume.
- DELETED – The volume is successfully deleted.

Type: String

Valid Values: CREATING | CREATE\_FAILED | ACTIVE | UPDATING | UPDATED | UPDATE\_FAILED | DELETING | DELETED | DELETE\_FAILED

### statusReason

The error message when a failed state occurs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 250.

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

### volumeArn

The ARN identifier of the volume.

Type: String

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

Pattern: `^arn:aws:finspace:[A-Za-z0-9_/.-]{0,63}:\d+:kxEnvironment/[0-9A-Za-z_-]{1,128}(/kxSharedVolume/[a-zA-Z0-9_-]{1,255})?$`

### volumeName

A unique identifier for the volume that you want to update.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

### volumeType

The type of file system volume. Currently, FinSpace only supports NAS\_1 volume type.

Type: String

Valid Values: NAS\_1

## 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**

There was a conflict with this action, and it could not be completed.

HTTP Status Code: 409

### **InternalServerError**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

### **LimitExceededException**

A service limit or quota is exceeded.

HTTP Status Code: 400

### **ResourceNotFoundException**

One or more resources can't be found.

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](#)

## **Data Types**

The following data types are supported:

- [AutoScalingConfiguration](#)

- [CapacityConfiguration](#)
- [ChangeRequest](#)
- [CodeConfiguration](#)
- [CustomDNSServer](#)
- [Environment](#)
- [ErrorInfo](#)
- [FederationParameters](#)
- [IcmpTypeCode](#)
- [KxAttachedCluster](#)
- [KxCacheStorageConfiguration](#)
- [KxChangesetListEntry](#)
- [KxCluster](#)
- [KxClusterCodeDeploymentConfiguration](#)
- [KxCommandLineArgument](#)
- [KxDatabaseCacheConfiguration](#)
- [KxDatabaseConfiguration](#)
- [KxDatabaseListEntry](#)
- [KxDataviewActiveVersion](#)
- [KxDataviewConfiguration](#)
- [KxDataviewListEntry](#)
- [KxDataviewSegmentConfiguration](#)
- [KxDeploymentConfiguration](#)
- [KxEnvironment](#)
- [KxNAS1Configuration](#)
- [KxNode](#)
- [KxSavedownStorageConfiguration](#)
- [KxScalingGroup](#)
- [KxScalingGroupConfiguration](#)
- [KxUser](#)
- [KxVolume](#)

- [NetworkACLEntry](#)
- [PortRange](#)
- [SuperuserParameters](#)
- [TickerplantLogConfiguration](#)
- [TransitGatewayConfiguration](#)
- [Volume](#)
- [VpcConfiguration](#)



# AutoScalingConfiguration

The configuration based on which FinSpace will scale in or scale out nodes in your cluster.

## Contents

### Note

In the following list, the required parameters are described first.

### **autoScalingMetric**

The metric your cluster will track in order to scale in and out. For example, CPU\_UTILIZATION\_PERCENTAGE is the average CPU usage across all the nodes in a cluster.

Type: String

Valid Values: CPU\_UTILIZATION\_PERCENTAGE

Required: No

### **maxNodeCount**

The highest number of nodes to scale. This value cannot be greater than 5.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### **metricTarget**

The desired value of the chosen autoScalingMetric. When the metric drops below this value, the cluster will scale in. When the metric goes above this value, the cluster will scale out. You can set the target value between 1 and 100 percent.

Type: Double

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

## **minNodeCount**

The lowest number of nodes to scale. This value must be at least 1 and less than the `maxNodeCount`. If the nodes in a cluster belong to multiple availability zones, then `minNodeCount` must be at least 3.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## **scaleInCooldownSeconds**

The duration in seconds that FinSpace will wait after a scale in event before initiating another scaling event.

Type: Double

Valid Range: Minimum value of 0. Maximum value of 100000.

Required: No

## **scaleOutCooldownSeconds**

The duration in seconds that FinSpace will wait after a scale out event before initiating another scaling event.

Type: Double

Valid Range: Minimum value of 0. Maximum value of 100000.

Required: No

## **See Also**

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# CapacityConfiguration

A structure for the metadata of a cluster. It includes information like the CPUs needed, memory of instances, and number of instances.

## Contents

### Note

In the following list, the required parameters are described first.

### nodeCount

The number of instances running in a cluster.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### nodeType

The type that determines the hardware of the host computer used for your cluster instance. Each node type offers different memory and storage capabilities. Choose a node type based on the requirements of the application or software that you plan to run on your instance.

You can only specify one of the following values:

- `kx.s.large` – The node type with a configuration of 12 GiB memory and 2 vCPUs.
- `kx.s.xlarge` – The node type with a configuration of 27 GiB memory and 4 vCPUs.
- `kx.s.2xlarge` – The node type with a configuration of 54 GiB memory and 8 vCPUs.
- `kx.s.4xlarge` – The node type with a configuration of 108 GiB memory and 16 vCPUs.
- `kx.s.8xlarge` – The node type with a configuration of 216 GiB memory and 32 vCPUs.
- `kx.s.16xlarge` – The node type with a configuration of 432 GiB memory and 64 vCPUs.
- `kx.s.32xlarge` – The node type with a configuration of 864 GiB memory and 128 vCPUs.

Type: String

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

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](#)

# ChangeRequest

A list of change request objects.

## Contents

### Note

In the following list, the required parameters are described first.

### changeType

Defines the type of change request. A changeType can have the following values:

- PUT – Adds or updates files in a database.
- DELETE – Deletes files in a database.

Type: String

Valid Values: PUT | DELETE

Required: Yes

### dbPath

Defines the path within the database directory.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1025.

Pattern: `^(\\*)*[\\|\\?\\*]([\\^\\|]+\\|){0,2}[\\^\\|]*$`

Required: Yes

### s3Path

Defines the S3 path of the source file that is required to add or update files in a database.

Type: String

Length Constraints: Minimum length of 9. Maximum length of 1093.

Pattern: `^s3:\V\V[a-z0-9][a-z0-9- .]{1,61}[a-z0-9]\V([\^V]+\V)*[\^V]*$`

Required: No

## See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CodeConfiguration

The structure of the customer code available within the running cluster.

## Contents

### Note

In the following list, the required parameters are described first.

### s3Bucket

A unique name for the S3 bucket.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 255.

Pattern: `^[a-z0-9][a-z0-9\.\-]*[a-z0-9]$`

Required: No

### s3Key

The full S3 path (excluding bucket) to the .zip file. This file contains the code that is loaded onto the cluster when it's started.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^[a-zA-Z0-9\!\@\-\_\.\*\'\(\)]+$`

Required: No

### s3ObjectVersion

The version of an S3 object.

Type: String

Length Constraints: Minimum length of 1. Maximum length 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](#)

# CustomDNSServer

A list of DNS server name and server IP. This is used to set up Route-53 outbound resolvers.

## Contents

### Note

In the following list, the required parameters are described first.

### customDNSServerIP

The IP address of the DNS server.

Type: String

Pattern: `^(?:(:25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)\.)}{3}(?:25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)$`

Required: Yes

### customDNSServerName

The name of the DNS server.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 255.

Pattern: `^([a-zA-Z0-9]|[a-zA-Z0-9][a-zA-Z0-9\-\-]{0,61}[a-zA-Z0-9])(\.[a-zA-Z0-9]|[a-zA-Z0-9][a-zA-Z0-9\-\-]{0,61}[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](#)

## Environment

Represents an FinSpace environment.

### Contents

#### Note

In the following list, the required parameters are described first.

#### **awsAccountId**

The ID of the AWS account in which the FinSpace environment is created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: No

#### **dedicatedServiceAccountId**

The AWS account ID of the dedicated service account associated with your FinSpace environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: No

#### **description**

The description of the FinSpace environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

### **environmentArn**

The Amazon Resource Name (ARN) of your FinSpace environment.

Type: String

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

Pattern: `^arn:aws:fin-space:[A-Za-z0-9_/.-]{0,63}:\d+:environment/[0-9A-Za-z_-]{1,128}$`

Required: No

### **environmentId**

The identifier of the FinSpace environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: No

### **environmentUrl**

The sign-in URL for the web application of your FinSpace environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^https?:\/\/[-a-zA-Z0-9+&@#/%?~_!|:,.;]*[-a-zA-Z0-9+&@#/%=~_!|]`

Required: No

### **federationMode**

The authentication mode for the environment.

Type: String

Valid Values: FEDERATED | LOCAL

Required: No

### **federationParameters**

Configuration information when authentication mode is FEDERATED.

Type: [FederationParameters](#) object

Required: No

### **kmsKeyId**

The KMS key id used to encrypt in the FinSpace environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

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

Required: No

### **name**

The name of the FinSpace environment.

Type: String

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

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

Required: No

### **sageMakerStudioDomainUrl**

The URL of the integrated FinSpace notebook environment in your web application.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

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

Required: No

## status

The current status of creation of the FinSpace environment.

Type: String

Valid Values: CREATE\_REQUESTED | CREATING | CREATED | DELETE\_REQUESTED | DELETING | DELETED | FAILED\_CREATION | RETRY\_DELETION | FAILED\_DELETION | UPDATE\_NETWORK\_REQUESTED | UPDATING\_NETWORK | FAILED\_UPDATING\_NETWORK | SUSPENDED

Required: No

## See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ErrorInfo

Provides details in the event of a failed flow, including the error type and the related error message.

### Contents

#### Note

In the following list, the required parameters are described first.

#### **errorMessage**

Specifies the error message that appears if a flow fails.

Type: String

Length Constraints: Maximum length of 1000.

Required: No

#### **errorType**

Specifies the type of error.

Type: String

Valid Values: `The inputs to this request are invalid.` | `Service limits have been exceeded.` | `Missing required permission to perform this request.` | `One or more inputs to this request were not found.` | `The system temporarily lacks sufficient resources to process the request.` | `An internal error has occurred.` | `Cancelled` | `A user recoverable error has occurred`

Required: No

### See Also

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



- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FederationParameters

Configuration information when authentication mode is FEDERATED.

## Contents

### Note

In the following list, the required parameters are described first.

### **applicationCallbackURL**

The redirect or sign-in URL that should be entered into the SAML 2.0 compliant identity provider configuration (IdP).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^https?:\/\/[-a-zA-Z0-9+&@#/%?=\~_|\!:\.,;]*[-a-zA-Z0-9+&@#/%=\~_|\]`

Required: No

### **attributeMap**

SAML attribute name and value. The name must always be Email and the value should be set to the attribute definition in which user email is set. For example, name would be Email and value `http://schemas.xmlsoap.org/ws/2005/05/identity/claims/emailaddress`. Please check your SAML 2.0 compliant identity provider (IdP) documentation for details.

Type: String to string map

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

Key Pattern: `.*`

Value Length Constraints: Minimum length of 1. Maximum length of 1000.

Value Pattern: `.*`

Required: No

**federationProviderName**

Name of the identity provider (IdP).

Type: String

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

Pattern: `[^_\\p{Z}][\\p{L}\\p{M}\\p{S}\\p{N}\\p{P}][^_\\p{Z}]+`

Required: No

**federationURN**

The Uniform Resource Name (URN). Also referred as Service Provider URN or Audience URI or Service Provider Entity ID.

Type: String

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

Pattern: `^[A-Za-z0-9._\\-:\\/#!+]+$`

Required: No

**samlMetadataDocument**

SAML 2.0 Metadata document from identity provider (IdP).

Type: String

Length Constraints: Minimum length of 1000. Maximum length of 10000000.

Pattern: `.*`

Required: No

**samlMetadataURL**

Provide the metadata URL from your SAML 2.0 compliant identity provider (IdP).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^https?://[\\-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](#)

# IcmpTypeCode

Defines the ICMP protocol that consists of the ICMP type and code.

## Contents

### Note

In the following list, the required parameters are described first.

### code

The ICMP code. A value of *-1* means all codes for the specified ICMP type.

Type: Integer

Required: Yes

### type

The ICMP type. A value of *-1* means all types.

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](#)

# KxAttachedCluster

The structure containing the metadata of the attached clusters.

## Contents

### Note

In the following list, the required parameters are described first.

### clusterName

A unique name for the attached cluster.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: No

### clusterStatus

The status of the attached cluster.

- PENDING – The cluster is pending creation.
- CREATING – The cluster creation process is in progress.
- CREATE\_FAILED – The cluster creation process has failed.
- RUNNING – The cluster creation process is running.
- UPDATING – The cluster is in the process of being updated.
- DELETING – The cluster is in the process of being deleted.
- DELETED – The cluster has been deleted.
- DELETE\_FAILED – The cluster failed to delete.

Type: String

Valid Values: PENDING | CREATING | CREATE\_FAILED | RUNNING | UPDATING | DELETING | DELETED | DELETE\_FAILED

Required: No

### **clusterType**

Specifies the type of cluster. The volume for TP and RDB cluster types will be used for TP logs.

Type: String

Valid Values: HDB | RDB | GATEWAY | GP | TICKERPLANT

Required: No

### **See Also**

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# KxCacheStorageConfiguration

The configuration for read only disk cache associated with a cluster.

## Contents

### Note

In the following list, the required parameters are described first.

### size

The size of cache in Gigabytes.

Type: Integer

Required: Yes

### type

The type of cache storage. The valid values are:

- `CACHE_1000` – This type provides at least 1000 MB/s disk access throughput.
- `CACHE_250` – This type provides at least 250 MB/s disk access throughput.
- `CACHE_12` – This type provides at least 12 MB/s disk access throughput.

For cache type `CACHE_1000` and `CACHE_250` you can select cache size as 1200 GB or increments of 2400 GB. For cache type `CACHE_12` you can select the cache size in increments of 6000 GB.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 10.

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](#)

# KxChangesetListEntry

Details of changeset.

## Contents

### Note

In the following list, the required parameters are described first.

### **activeFromTimestamp**

Beginning time from which the changeset is active. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

### **changesetId**

A unique identifier for the changeset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

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

Required: No

### **createdTimestamp**

The timestamp at which the changeset was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

## lastModifiedTimestamp

The timestamp at which the changeset was modified. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

## status

Status of the changeset.

- Pending – Changeset creation is pending.
- Processing – Changeset creation is running.
- Failed – Changeset creation has failed.
- Complete – Changeset creation has succeeded.

Type: String

Valid Values: PENDING | PROCESSING | FAILED | COMPLETED

Required: No

## See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# KxCluster

The details of a kdb cluster.

## Contents

### Note

In the following list, the required parameters are described first.

### **availabilityZoneId**

The availability zone identifiers for the requested regions.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 12.

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

Required: No

### **azMode**

The number of availability zones assigned per cluster. This can be one of the following:

- SINGLE – Assigns one availability zone per cluster.
- MULTI – Assigns all the availability zones per cluster.

Type: String

Valid Values: SINGLE | MULTI

Required: No

### **clusterDescription**

A description of the cluster.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

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

Required: No

### **clusterName**

A unique name for the cluster.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: No

### **clusterType**

Specifies the type of KDB database that is being created. The following types are available:

- **HDB** – A Historical Database. The data is only accessible with read-only permissions from one of the FinSpace managed kdb databases mounted to the cluster.
- **RDB** – A Realtime Database. This type of database captures all the data from a ticker plant and stores it in memory until the end of day, after which it writes all of its data to a disk and reloads the HDB. This cluster type requires local storage for temporary storage of data during the savedown process. If you specify this field in your request, you must provide the `savedownStorageConfiguration` parameter.
- **GATEWAY** – A gateway cluster allows you to access data across processes in kdb systems. It allows you to create your own routing logic using the initialization scripts and custom code. This type of cluster does not require a writable local storage.
- **GP** – A general purpose cluster allows you to quickly iterate on code during development by granting greater access to system commands and enabling a fast reload of custom code. This cluster type can optionally mount databases including cache and savedown storage. For this cluster type, the node count is fixed at 1. It does not support autoscaling and supports only **SINGLE AZ** mode.
- **Tickerplant** – A tickerplant cluster allows you to subscribe to feed handlers based on IAM permissions. It can publish to RDBs, other Tickerplants, and real-time subscribers (RTS). Tickerplants can persist messages to log, which is readable by any RDB environment. It supports only single-node that is only one kdb process.

Type: String

Valid Values: HDB | RDB | GATEWAY | GP | TICKERPLANT

Required: No

### **createdTimestamp**

The timestamp at which the cluster was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

### **executionRole**

An IAM role that defines a set of permissions associated with a cluster. These permissions are assumed when a cluster attempts to access another cluster.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^arn:aws[a-z0-9-]*:iam::\d{12}:role\[/\w-\./@+=,]{1,1017}$`

Required: No

### **initializationScript**

Specifies a Q program that will be run at launch of a cluster. It is a relative path within `.zip` file that contains the custom code, which will be loaded on the cluster. It must include the file name itself. For example, `somedir/init.q`.

Type: String

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

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

Required: No

### **lastModifiedTimestamp**

The last time that the cluster was modified. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

### **releaseLabel**

A version of the FinSpace managed kdb to run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16.

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

Required: No

### **status**

The status of a cluster.

- PENDING – The cluster is pending creation.
- CREATING – The cluster creation process is in progress.
- CREATE\_FAILED – The cluster creation process has failed.
- RUNNING – The cluster creation process is running.
- UPDATING – The cluster is in the process of being updated.
- DELETING – The cluster is in the process of being deleted.
- DELETED – The cluster has been deleted.
- DELETE\_FAILED – The cluster failed to delete.

Type: String

Valid Values: PENDING | CREATING | CREATE\_FAILED | RUNNING | UPDATING | DELETING | DELETED | DELETE\_FAILED

Required: No

### **statusReason**

The error message when a failed state occurs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 250.

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

Required: No

## volumes

A list of volumes attached to the cluster.

Type: Array of [Volume](#) 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](#)



# KxClusterCodeDeploymentConfiguration

The configuration that allows you to choose how you want to update code on a cluster. Depending on the option you choose, you can reduce the time it takes to update the cluster.

## Contents

### Note

In the following list, the required parameters are described first.

## deploymentStrategy

The type of deployment that you want on a cluster.

- **ROLLING** – This options updates the cluster by stopping the exiting q process and starting a new q process with updated configuration.
- **NO\_RESTART** – This option updates the cluster without stopping the running q process. It is only available for GP type cluster. This option is quicker as it reduces the turn around time to update configuration on a cluster.

With this deployment mode, you cannot update the `initializationScript` and `commandLineArguments` parameters.

- **FORCE** – This option updates the cluster by immediately stopping all the running processes before starting up new ones with the updated configuration.

Type: String

Valid Values: NO\_RESTART | ROLLING | FORCE

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](#)

# KxCommandLineArgument

Defines the key-value pairs to make them available inside the cluster.

## Contents

### Note

In the following list, the required parameters are described first.

### key

The name of the key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^(?![Aa][Ww][Ss])(s|([a-zA-Z][a-zA-Z0-9_]+))|(AWS_ZIP_DEFAULT)`

Required: No

### value

The value of the key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

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](#)

# KxDatabaseCacheConfiguration

The structure of database cache configuration that is used for mapping database paths to cache types in clusters.

## Contents

### Note

In the following list, the required parameters are described first.

### cacheType

The type of disk cache. This parameter is used to map the database path to cache storage. The valid values are:

- `CACHE_1000` – This type provides at least 1000 MB/s disk access throughput.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 10.

Required: Yes

### dbPaths

Specifies the portions of database that will be loaded into the cache for access.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1025.

Pattern: `^(\\*)*[\\|\\?\\*]([\\^\\|]+\\|){0,2}[\\^\\|]*$`

Required: Yes

### dataviewName

The name of the dataview to be used for caching historical data on disk.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `^[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](#)

# KxDatabaseConfiguration

The configuration of data that is available for querying from this database.

## Contents

### Note

In the following list, the required parameters are described first.

### databaseName

The name of the kdb database. When this parameter is specified in the structure, S3 with the whole database is included by default.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

### cacheConfigurations

Configuration details for the disk cache used to increase performance reading from a kdb database mounted to the cluster.

Type: Array of [KxDatabaseCacheConfiguration](#) objects

Required: No

### changesetId

A unique identifier of the changeset that is associated with the cluster.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

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

Required: No

## **dataviewConfiguration**

The configuration of the dataview to be used with specified cluster.

Type: [KxDataviewConfiguration](#) object

Required: No

## **dataviewName**

The name of the dataview to be used for caching historical data on disk.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `^[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](#)



# KxDatabaseListEntry

Details about a FinSpace managed kdb database

## Contents

### Note

In the following list, the required parameters are described first.

### **createdTimestamp**

The timestamp at which the database was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

### **databaseName**

The name of the kdb database.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: No

### **lastModifiedTimestamp**

The last time that the database was modified. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

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](#)

## KxDataviewActiveVersion

The active version of the dataview that is currently in use by this cluster.

### Contents

#### Note

In the following list, the required parameters are described first.

#### **attachedClusters**

The list of clusters that are currently using this dataview.

Type: Array of strings

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: No

#### **changesetId**

A unique identifier for the changeset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

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

Required: No

#### **createdTimestamp**

The timestamp at which the dataview version was active. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

## segmentConfigurations

The configuration that contains the database path of the data that you want to place on each selected volume. Each segment must have a unique database path for each volume. If you do not explicitly specify any database path for a volume, they are accessible from the cluster through the default S3/object store segment.

Type: Array of [KxDataviewSegmentConfiguration](#) objects

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

Required: No

## versionId

A unique identifier of the active version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Required: No

## See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# KxDataviewConfiguration

The structure that stores the configuration details of a dataview.

## Contents

### Note

In the following list, the required parameters are described first.

### **changesetId**

A unique identifier for the changeset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

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

Required: No

### **dataviewName**

The unique identifier of the dataview.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: No

### **dataviewVersionId**

The version of the dataview corresponding to a given changeset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Required: No

## segmentConfigurations

The db path and volume configuration for the segmented database.

Type: Array of [KxDataviewSegmentConfiguration](#) 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](#)

# KxDataviewListEntry

A collection of kdb dataview entries.

## Contents

### Note

In the following list, the required parameters are described first.

### **activeVersions**

The active changeset versions for the given dataview entry.

Type: Array of [KxDataviewActiveVersion](#) objects

Required: No

### **autoUpdate**

The option to specify whether you want to apply all the future additions and corrections automatically to the dataview when you ingest new changesets. The default value is false.

Type: Boolean

Required: No

### **availabilityZoneId**

The identifier of the availability zones.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 12.

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

Required: No

### **azMode**

The number of availability zones you want to assign per volume. Currently, FinSpace only supports SINGLE for volumes. This places dataview in a single AZ.

Type: String

Valid Values: SINGLE | MULTI

Required: No

### **changesetId**

A unique identifier for the changeset.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

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

Required: No

### **createdTimestamp**

The timestamp at which the dataview list entry was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

### **databaseName**

A unique identifier of the database.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: No

### **dataviewName**

A unique identifier of the dataview.

Type: String



Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: No

### **description**

A description for the dataview list entry.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

### **environmentId**

A unique identifier for the kdb environment.

Type: String

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

Pattern: `.*\S.*`

Required: No

### **lastModifiedTimestamp**

The last time that the dataview list was updated in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

### **readWrite**

Returns True if the dataview is created as writeable and False otherwise.

Type: Boolean

Required: No

## **segmentConfigurations**

The configuration that contains the database path of the data that you want to place on each selected volume. Each segment must have a unique database path for each volume. If you do not explicitly specify any database path for a volume, they are accessible from the cluster through the default S3/object store segment.

Type: Array of [KxDataviewSegmentConfiguration](#) objects

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

Required: No

## **status**

The status of a given dataview entry.

Type: String

Valid Values: CREATING | ACTIVE | UPDATING | FAILED | DELETING

Required: No

## **statusReason**

The error message when a failed state occurs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 250.

Pattern: `^[a-zA-Z0-9_\-\.\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](#)

# KxDataviewSegmentConfiguration

The configuration that contains the database path of the data that you want to place on each selected volume. Each segment must have a unique database path for each volume. If you do not explicitly specify any database path for a volume, they are accessible from the cluster through the default S3/object store segment.

## Contents

### Note

In the following list, the required parameters are described first.

### dbPaths

The database path of the data that you want to place on each selected volume for the segment. Each segment must have a unique database path for each volume.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 30 items.

Length Constraints: Minimum length of 1. Maximum length of 1025.

Pattern: `^(\\*)*[\\|\\?\\*]([\\^\\|]+\\|){0,2}[\\^\\|]*$`

Required: Yes

### volumeName

The name of the volume where you want to add data.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

## onDemand

Enables on-demand caching on the selected database path when a particular file or a column of the database is accessed. When on demand caching is **True**, dataviews perform minimal loading of files on the filesystem as needed. When it is set to **False**, everything is cached. The default value is **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](#)

# KxDeploymentConfiguration

The configuration that allows you to choose how you want to update the databases on a cluster. Depending on the option you choose, you can reduce the time it takes to update the cluster.

## Contents

### Note

In the following list, the required parameters are described first.

## deploymentStrategy

The type of deployment that you want on a cluster.

- **ROLLING** – This options updates the cluster by stopping the exiting q process and starting a new q process with updated configuration.
- **NO\_RESTART** – This option updates the cluster without stopping the running q process. It is only available for HDB type cluster. This option is quicker as it reduces the turn around time to update configuration on a cluster.

With this deployment mode, you cannot update the `initializationScript` and `commandLineArguments` parameters.

Type: String

Valid Values: NO\_RESTART | ROLLING

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](#)



# KxEnvironment

The details of a kdb environment.

## Contents

### Note

In the following list, the required parameters are described first.

### **availabilityZoneIds**

The identifier of the availability zones where subnets for the environment are created.

Type: Array of strings

Length Constraints: Minimum length of 8. Maximum length of 12.

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

Required: No

### **awsAccountId**

The unique identifier of the AWS account in which you create the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: No

### **certificateAuthorityArn**

The Amazon Resource Name (ARN) of the certificate authority:

Type: String

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

Required: No



## **creationTimestamp**

The timestamp at which the kdb environment was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

## **customDNSConfiguration**

A list of DNS server name and server IP. This is used to set up Route-53 outbound resolvers.

Type: Array of [CustomDNSServer](#) objects

Required: No

## **dedicatedServiceAccountId**

A unique identifier for the AWS environment infrastructure account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: No

## **description**

A description of the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

## **dnsStatus**

The status of DNS configuration.

Type: String

Valid Values: NONE | UPDATE\_REQUESTED | UPDATING | FAILED\_UPDATE | SUCCESSFULLY\_UPDATED

Required: No

### **environmentArn**

The Amazon Resource Name (ARN) of your kdb environment.

Type: String

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

Pattern: `^arn:aws:finpace:[A-Za-z0-9_/.-]{0,63}:\d+:environment/[0-9A-Za-z_-]{1,128}$`

Required: No

### **environmentId**

A unique identifier for the kdb environment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 26.

Pattern: `^[a-zA-Z0-9]{1,26}$`

Required: No

### **errorMessage**

Specifies the error message that appears if a flow fails.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

### **kmsKeyId**

The unique identifier of the KMS key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9-:\|]*$`

Required: No

## **name**

The name of the kdb environment.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: No

## **status**

The status of the environment creation.

- `CREATE_REQUESTED` – Environment creation has been requested.
- `CREATING` – Environment is in the process of being created.
- `FAILED_CREATION` – Environment creation has failed.
- `CREATED` – Environment is successfully created and is currently active.
- `DELETE_REQUESTED` – Environment deletion has been requested.
- `DELETING` – Environment is in the process of being deleted.
- `RETRY_DELETION` – Initial environment deletion failed, system is reattempting delete.
- `DELETED` – Environment has been deleted.
- `FAILED_DELETION` – Environment deletion has failed.

Type: String

Valid Values: `CREATE_REQUESTED | CREATING | CREATED | DELETE_REQUESTED | DELETING | DELETED | FAILED_CREATION | RETRY_DELETION | FAILED_DELETION | UPDATE_NETWORK_REQUESTED | UPDATING_NETWORK | FAILED_UPDATING_NETWORK | SUSPENDED`

Required: No

## tgwStatus

The status of the network configuration.

Type: String

Valid Values: NONE | UPDATE\_REQUESTED | UPDATING | FAILED\_UPDATE | SUCCESSFULLY\_UPDATED

Required: No

## transitGatewayConfiguration

Specifies the transit gateway and network configuration to connect the kdb environment to an internal network.

Type: [TransitGatewayConfiguration](#) object

Required: No

## updateTimestamp

The timestamp at which the kdb environment was modified in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

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](#)

# KxNAS1Configuration

The structure containing the size and type of the network attached storage (NAS\_1) file system volume.

## Contents

### Note

In the following list, the required parameters are described first.

### size

The size of the network attached storage. For storage type `SSD_1000` and `SSD_250` you can select the minimum size as 1200 GB or increments of 2400 GB. For storage type `HDD_12` you can select the minimum size as 6000 GB or increments of 6000 GB.

Type: Integer

Valid Range: Minimum value of 1200.

Required: No

### type

The type of the network attached storage.

Type: String

Valid Values: `SSD_1000` | `SSD_250` | `HDD_12`

Required: No

## See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# KxNode

A structure that stores metadata for a kdb node.

## Contents

### Note

In the following list, the required parameters are described first.

### **availabilityZoneId**

The identifier of the availability zones where subnets for the environment are created.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 12.

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

Required: No

### **launchTime**

The time when a particular node is started. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

### **nodeId**

A unique identifier for the node.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Required: No

## status

Specifies the status of the cluster nodes.

- **RUNNING** – The node is actively serving.
- **PROVISIONING** – The node is being prepared.

Type: String

Valid Values: **RUNNING** | **PROVISIONING**

Required: No

## See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



## KxSavedownStorageConfiguration

The size and type of temporary storage that is used to hold data during the savedown process. All the data written to this storage space is lost when the cluster node is restarted.

### Contents

#### Note

In the following list, the required parameters are described first.

#### size

The size of temporary storage in gibibytes.

Type: Integer

Valid Range: Minimum value of 10. Maximum value of 16000.

Required: No

#### type

The type of writeable storage space for temporarily storing your savedown data. The valid values are:

- SDS01 – This type represents 3000 IOPS and io2 ebs volume type.

Type: String

Valid Values: SDS01

Required: No

#### volumeName

The name of the kdb volume that you want to use as writeable save-down storage for clusters.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `^[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](#)

# KxScalingGroup

A structure for storing metadata of scaling group.

## Contents

### Note

In the following list, the required parameters are described first.

### **availabilityZoneId**

The identifier of the availability zones.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 12.

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

Required: No

### **clusters**

The list of clusters currently active in a given scaling group.

Type: Array of strings

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: No

### **createdTimestamp**

The timestamp at which the scaling group was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

## hostType

The memory and CPU capabilities of the scaling group host on which FinSpace Managed kdb clusters will be placed.

You can add one of the following values:

- `kx.sg.4xlarge` – The host type with a configuration of 108 GiB memory and 16 vCPUs.
- `kx.sg.8xlarge` – The host type with a configuration of 216 GiB memory and 32 vCPUs.
- `kx.sg.16xlarge` – The host type with a configuration of 432 GiB memory and 64 vCPUs.
- `kx.sg.32xlarge` – The host type with a configuration of 864 GiB memory and 128 vCPUs.
- `kx.sg1.16xlarge` – The host type with a configuration of 1949 GiB memory and 64 vCPUs.
- `kx.sg1.24xlarge` – The host type with a configuration of 2948 GiB memory and 96 vCPUs.

Type: String

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

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

Required: No

## lastModifiedTimestamp

The last time that the scaling group was updated in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

## scalingGroupName

A unique identifier for the kdb scaling group.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: No

## status

The status of scaling groups.

Type: String

Valid Values: CREATING | CREATE\_FAILED | ACTIVE | DELETING | DELETED | DELETE\_FAILED

Required: No

## statusReason

The error message when a failed state occurs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 250.

Pattern: `^[a-zA-Z0-9\_\-\.\\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](#)

# KxScalingGroupConfiguration

The structure that stores the capacity configuration details of a scaling group.

## Contents

### Note

In the following list, the required parameters are described first.

### **memoryReservation**

A reservation of the minimum amount of memory that should be available on the scaling group for a kdb cluster to be successfully placed in a scaling group.

Type: Integer

Valid Range: Minimum value of 6.

Required: Yes

### **nodeCount**

The number of kdb cluster nodes.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

### **scalingGroupName**

A unique identifier for the kdb scaling group.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: Yes

## cpu

The number of vCPUs that you want to reserve for each node of this kdb cluster on the scaling group host.

Type: Double

Valid Range: Minimum value of 0.1.

Required: No

## memoryLimit

An optional hard limit on the amount of memory a kdb cluster can use.

Type: Integer

Valid Range: Minimum value of 6.

Required: No

## See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# KxUser

A structure that stores metadata for a kdb user.

## Contents

### Note

In the following list, the required parameters are described first.

### **createTimestamp**

The timestamp at which the kdb user was created.

Type: Timestamp

Required: No

### **iamRole**

The IAM role ARN that is associated with 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

### **updateTimestamp**

The timestamp at which the kdb user was updated.

Type: Timestamp

Required: No

### **userArn**

The Amazon Resource Name (ARN) that identifies the user. For more information about ARNs and how to use ARNs in policies, see [IAM Identifiers](#) in the *IAM User Guide*.



Type: String

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

Pattern: `^arn:aws:finpace:[A-Za-z0-9_/.-]{0,63}:\d+:kxEnvironment/[0-9A-Za-z_-]{1,128}/kxUser/[0-9A-Za-z_-]{1,128}$`

Required: No

## **userName**

A unique identifier for the user.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^[0-9A-Za-z_-]{1,50}$`

Required: No

## **See Also**

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

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# KxVolume

The structure that contains the metadata of the volume.

## Contents

### Note

In the following list, the required parameters are described first.

### **availabilityZoneIds**

The identifier of the availability zones.

Type: Array of strings

Length Constraints: Minimum length of 8. Maximum length of 12.

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

Required: No

### **azMode**

The number of availability zones you want to assign per volume. Currently, FinSpace only supports SINGLE for volumes. This places dataview in a single AZ.

Type: String

Valid Values: SINGLE | MULTI

Required: No

### **createdTimestamp**

The timestamp at which the volume was created in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

## description

A description of the volume.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: `^[a-zA-Z0-9. ]{1,1000}$`

Required: No

## lastModifiedTimestamp

The last time that the volume was updated in FinSpace. The value is determined as epoch time in milliseconds. For example, the value for Monday, November 1, 2021 12:00:00 PM UTC is specified as 1635768000000.

Type: Timestamp

Required: No

## status

The status of volume.

- **CREATING** – The volume creation is in progress.
- **CREATE\_FAILED** – The volume creation has failed.
- **ACTIVE** – The volume is active.
- **UPDATING** – The volume is in the process of being updated.
- **UPDATE\_FAILED** – The update action failed.
- **UPDATED** – The volume is successfully updated.
- **DELETING** – The volume is in the process of being deleted.
- **DELETE\_FAILED** – The system failed to delete the volume.
- **DELETED** – The volume is successfully deleted.

Type: String

Valid Values: **CREATING** | **CREATE\_FAILED** | **ACTIVE** | **UPDATING** | **UPDATED** | **UPDATE\_FAILED** | **DELETING** | **DELETED** | **DELETE\_FAILED**

Required: No

## statusReason

The error message when a failed state occurs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 250.

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

Required: No

## volumeName

A unique identifier for the volume.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: No

## volumeType

The type of file system volume. Currently, FinSpace only supports NAS\_1 volume type.

Type: String

Valid Values: NAS\_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](#)

# NetworkACLEntry

The network access control list (ACL) is an optional layer of security for your VPC that acts as a firewall for controlling traffic in and out of one or more subnets. The entry is a set of numbered ingress and egress rules that determine whether a packet should be allowed in or out of a subnet associated with the ACL. We process the entries in the ACL according to the rule numbers, in ascending order.

## Contents

### Note

In the following list, the required parameters are described first.

### **cidrBlock**

The IPv4 network range to allow or deny, in CIDR notation. For example, `172.16.0.0/24`. We modify the specified CIDR block to its canonical form. For example, if you specify `100.68.0.18/18`, we modify it to `100.68.0.0/18`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 18.

Pattern: `^(?:\d{1,3}\.){3}\d{1,3}(?:\s|/)(?:3[0-2]|[12]\d|\d)$`

Required: Yes

### **protocol**

The protocol number. A value of `-1` means all the protocols.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 5.

Pattern: `^-1|[0-9]+$`

Required: Yes

### **ruleAction**

Indicates whether to allow or deny the traffic that matches the rule.

Type: String

Valid Values: allow | deny

Required: Yes

### **ruleNumber**

The rule number for the entry. For example *100*. All the network ACL entries are processed in ascending order by rule number.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 32766.

Required: Yes

### **icmpTypeCode**

Defines the ICMP protocol that consists of the ICMP type and code.

Type: [IcmpTypeCode](#) object

Required: No

### **portRange**

The range of ports the rule applies to.

Type: [PortRange](#) 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](#)

# PortRange

The range of ports the rule applies to.

## Contents

### Note

In the following list, the required parameters are described first.

### from

The first port in the range.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 65535.

Required: Yes

### to

The last port in the range.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 65535.

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](#)

# SuperuserParameters

Configuration information for the superuser.

## Contents

### Note

In the following list, the required parameters are described first.

### emailAddress

The email address of the superuser.

Type: String

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

Pattern: `[A-Z0-9a-z._%+-]+@[A-Za-z0-9.-]+[.]+[A-Za-z]+`

Required: Yes

### firstName

The first name of the superuser.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^[a-zA-Z0-9]{1,50}$`

Required: Yes

### lastName

The last name of the superuser.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `^[a-zA-Z0-9]{1,50}$`



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](#)

# TickerplantLogConfiguration

A configuration to store the Tickerplant logs. It consists of a list of volumes that will be mounted to your cluster. For the cluster type `Tickerplant`, the location of the TP volume on the cluster will be available by using the global variable `.aws.tp_log_path`.

## Contents

### Note

In the following list, the required parameters are described first.

## `tickerplantLogVolumes`

The name of the volumes for tickerplant logs.

Type: Array of strings

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `^[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](#)

# TransitGatewayConfiguration

The structure of the transit gateway and network configuration that is used to connect the kdb environment to an internal network.

## Contents

### Note

In the following list, the required parameters are described first.

### **routableCIDRSpace**

The routing CIDR on behalf of kdb environment. It could be any "/26 range in the 100.64.0.0 CIDR space. After providing, it will be added to the customer's transit gateway routing table so that the traffics could be routed to kdb network.

Type: String

Required: Yes

### **transitGatewayID**

The identifier of the transit gateway created by the customer to connect outbound traffics from kdb network to your internal network.

Type: String

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

Required: Yes

### **attachmentNetworkAclConfiguration**

The rules that define how you manage the outbound traffic from kdb network to your internal network.

Type: Array of [NetworkACLEntry](#) objects

Array Members: Minimum number of 1 item. Maximum number of 100 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](#)

# Volume

The structure that consists of name and type of volume.

## Contents

### Note

In the following list, the required parameters are described first.

### **volumeName**

A unique identifier for the volume.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

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

Required: No

### **volumeType**

The type of file system volume. Currently, FinSpace only supports NAS\_1 volume type.

Type: String

Valid Values: NAS\_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](#)



# VpcConfiguration

Configuration details about the network where the Privatelink endpoint of the cluster resides.

## Contents

### Note

In the following list, the required parameters are described first.

### ipAddressType

The IP address type for cluster network configuration parameters. The following type is available:

- IP\_V4 – IP address version 4

Type: String

Valid Values: IP\_V4

Required: No

### securityGroupIds

The unique identifier of the VPC security group applied to the VPC endpoint ENI for the cluster.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^sg-([a-z0-9]{8}$|[a-z0-9]{17}$)`

Required: No

### subnetIds

The identifier of the subnet that the Privatelink VPC endpoint uses to connect to the cluster.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^subnet-([a-z0-9]{8}\$|[a-z0-9]{17}\$)

Required: No

### **vpcId**

The identifier of the VPC endpoint.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^vpc-([a-z0-9]{8}\$|[a-z0-9]{17}\$)

Required: No

## **See Also**

For more information about using this API in 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 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

## 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

# AWS Glossary

For the latest AWS terminology, see the [AWS glossary](#) in the *AWS Glossary Reference*.