

# Amazon Athena



# Amazon Athena: API Reference

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# Welcome

Amazon Athena is an interactive query service that lets you use standard SQL to analyze data directly in Amazon S3. You can point Athena at your data in Amazon S3 and run ad-hoc queries and get results in seconds. Athena is serverless, so there is no infrastructure to set up or manage. You pay only for the queries you run. Athena scales automatically—executing queries in parallel—so results are fast, even with large datasets and complex queries. For more information, see [What is Amazon Athena](#) in the *Amazon Athena User Guide*.

If you connect to Athena using the JDBC driver, use version 1.1.0 of the driver or later with the Amazon Athena API. Earlier version drivers do not support the API. For more information and to download the driver, see [Accessing Amazon Athena with JDBC](#).

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# Actions

The following actions are supported:

- [BatchGetNamedQuery](#)
- [BatchGetPreparedStatement](#)
- [BatchGetQueryExecution](#)
- [CancelCapacityReservation](#)
- [CreateCapacityReservation](#)
- [CreateDataCatalog](#)
- [CreateNamedQuery](#)
- [CreateNotebook](#)
- [CreatePreparedStatement](#)
- [CreatePresignedNotebookUrl](#)
- [CreateWorkGroup](#)
- [DeleteCapacityReservation](#)
- [DeleteDataCatalog](#)
- [DeleteNamedQuery](#)
- [DeleteNotebook](#)
- [DeletePreparedStatement](#)
- [DeleteWorkGroup](#)
- [ExportNotebook](#)
- [GetCalculationExecution](#)
- [GetCalculationExecutionCode](#)
- [GetCalculationExecutionStatus](#)
- [GetCapacityAssignmentConfiguration](#)
- [GetCapacityReservation](#)
- [GetDatabase](#)
- [GetDataCatalog](#)
- [GetNamedQuery](#)
- [GetNotebookMetadata](#)

- [GetPreparedStatement](#)
- [GetQueryExecution](#)
- [GetQueryResults](#)
- [GetQueryRuntimeStatistics](#)
- [GetSession](#)
- [GetSessionStatus](#)
- [GetTableMetadata](#)
- [GetWorkGroup](#)
- [ImportNotebook](#)
- [ListApplicationDPUSizes](#)
- [ListCalculationExecutions](#)
- [ListCapacityReservations](#)
- [ListDatabases](#)
- [ListDataCatalogs](#)
- [ListEngineVersions](#)
- [ListExecutors](#)
- [ListNamedQueries](#)
- [ListNotebookMetadata](#)
- [ListNotebookSessions](#)
- [ListPreparedStatements](#)
- [ListQueryExecutions](#)
- [ListSessions](#)
- [ListTableMetadata](#)
- [ListTagsForResource](#)
- [ListWorkGroups](#)
- [PutCapacityAssignmentConfiguration](#)
- [StartCalculationExecution](#)
- [StartQueryExecution](#)
- [StartSession](#)
- [StopCalculationExecution](#)



- [StopQueryExecution](#)
- [TagResource](#)
- [TerminateSession](#)
- [UntagResource](#)
- [UpdateCapacityReservation](#)
- [UpdateDataCatalog](#)
- [UpdateNamedQuery](#)
- [UpdateNotebook](#)
- [UpdateNotebookMetadata](#)
- [UpdatePreparedStatement](#)
- [UpdateWorkGroup](#)

# BatchGetNamedQuery

Returns the details of a single named query or a list of up to 50 queries, which you provide as an array of query ID strings. Requires you to have access to the workgroup in which the queries were saved. Use [ListNamedQueriesInput](#) to get the list of named query IDs in the specified workgroup. If information could not be retrieved for a submitted query ID, information about the query ID submitted is listed under [UnprocessedNamedQueryId](#). Named queries differ from executed queries. Use [BatchGetQueryExecutionInput](#) to get details about each unique query execution, and [ListQueryExecutionsInput](#) to get a list of query execution IDs.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

### [NamedQueryIds](#)

An array of query IDs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

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

Pattern: \S+

Required: Yes

## Response Syntax

```
{
  "NamedQueries": [
```

```
{
  "Database": "string",
  "Description": "string",
  "Name": "string",
  "NamedQueryId": "string",
  "QueryString": "string",
  "WorkGroup": "string"
},
"UnprocessedNamedQueryIds": [
  {
    "ErrorCode": "string",
    "ErrorMessage": "string",
    "NamedQueryId": "string"
  }
]
```

## Response Elements

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

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

### NamedQueries

Information about the named query IDs submitted.

Type: Array of [NamedQuery](#) objects

### UnprocessedNamedQueryIds

Information about provided query IDs.

Type: Array of [UnprocessedNamedQueryId](#) objects

## Errors

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

### **InternalServerError**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

## **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## **See Also**

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

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

# BatchGetPreparedStatement

Returns the details of a single prepared statement or a list of up to 256 prepared statements for the array of prepared statement names that you provide. Requires you to have access to the workgroup to which the prepared statements belong. If a prepared statement cannot be retrieved for the name specified, the statement is listed in `UnprocessedPreparedStatementNames`.

## Request Syntax

```
{
  "PreparedStatementNames": [ "string" ],
  "WorkGroup": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### PreparedStatementNames

A list of prepared statement names to return.

Type: Array of strings

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

Pattern: `[a-zA-Z_][a-zA-Z0-9_@:]{1,256}`

Required: Yes

### WorkGroup

The name of the workgroup to which the prepared statements belong.

Type: String

Pattern: `[a-zA-Z0-9._-]{1,128}`

Required: Yes

## Response Syntax

```
{
  "PreparedStatements": [
    {
      "Description": "string",
      "LastModifiedTime": number,
      "QueryStatement": "string",
      "StatementName": "string",
      "WorkGroupName": "string"
    }
  ],
  "UnprocessedPreparedStatementNames": [
    {
      "ErrorCode": "string",
      "ErrorMessage": "string",
      "StatementName": "string"
    }
  ]
}
```

## Response Elements

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

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

### PreparedStatements

The list of prepared statements returned.

Type: Array of [PreparedStatement](#) objects

### UnprocessedPreparedStatementNames

A list of one or more prepared statements that were requested but could not be returned.

Type: Array of [UnprocessedPreparedStatementName](#) objects

## Errors

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

## InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

## InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# BatchGetQueryExecution

Returns the details of a single query execution or a list of up to 50 query executions, which you provide as an array of query execution ID strings. Requires you to have access to the workgroup in which the queries ran. To get a list of query execution IDs, use [ListQueryExecutions:WorkGroup](#). Query executions differ from named (saved) queries. Use [BatchGetNamedQueryInput](#) to get details about named queries.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

### [QueryExecutionIds](#)

An array of query execution IDs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

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

Pattern: \S+

Required: Yes

## Response Syntax

```
{
  "QueryExecutions": [
    {
      "EngineVersion": {
        "EffectiveEngineVersion": "string",
```



```

    "SelectedEngineVersion": "string"
  },
  "ExecutionParameters": [ "string" ],
  "Query": "string",
  "QueryExecutionContext": {
    "Catalog": "string",
    "Database": "string"
  },
  "QueryExecutionId": "string",
  "QueryResultsS3AccessGrantsConfiguration": {
    "AuthenticationType": "string",
    "CreateUserLevelPrefix": boolean,
    "EnableS3AccessGrants": boolean
  },
  "ResultConfiguration": {
    "AclConfiguration": {
      "S3AclOption": "string"
    },
    "EncryptionConfiguration": {
      "EncryptionOption": "string",
      "KmsKey": "string"
    },
    "ExpectedBucketOwner": "string",
    "OutputLocation": "string"
  },
  "ResultReuseConfiguration": {
    "ResultReuseByAgeConfiguration": {
      "Enabled": boolean,
      "MaxAgeInMinutes": number
    }
  },
  "StatementType": "string",
  "Statistics": {
    "DataManifestLocation": "string",
    "DataScannedInBytes": number,
    "EngineExecutionTimeInMillis": number,
    "QueryPlanningTimeInMillis": number,
    "QueryQueueTimeInMillis": number,
    "ResultReuseInformation": {
      "ReusedPreviousResult": boolean
    },
    "ServicePreProcessingTimeInMillis": number,
    "ServiceProcessingTimeInMillis": number,
    "TotalExecutionTimeInMillis": number
  }
}

```

```
    },
    "Status": {
      "AthenaError": {
        "ErrorCategory": number,
        "ErrorMessage": "string",
        "ErrorType": number,
        "Retryable": boolean
      },
      "CompletionDateTime": number,
      "State": "string",
      "StateChangeReason": "string",
      "SubmissionDateTime": number
    },
    "SubstatementType": "string",
    "WorkGroup": "string"
  }
],
"UnprocessedQueryExecutionIds": [
  {
    "ErrorCode": "string",
    "ErrorMessage": "string",
    "QueryExecutionId": "string"
  }
]
}
```

## Response Elements

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

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

### QueryExecutions

Information about a query execution.

Type: Array of [QueryExecution](#) objects

### UnprocessedQueryExecutionIds

Information about the query executions that failed to run.

Type: Array of [UnprocessedQueryExecutionId](#) objects

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# CancelCapacityReservation

Cancels the capacity reservation with the specified name. Cancelled reservations remain in your account and will be deleted 45 days after cancellation. During the 45 days, you cannot re-purpose or reuse a reservation that has been cancelled, but you can refer to its tags and view it for historical reference.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### Name

The name of the capacity reservation to cancel.

Type: String

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

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

Required: Yes

## Response Elements

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

## Errors

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

## InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

## InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# CreateCapacityReservation

Creates a capacity reservation with the specified name and number of requested data processing units.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

### Name

The name of the capacity reservation to create.

Type: String

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

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

Required: Yes

### Tags

The tags for the capacity reservation.

Type: Array of [Tag](#) objects

Required: No

## TargetDpus

The number of requested data processing units.

Type: Integer

Valid Range: Minimum value of 24.

Required: Yes

## Response Elements

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

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)



# CreateDataCatalog

Creates (registers) a data catalog with the specified name and properties. Catalogs created are visible to all users of the same Amazon Web Services account.

For a FEDERATED catalog, this API operation creates the following resources.

- CFN Stack Name with a maximum length of 128 characters and prefix `athenafederatedcatalog-CATALOG_NAME_SANITIZED` with length 23 characters.
- Lambda Function Name with a maximum length of 64 characters and prefix `athenafederatedcatalog_CATALOG_NAME_SANITIZED` with length 23 characters.
- Glue Connection Name with a maximum length of 255 characters and a prefix `athenafederatedcatalog_CATALOG_NAME_SANITIZED` with length 23 characters.

## Request Syntax

```
{
  "Description": "string",
  "Name": "string",
  "Parameters": {
    "string" : "string"
  },
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "Type": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### Description

A description of the data catalog to be created.

Type: String

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

Required: No

## Name

The name of the data catalog to create. The catalog name must be unique for the Amazon Web Services account and can use a maximum of 127 alphanumeric, underscore, at sign, or hyphen characters. The remainder of the length constraint of 256 is reserved for use by Athena.

For FEDERATED type the catalog name has following considerations and limits:

- The catalog name allows special characters such as `_` , `@` , `\` , `-` . These characters are replaced with a hyphen (-) when creating the CFN Stack Name and with an underscore (`_`) when creating the Lambda Function and Glue Connection Name.
- The catalog name has a theoretical limit of 128 characters. However, since we use it to create other resources that allow less characters and we prepend a prefix to it, the actual catalog name limit for FEDERATED catalog is  $64 - 23 = 41$  characters.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Parameters

Specifies the Lambda function or functions to use for creating the data catalog. This is a mapping whose values depend on the catalog type.

- For the HIVE data catalog type, use the following syntax. The `metadata-function` parameter is required. The `sdk-version` parameter is optional and defaults to the currently supported version.

```
metadata-function=lambda_arn, sdk-version=version_number
```

- For the LAMBDA data catalog type, use one of the following sets of required parameters, but not both.
  - If you have one Lambda function that processes metadata and another for reading the actual data, use the following syntax. Both parameters are required.

`metadata-function=lambda_arn, record-function=lambda_arn`

- If you have a composite Lambda function that processes both metadata and data, use the following syntax to specify your Lambda function.

`function=lambda_arn`

- The GLUE type takes a catalog ID parameter and is required. The `catalog_id` is the account ID of the Amazon Web Services account to which the Amazon Glue Data Catalog belongs.

`catalog-id=catalog_id`

- The GLUE data catalog type also applies to the default `AwsDataCatalog` that already exists in your account, of which you can have only one and cannot modify.
- The FEDERATED data catalog type uses one of the following parameters, but not both. Use `connection-arn` for an existing Amazon Glue connection. Use `connection-type` and `connection-properties` to specify the configuration setting for a new connection.
  - `connection-arn`: `<glue_connection_arn_to_reuse>`
  - `lambda-role-arn` (optional): The execution role to use for the Lambda function. If not provided, one is created.
  - `connection-type`: `MYSQL|REDSHIFT|....`, `connection-properties`: `"<json_string>"`

For `<json_string>`, use escaped JSON text, as in the following example.

```
"{"spill_bucket":"my_spill","spill_prefix":"athena-spill","host":"abc12345.snowflakecomputing.com","port":"1234","warehouse":"DEV_WH","database":"TEST","schema":"PUBLIC","SecretArn":"arn:aws:secretsmanager:ap-south-1:111122223333:secret:snowflake-XHb67j"}"
```

Type: String to string map

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

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 51200.

Required: No

## Tags

A list of comma separated tags to add to the data catalog that is created. All the resources that are created by the `CreateDataCatalog` API operation with `FEDERATED` type will have the tag `federated_athena_datacatalog="true"`. This includes the CFN Stack, Glue Connection, Athena DataCatalog, and all the resources created as part of the CFN Stack (Lambda Function, IAM policies/roles).

Type: Array of [Tag](#) objects

Required: No

## Type

The type of data catalog to create: `LAMBDA` for a federated catalog, `GLUE` for an Amazon Glue Data Catalog, and `HIVE` for an external Apache Hive metastore. `FEDERATED` is a federated catalog for which Athena creates the connection and the Lambda function for you based on the parameters that you pass.

For `FEDERATED` type, we do not support IAM identity center.

Type: String

Valid Values: `LAMBDA` | `GLUE` | `HIVE` | `FEDERATED`

Required: Yes

## Response Syntax

```
{
  "DataCatalog": {
    "ConnectionType": "string",
    "Description": "string",
    "Error": "string",
    "Name": "string",
    "Parameters": {
      "string" : "string"
    },
    "Status": "string",
    "Type": "string"
  }
}
```

## Response Elements

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

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

### [DataCatalog](#)

Contains information about a data catalog in an Amazon Web Services account.

#### **Note**

In the Athena console, data catalogs are listed as "data sources" on the **Data sources** page under the **Data source name** column.

Type: [DataCatalog](#) object

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

- [Amazon Command Line Interface](#)

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

# CreateNamedQuery

Creates a named query in the specified workgroup. Requires that you have access to the workgroup.

## Request Syntax

```
{
  "ClientRequestToken": "string",
  "Database": "string",
  "Description": "string",
  "Name": "string",
  "QueryString": "string",
  "WorkGroup": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### ClientRequestToken

A unique case-sensitive string used to ensure the request to create the query is idempotent (executes only once). If another `CreateNamedQuery` request is received, the same response is returned and another query is not created. If a parameter has changed, for example, the `QueryString`, an error is returned.

#### Important

This token is listed as not required because Amazon SDKs (for example the Amazon SDK for Java) auto-generate the token for users. If you are not using the Amazon SDK or the Amazon CLI, you must provide this token or the action will fail.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: No

### **Database**

The database to which the query belongs.

Type: String

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

Required: Yes

### **Description**

The query description.

Type: String

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

Required: No

### **Name**

The query name.

Type: String

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

Required: Yes

### **QueryString**

The contents of the query with all query statements.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 262144.

Required: Yes

### **WorkGroup**

The name of the workgroup in which the named query is being created.

Type: String



Pattern: `[a-zA-Z0-9._-]{1,128}`

Required: No

## Response Syntax

```
{
  "NamedQueryId": "string"
}
```

## Response Elements

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

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

### NamedQueryId

The unique ID of the query.

Type: String

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

Pattern: `\S+`

## Errors

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

### **InternalServerException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# CreateNotebook

Creates an empty `ipynb` file in the specified Apache Spark enabled workgroup. Throws an error if a file in the workgroup with the same name already exists.

## Request Syntax

```
{
  "ClientRequestToken": "string",
  "Name": "string",
  "WorkGroup": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### ClientRequestToken

A unique case-sensitive string used to ensure the request to create the notebook is idempotent (executes only once).

#### Important

This token is listed as not required because Amazon SDKs (for example the Amazon SDK for Java) auto-generate the token for you. If you are not using the Amazon SDK or the Amazon CLI, you must provide this token or the action will fail.

Type: String

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

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

## Name

The name of the `ipynb` file to be created in the Spark workgroup, without the `.ipynb` extension.

Type: String

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

Pattern: `(?!.*[/:\])[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]+`

Required: Yes

## WorkGroup

The name of the Spark enabled workgroup in which the notebook will be created.

Type: String

Pattern: `[a-zA-Z0-9._-]{1,128}`

Required: Yes

## Response Syntax

```
{
  "NotebookId": "string"
}
```

## Response Elements

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

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

### NotebookId

A unique identifier for the notebook.

Type: String

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

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### TooManyRequestsException

Indicates that the request was throttled.

HTTP Status Code: 400

## See Also

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

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

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

# CreatePreparedStatement

Creates a prepared statement for use with SQL queries in Athena.

## Request Syntax

```
{  
  "Description": "string",  
  "QueryStatement": "string",  
  "StatementName": "string",  
  "WorkGroup": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### Description

The description of the prepared statement.

Type: String

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

Required: No

### QueryStatement

The query string for the prepared statement.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 262144.

Required: Yes

### StatementName

The name of the prepared statement.

Type: String

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

Pattern: `[a-zA-Z_][a-zA-Z0-9_@:]{1,256}`

Required: Yes

## WorkGroup

The name of the workgroup to which the prepared statement belongs.

Type: String

Pattern: `[a-zA-Z0-9._-]{1,128}`

Required: Yes

## Response Elements

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

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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



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

# CreatePresignedNotebookUrl

Gets an authentication token and the URL at which the notebook can be accessed. During programmatic access, `CreatePresignedNotebookUrl` must be called every 10 minutes to refresh the authentication token. For information about granting programmatic access, see [Grant programmatic access](#).

## Request Syntax

```
{  
  "SessionId": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### SessionId

The session ID.

Type: String

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

Required: Yes

## Response Syntax

```
{  
  "AuthToken": "string",  
  "AuthTokenExpirationTime": number,  
  "NotebookUrl": "string"  
}
```

## Response Elements

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

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

### AuthToken

The authentication token for the notebook.

Type: String

Length Constraints: Maximum length of 2048.

### AuthTokenExpirationTime

The UTC epoch time when the authentication token expires.

Type: Long

### NotebookUrl

The URL of the notebook. The URL includes the authentication token and notebook file name and points directly to the opened notebook.

Type: String

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **ResourceNotFoundException**

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

# CreateWorkGroup

Creates a workgroup with the specified name. A workgroup can be an Apache Spark enabled workgroup or an Athena SQL workgroup.

## Request Syntax

```
{
  "Configuration": {
    "AdditionalConfiguration": "string",
    "BytesScannedCutoffPerQuery": number,
    "CustomerContentEncryptionConfiguration": {
      "KmsKey": "string"
    },
    "EnableMinimumEncryptionConfiguration": boolean,
    "EnforceWorkGroupConfiguration": boolean,
    "EngineVersion": {
      "EffectiveEngineVersion": "string",
      "SelectedEngineVersion": "string"
    },
    "ExecutionRole": "string",
    "IdentityCenterConfiguration": {
      "EnableIdentityCenter": boolean,
      "IdentityCenterInstanceArn": "string"
    },
    "PublishCloudWatchMetricsEnabled": boolean,
    "QueryResultsS3AccessGrantsConfiguration": {
      "AuthenticationType": "string",
      "CreateUserLevelPrefix": boolean,
      "EnableS3AccessGrants": boolean
    },
    "RequesterPaysEnabled": boolean,
    "ResultConfiguration": {
      "AclConfiguration": {
        "S3AclOption": "string"
      },
      "EncryptionConfiguration": {
        "EncryptionOption": "string",
        "KmsKey": "string"
      },
      "ExpectedBucketOwner": "string",
      "OutputLocation": "string"
    }
  }
}
```

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

## Request Parameters

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

The request accepts the following data in JSON format.

### Configuration

Contains configuration information for creating an Athena SQL workgroup or Spark enabled Athena workgroup. Athena SQL workgroup configuration includes the location in Amazon S3 where query and calculation results are stored, the encryption configuration, if any, used for encrypting query results, whether the Amazon CloudWatch Metrics are enabled for the workgroup, the limit for the amount of bytes scanned (cutoff) per query, if it is specified, and whether workgroup's settings (specified with `EnforceWorkGroupConfiguration`) in the `WorkGroupConfiguration` override client-side settings. See [WorkGroupConfiguration:EnforceWorkGroupConfiguration](#).

Type: [WorkGroupConfiguration](#) object

Required: No

### Description

The workgroup description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

## Name

The workgroup name.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: Yes

## Tags

A list of comma separated tags to add to the workgroup that is created.

Type: Array of [Tag](#) objects

Required: No

## Response Elements

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

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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



# DeleteCapacityReservation

Deletes a cancelled capacity reservation. A reservation must be cancelled before it can be deleted. A deleted reservation is immediately removed from your account and can no longer be referenced, including by its ARN. A deleted reservation cannot be called by `GetCapacityReservation`, and deleted reservations do not appear in the output of `ListCapacityReservations`.

## Request Syntax

```
{  
  "Name": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### Name

The name of the capacity reservation to delete.

Type: String

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

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

Required: Yes

## Response Elements

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

## Errors

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

## InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

## InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# DeleteDataCatalog

Deletes a data catalog.

## Request Syntax

```
{
  "DeleteCatalogOnly": boolean,
  "Name": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [DeleteCatalogOnly](#)

Deletes the Athena Data Catalog. You can only use this with the FEDERATED catalogs. You usually perform this before registering the connector with Glue Data Catalog. After deletion, you will have to manage the Glue Connection and Lambda function.

Type: Boolean

Required: No

### [Name](#)

The name of the data catalog to delete.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Response Syntax

```
{
```

```
"DataCatalog": {
  "ConnectionType": "string",
  "Description": "string",
  "Error": "string",
  "Name": "string",
  "Parameters": {
    "string" : "string"
  },
  "Status": "string",
  "Type": "string"
}
```

## Response Elements

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

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

### [DataCatalog](#)

Contains information about a data catalog in an Amazon Web Services account.

#### Note

In the Athena console, data catalogs are listed as "data sources" on the **Data sources** page under the **Data source name** column.

Type: [DataCatalog](#) object

## Errors

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

### InternalServerError

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

## InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# DeleteNamedQuery

Deletes the named query if you have access to the workgroup in which the query was saved.

## Request Syntax

```
{  
  "NamedQueryId": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### NamedQueryId

The unique ID of the query to delete.

Type: String

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

Pattern: \S+

Required: Yes

## Response Elements

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

## Errors

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

### **InternalServerError**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

## InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# DeleteNotebook

Deletes the specified notebook.

## Request Syntax

```
{  
  "NotebookId": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### NotebookId

The ID of the notebook to delete.

Type: String

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

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: Yes

## Response Elements

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

## Errors

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

### **InternalServerError**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500



## InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## TooManyRequestsException

Indicates that the request was throttled.

HTTP Status Code: 400

## See Also

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

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

# DeletePreparedStatement

Deletes the prepared statement with the specified name from the specified workgroup.

## Request Syntax

```
{  
  "StatementName": "string",  
  "WorkGroup": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### StatementName

The name of the prepared statement to delete.

Type: String

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

Pattern: `[a-zA-Z_][a-zA-Z0-9_@:]{1,256}`

Required: Yes

### WorkGroup

The workgroup to which the statement to be deleted belongs.

Type: String

Pattern: `[a-zA-Z0-9._-]{1,128}`

Required: Yes

## Response Elements

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

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### ResourceNotFoundException

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

# DeleteWorkGroup

Deletes the workgroup with the specified name. The primary workgroup cannot be deleted.

## Request Syntax

```
{
  "RecursiveDeleteOption": boolean,
  "WorkGroup": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [RecursiveDeleteOption](#)

The option to delete the workgroup and its contents even if the workgroup contains any named queries, query executions, or notebooks.

Type: Boolean

Required: No

### [WorkGroup](#)

The unique name of the workgroup to delete.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: Yes

## Response Elements

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

## Errors

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

## InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

## InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# ExportNotebook

Exports the specified notebook and its metadata.

## Request Syntax

```
{
  "NotebookId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### NotebookId

The ID of the notebook to export.

Type: String

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

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: Yes

## Response Syntax

```
{
  "NotebookMetadata": {
    "CreationTime": number,
    "LastModifiedTime": number,
    "Name": "string",
    "NotebookId": "string",
    "Type": "string",
    "WorkGroup": "string"
  },
  "Payload": "string"
}
```

```
}
```

## Response Elements

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

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

### NotebookMetadata

The notebook metadata, including notebook ID, notebook name, and workgroup name.

Type: [NotebookMetadata](#) object

### Payload

The content of the exported notebook.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10485760.

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **TooManyRequestsException**

Indicates that the request was throttled.

HTTP Status Code: 400

## See Also

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

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



# GetCalculationExecution

Describes a previously submitted calculation execution.

## Request Syntax

```
{  
  "CalculationExecutionId": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### CalculationExecutionId

The calculation execution UUID.

Type: String

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

Required: Yes

## Response Syntax

```
{  
  "CalculationExecutionId": "string",  
  "Description": "string",  
  "Result": {  
    "ResultS3Uri": "string",  
    "ResultType": "string",  
    "StdErrorS3Uri": "string",  
    "StdOutS3Uri": "string"  
  },  
  "SessionId": "string",  
  "Statistics": {  
    "DpuExecutionInMillis": number,  
    "Progress": "string"  
  }  
}
```

```
  },
  "Status": {
    "CompletionDateTime": number,
    "State": "string",
    "StateChangeReason": "string",
    "SubmissionDateTime": number
  },
  "WorkingDirectory": "string"
}
```

## Response Elements

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

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

### CalculationExecutionId

The calculation execution UUID.

Type: String

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

### Description

The description of the calculation execution.

Type: String

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

### Result

Contains result information. This field is populated only if the calculation is completed.

Type: [CalculationResult](#) object

### SessionId

The session ID that the calculation ran in.

Type: String

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

## Statistics

Contains information about the data processing unit (DPU) execution time and progress. This field is populated only when statistics are available.

Type: [CalculationStatistics](#) object

## Status

Contains information about the status of the calculation.

Type: [CalculationStatus](#) object

## WorkingDirectory

The Amazon S3 location in which calculation results are stored.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3|S3)://[^(/)]+/?(.*)$`

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **ResourceNotFoundException**

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

# GetCalculationExecutionCode

Retrieves the unencrypted code that was executed for the calculation.

## Request Syntax

```
{  
  "CalculationExecutionId": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### CalculationExecutionId

The calculation execution UUID.

Type: String

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

Required: Yes

## Response Syntax

```
{  
  "CodeBlock": "string"  
}
```

## Response Elements

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

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

### CodeBlock

The unencrypted code that was executed for the calculation.

Type: String

Length Constraints: Maximum length of 68000.

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### ResourceNotFoundException

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

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

# GetCalculationExecutionStatus

Gets the status of a current calculation.

## Request Syntax

```
{  
  "CalculationExecutionId": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### CalculationExecutionId

The calculation execution UUID.

Type: String

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

Required: Yes

## Response Syntax

```
{  
  "Statistics": {  
    "DpuExecutionInMillis": number,  
    "Progress": "string"  
  },  
  "Status": {  
    "CompletionDateTime": number,  
    "State": "string",  
    "StateChangeReason": "string",  
    "SubmissionDateTime": 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.

### Statistics

Contains information about the DPU execution time and progress.

Type: [CalculationStatistics](#) object

### Status

Contains information about the calculation execution status.

Type: [CalculationStatus](#) object

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **ResourceNotFoundException**

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

# GetCapacityAssignmentConfiguration

Gets the capacity assignment configuration for a capacity reservation, if one exists.

## Request Syntax

```
{  
  "CapacityReservationName": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [CapacityReservationName](#)

The name of the capacity reservation to retrieve the capacity assignment configuration for.

Type: String

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

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

Required: Yes

## Response Syntax

```
{  
  "CapacityAssignmentConfiguration": {  
    "CapacityAssignments": [  
      {  
        "WorkGroupNames": [ "string" ]  
      }  
    ],  
    "CapacityReservationName": "string"  
  }  
}
```

## Response Elements

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

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

### CapacityAssignmentConfiguration

The requested capacity assignment configuration for the specified capacity reservation.

Type: [CapacityAssignmentConfiguration](#) object

## Errors

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

### **InternalServerError**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

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

# GetCapacityReservation

Returns information about the capacity reservation with the specified name.

## Request Syntax

```
{
  "Name": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### Name

The name of the capacity reservation.

Type: String

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

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

Required: Yes

## Response Syntax

```
{
  "CapacityReservation": {
    "AllocatedDpus": number,
    "CreationTime": number,
    "LastAllocation": {
      "RequestCompletionTime": number,
      "RequestTime": number,
      "Status": "string",
      "StatusMessage": "string"
    },
    "LastSuccessfulAllocationTime": number,
  },
}
```

```
    "Name": "string",  
    "Status": "string",  
    "TargetDpus": 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.

### CapacityReservation

The requested capacity reservation structure.

Type: [CapacityReservation](#) object

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

- [Amazon Command Line Interface](#)

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



# GetDatabase

Returns a database object for the specified database and data catalog.

## Request Syntax

```
{  
  "CatalogName": "string",  
  "DatabaseName": "string",  
  "WorkGroup": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### CatalogName

The name of the data catalog that contains the database to return.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### DatabaseName

The name of the database to return.

Type: String

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

Required: Yes

### WorkGroup

The name of the workgroup for which the metadata is being fetched. Required if requesting an IAM Identity Center enabled Amazon Glue Data Catalog.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: No

## Response Syntax

```
{
  "Database": {
    "Description": "string",
    "Name": "string",
    "Parameters": {
      "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.

### Database

The database returned.

Type: [Database](#) object

## Errors

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

### **InternalServerError**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

## InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## MetadataException

An exception that Athena received when it called a custom metastore. Occurs if the error is not caused by user input (`InvalidRequestException`) or from the Athena platform (`InternalServerErrorException`). For example, if a user-created Lambda function is missing permissions, the Lambda 4XX exception is returned in a `MetadataException`.

HTTP Status Code: 400

## See Also

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

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

# GetDataCatalog

Returns the specified data catalog.

## Request Syntax

```
{  
  "Name": "string",  
  "WorkGroup": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### Name

The name of the data catalog to return.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### WorkGroup

The name of the workgroup. Required if making an IAM Identity Center request.

Type: String

Pattern: `[a-zA-Z0-9._-]{1,128}`

Required: No

## Response Syntax

```
{
```

```
"DataCatalog": {
  "ConnectionType": "string",
  "Description": "string",
  "Error": "string",
  "Name": "string",
  "Parameters": {
    "string" : "string"
  },
  "Status": "string",
  "Type": "string"
}
```

## Response Elements

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

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

### [DataCatalog](#)

The data catalog returned.

Type: [DataCatalog](#) object

## Errors

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

### **InternalServerError**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# GetNamedQuery

Returns information about a single query. Requires that you have access to the workgroup in which the query was saved.

## Request Syntax

```
{
  "NamedQueryId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [NamedQueryId](#)

The unique ID of the query. Use [ListNamedQueries](#) to get query IDs.

Type: String

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

Pattern: \S+

Required: Yes

## Response Syntax

```
{
  "NamedQuery": {
    "Database": "string",
    "Description": "string",
    "Name": "string",
    "NamedQueryId": "string",
    "QueryString": "string",
    "WorkGroup": "string"
  }
}
```

```
}
```

## Response Elements

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

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

### [NamedQuery](#)

Information about the query.

Type: [NamedQuery](#) object

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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



- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

# GetNotebookMetadata

Retrieves notebook metadata for the specified notebook ID.

## Request Syntax

```
{
  "NotebookId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### NotebookId

The ID of the notebook whose metadata is to be retrieved.

Type: String

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

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: Yes

## Response Syntax

```
{
  "NotebookMetadata": {
    "CreationTime": number,
    "LastModifiedTime": number,
    "Name": "string",
    "NotebookId": "string",
    "Type": "string",
    "WorkGroup": "string"
  }
}
```

## Response Elements

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

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

### NotebookMetadata

The metadata that is returned for the specified notebook ID.

Type: [NotebookMetadata](#) object

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **TooManyRequestsException**

Indicates that the request was throttled.

HTTP Status Code: 400

## See Also

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

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

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

# GetPreparedStatement

Retrieves the prepared statement with the specified name from the specified workgroup.

## Request Syntax

```
{  
  "StatementName": "string",  
  "WorkGroup": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### StatementName

The name of the prepared statement to retrieve.

Type: String

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

Pattern: [a-zA-Z\_][a-zA-Z0-9\_@:]{1,256}

Required: Yes

### WorkGroup

The workgroup to which the statement to be retrieved belongs.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: Yes

## Response Syntax

```
{
```

```
"PreparedStatement": {
  "Description": "string",
  "LastModifiedTime": number,
  "QueryStatement": "string",
  "StatementName": "string",
  "WorkGroupName": "string"
}
```

## Response Elements

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

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

### PreparedStatement

The name of the prepared statement that was retrieved.

Type: [PreparedStatement](#) object

## Errors

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

### **InternalServerError**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **ResourceNotFoundException**

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

# GetQueryExecution

Returns information about a single execution of a query if you have access to the workgroup in which the query ran. Each time a query executes, information about the query execution is saved with a unique ID.

## Request Syntax

```
{
  "QueryExecutionId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### QueryExecutionId

The unique ID of the query execution.

Type: String

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

Pattern: \S+

Required: Yes

## Response Syntax

```
{
  "QueryExecution": {
    "EngineVersion": {
      "EffectiveEngineVersion": "string",
      "SelectedEngineVersion": "string"
    },
    "ExecutionParameters": [ "string" ],
    "Query": "string",
    "QueryExecutionContext": {
      "Catalog": "string",
```



```

    "Database": "string"
  },
  "QueryExecutionId": "string",
  "QueryResultsS3AccessGrantsConfiguration": {
    "AuthenticationType": "string",
    "CreateUserLevelPrefix": boolean,
    "EnableS3AccessGrants": boolean
  },
  "ResultConfiguration": {
    "AclConfiguration": {
      "S3AclOption": "string"
    },
    "EncryptionConfiguration": {
      "EncryptionOption": "string",
      "KmsKey": "string"
    },
    "ExpectedBucketOwner": "string",
    "OutputLocation": "string"
  },
  "ResultReuseConfiguration": {
    "ResultReuseByAgeConfiguration": {
      "Enabled": boolean,
      "MaxAgeInMinutes": number
    }
  },
  "StatementType": "string",
  "Statistics": {
    "DataManifestLocation": "string",
    "DataScannedInBytes": number,
    "EngineExecutionTimeInMillis": number,
    "QueryPlanningTimeInMillis": number,
    "QueryQueueTimeInMillis": number,
    "ResultReuseInformation": {
      "ReusedPreviousResult": boolean
    },
    "ServicePreProcessingTimeInMillis": number,
    "ServiceProcessingTimeInMillis": number,
    "TotalExecutionTimeInMillis": number
  },
  "Status": {
    "AthenaError": {
      "ErrorCategory": number,
      "ErrorMessage": "string",
      "ErrorType": number,

```

```
    "Retryable": boolean
  },
  "CompletionDateTime": number,
  "State": "string",
  "StateChangeReason": "string",
  "SubmissionDateTime": number
},
"SubstatementType": "string",
"WorkGroup": "string"
}
}
```

## Response Elements

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

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

### QueryExecution

Information about the query execution.

Type: [QueryExecution](#) object

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# GetQueryResults

Streams the results of a single query execution specified by `QueryExecutionId` from the Athena query results location in Amazon S3. For more information, see [Working with query results, recent queries, and output files](#) in the *Amazon Athena User Guide*. This request does not execute the query but returns results. Use [StartQueryExecution](#) to run a query.

To stream query results successfully, the IAM principal with permission to call `GetQueryResults` also must have permissions to the Amazon S3 `GetObject` action for the Athena query results location.

## Important

IAM principals with permission to the Amazon S3 `GetObject` action for the query results location are able to retrieve query results from Amazon S3 even if permission to the `GetQueryResults` action is denied. To restrict user or role access, ensure that Amazon S3 permissions to the Athena query location are denied.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "QueryExecutionId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [MaxResults](#)

The maximum number of results (rows) to return in this request.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

Required: No

### QueryExecutionId

The unique ID of the query execution.

Type: String

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

Pattern: \S+

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "ResultSet": {
    "ResultSetMetadata": {
      "ColumnInfo": [
        {
          "CaseSensitive": boolean,
          "CatalogName": "string",
          "Label": "string",
          "Name": "string",
          "Nullable": "string",
          "Precision": number,
          "Scale": number,
          "SchemaName": "string",
          "TableName": "string",
          "Type": "string"
        }
      ]
    }
  }
}
```

```
    }
  ]
},
  "Rows": [
    {
      "Data": [
        {
          "VarCharValue": "string"
        }
      ]
    }
  ]
},
  "UpdateCount": number
}
```

## Response Elements

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

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

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

### ResultSet

The results of the query execution.

Type: [ResultSet](#) object

### UpdateCount

The number of rows inserted with a CREATE TABLE AS SELECT, INSERT INTO, or UPDATE statement.

Type: Long

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### TooManyRequestsException

Indicates that the request was throttled.

HTTP Status Code: 400

## See Also

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

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

# GetQueryRuntimeStatistics

Returns query execution runtime statistics related to a single execution of a query if you have access to the workgroup in which the query ran. Statistics from the `Timeline` section of the response object are available as soon as [QueryExecutionStatus:State](#) is in a `SUCCEEDED` or `FAILED` state. The remaining non-timeline statistics in the response (like stage-level input and output row count and data size) are updated asynchronously and may not be available immediately after a query completes. The non-timeline statistics are also not included when a query has row-level filters defined in Lake Formation.

## Request Syntax

```
{
  "QueryExecutionId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [QueryExecutionId](#)

The unique ID of the query execution.

Type: String

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

Pattern: `\S+`

Required: Yes

## Response Syntax

```
{
  "QueryRuntimeStatistics": {
    "OutputStage": {
      "ExecutionTime": number,
      "InputBytes": number,

```



```

    "InputRows": number,
    "OutputBytes": number,
    "OutputRows": number,
    "QueryStagePlan": {
      "Children": [
        "QueryStagePlanNode"
      ],
      "Identifier": "string",
      "Name": "string",
      "RemoteSources": [ "string" ]
    },
    "StageId": number,
    "State": "string",
    "SubStages": [
      "QueryStage"
    ]
  },
  "Rows": {
    "InputBytes": number,
    "InputRows": number,
    "OutputBytes": number,
    "OutputRows": number
  },
  "Timeline": {
    "EngineExecutionTimeInMillis": number,
    "QueryPlanningTimeInMillis": number,
    "QueryQueueTimeInMillis": number,
    "ServicePreProcessingTimeInMillis": number,
    "ServiceProcessingTimeInMillis": number,
    "TotalExecutionTimeInMillis": 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.

### QueryRuntimeStatistics

Runtime statistics about the query execution.

Type: [QueryRuntimeStatistics](#) object

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# GetSession

Gets the full details of a previously created session, including the session status and configuration.

## Request Syntax

```
{
  "SessionId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### SessionId

The session ID.

Type: String

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

Required: Yes

## Response Syntax

```
{
  "Description": "string",
  "EngineConfiguration": {
    "AdditionalConfigs": {
      "string": "string"
    },
    "CoordinatorDpuSize": number,
    "DefaultExecutorDpuSize": number,
    "MaxConcurrentDpus": number,
    "SparkProperties": {
      "string": "string"
    }
  }
}
```

```
},
"EngineVersion": "string",
"NotebookVersion": "string",
"SessionConfiguration": {
  "EncryptionConfiguration": {
    "EncryptionOption": "string",
    "KmsKey": "string"
  },
  "ExecutionRole": "string",
  "IdleTimeoutSeconds": number,
  "WorkingDirectory": "string"
},
"SessionId": "string",
"Statistics": {
  "DpuExecutionInMillis": number
},
"Status": {
  "EndDateTime": number,
  "IdleSinceDateTime": number,
  "LastModifiedDateTime": number,
  "StartDateTime": number,
  "State": "string",
  "StateChangeReason": "string"
},
"WorkGroup": "string"
}
```

## Response Elements

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

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

### Description

The session description.

Type: String

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

### EngineConfiguration

Contains engine configuration information like DPU usage.

Type: [EngineConfiguration](#) object

### **EngineVersion**

The engine version used by the session (for example, PySpark engine version 3). You can get a list of engine versions by calling [ListEngineVersions](#).

Type: String

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

### **NotebookVersion**

The notebook version.

Type: String

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

### **SessionConfiguration**

Contains the workgroup configuration information used by the session.

Type: [SessionConfiguration](#) object

### **SessionId**

The session ID.

Type: String

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

### **Statistics**

Contains the DPU execution time.

Type: [SessionStatistics](#) object

### **Status**

Contains information about the status of the session.

Type: [SessionStatus](#) object

### **WorkGroup**

The workgroup to which the session belongs.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

## Errors

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

### InternalServerError

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### ResourceNotFoundException

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

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

# GetSessionStatus

Gets the current status of a session.

## Request Syntax

```
{  
  "SessionId": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### SessionId

The session ID.

Type: String

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

Required: Yes

## Response Syntax

```
{  
  "SessionId": "string",  
  "Status": {  
    "EndDateTime": number,  
    "IdleSinceDateTime": number,  
    "LastModifiedDateTime": number,  
    "StartDateTime": number,  
    "State": "string",  
    "StateChangeReason": "string"  
  }  
}
```



## Response Elements

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

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

### SessionId

The session ID.

Type: String

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

### Status

Contains information about the status of the session.

Type: [SessionStatus](#) object

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **ResourceNotFoundException**

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

# GetTableMetadata

Returns table metadata for the specified catalog, database, and table.

## Request Syntax

```
{  
  "CatalogName": "string",  
  "DatabaseName": "string",  
  "TableName": "string",  
  "WorkGroup": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### CatalogName

The name of the data catalog that contains the database and table metadata to return.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### DatabaseName

The name of the database that contains the table metadata to return.

Type: String

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

Required: Yes

### TableName

The name of the table for which metadata is returned.

Type: String

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

Required: Yes

### WorkGroup

The name of the workgroup for which the metadata is being fetched. Required if requesting an IAM Identity Center enabled Amazon Glue Data Catalog.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: No

## Response Syntax

```
{
  "TableMetadata": {
    "Columns": [
      {
        "Comment": "string",
        "Name": "string",
        "Type": "string"
      }
    ],
    "CreateTime": number,
    "LastAccessTime": number,
    "Name": "string",
    "Parameters": {
      "string": "string"
    },
    "PartitionKeys": [
      {
        "Comment": "string",
        "Name": "string",
        "Type": "string"
      }
    ],
    "TableType": "string"
  }
}
```

```
}
```

## Response Elements

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

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

### TableMetadata

An object that contains table metadata.

Type: [TableMetadata](#) object

## Errors

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

### **InternalServerError**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **MetadataException**

An exception that Athena received when it called a custom metastore. Occurs if the error is not caused by user input (`InvalidRequestException`) or from the Athena platform (`InternalServerError`). For example, if a user-created Lambda function is missing permissions, the Lambda 4XX exception is returned in a `MetadataException`.

HTTP Status Code: 400

## See Also

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

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

# GetWorkGroup

Returns information about the workgroup with the specified name.

## Request Syntax

```
{  
  "WorkGroup": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### WorkGroup

The name of the workgroup.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: Yes

## Response Syntax

```
{  
  "WorkGroup": {  
    "Configuration": {  
      "AdditionalConfiguration": "string",  
      "BytesScannedCutoffPerQuery": number,  
      "CustomerContentEncryptionConfiguration": {  
        "KmsKey": "string"  
      },  
      "EnableMinimumEncryptionConfiguration": boolean,  
      "EnforceWorkGroupConfiguration": boolean,  
      "EngineVersion": {  
        "EffectiveEngineVersion": "string",
```

```

    "SelectedEngineVersion": "string"
  },
  "ExecutionRole": "string",
  "IdentityCenterConfiguration": {
    "EnableIdentityCenter": boolean,
    "IdentityCenterInstanceArn": "string"
  },
  "PublishCloudWatchMetricsEnabled": boolean,
  "QueryResultsS3AccessGrantsConfiguration": {
    "AuthenticationType": "string",
    "CreateUserLevelPrefix": boolean,
    "EnableS3AccessGrants": boolean
  },
  "RequesterPaysEnabled": boolean,
  "ResultConfiguration": {
    "AclConfiguration": {
      "S3AclOption": "string"
    },
    "EncryptionConfiguration": {
      "EncryptionOption": "string",
      "KmsKey": "string"
    },
    "ExpectedBucketOwner": "string",
    "OutputLocation": "string"
  }
},
"CreationTime": number,
"Description": "string",
"IdentityCenterApplicationArn": "string",
"Name": "string",
"State": "string"
}
}

```

## Response Elements

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

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

### WorkGroup

Information about the workgroup.



Type: [WorkGroup](#) object

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# ImportNotebook

Imports a single ipynb file to a Spark enabled workgroup. To import the notebook, the request must specify a value for either `Payload` or `NoteBookS3LocationUri`. If neither is specified or both are specified, an `InvalidRequestException` occurs. The maximum file size that can be imported is 10 megabytes. If an ipynb file with the same name already exists in the workgroup, throws an error.

## Request Syntax

```
{
  "ClientRequestToken": "string",
  "Name": "string",
  "NotebookS3LocationUri": "string",
  "Payload": "string",
  "Type": "string",
  "WorkGroup": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [ClientRequestToken](#)

A unique case-sensitive string used to ensure the request to import the notebook is idempotent (executes only once).

#### Important

This token is listed as not required because Amazon SDKs (for example the Amazon SDK for Java) auto-generate the token for you. If you are not using the Amazon SDK or the Amazon CLI, you must provide this token or the action will fail.

Type: String

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

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

### Name

The name of the notebook to import.

Type: String

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

Pattern: `(?!.*[/:\])[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]+`

Required: Yes

### NotebookS3LocationUri

A URI that specifies the Amazon S3 location of a notebook file in ipynb format.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3|S3)://[^(/)]+/?(\.*)$`

Required: No

### Payload

The notebook content to be imported. The payload must be in ipynb format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10485760.

Required: No

### Type

The notebook content type. Currently, the only valid type is IPYNB.

Type: String

Valid Values: IPYNB

Required: Yes

### WorkGroup

The name of the Spark enabled workgroup to import the notebook to.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: Yes

## Response Syntax

```
{  
  "NotebookId": "string"  
}
```

## Response Elements

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

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

### NotebookId

The ID assigned to the imported notebook.

Type: String

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

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

## Errors

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

### **InternalServerError**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **TooManyRequestsException**

Indicates that the request was throttled.

HTTP Status Code: 400

## **See Also**

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

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

# ListApplicationDPUSizes

Returns the supported DPU sizes for the supported application runtimes (for example, Athena notebook version 1).

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [MaxResults](#)

Specifies the maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NextToken](#)

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated.

Type: String

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

Required: No

## Response Syntax

```
{  
  "ApplicationDPUSizes": [  
    ...  
  ]  
}
```

```
{
  "ApplicationRuntimeId": "string",
  "SupportedDPUSizes": [ 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.

### ApplicationDPUSizes

A list of the supported DPU sizes that the application runtime supports.

Type: Array of [ApplicationDPUSizes](#) objects

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## **TooManyRequestsException**

Indicates that the request was throttled.

HTTP Status Code: 400

## **See Also**

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

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



# ListCalculationExecutions

Lists the calculations that have been submitted to a session in descending order. Newer calculations are listed first; older calculations are listed later.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "SessionId": "string",
  "StateFilter": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### MaxResults

The maximum number of calculation executions to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

## SessionId

The session ID.

Type: String

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

Required: Yes

## StateFilter

A filter for a specific calculation execution state. A description of each state follows.

CREATING - The calculation is in the process of being created.

CREATED - The calculation has been created and is ready to run.

QUEUED - The calculation has been queued for processing.

RUNNING - The calculation is running.

CANCELING - A request to cancel the calculation has been received and the system is working to stop it.

CANCELED - The calculation is no longer running as the result of a cancel request.

COMPLETED - The calculation has completed without error.

FAILED - The calculation failed and is no longer running.

Type: String

Valid Values: CREATING | CREATED | QUEUED | RUNNING | CANCELING | CANCELED | COMPLETED | FAILED

Required: No

## Response Syntax

```
{
  "Calculations": [
    {
      "CalculationExecutionId": "string",
```

```
    "Description": "string",
    "Status": {
      "CompletionDateTime": number,
      "State": "string",
      "StateChangeReason": "string",
      "SubmissionDateTime": 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.

### Calculations

A list of [CalculationSummary](#) objects.

Type: Array of [CalculationSummary](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

Length Constraints: Maximum length of 2048.

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **ResourceNotFoundException**

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## **See Also**

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

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

# ListCapacityReservations

Lists the capacity reservations for the current account.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### MaxResults

Specifies the maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated.

Type: String

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

Required: No

## Response Syntax

```
{  
  "CapacityReservations": [  
    ...  
  ]  
}
```

```
{
  "AllocatedDpus": number,
  "CreationTime": number,
  "LastAllocation": {
    "RequestCompletionTime": number,
    "RequestTime": number,
    "Status": "string",
    "StatusMessage": "string"
  },
  "LastSuccessfulAllocationTime": number,
  "Name": "string",
  "Status": "string",
  "TargetDpus": 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.

### CapacityReservations

The capacity reservations for the current account.

Type: Array of [CapacityReservation](#) objects

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

## Errors

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

## InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

## InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# ListDatabases

Lists the databases in the specified data catalog.

## Request Syntax

```
{
  "CatalogName": "string",
  "MaxResults": number,
  "NextToken": "string",
  "WorkGroup": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### CatalogName

The name of the data catalog that contains the databases to return.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### MaxResults

Specifies the maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No



## NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

Required: No

## WorkGroup

The name of the workgroup for which the metadata is being fetched. Required if requesting an IAM Identity Center enabled Amazon Glue Data Catalog.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: No

## Response Syntax

```
{
  "DatabaseList": [
    {
      "Description": "string",
      "Name": "string",
      "Parameters": {
        "string": "string"
      }
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

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

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

### DatabaseList

A list of databases from a data catalog.

Type: Array of [Database](#) objects

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **MetadataException**

An exception that Athena received when it called a custom metastore. Occurs if the error is not caused by user input (`InvalidRequestException`) or from the Athena platform (`InternalServerErrorException`). For example, if a user-created Lambda function is missing permissions, the Lambda 4XX exception is returned in a `MetadataException`.

HTTP Status Code: 400

## See Also

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

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

# ListDataCatalogs

Lists the data catalogs in the current Amazon Web Services account.

## Note

In the Athena console, data catalogs are listed as "data sources" on the **Data sources** page under the **Data source name** column.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "WorkGroup": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### MaxResults

Specifies the maximum number of data catalogs to return.

Type: Integer

Valid Range: Minimum value of 2. Maximum value of 50.

Required: No

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

Required: No

### WorkGroup

The name of the workgroup. Required if making an IAM Identity Center request.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: No

## Response Syntax

```
{
  "DataCatalogsSummary": [
    {
      "CatalogName": "string",
      "ConnectionType": "string",
      "Error": "string",
      "Status": "string",
      "Type": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

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

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

### DataCatalogsSummary

A summary list of data catalogs.

Type: Array of [DataCatalogSummary](#) objects

## NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

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

# ListEngineVersions

Returns a list of engine versions that are available to choose from, including the Auto option.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### MaxResults

The maximum number of engine versions to return in this request.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10.

Required: No

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

Required: No

## Response Syntax

```
{
```



```
"EngineVersions": [  
  {  
    "EffectiveEngineVersion": "string",  
    "SelectedEngineVersion": "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.

### EngineVersions

A list of engine versions that are available to choose from.

Type: Array of [EngineVersion](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

## Errors

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

### **InternalServerError**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

## InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# ListExecutors

Lists, in descending order, the executors that joined a session. Newer executors are listed first; older executors are listed later. The result can be optionally filtered by state.

## Request Syntax

```
{
  "ExecutorStateFilter": "string",
  "MaxResults": number,
  "NextToken": "string",
  "SessionId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### ExecutorStateFilter

A filter for a specific executor state. A description of each state follows.

CREATING - The executor is being started, including acquiring resources.

CREATED - The executor has been started.

REGISTERED - The executor has been registered.

TERMINATING - The executor is in the process of shutting down.

TERMINATED - The executor is no longer running.

FAILED - Due to a failure, the executor is no longer running.

Type: String

Valid Values: CREATING | CREATED | REGISTERED | TERMINATING | TERMINATED | FAILED

Required: No

## MaxResults

The maximum number of executors to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

## NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

Length Constraints: Maximum length of 2048.

Required: No

## SessionId

The session ID.

Type: String

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

Required: Yes

## Response Syntax

```
{
  "ExecutorsSummary": [
    {
      "ExecutorId": "string",
      "ExecutorSize": number,
      "ExecutorState": "string",
      "ExecutorType": "string",
      "StartDateTime": number,
      "TerminationDateTime": number
    }
  ]
}
```

```
    }  
  ],  
  "NextToken": "string",  
  "SessionId": "string"  
}
```

## Response Elements

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

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

### ExecutorsSummary

Contains summary information about the executor.

Type: Array of [ExecutorsSummary](#) objects

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

Length Constraints: Maximum length of 2048.

### SessionId

The session ID.

Type: String

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

## Errors

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

### **InternalServerError**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **ResourceNotFoundException**

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## **See Also**

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

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

# ListNamedQueries

Provides a list of available query IDs only for queries saved in the specified workgroup. Requires that you have access to the specified workgroup. If a workgroup is not specified, lists the saved queries for the primary workgroup.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string",  
  "WorkGroup": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [MaxResults](#)

The maximum number of queries to return in this request.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 50.

Required: No

### [NextToken](#)

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

Required: No

## WorkGroup

The name of the workgroup from which the named queries are being returned. If a workgroup is not specified, the saved queries for the primary workgroup are returned.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: No

## Response Syntax

```
{
  "NamedQueryIds": [ "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.

### NamedQueryIds

The list of unique query IDs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

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

Pattern: \S+

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.



Type: String

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

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# ListNotebookMetadata

Displays the notebook files for the specified workgroup in paginated format.

## Request Syntax

```
{
  "Filters": {
    "Name": "string"
  },
  "MaxResults": number,
  "NextToken": "string",
  "WorkGroup": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### Filters

Search filter string.

Type: [FilterDefinition](#) object

Required: No

### MaxResults

Specifies the maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated.

Type: String

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

Required: No

### WorkGroup

The name of the Spark enabled workgroup to retrieve notebook metadata for.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "NotebookMetadataList": [
    {
      "CreationTime": number,
      "LastModifiedTime": number,
      "Name": "string",
      "NotebookId": "string",
      "Type": "string",
      "WorkGroup": "string"
    }
  ]
}
```

## Response Elements

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 generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

### [NotebookMetadataList](#)

The list of notebook metadata for the specified workgroup.

Type: Array of [NotebookMetadata](#) objects

## Errors

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

### **InternalServerError**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **TooManyRequestsException**

Indicates that the request was throttled.

HTTP Status Code: 400

## See Also

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

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

- [Amazon SDK for Java V2](#)
- [Amazon SDK for JavaScript V3](#)
- [Amazon SDK for Kotlin](#)
- [Amazon SDK for PHP V3](#)
- [Amazon SDK for Python](#)
- [Amazon SDK for Ruby V3](#)

# ListNotebookSessions

Lists, in descending order, the sessions that have been created in a notebook that are in an active state like CREATING, CREATED, IDLE or BUSY. Newer sessions are listed first; older sessions are listed later.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "NotebookId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [MaxResults](#)

The maximum number of notebook sessions to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NextToken](#)

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

Required: No

## NotebookId

The ID of the notebook to list sessions for.

Type: String

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

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "NotebookSessionsList": [
    {
      "CreationTime": number,
      "SessionId": "string"
    }
  ]
}
```

## Response Elements

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 generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the `NextToken` from the response object of the previous page call.

Type: String

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

### NotebookSessionsList

A list of the sessions belonging to the notebook.

Type: Array of [NotebookSessionSummary](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### ResourceNotFoundException

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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



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

# ListPreparedStatements

Lists the prepared statements in the specified workgroup.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string",  
  "WorkGroup": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### MaxResults

The maximum number of results to return in this request.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

Required: No

### WorkGroup

The workgroup to list the prepared statements for.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: Yes

## Response Syntax

```
{
  "NextToken": "string",
  "PreparedStatements": [
    {
      "LastModifiedTime": number,
      "StatementName": "string"
    }
  ]
}
```

## Response Elements

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 generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

### PreparedStatements

The list of prepared statements for the workgroup.

Type: Array of [PreparedStatementSummary](#) objects

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

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# ListQueryExecutions

Provides a list of available query execution IDs for the queries in the specified workgroup. Athena keeps a query history for 45 days. If a workgroup is not specified, returns a list of query execution IDs for the primary workgroup. Requires you to have access to the workgroup in which the queries ran.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "WorkGroup": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [MaxResults](#)

The maximum number of query executions to return in this request.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 50.

Required: No

### [NextToken](#)

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

Required: No

## WorkGroup

The name of the workgroup from which queries are being returned. If a workgroup is not specified, a list of available query execution IDs for the queries in the primary workgroup is returned.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "QueryExecutionIds": [ "string" ]
}
```

## Response Elements

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

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

### NextToken

A token to be used by the next request if this request is truncated.

Type: String

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

### QueryExecutionIds

The unique IDs of each query execution as an array of strings.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

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

Pattern: \S+

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# ListSessions

Lists the sessions in a workgroup that are in an active state like CREATING, CREATED, IDLE, or BUSY. Newer sessions are listed first; older sessions are listed later.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "StateFilter": "string",
  "WorkGroup": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### MaxResults

The maximum number of sessions to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

Length Constraints: Maximum length of 2048.

Required: No



## StateFilter

A filter for a specific session state. A description of each state follows.

CREATING - The session is being started, including acquiring resources.

CREATED - The session has been started.

IDLE - The session is able to accept a calculation.

BUSY - The session is processing another task and is unable to accept a calculation.

TERMINATING - The session is in the process of shutting down.

TERMINATED - The session and its resources are no longer running.

DEGRADED - The session has no healthy coordinators.

FAILED - Due to a failure, the session and its resources are no longer running.

Type: String

Valid Values: CREATING | CREATED | IDLE | BUSY | TERMINATING | TERMINATED | DEGRADED | FAILED

Required: No

## WorkGroup

The workgroup to which the session belongs.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: Yes

## Response Syntax

```
{  
  "NextToken": "string",  
  "Sessions": [  
    ...  
  ]  
}
```

```
{
  "Description": "string",
  "EngineVersion": {
    "EffectiveEngineVersion": "string",
    "SelectedEngineVersion": "string"
  },
  "NotebookVersion": "string",
  "SessionId": "string",
  "Status": {
    "EndDateTime": number,
    "IdleSinceDateTime": number,
    "LastModifiedDateTime": number,
    "StartDateTime": number,
    "State": "string",
    "StateChangeReason": "string"
  }
}
```

## Response Elements

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 generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

Length Constraints: Maximum length of 2048.

### Sessions

A list of sessions.

Type: Array of [SessionSummary](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### ResourceNotFoundException

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

# ListTableMetadata

Lists the metadata for the tables in the specified data catalog database.

## Request Syntax

```
{
  "CatalogName": "string",
  "DatabaseName": "string",
  "Expression": "string",
  "MaxResults": number,
  "NextToken": "string",
  "WorkGroup": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### CatalogName

The name of the data catalog for which table metadata should be returned.

Type: String

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

Pattern: `[\u0020-\u007F\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### DatabaseName

The name of the database for which table metadata should be returned.

Type: String

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

Required: Yes

## Expression

A regex filter that pattern-matches table names. If no expression is supplied, metadata for all tables are listed.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

## MaxResults

Specifies the maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

## NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

Required: No

## WorkGroup

The name of the workgroup for which the metadata is being fetched. Required if requesting an IAM Identity Center enabled Amazon Glue Data Catalog.

Type: String

Pattern: `[a-zA-Z0-9._-]{1,128}`

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "TableMetadataList": [
    {
      "Columns": [
        {
          "Comment": "string",
          "Name": "string",
          "Type": "string"
        }
      ],
      "CreateTime": number,
      "LastAccessTime": number,
      "Name": "string",
      "Parameters": {
        "string" : "string"
      },
      "PartitionKeys": [
        {
          "Comment": "string",
          "Name": "string",
          "Type": "string"
        }
      ],
      "TableType": "string"
    }
  ]
}
```

## Response Elements

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 generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

### [TableMetadataList](#)

A list of table metadata.

Type: Array of [TableMetadata](#) objects

## Errors

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

### InternalServerError

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### MetadataException

An exception that Athena received when it called a custom metastore. Occurs if the error is not caused by user input (`InvalidRequestException`) or from the Athena platform (`InternalServerError`). For example, if a user-created Lambda function is missing permissions, the Lambda 4XX exception is returned in a `MetadataException`.

HTTP Status Code: 400

## See Also

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

- [Amazon Command Line Interface](#)

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



# ListTagsForResource

Lists the tags associated with an Athena resource.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string",
  "ResourceARN": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### MaxResults

The maximum number of results to be returned per request that lists the tags for the resource.

Type: Integer

Valid Range: Minimum value of 75.

Required: No

### NextToken

The token for the next set of results, or null if there are no additional results for this request, where the request lists the tags for the resource with the specified ARN.

Type: String

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

Required: No

### ResourceARN

Lists the tags for the resource with the specified ARN.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

## Response Syntax

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

## Response Elements

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

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

### NextToken

A token to be used by the next request if this request is truncated.

Type: String

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

### Tags

The list of tags associated with the specified resource.

Type: Array of [Tag](#) objects

## Errors

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

## InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

## InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## ResourceNotFoundException

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

# ListWorkGroups

Lists available workgroups for the account.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### MaxResults

The maximum number of workgroups to return in this request.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 50.

Required: No

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

Required: No

## Response Syntax

```
{  
  "NextToken": "string",  
}
```

```
"WorkGroups": [  
  {  
    "CreationTime": number,  
    "Description": "string",  
    "EngineVersion": {  
      "EffectiveEngineVersion": "string",  
      "SelectedEngineVersion": "string"  
    },  
    "IdentityCenterApplicationArn": "string",  
    "Name": "string",  
    "State": "string"  
  }  
]
```

## Response Elements

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 generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

### WorkGroups

A list of [WorkGroupSummary](#) objects that include the names, descriptions, creation times, and states for each workgroup.

Type: Array of [WorkGroupSummary](#) objects

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

## Errors

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

## InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

## InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# PutCapacityAssignmentConfiguration

Puts a new capacity assignment configuration for a specified capacity reservation. If a capacity assignment configuration already exists for the capacity reservation, replaces the existing capacity assignment configuration.

## Request Syntax

```
{
  "CapacityAssignments": [
    {
      "WorkGroupNames": [ "string" ]
    }
  ],
  "CapacityReservationName": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [CapacityAssignments](#)

The list of assignments for the capacity assignment configuration.

Type: Array of [CapacityAssignment](#) objects

Required: Yes

### [CapacityReservationName](#)

The name of the capacity reservation to put a capacity assignment configuration for.

Type: String

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

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

Required: Yes

## Response Elements

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

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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



# StartCalculationExecution

Submits calculations for execution within a session. You can supply the code to run as an inline code block within the request.

## Note

The request syntax requires the [StartCalculationExecution:CodeBlock](#) parameter or the [CalculationConfiguration:CodeBlock](#) parameter, but not both. Because [CalculationConfiguration:CodeBlock](#) is deprecated, use the [StartCalculationExecution:CodeBlock](#) parameter instead.

## Request Syntax

```
{
  "CalculationConfiguration": {
    "CodeBlock": "string"
  },
  "ClientRequestToken": "string",
  "CodeBlock": "string",
  "Description": "string",
  "SessionId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [CalculationConfiguration](#)

*This parameter has been deprecated.*

Contains configuration information for the calculation.

Type: [CalculationConfiguration](#) object

Required: No

## ClientRequestToken

A unique case-sensitive string used to ensure the request to create the calculation is idempotent (executes only once). If another `StartCalculationExecutionRequest` is received, the same response is returned and another calculation is not created. If a parameter has changed, an error is returned.

### **Important**

This token is listed as not required because Amazon SDKs (for example the Amazon SDK for Java) auto-generate the token for users. If you are not using the Amazon SDK or the Amazon CLI, you must provide this token or the action will fail.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: No

## CodeBlock

A string that contains the code of the calculation. Use this parameter instead of [CalculationConfiguration:CodeBlock](#), which is deprecated.

Type: String

Length Constraints: Maximum length of 68000.

Required: No

## Description

A description of the calculation.

Type: String

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

Required: No

## SessionId

The session ID.

Type: String

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

Required: Yes

## Response Syntax

```
{
  "CalculationExecutionId": "string",
  "State": "string"
}
```

## Response Elements

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

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

### CalculationExecutionId

The calculation execution UUID.

Type: String

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

### State

CREATING - The calculation is in the process of being created.

CREATED - The calculation has been created and is ready to run.

QUEUED - The calculation has been queued for processing.

RUNNING - The calculation is running.

CANCELING - A request to cancel the calculation has been received and the system is working to stop it.

CANCELED - The calculation is no longer running as the result of a cancel request.

COMPLETED - The calculation has completed without error.

FAILED - The calculation failed and is no longer running.

Type: String

Valid Values: CREATING | CREATED | QUEUED | RUNNING | CANCELING | CANCELED | COMPLETED | FAILED

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### ResourceNotFoundException

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

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

# StartQueryExecution

Runs the SQL query statements contained in the Query. Requires you to have access to the workgroup in which the query ran. Running queries against an external catalog requires [GetDataCatalog](#) permission to the catalog. For code samples using the Amazon SDK for Java, see [Examples and Code Samples](#) in the *Amazon Athena User Guide*.

## Request Syntax

```
{
  "ClientRequestToken": "string",
  "ExecutionParameters": [ "string" ],
  "QueryExecutionContext": {
    "Catalog": "string",
    "Database": "string"
  },
  "QueryString": "string",
  "ResultConfiguration": {
    "AclConfiguration": {
      "S3AclOption": "string"
    },
    "EncryptionConfiguration": {
      "EncryptionOption": "string",
      "KmsKey": "string"
    },
    "ExpectedBucketOwner": "string",
    "OutputLocation": "string"
  },
  "ResultReuseConfiguration": {
    "ResultReuseByAgeConfiguration": {
      "Enabled": boolean,
      "MaxAgeInMinutes": number
    }
  },
  "WorkGroup": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

## ClientRequestToken

A unique case-sensitive string used to ensure the request to create the query is idempotent (executes only once). If another `StartQueryExecution` request is received, the same response is returned and another query is not created. An error is returned if a parameter, such as `QueryString`, has changed. A call to `StartQueryExecution` that uses a previous client request token returns the same `QueryExecutionId` even if the requester doesn't have permission on the tables specified in `QueryString`.

### **Important**

This token is listed as not required because Amazon SDKs (for example the Amazon SDK for Java) auto-generate the token for users. If you are not using the Amazon SDK or the Amazon CLI, you must provide this token or the action will fail.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: No

## ExecutionParameters

A list of values for the parameters in a query. The values are applied sequentially to the parameters in the query in the order in which the parameters occur.

Type: Array of strings

Array Members: Minimum number of 1 item.

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

Required: No

## QueryExecutionContext

The database within which the query executes.

Type: [QueryExecutionContext](#) object

Required: No

## QueryString

The SQL query statements to be executed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 262144.

Required: Yes

## ResultConfiguration

Specifies information about where and how to save the results of the query execution. If the query runs in a workgroup, then workgroup's settings may override query settings. This affects the query results location. The workgroup settings override is specified in `EnforceWorkGroupConfiguration` (true/false) in the `WorkGroupConfiguration`. See [WorkGroupConfiguration:EnforceWorkGroupConfiguration](#).

Type: [ResultConfiguration](#) object

Required: No

## ResultReuseConfiguration

Specifies the query result reuse behavior for the query.

Type: [ResultReuseConfiguration](#) object

Required: No

## WorkGroup

The name of the workgroup in which the query is being started.

Type: String

Pattern: `[a-zA-Z0-9._-]{1,128}`

Required: No

## Response Syntax

```
{
  "QueryExecutionId": "string"
}
```



## Response Elements

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

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

### QueryExecutionId

The unique ID of the query that ran as a result of this request.

Type: String

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

Pattern: \S+

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **TooManyRequestsException**

Indicates that the request was throttled.

HTTP Status Code: 400

## See Also

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

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

# StartSession

Creates a session for running calculations within a workgroup. The session is ready when it reaches an IDLE state.

## Request Syntax

```
{
  "ClientRequestToken": "string",
  "Description": "string",
  "EngineConfiguration": {
    "AdditionalConfigs": {
      "string" : "string"
    },
    "CoordinatorDpuSize": number,
    "DefaultExecutorDpuSize": number,
    "MaxConcurrentDpus": number,
    "SparkProperties": {
      "string" : "string"
    }
  },
  "NotebookVersion": "string",
  "SessionIdleTimeoutInMinutes": number,
  "WorkGroup": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### ClientRequestToken

A unique case-sensitive string used to ensure the request to create the session is idempotent (executes only once). If another `StartSessionRequest` is received, the same response is returned and another session is not created. If a parameter has changed, an error is returned.

**⚠ Important**

This token is listed as not required because Amazon SDKs (for example the Amazon SDK for Java) auto-generate the token for users. If you are not using the Amazon SDK or the Amazon CLI, you must provide this token or the action will fail.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: No

**Description**

The session description.

Type: String

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

Required: No

**EngineConfiguration**

Contains engine data processing unit (DPU) configuration settings and parameter mappings.

Type: [EngineConfiguration](#) object

Required: Yes

**NotebookVersion**

The notebook version. This value is supplied automatically for notebook sessions in the Athena console and is not required for programmatic session access. The only valid notebook version is Athena notebook version 1. If you specify a value for NotebookVersion, you must also specify a value for NotebookId. See [EngineConfiguration:AdditionalConfigs](#).

Type: String

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

Required: No

### SessionIdleTimeoutInMinutes

The idle timeout in minutes for the session.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 480.

Required: No

### WorkGroup

The workgroup to which the session belongs.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: Yes

## Response Syntax

```
{
  "SessionId": "string",
  "State": "string"
}
```

## Response Elements

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

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

### SessionId

The session ID.

Type: String

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

### State

The state of the session. A description of each state follows.

CREATING - The session is being started, including acquiring resources.

CREATED - The session has been started.

IDLE - The session is able to accept a calculation.

BUSY - The session is processing another task and is unable to accept a calculation.

TERMINATING - The session is in the process of shutting down.

TERMINATED - The session and its resources are no longer running.

DEGRADED - The session has no healthy coordinators.

FAILED - Due to a failure, the session and its resources are no longer running.

Type: String

Valid Values: CREATING | CREATED | IDLE | BUSY | TERMINATING | TERMINATED | DEGRADED | FAILED

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### ResourceNotFoundException

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## SessionAlreadyExistsException

The specified session already exists.

HTTP Status Code: 400

## TooManyRequestsException

Indicates that the request was throttled.

HTTP Status Code: 400

## See Also

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

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

# StopCalculationExecution

Requests the cancellation of a calculation. A `StopCalculationExecution` call on a calculation that is already in a terminal state (for example, `STOPPED`, `FAILED`, or `COMPLETED`) succeeds but has no effect.

## Note

Cancelling a calculation is done on a best effort basis. If a calculation cannot be cancelled, you can be charged for its completion. If you are concerned about being charged for a calculation that cannot be cancelled, consider terminating the session in which the calculation is running.

## Request Syntax

```
{
  "CalculationExecutionId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### CalculationExecutionId

The calculation execution UUID.

Type: String

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

Required: Yes

## Response Syntax

```
{
```



```
"State": "string"  
}
```

## Response Elements

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

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

### State

CREATING - The calculation is in the process of being created.

CREATED - The calculation has been created and is ready to run.

QUEUED - The calculation has been queued for processing.

RUNNING - The calculation is running.

CANCELING - A request to cancel the calculation has been received and the system is working to stop it.

CANCELED - The calculation is no longer running as the result of a cancel request.

COMPLETED - The calculation has completed without error.

FAILED - The calculation failed and is no longer running.

Type: String

Valid Values: CREATING | CREATED | QUEUED | RUNNING | CANCELING | CANCELED | COMPLETED | FAILED

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

## InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## ResourceNotFoundException

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

# StopQueryExecution

Stops a query execution. Requires you to have access to the workgroup in which the query ran.

## Request Syntax

```
{  
  "QueryExecutionId": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [QueryExecutionId](#)

The unique ID of the query execution to stop.

Type: String

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

Pattern: \S+

Required: Yes

## Response Elements

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

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

## InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# TagResource

Adds one or more tags to an Athena resource. A tag is a label that you assign to a resource. Each tag consists of a key and an optional value, both of which you define. For example, you can use tags to categorize Athena workgroups, data catalogs, or capacity reservations by purpose, owner, or environment. Use a consistent set of tag keys to make it easier to search and filter the resources in your account. For best practices, see [Tagging Best Practices](#). Tag keys can be from 1 to 128 UTF-8 Unicode characters, and tag values can be from 0 to 256 UTF-8 Unicode characters. Tags can use letters and numbers representable in UTF-8, and the following characters: + - = . \_ : / @. Tag keys and values are case-sensitive. Tag keys must be unique per resource. If you specify more than one tag, separate them by commas.

## Request Syntax

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

## Request Parameters

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

The request accepts the following data in JSON format.

### [ResourceARN](#)

Specifies the ARN of the Athena resource to which tags are to be added.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

## Tags

A collection of one or more tags, separated by commas, to be added to an Athena resource.

Type: Array of [Tag](#) objects

Required: Yes

## Response Elements

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

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### ResourceNotFoundException

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

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

# TerminateSession

Terminates an active session. A `TerminateSession` call on a session that is already inactive (for example, in a `FAILED`, `TERMINATED` or `TERMINATING` state) succeeds but has no effect. Calculations running in the session when `TerminateSession` is called are forcefully stopped, but may display as `FAILED` instead of `STOPPED`.

## Request Syntax

```
{  
  "SessionId": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### SessionId

The session ID.

Type: String

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

Required: Yes

## Response Syntax

```
{  
  "State": "string"  
}
```

## Response Elements

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



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

## State

The state of the session. A description of each state follows.

CREATING - The session is being started, including acquiring resources.

CREATED - The session has been started.

IDLE - The session is able to accept a calculation.

BUSY - The session is processing another task and is unable to accept a calculation.

TERMINATING - The session is in the process of shutting down.

TERMINATED - The session and its resources are no longer running.

DEGRADED - The session has no healthy coordinators.

FAILED - Due to a failure, the session and its resources are no longer running.

Type: String

Valid Values: CREATING | CREATED | IDLE | BUSY | TERMINATING | TERMINATED | DEGRADED | FAILED

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## ResourceNotFoundException

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

# UntagResource

Removes one or more tags from an Athena resource.

## Request Syntax

```
{  
  "ResourceARN": "string",  
  "TagKeys": [ "string" ]  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### ResourceARN

Specifies the ARN of the resource from which tags are to be removed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

### TagKeys

A comma-separated list of one or more tag keys whose tags are to be removed from the specified resource.

Type: Array of strings

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

Required: Yes

## Response Elements

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

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### ResourceNotFoundException

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

# UpdateCapacityReservation

Updates the number of requested data processing units for the capacity reservation with the specified name.

## Request Syntax

```
{  
  "Name": "string",  
  "TargetDpus": number  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### Name

The name of the capacity reservation.

Type: String

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

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

Required: Yes

### TargetDpus

The new number of requested data processing units.

Type: Integer

Valid Range: Minimum value of 24.

Required: Yes

## Response Elements

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

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# UpdateDataCatalog

Updates the data catalog that has the specified name.

## Request Syntax

```
{
  "Description": "string",
  "Name": "string",
  "Parameters": {
    "string" : "string"
  },
  "Type": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### Description

New or modified text that describes the data catalog.

Type: String

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

Required: No

### Name

The name of the data catalog to update. The catalog name must be unique for the Amazon Web Services account and can use a maximum of 127 alphanumeric, underscore, at sign, or hyphen characters. The remainder of the length constraint of 256 is reserved for use by Athena.

Type: String

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

Pattern: `[\u0020-\u007F\u00E0-\u00FF\uD800-\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

## Parameters

Specifies the Lambda function or functions to use for updating the data catalog. This is a mapping whose values depend on the catalog type.

- For the HIVE data catalog type, use the following syntax. The `metadata-function` parameter is required. The `sdk-version` parameter is optional and defaults to the currently supported version.

```
metadata-function=lambda_arn, sdk-version=version_number
```

- For the LAMBDA data catalog type, use one of the following sets of required parameters, but not both.
  - If you have one Lambda function that processes metadata and another for reading the actual data, use the following syntax. Both parameters are required.

```
metadata-function=lambda_arn, record-function=lambda_arn
```

- If you have a composite Lambda function that processes both metadata and data, use the following syntax to specify your Lambda function.

```
function=lambda_arn
```

Type: String to string map

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

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 51200.

Required: No

## Type

Specifies the type of data catalog to update. Specify LAMBDA for a federated catalog, HIVE for an external hive metastore, or GLUE for an Amazon Glue Data Catalog.

Type: String

Valid Values: LAMBDA | GLUE | HIVE | FEDERATED

Required: Yes



## Response Elements

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

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# UpdateNamedQuery

Updates a [NamedQuery](#) object. The database or workgroup cannot be updated.

## Request Syntax

```
{  
  "Description": "string",  
  "Name": "string",  
  "NamedQueryId": "string",  
  "QueryString": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### Description

The query description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

### Name

The name of the query.

Type: String

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

Required: Yes

### NamedQueryId

The unique identifier (UUID) of the query.

Type: String

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

Pattern: \S+

Required: Yes

### QueryString

The contents of the query with all query statements.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 262144.

Required: Yes

## Response Elements

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

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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

# UpdateNotebook

Updates the contents of a Spark notebook.

## Request Syntax

```
{
  "ClientRequestToken": "string",
  "NotebookId": "string",
  "Payload": "string",
  "SessionId": "string",
  "Type": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### ClientRequestToken

A unique case-sensitive string used to ensure the request to create the notebook is idempotent (executes only once).

#### Important

This token is listed as not required because Amazon SDKs (for example the Amazon SDK for Java) auto-generate the token for you. If you are not using the Amazon SDK or the Amazon CLI, you must provide this token or the action will fail.

Type: String

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

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: No

## NotebookId

The ID of the notebook to update.

Type: String

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

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

## Payload

The updated content for the notebook.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10485760.

Required: Yes

## SessionId

The active notebook session ID. Required if the notebook has an active session.

Type: String

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

Required: No

## Type

The notebook content type. Currently, the only valid type is IPYNB.

Type: String

Valid Values: IPYNB

Required: Yes

## Response Elements

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

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### TooManyRequestsException

Indicates that the request was throttled.

HTTP Status Code: 400

## See Also

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

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

# UpdateNotebookMetadata

Updates the metadata for a notebook.

## Request Syntax

```
{
  "ClientRequestToken": "string",
  "Name": "string",
  "NotebookId": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### [ClientRequestToken](#)

A unique case-sensitive string used to ensure the request to create the notebook is idempotent (executes only once).

#### Important

This token is listed as not required because Amazon SDKs (for example the Amazon SDK for Java) auto-generate the token for you. If you are not using the Amazon SDK or the Amazon CLI, you must provide this token or the action will fail.

Type: String

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

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

### [Name](#)

The name to update the notebook to.



Type: String

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

Pattern: (?!. \*[/:\])[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]+

Required: Yes

### NotebookId

The ID of the notebook to update the metadata for.

Type: String

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

Pattern: [a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}

Required: Yes

## Response Elements

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

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **TooManyRequestsException**

Indicates that the request was throttled.

HTTP Status Code: 400

## See Also

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

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

# UpdatePreparedStatement

Updates a prepared statement.

## Request Syntax

```
{  
  "Description": "string",  
  "QueryStatement": "string",  
  "StatementName": "string",  
  "WorkGroup": "string"  
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### Description

The description of the prepared statement.

Type: String

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

Required: No

### QueryStatement

The query string for the prepared statement.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 262144.

Required: Yes

### StatementName

The name of the prepared statement.

Type: String

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

Pattern: `[a-zA-Z_][a-zA-Z0-9_@:]{1,256}`

Required: Yes

### WorkGroup

The workgroup for the prepared statement.

Type: String

Pattern: `[a-zA-Z0-9._-]{1,128}`

Required: Yes

## Response Elements

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

## Errors

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

### **InternalServerErrorException**

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### **InvalidRequestException**

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

### **ResourceNotFoundException**

A resource, such as a workgroup, was not found.

HTTP Status Code: 400

## See Also

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

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

# UpdateWorkGroup

Updates the workgroup with the specified name. The workgroup's name cannot be changed. Only ConfigurationUpdates can be specified.

## Request Syntax

```
{
  "ConfigurationUpdates": {
    "AdditionalConfiguration": "string",
    "BytesScannedCutoffPerQuery": number,
    "CustomerContentEncryptionConfiguration": {
      "KmsKey": "string"
    },
    "EnableMinimumEncryptionConfiguration": boolean,
    "EnforceWorkGroupConfiguration": boolean,
    "EngineVersion": {
      "EffectiveEngineVersion": "string",
      "SelectedEngineVersion": "string"
    },
    "ExecutionRole": "string",
    "PublishCloudWatchMetricsEnabled": boolean,
    "QueryResultsS3AccessGrantsConfiguration": {
      "AuthenticationType": "string",
      "CreateUserLevelPrefix": boolean,
      "EnableS3AccessGrants": boolean
    },
    "RemoveBytesScannedCutoffPerQuery": boolean,
    "RemoveCustomerContentEncryptionConfiguration": boolean,
    "RequesterPaysEnabled": boolean,
    "ResultConfigurationUpdates": {
      "AclConfiguration": {
        "S3AclOption": "string"
      },
      "EncryptionConfiguration": {
        "EncryptionOption": "string",
        "KmsKey": "string"
      },
      "ExpectedBucketOwner": "string",
      "OutputLocation": "string",
      "RemoveAclConfiguration": boolean,
      "RemoveEncryptionConfiguration": boolean,
      "RemoveExpectedBucketOwner": boolean,

```

```
    "RemoveOutputLocation": boolean
  }
},
"Description": "string",
"State": "string",
"WorkGroup": "string"
}
```

## Request Parameters

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

The request accepts the following data in JSON format.

### ConfigurationUpdates

Contains configuration updates for an Athena SQL workgroup.

Type: [WorkGroupConfigurationUpdates](#) object

Required: No

### Description

The workgroup description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

### State

The workgroup state that will be updated for the given workgroup.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

### WorkGroup

The specified workgroup that will be updated.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: Yes

## Response Elements

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

## Errors

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

### InternalServerErrorException

Indicates a platform issue, which may be due to a transient condition or outage.

HTTP Status Code: 500

### InvalidRequestException

Indicates that something is wrong with the input to the request. For example, a required parameter may be missing or out of range.

HTTP Status Code: 400

## See Also

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

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



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

# Data Types

The Amazon Athena API contains several data types that various actions use. This section describes each data type in detail.

## Note

The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- [AclConfiguration](#)
- [ApplicationDPUSizes](#)
- [AthenaError](#)
- [BatchGetNamedQueryInput](#)
- [BatchGetQueryExecutionInput](#)
- [CalculationConfiguration](#)
- [CalculationResult](#)
- [CalculationStatistics](#)
- [CalculationStatus](#)
- [CalculationSummary](#)
- [CapacityAllocation](#)
- [CapacityAssignment](#)
- [CapacityAssignmentConfiguration](#)
- [CapacityReservation](#)
- [Column](#)
- [ColumnInfo](#)
- [CustomerContentEncryptionConfiguration](#)
- [Database](#)
- [DataCatalog](#)
- [DataCatalogSummary](#)

- [Datum](#)
- [EncryptionConfiguration](#)
- [EngineConfiguration](#)
- [EngineVersion](#)
- [ExecutorsSummary](#)
- [FilterDefinition](#)
- [IdentityCenterConfiguration](#)
- [ListNamedQueriesInput](#)
- [ListQueryExecutionsInput](#)
- [NamedQuery](#)
- [NotebookMetadata](#)
- [NotebookSessionSummary](#)
- [PreparedStatement](#)
- [PreparedStatementSummary](#)
- [QueryExecution](#)
- [QueryExecutionContext](#)
- [QueryExecutionStatistics](#)
- [QueryExecutionStatus](#)
- [QueryResultsS3AccessGrantsConfiguration](#)
- [QueryRuntimeStatistics](#)
- [QueryRuntimeStatisticsRows](#)
- [QueryRuntimeStatisticsTimeline](#)
- [QueryStage](#)
- [QueryStagePlanNode](#)
- [ResultConfiguration](#)
- [ResultConfigurationUpdates](#)
- [ResultReuseByAgeConfiguration](#)
- [ResultReuseConfiguration](#)
- [ResultReuseInformation](#)
- [ResultSet](#)

- [ResultSetMetadata](#)
- [Row](#)
- [SessionConfiguration](#)
- [SessionStatistics](#)
- [SessionStatus](#)
- [SessionSummary](#)
- [TableMetadata](#)
- [Tag](#)
- [UnprocessedNamedQueryId](#)
- [UnprocessedPreparedStatementName](#)
- [UnprocessedQueryExecutionId](#)
- [WorkGroup](#)
- [WorkGroupConfiguration](#)
- [WorkGroupConfigurationUpdates](#)
- [WorkGroupSummary](#)

# AclConfiguration

Indicates that an Amazon S3 canned ACL should be set to control ownership of stored query results, including data files inserted by Athena as the result of statements like CTAS or INSERT INTO. When Athena stores query results in Amazon S3, the canned ACL is set with the `x-amz-acl` request header. For more information about S3 Object Ownership, see [Object Ownership settings](#) in the *Amazon S3 User Guide*.

## Contents

### S3AclOption

The Amazon S3 canned ACL that Athena should specify when storing query results, including data files inserted by Athena as the result of statements like CTAS or INSERT INTO. Currently the only supported canned ACL is `BUCKET_OWNER_FULL_CONTROL`. If a query runs in a workgroup and the workgroup overrides client-side settings, then the Amazon S3 canned ACL specified in the workgroup's settings is used for all queries that run in the workgroup. For more information about Amazon S3 canned ACLs, see [Canned ACL](#) in the *Amazon S3 User Guide*.

Type: String

Valid Values: `BUCKET_OWNER_FULL_CONTROL`

Required: Yes

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# ApplicationDPUSizes

Contains the application runtime IDs and their supported DPU sizes.

## Contents

### ApplicationRuntimeId

The name of the supported application runtime (for example, Athena notebook version 1).

Type: String

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

Required: No

### SupportedDPUSizes

A list of the supported DPU sizes that the application runtime supports.

Type: Array of integers

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# AthenaError

Provides information about an Athena query error. The `AthenaError` feature provides standardized error information to help you understand failed queries and take steps after a query failure occurs. `AthenaError` includes an `ErrorCategory` field that specifies whether the cause of the failed query is due to system error, user error, or other error.

## Contents

### ErrorCategory

An integer value that specifies the category of a query failure error. The following list shows the category for each integer value.

1 - System

2 - User

3 - Other

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 3.

Required: No

### ErrorMessage

Contains a short description of the error that occurred.

Type: String

Required: No

### ErrorType

An integer value that provides specific information about an Athena query error. For the meaning of specific values, see the [Error Type Reference](#) in the *Amazon Athena User Guide*.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 9999.

Required: No

## Retryable

True if the query might succeed if resubmitted.

Type: Boolean

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)



# BatchGetNamedQueryInput

Contains an array of named query IDs.

## Contents

### NamedQueryIds

An array of query IDs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

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

Pattern: \S+

Required: Yes

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# BatchGetQueryExecutionInput

Contains an array of query execution IDs.

## Contents

### QueryExecutionIds

An array of query execution IDs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

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

Pattern: \S+

Required: Yes

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# CalculationConfiguration

Contains configuration information for the calculation.

## Contents

### CodeBlock

A string that contains the code for the calculation.

Type: String

Length Constraints: Maximum length of 68000.

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# CalculationResult

Contains information about an application-specific calculation result.

## Contents

### ResultS3Uri

The Amazon S3 location of the folder for the calculation results.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3|S3)://([^\s]+)?/?(.*)$`

Required: No

### ResultType

The data format of the calculation result.

Type: String

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

Pattern: `\w+\[/[-+.\w]+\`

Required: No

### StdErrorS3Uri

The Amazon S3 location of the `stderr` error messages file for the calculation.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3|S3)://([^\s]+)?/?(.*)$`

Required: No

### StdOutS3Uri

The Amazon S3 location of the `stdout` file for the calculation.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3|S3)://[^(/)]+/?(.*)$`

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# CalculationStatistics

Contains statistics for a notebook calculation.

## Contents

### DpuExecutionInMillis

The data processing unit execution time in milliseconds for the calculation.

Type: Long

Required: No

### Progress

The progress of the calculation.

Type: String

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

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# CalculationStatus

Contains information about the status of a notebook calculation.

## Contents

### CompletionDateTime

The date and time the calculation completed processing.

Type: Timestamp

Required: No

### State

The state of the calculation execution. A description of each state follows.

CREATING - The calculation is in the process of being created.

CREATED - The calculation has been created and is ready to run.

QUEUED - The calculation has been queued for processing.

RUNNING - The calculation is running.

CANCELING - A request to cancel the calculation has been received and the system is working to stop it.

CANCELED - The calculation is no longer running as the result of a cancel request.

COMPLETED - The calculation has completed without error.

FAILED - The calculation failed and is no longer running.

Type: String

Valid Values: CREATING | CREATED | QUEUED | RUNNING | CANCELING | CANCELED | COMPLETED | FAILED

Required: No

## StateChangeReason

The reason for the calculation state change (for example, the calculation was canceled because the session was terminated).

Type: String

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

Required: No

## SubmissionDateTime

The date and time the calculation was submitted for processing.

Type: Timestamp

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)



# CalculationSummary

Summary information for a notebook calculation.

## Contents

### CalculationExecutionId

The calculation execution UUID.

Type: String

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

Required: No

### Description

A description of the calculation.

Type: String

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

Required: No

### Status

Contains information about the status of the calculation.

Type: [CalculationStatus](#) object

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)



# CapacityAllocation

Contains the submission time of a single allocation request for a capacity reservation and the most recent status of the attempted allocation.

## Contents

### RequestTime

The time when the capacity allocation was requested.

Type: Timestamp

Required: Yes

### Status

The status of the capacity allocation.

Type: String

Valid Values: PENDING | SUCCEEDED | FAILED

Required: Yes

### RequestCompletionTime

The time when the capacity allocation request was completed.

Type: Timestamp

Required: No

### StatusMessage

The status message of the capacity allocation.

Type: String

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# CapacityAssignment

A mapping between one or more workgroups and a capacity reservation.

## Contents

### WorkGroupNames

The list of workgroup names for the capacity assignment.

Type: Array of strings

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# CapacityAssignmentConfiguration

Assigns Athena workgroups (and hence their queries) to capacity reservations. A capacity reservation can have only one capacity assignment configuration, but the capacity assignment configuration can be made up of multiple individual assignments. Each assignment specifies how Athena queries can consume capacity from the capacity reservation that their workgroup is mapped to.

## Contents

### CapacityAssignments

The list of assignments that make up the capacity assignment configuration.

Type: Array of [CapacityAssignment](#) objects

Required: No

### CapacityReservationName

The name of the reservation that the capacity assignment configuration is for.

Type: String

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

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

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# CapacityReservation

A reservation for a specified number of data processing units (DPUs). When a reservation is initially created, it has no DPUs. Athena allocates DPUs until the allocated amount equals the requested amount.

## Contents

### AllocatedDpus

The number of data processing units currently allocated.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

### CreationTime

The time in UTC epoch millis when the capacity reservation was created.

Type: Timestamp

Required: Yes

### Name

The name of the capacity reservation.

Type: String

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

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

Required: Yes

### Status

The status of the capacity reservation.

Type: String

Valid Values: PENDING | ACTIVE | CANCELLING | CANCELLED | FAILED | UPDATE\_PENDING

Required: Yes

### TargetDpus

The number of data processing units requested.

Type: Integer

Valid Range: Minimum value of 24.

Required: Yes

### LastAllocation

Contains the submission time of a single allocation request for a capacity reservation and the most recent status of the attempted allocation.

Type: [CapacityAllocation](#) object

Required: No

### LastSuccessfulAllocationTime

The time of the most recent capacity allocation that succeeded.

Type: Timestamp

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)



# Column

Contains metadata for a column in a table.

## Contents

### Name

The name of the column.

Type: String

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

Required: Yes

### Comment

Optional information about the column.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Type

The data type of the column.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 4096.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# ColumnInfo

Information about the columns in a query execution result.

## Contents

### Name

The name of the column.

Type: String

Required: Yes

### Type

The data type of the column.

Type: String

Required: Yes

### CaseSensitive

Indicates whether values in the column are case-sensitive.

Type: Boolean

Required: No

### CatalogName

The catalog to which the query results belong.

Type: String

Required: No

### Label

A column label.

Type: String

Required: No

### **Nullable**

Unsupported constraint. This value always shows as UNKNOWN.

Type: String

Valid Values: NOT\_NULL | NULLABLE | UNKNOWN

Required: No

### **Precision**

For DECIMAL data types, specifies the total number of digits, up to 38. For performance reasons, we recommend up to 18 digits.

Type: Integer

Required: No

### **Scale**

For DECIMAL data types, specifies the total number of digits in the fractional part of the value. Defaults to 0.

Type: Integer

Required: No

### **SchemaName**

The schema name (database name) to which the query results belong.

Type: String

Required: No

### **TableName**

The table name for the query results.

Type: String

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# CustomerContentEncryptionConfiguration

Specifies the customer managed KMS key that is used to encrypt the user's data stores in Athena. When an Amazon managed key is used, this value is null. This setting does not apply to Athena SQL workgroups.

## Contents

### KmsKey

The customer managed KMS key that is used to encrypt the user's data stores in Athena.

Type: String

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

Pattern: `^arn:aws[a-z\-*]:kms:([a-z0-9\-*]+):\d{12}:key/?[a-zA-Z_0-9+=,.\@-\_/_]+$|^arn:aws[a-z\-*]:kms:([a-z0-9\-*]+):\d{12}:alias/?[a-zA-Z_0-9+=,.\@-\_/_]+$|^alias/[a-zA-Z0-9/_-]+$|[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# Database

Contains metadata information for a database in a data catalog.

## Contents

### Name

The name of the database.

Type: String

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

Required: Yes

### Description

An optional description of the database.

Type: String

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

Required: No

### Parameters

A set of custom key/value pairs.

Type: String to string map

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

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 51200.

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)



# DataCatalog

Contains information about a data catalog in an Amazon Web Services account.

## Note

In the Athena console, data catalogs are listed as "data sources" on the **Data sources** page under the **Data source name** column.

## Contents

### Name

The name of the data catalog. The catalog name must be unique for the Amazon Web Services account and can use a maximum of 127 alphanumeric, underscore, at sign, or hyphen characters. The remainder of the length constraint of 256 is reserved for use by Athena.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: Yes

### Type

The type of data catalog to create: LAMBDA for a federated catalog, GLUE for an Amazon Glue Data Catalog, and HIVE for an external Apache Hive metastore. FEDERATED is a federated catalog for which Athena creates the connection and the Lambda function for you based on the parameters that you pass.

Type: String

Valid Values: LAMBDA | GLUE | HIVE | FEDERATED

Required: Yes

## ConnectionType

The type of connection for a FEDERATED data catalog (for example, REDSHIFT, MYSQL, or SQLSERVER). For information about individual connectors, see [Available data source connectors](#).

Type: String

Valid Values: DYNAMODB | MYSQL | POSTGRESQL | REDSHIFT | ORACLE | SYNAPSE | SQLSERVER | DB2 | OPENSEARCH | BIGQUERY | GOOGLECLOUDSTORAGE | HBASE | DOCUMENTDB | CMDB | TPCDS | TIMESTREAM | SAPHANA | SNOWFLAKE | DATAKEGEN2 | DB2AS400

Required: No

## Description

An optional description of the data catalog.

Type: String

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

Required: No

## Error

Text of the error that occurred during data catalog creation or deletion.

Type: String

Required: No

## Parameters

Specifies the Lambda function or functions to use for the data catalog. This is a mapping whose values depend on the catalog type.

- For the HIVE data catalog type, use the following syntax. The `metadata-function` parameter is required. The `sdk-version` parameter is optional and defaults to the currently supported version.

`metadata-function=lambda_arn, sdk-version=version_number`

- For the LAMBDA data catalog type, use one of the following sets of required parameters, but not both.

- If you have one Lambda function that processes metadata and another for reading the actual data, use the following syntax. Both parameters are required.

```
metadata-function=lambda_arn, record-function=lambda_arn
```

- If you have a composite Lambda function that processes both metadata and data, use the following syntax to specify your Lambda function.

```
function=lambda_arn
```

- The GLUE type takes a catalog ID parameter and is required. The *catalog\_id* is the account ID of the Amazon Web Services account to which the Amazon Glue catalog belongs.

```
catalog-id=catalog_id
```

- The GLUE data catalog type also applies to the default `AwsDataCatalog` that already exists in your account, of which you can have only one and cannot modify.
- The FEDERATED data catalog type uses one of the following parameters, but not both. Use `connection-arn` for an existing Amazon Glue connection. Use `connection-type` and `connection-properties` to specify the configuration setting for a new connection.
  - `connection-arn`: `<glue_connection_arn_to_reuse>`
  - `connection-type`: `MYSQL|REDSHIFT|....`, `connection-properties`: `"<json_string>"`

For `<json_string>`, use escaped JSON text, as in the following example.

```
"{"spill_bucket\":"my_spill","\spill_prefix\":"athena-spill","\host\":"abc12345.snowflakecomputing.com","\port\":"1234","\warehouse\":"DEV_WH","\database\":"TEST","\schema\":"PUBLIC","\SecretArn\":"arn:aws:secretsmanager:ap-south-1:111122223333:secret:snowflake-XHb67j\"}"
```

Type: String to string map

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

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 51200.

Required: No

## Status

The status of the creation or deletion of the data catalog.

- The LAMBDA, GLUE, and HIVE data catalog types are created synchronously. Their status is either `CREATE_COMPLETE` or `CREATE_FAILED`.
- The FEDERATED data catalog type is created asynchronously.

Data catalog creation status:

- `CREATE_IN_PROGRESS`: Federated data catalog creation in progress.
- `CREATE_COMPLETE`: Data catalog creation complete.
- `CREATE_FAILED`: Data catalog could not be created.
- `CREATE_FAILED_CLEANUP_IN_PROGRESS`: Federated data catalog creation failed and is being removed.
- `CREATE_FAILED_CLEANUP_COMPLETE`: Federated data catalog creation failed and was removed.
- `CREATE_FAILED_CLEANUP_FAILED`: Federated data catalog creation failed but could not be removed.

Data catalog deletion status:

- `DELETE_IN_PROGRESS`: Federated data catalog deletion in progress.
- `DELETE_COMPLETE`: Federated data catalog deleted.
- `DELETE_FAILED`: Federated data catalog could not be deleted.

Type: String

Valid Values: `CREATE_IN_PROGRESS` | `CREATE_COMPLETE` | `CREATE_FAILED` | `CREATE_FAILED_CLEANUP_IN_PROGRESS` | `CREATE_FAILED_CLEANUP_COMPLETE` | `CREATE_FAILED_CLEANUP_FAILED` | `DELETE_IN_PROGRESS` | `DELETE_COMPLETE` | `DELETE_FAILED`

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# DataCatalogSummary

The summary information for the data catalog, which includes its name and type.

## Contents

### CatalogName

The name of the data catalog. The catalog name is unique for the Amazon Web Services account and can use a maximum of 127 alphanumeric, underscore, at sign, or hyphen characters. The remainder of the length constraint of 256 is reserved for use by Athena.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### ConnectionType

The type of connection for a FEDERATED data catalog (for example, REDSHIFT, MYSQL, or SQLSERVER). For information about individual connectors, see [Available data source connectors](#).

Type: String

Valid Values: DYNAMODB | MYSQL | POSTGRESQL | REDSHIFT | ORACLE | SYNAPSE | SQLSERVER | DB2 | OPENSEARCH | BIGQUERY | GOOGLECLOUDSTORAGE | HBASE | DOCUMENTDB | CMDB | TPCDS | TIMESTREAM | SAPHANA | SNOWFLAKE | DATALAKEGEN2 | DB2AS400

Required: No

### Error

Text of the error that occurred during data catalog creation or deletion.

Type: String

Required: No

## Status

The status of the creation or deletion of the data catalog.

- The LAMBDA, GLUE, and HIVE data catalog types are created synchronously. Their status is either `CREATE_COMPLETE` or `CREATE_FAILED`.
- The FEDERATED data catalog type is created asynchronously.

Data catalog creation status:

- `CREATE_IN_PROGRESS`: Federated data catalog creation in progress.
- `CREATE_COMPLETE`: Data catalog creation complete.
- `CREATE_FAILED`: Data catalog could not be created.
- `CREATE_FAILED_CLEANUP_IN_PROGRESS`: Federated data catalog creation failed and is being removed.
- `CREATE_FAILED_CLEANUP_COMPLETE`: Federated data catalog creation failed and was removed.
- `CREATE_FAILED_CLEANUP_FAILED`: Federated data catalog creation failed but could not be removed.

Data catalog deletion status:

- `DELETE_IN_PROGRESS`: Federated data catalog deletion in progress.
- `DELETE_COMPLETE`: Federated data catalog deleted.
- `DELETE_FAILED`: Federated data catalog could not be deleted.

Type: String

Valid Values: `CREATE_IN_PROGRESS` | `CREATE_COMPLETE` | `CREATE_FAILED` | `CREATE_FAILED_CLEANUP_IN_PROGRESS` | `CREATE_FAILED_CLEANUP_COMPLETE` | `CREATE_FAILED_CLEANUP_FAILED` | `DELETE_IN_PROGRESS` | `DELETE_COMPLETE` | `DELETE_FAILED`

Required: No

## Type

The data catalog type.

Type: String

Valid Values: LAMBDA | GLUE | HIVE | FEDERATED

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)



# Datum

A piece of data (a field in the table).

## Contents

### VarCharValue

The value of the datum.

Type: String

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# EncryptionConfiguration

If query and calculation results are encrypted in Amazon S3, indicates the encryption option used (for example, SSE\_KMS or CSE\_KMS) and key information.

## Contents

### EncryptionOption

Indicates whether Amazon S3 server-side encryption with Amazon S3-managed keys (SSE\_S3), server-side encryption with KMS-managed keys (SSE\_KMS), or client-side encryption with KMS-managed keys (CSE\_KMS) is used.

If a query runs in a workgroup and the workgroup overrides client-side settings, then the workgroup's setting for encryption is used. It specifies whether query results must be encrypted, for all queries that run in this workgroup.

Type: String

Valid Values: SSE\_S3 | SSE\_KMS | CSE\_KMS

Required: Yes

### KmsKey

For SSE\_KMS and CSE\_KMS, this is the KMS key ARN or ID.

Type: String

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# EngineConfiguration

Contains data processing unit (DPU) configuration settings and parameter mappings for a notebook engine.

## Contents

### MaxConcurrentDpus

The maximum number of DPUs that can run concurrently.

Type: Integer

Valid Range: Minimum value of 2. Maximum value of 5000.

Required: Yes

### AdditionalConfigs

Contains additional notebook engine MAP<string, string> parameter mappings in the form of key-value pairs. To specify an Athena notebook that the Jupyter server will download and serve, specify a value for the [StartSession:NotebookVersion](#) field, and then add a key named NotebookId to AdditionalConfigs that has the value of the Athena notebook ID.

Type: String to string map

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

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 51200.

Required: No

### CoordinatorDpuSize

The number of DPUs to use for the coordinator. A coordinator is a special executor that orchestrates processing work and manages other executors in a notebook session. The default is 1.

Type: Integer

Valid Range: Fixed value of 1.

Required: No

### **DefaultExecutorDpuSize**

The default number of DPUs to use for executors. An executor is the smallest unit of compute that a notebook session can request from Athena. The default is 1.

Type: Integer

Valid Range: Fixed value of 1.

Required: No

### **SparkProperties**

Specifies custom jar files and Spark properties for use cases like cluster encryption, table formats, and general Spark tuning.

Type: String to string map

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

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 51200.

Required: No

## **See Also**

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# EngineVersion

The Athena engine version for running queries, or the PySpark engine version for running sessions.

## Contents

### EffectiveEngineVersion

Read only. The engine version on which the query runs. If the user requests a valid engine version other than Auto, the effective engine version is the same as the engine version that the user requested. If the user requests Auto, the effective engine version is chosen by Athena. When a request to update the engine version is made by a `CreateWorkGroup` or `UpdateWorkGroup` operation, the `EffectiveEngineVersion` field is ignored.

Type: String

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

Required: No

### SelectedEngineVersion

The engine version requested by the user. Possible values are determined by the output of `ListEngineVersions`, including AUTO. The default is AUTO.

Type: String

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

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# ExecutorsSummary

Contains summary information about an executor.

## Contents

### ExecutorId

The UUID of the executor.

Type: String

Length Constraints: Maximum length of 100000.

Pattern: .\*

Required: Yes

### ExecutorSize

The smallest unit of compute that a session can request from Athena. Size is measured in data processing unit (DPU) values, a relative measure of processing power.

Type: Long

Required: No

### ExecutorState

The processing state of the executor. A description of each state follows.

CREATING - The executor is being started, including acquiring resources.

CREATED - The executor has been started.

REGISTERED - The executor has been registered.

TERMINATING - The executor is in the process of shutting down.

TERMINATED - The executor is no longer running.

FAILED - Due to a failure, the executor is no longer running.

Type: String

Valid Values: CREATING | CREATED | REGISTERED | TERMINATING | TERMINATED | FAILED

Required: No

### **ExecutorType**

The type of executor used for the application (COORDINATOR, GATEWAY, or WORKER).

Type: String

Valid Values: COORDINATOR | GATEWAY | WORKER

Required: No

### **StartDateTime**

The date and time that the executor started.

Type: Long

Required: No

### **TerminationDateTime**

The date and time that the executor was terminated.

Type: Long

Required: No

## **See Also**

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# FilterDefinition

A string for searching notebook names.

## Contents

### Name

The name of the notebook to search for.

Type: String

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

Pattern: (?!.\*/:\|)\[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t\]+

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)



# IdentityCenterConfiguration

Specifies whether the workgroup is IAM Identity Center supported.

## Contents

### EnableIdentityCenter

Specifies whether the workgroup is IAM Identity Center supported.

Type: Boolean

Required: No

### IdentityCenterInstanceArn

The IAM Identity Center instance ARN that the workgroup associates to.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

Pattern: `^arn:(aws|aws-us-gov|aws-cn|aws-iso|aws-iso-b):sso:::instance/(sso)?ins-[a-zA-Z0-9-]{16}$`

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# ListNamedQueriesInput

## Contents

### MaxResults

The maximum number of queries to return in this request.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 50.

Required: No

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

Required: No

### WorkGroup

The name of the workgroup from which the named queries are being returned. If a workgroup is not specified, the saved queries for the primary workgroup are returned.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: No

## See Also

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

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# ListQueryExecutionsInput

## Contents

### MaxResults

The maximum number of query executions to return in this request.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 50.

Required: No

### NextToken

A token generated by the Athena service that specifies where to continue pagination if a previous request was truncated. To obtain the next set of pages, pass in the NextToken from the response object of the previous page call.

Type: String

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

Required: No

### WorkGroup

The name of the workgroup from which queries are being returned. If a workgroup is not specified, a list of available query execution IDs for the queries in the primary workgroup is returned.

Type: String

Pattern: `[a-zA-Z0-9._-]{1,128}`

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# NamedQuery

A query, where `QueryString` contains the SQL statements that make up the query.

## Contents

### Database

The database to which the query belongs.

Type: String

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

Required: Yes

### Name

The query name.

Type: String

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

Required: Yes

### QueryString

The SQL statements that make up the query.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 262144.

Required: Yes

### Description

The query description.

Type: String

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

Required: No

## NamedQueryId

The unique identifier of the query.

Type: String

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

Pattern: `\S+`

Required: No

## WorkGroup

The name of the workgroup that contains the named query.

Type: String

Pattern: `[a-zA-Z0-9._-]{1,128}`

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# NotebookMetadata

Contains metadata for notebook, including the notebook name, ID, workgroup, and time created.

## Contents

### CreationTime

The time when the notebook was created.

Type: Timestamp

Required: No

### LastModifiedTime

The time when the notebook was last modified.

Type: Timestamp

Required: No

### Name

The name of the notebook.

Type: String

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

Pattern: `(?!.*[/:\])[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]+`

Required: No

### NotebookId

The notebook ID.

Type: String

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

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`



Required: No

## Type

The type of notebook. Currently, the only valid type is IPYNB.

Type: String

Valid Values: IPYNB

Required: No

## WorkGroup

The name of the Spark enabled workgroup to which the notebook belongs.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# NotebookSessionSummary

Contains the notebook session ID and notebook session creation time.

## Contents

### CreationTime

The time when the notebook session was created.

Type: Timestamp

Required: No

### SessionId

The notebook session ID.

Type: String

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

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# PreparedStatement

A prepared SQL statement for use with Athena.

## Contents

### Description

The description of the prepared statement.

Type: String

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

Required: No

### LastModifiedTime

The last modified time of the prepared statement.

Type: Timestamp

Required: No

### QueryString

The query string for the prepared statement.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 262144.

Required: No

### StatementName

The name of the prepared statement.

Type: String

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

Pattern: `[a-zA-Z_][a-zA-Z0-9_@:]{1,256}`

Required: No

## WorkGroupName

The name of the workgroup to which the prepared statement belongs.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# PreparedStatementSummary

The name and last modified time of the prepared statement.

## Contents

### LastModifiedTime

The last modified time of the prepared statement.

Type: Timestamp

Required: No

### StatementName

The name of the prepared statement.

Type: String

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

Pattern: `[a-zA-Z_][a-zA-Z0-9_@:]{1,256}`

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# QueryExecution

Information about a single instance of a query execution.

## Contents

### EngineVersion

The engine version that executed the query.

Type: [EngineVersion](#) object

Required: No

### ExecutionParameters

A list of values for the parameters in a query. The values are applied sequentially to the parameters in the query in the order in which the parameters occur. The list of parameters is not returned in the response.

Type: Array of strings

Array Members: Minimum number of 1 item.

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

Required: No

### Query

The SQL query statements which the query execution ran.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 262144.

Required: No

### QueryExecutionContext

The database in which the query execution occurred.

Type: [QueryExecutionContext](#) object

Required: No

## QueryExecutionId

The unique identifier for each query execution.

Type: String

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

Pattern: \S+

Required: No

## QueryResultsS3AccessGrantsConfiguration

Specifies whether Amazon S3 access grants are enabled for query results.

Type: [QueryResultsS3AccessGrantsConfiguration](#) object

Required: No

## ResultConfiguration

The location in Amazon S3 where query and calculation results are stored and the encryption option, if any, used for query results. These are known as "client-side settings". If workgroup settings override client-side settings, then the query uses the location for the query results and the encryption configuration that are specified for the workgroup.

Type: [ResultConfiguration](#) object

Required: No

## ResultReuseConfiguration

Specifies the query result reuse behavior that was used for the query.

Type: [ResultReuseConfiguration](#) object

Required: No

## StatementType

The type of query statement that was run. DDL indicates DDL query statements. DML indicates DML (Data Manipulation Language) query statements, such as CREATE TABLE AS SELECT. UTILITY indicates query statements other than DDL and DML, such as SHOW CREATE TABLE, EXPLAIN, DESCRIBE, or SHOW TABLES.

Type: String

Valid Values: DDL | DML | UTILITY

Required: No

## Statistics

Query execution statistics, such as the amount of data scanned, the amount of time that the query took to process, and the type of statement that was run.

Type: [QueryExecutionStatistics](#) object

Required: No

## Status

The completion date, current state, submission time, and state change reason (if applicable) for the query execution.

Type: [QueryExecutionStatus](#) object

Required: No

## SubstatementType

The kind of query statement that was run.

Type: String

Required: No

## WorkGroup

The name of the workgroup in which the query ran.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: No

## See Also

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



- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# QueryExecutionContext

The database and data catalog context in which the query execution occurs.

## Contents

### Catalog

The name of the data catalog used in the query execution.

Type: String

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

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]*`

Required: No

### Database

The name of the database used in the query execution. The database must exist in the catalog.

Type: String

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

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# QueryExecutionStatistics

The amount of data scanned during the query execution and the amount of time that it took to execute, and the type of statement that was run.

## Contents

### DataManifestLocation

The location and file name of a data manifest file. The manifest file is saved to the Athena query results location in Amazon S3. The manifest file tracks files that the query wrote to Amazon S3. If the query fails, the manifest file also tracks files that the query intended to write. The manifest is useful for identifying orphaned files resulting from a failed query. For more information, see [Working with Query Results, Output Files, and Query History](#) in the *Amazon Athena User Guide*.

Type: String

Required: No

### DataScannedInBytes

The number of bytes in the data that was queried.

Type: Long

Required: No

### EngineExecutionTimeInMillis

The number of milliseconds that the query took to execute.

Type: Long

Required: No

### QueryPlanningTimeInMillis

The number of milliseconds that Athena took to plan the query processing flow. This includes the time spent retrieving table partitions from the data source. Note that because the query engine performs the query planning, query planning time is a subset of engine processing time.

Type: Long

Required: No

### **QueryQueueTimeInMillis**

The number of milliseconds that the query was in your query queue waiting for resources. Note that if transient errors occur, Athena might automatically add the query back to the queue.

Type: Long

Required: No

### **ResultReuseInformation**

Contains information about whether previous query results were reused for the query.

Type: [ResultReuseInformation](#) object

Required: No

### **ServicePreProcessingTimeInMillis**

The number of milliseconds that Athena took to preprocess the query before submitting the query to the query engine.

Type: Long

Required: No

### **ServiceProcessingTimeInMillis**

The number of milliseconds that Athena took to finalize and publish the query results after the query engine finished running the query.

Type: Long

Required: No

### **TotalExecutionTimeInMillis**

The number of milliseconds that Athena took to run the query.

Type: Long

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# QueryExecutionStatus

The completion date, current state, submission time, and state change reason (if applicable) for the query execution.

## Contents

### AthenaError

Provides information about an Athena query error.

Type: [AthenaError](#) object

Required: No

### CompletionDateTime

The date and time that the query completed.

Type: Timestamp

Required: No

### State

The state of query execution. QUEUED indicates that the query has been submitted to the service, and Athena will execute the query as soon as resources are available. RUNNING indicates that the query is in execution phase. SUCCEEDED indicates that the query completed without errors. FAILED indicates that the query experienced an error and did not complete processing. CANCELLED indicates that a user input interrupted query execution.

#### Note

Athena automatically retries your queries in cases of certain transient errors. As a result, you may see the query state transition from RUNNING or FAILED to QUEUED.

Type: String

Valid Values: QUEUED | RUNNING | SUCCEEDED | FAILED | CANCELLED

Required: No

## StateChangeReason

Further detail about the status of the query.

Type: String

Required: No

## SubmissionDateTime

The date and time that the query was submitted.

Type: Timestamp

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# QueryResultsS3AccessGrantsConfiguration

Specifies whether Amazon S3 access grants are enabled for query results.

## Contents

### AuthenticationType

The authentication type used for Amazon S3 access grants. Currently, only `DIRECTORY_IDENTITY` is supported.

Type: String

Valid Values: `DIRECTORY_IDENTITY`

Required: Yes

### EnableS3AccessGrants

Specifies whether Amazon S3 access grants are enabled for query results.

Type: Boolean

Required: Yes

### CreateUserLevelPrefix

When enabled, appends the user ID as an Amazon S3 path prefix to the query result output location.

Type: Boolean

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)





# QueryRuntimeStatistics

The query execution timeline, statistics on input and output rows and bytes, and the different query stages that form the query execution plan.

## Contents

### OutputStage

Stage statistics such as input and output rows and bytes, execution time, and stage state. This information also includes substages and the query stage plan.

Type: [QueryStage](#) object

Required: No

### Rows

Statistics such as input rows and bytes read by the query, rows and bytes output by the query, and the number of rows written by the query.

Type: [QueryRuntimeStatisticsRows](#) object

Required: No

### Timeline

Timeline statistics such as query queue time, planning time, execution time, service processing time, and total execution time.

Type: [QueryRuntimeStatisticsTimeline](#) object

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for Ruby V3](#)

# QueryRuntimeStatisticsRows

Statistics such as input rows and bytes read by the query, rows and bytes output by the query, and the number of rows written by the query.

## Contents

### InputBytes

The number of bytes read to execute the query.

Type: Long

Required: No

### InputRows

The number of rows read to execute the query.

Type: Long

Required: No

### OutputBytes

The number of bytes returned by the query.

Type: Long

Required: No

### OutputRows

The number of rows returned by the query.

Type: Long

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# QueryRuntimeStatisticsTimeline

Timeline statistics such as query queue time, planning time, execution time, service processing time, and total execution time.

## Contents

### EngineExecutionTimeInMillis

The number of milliseconds that the query took to execute.

Type: Long

Required: No

### QueryPlanningTimeInMillis

The number of milliseconds that Athena took to plan the query processing flow. This includes the time spent retrieving table partitions from the data source. Note that because the query engine performs the query planning, query planning time is a subset of engine processing time.

Type: Long

Required: No

### QueryQueueTimeInMillis

The number of milliseconds that the query was in your query queue waiting for resources. Note that if transient errors occur, Athena might automatically add the query back to the queue.

Type: Long

Required: No

### ServicePreProcessingTimeInMillis

The number of milliseconds that Athena spends on preprocessing before it submits the query to the engine.

Type: Long

Required: No

## **ServiceProcessingTimeInMillis**

The number of milliseconds that Athena took to finalize and publish the query results after the query engine finished running the query.

Type: Long

Required: No

## **TotalExecutionTimeInMillis**

The number of milliseconds that Athena took to run the query.

Type: Long

Required: No

## **See Also**

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# QueryStage

Stage statistics such as input and output rows and bytes, execution time and stage state. This information also includes substages and the query stage plan.

## Contents

### ExecutionTime

Time taken to execute this stage.

Type: Long

Required: No

### InputBytes

The number of bytes input into the stage for execution.

Type: Long

Required: No

### InputRows

The number of rows input into the stage for execution.

Type: Long

Required: No

### OutputBytes

The number of bytes output from the stage after execution.

Type: Long

Required: No

### OutputRows

The number of rows output from the stage after execution.

Type: Long

Required: No



## QueryStagePlan

Stage plan information such as name, identifier, sub plans, and source stages.

Type: [QueryStagePlanNode](#) object

Required: No

## StageId

The identifier for a stage.

Type: Long

Required: No

## State

State of the stage after query execution.

Type: String

Required: No

## SubStages

List of sub query stages that form this stage execution plan.

Type: Array of [QueryStage](#) objects

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# QueryStagePlanNode

Stage plan information such as name, identifier, sub plans, and remote sources.

## Contents

### Children

Stage plan information such as name, identifier, sub plans, and remote sources of child plan nodes/

Type: Array of [QueryStagePlanNode](#) objects

Required: No

### Identifier

Information about the operation this query stage plan node is performing.

Type: String

Required: No

### Name

Name of the query stage plan that describes the operation this stage is performing as part of query execution.

Type: String

Required: No

### RemoteSources

Source plan node IDs.

Type: Array of strings

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# ResultConfiguration

The location in Amazon S3 where query and calculation results are stored and the encryption option, if any, used for query and calculation results. These are known as "client-side settings". If workgroup settings override client-side settings, then the query uses the workgroup settings.

## Contents

### AclConfiguration

Indicates that an Amazon S3 canned ACL should be set to control ownership of stored query results. Currently the only supported canned ACL is `BUCKET_OWNER_FULL_CONTROL`. This is a client-side setting. If workgroup settings override client-side settings, then the query uses the ACL configuration that is specified for the workgroup, and also uses the location for storing query results specified in the workgroup. For more information, see [WorkGroupConfiguration:EnforceWorkGroupConfiguration](#) and [Workgroup Settings Override Client-Side Settings](#).

Type: [AclConfiguration](#) object

Required: No

### EncryptionConfiguration

If query and calculation results are encrypted in Amazon S3, indicates the encryption option used (for example, `SSE_KMS` or `CSE_KMS`) and key information. This is a client-side setting. If workgroup settings override client-side settings, then the query uses the encryption configuration that is specified for the workgroup, and also uses the location for storing query results specified in the workgroup. See [WorkGroupConfiguration:EnforceWorkGroupConfiguration](#) and [Workgroup Settings Override Client-Side Settings](#).

Type: [EncryptionConfiguration](#) object

Required: No

### ExpectedBucketOwner

The Amazon Web Services account ID that you expect to be the owner of the Amazon S3 bucket specified by [ResultConfiguration:OutputLocation](#). If set, Athena uses the value for `ExpectedBucketOwner` when it makes Amazon S3 calls to your specified output location.

If the `ExpectedBucketOwner` Amazon Web Services account ID does not match the actual owner of the Amazon S3 bucket, the call fails with a permissions error.

This is a client-side setting. If workgroup settings override client-side settings, then the query uses the `ExpectedBucketOwner` setting that is specified for the workgroup, and also uses the location for storing query results specified in the workgroup. See [WorkGroupConfiguration:EnforceWorkGroupConfiguration](#) and [Workgroup Settings Override Client-Side Settings](#).

Type: String

Length Constraints: Fixed length of 12.

Pattern: `^[0-9]+$`

Required: No

## OutputLocation

The location in Amazon S3 where your query and calculation results are stored, such as `s3://path/to/query/bucket/`. To run the query, you must specify the query results location using one of the ways: either for individual queries using either this setting (client-side), or in the workgroup, using [WorkGroupConfiguration](#). If none of them is set, Athena issues an error that no output location is provided. If workgroup settings override client-side settings, then the query uses the settings specified for the workgroup. See [WorkGroupConfiguration:EnforceWorkGroupConfiguration](#).

Type: String

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# ResultConfigurationUpdates

The information about the updates in the query results, such as output location and encryption configuration for the query results.

## Contents

### AclConfiguration

The ACL configuration for the query results.

Type: [AclConfiguration](#) object

Required: No

### EncryptionConfiguration

The encryption configuration for query and calculation results.

Type: [EncryptionConfiguration](#) object

Required: No

### ExpectedBucketOwner

The Amazon Web Services account ID that you expect to be the owner of the Amazon S3 bucket specified by [ResultConfiguration:OutputLocation](#). If set, Athena uses the value for `ExpectedBucketOwner` when it makes Amazon S3 calls to your specified output location. If the `ExpectedBucketOwner` Amazon Web Services account ID does not match the actual owner of the Amazon S3 bucket, the call fails with a permissions error.

If workgroup settings override client-side settings, then the query uses the `ExpectedBucketOwner` setting that is specified for the workgroup, and also uses the location for storing query results specified in the workgroup. See [WorkGroupConfiguration:EnforceWorkGroupConfiguration](#) and [Workgroup Settings Override Client-Side Settings](#).

Type: String

Length Constraints: Fixed length of 12.

Pattern: `^[0-9]+$`

Required: No

### **OutputLocation**

The location in Amazon S3 where your query and calculation results are stored, such as `s3://path/to/query/bucket/`. If workgroup settings override client-side settings, then the query uses the location for the query results and the encryption configuration that are specified for the workgroup. The "workgroup settings override" is specified in `EnforceWorkGroupConfiguration` (true/false) in the `WorkGroupConfiguration`. See [WorkGroupConfiguration:EnforceWorkGroupConfiguration](#).

Type: String

Required: No

### **RemoveAclConfiguration**

If set to `true`, indicates that the previously-specified ACL configuration for queries in this workgroup should be ignored and set to null. If set to `false` or not set, and a value is present in the `AclConfiguration` of `ResultConfigurationUpdates`, the `AclConfiguration` in the workgroup's `ResultConfiguration` is updated with the new value. For more information, see [Workgroup Settings Override Client-Side Settings](#).

Type: Boolean

Required: No

### **RemoveEncryptionConfiguration**

If set to `"true"`, indicates that the previously-specified encryption configuration (also known as the client-side setting) for queries in this workgroup should be ignored and set to null. If set to `"false"` or not set, and a value is present in the `EncryptionConfiguration` in `ResultConfigurationUpdates` (the client-side setting), the `EncryptionConfiguration` in the workgroup's `ResultConfiguration` will be updated with the new value. For more information, see [Workgroup Settings Override Client-Side Settings](#).

Type: Boolean

Required: No

### **RemoveExpectedBucketOwner**

If set to `"true"`, removes the Amazon Web Services account ID previously specified for [ResultConfiguration:ExpectedBucketOwner](#). If set to `"false"` or not set, and a value is present in

the `ExpectedBucketOwner` in `ResultConfigurationUpdates` (the client-side setting), the `ExpectedBucketOwner` in the workgroup's `ResultConfiguration` is updated with the new value. For more information, see [Workgroup Settings Override Client-Side Settings](#).

Type: Boolean

Required: No

### **RemoveOutputLocation**

If set to "true", indicates that the previously-specified query results location (also known as a client-side setting) for queries in this workgroup should be ignored and set to null. If set to "false" or not set, and a value is present in the `OutputLocation` in `ResultConfigurationUpdates` (the client-side setting), the `OutputLocation` in the workgroup's `ResultConfiguration` will be updated with the new value. For more information, see [Workgroup Settings Override Client-Side Settings](#).

Type: Boolean

Required: No

## **See Also**

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)



# ResultReuseByAgeConfiguration

Specifies whether previous query results are reused, and if so, their maximum age.

## Contents

### Enabled

True if previous query results can be reused when the query is run; otherwise, false. The default is false.

Type: Boolean

Required: Yes

### MaxAgeInMinutes

Specifies, in minutes, the maximum age of a previous query result that Athena should consider for reuse. The default is 60.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10080.

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# ResultReuseConfiguration

Specifies the query result reuse behavior for the query.

## Contents

### ResultReuseByAgeConfiguration

Specifies whether previous query results are reused, and if so, their maximum age.

Type: [ResultReuseByAgeConfiguration](#) object

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# ResultReuseInformation

Contains information about whether the result of a previous query was reused.

## Contents

### ReusedPreviousResult

True if a previous query result was reused; false if the result was generated from a new run of the query.

Type: Boolean

Required: Yes

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# ResultSet

The metadata and rows that make up a query result set. The metadata describes the column structure and data types. To return a `ResultSet` object, use [GetQueryResults](#).

## Contents

### ResultSetMetadata

The metadata that describes the column structure and data types of a table of query results.

Type: [ResultSetMetadata](#) object

Required: No

### Rows

The rows in the table.

Type: Array of [Row](#) objects

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# ResultSetMetadata

The metadata that describes the column structure and data types of a table of query results. To return a `ResultSetMetadata` object, use [GetQueryResults](#).

## Contents

### ColumnInfo

Information about the columns returned in a query result metadata.

Type: Array of [ColumnInfo](#) objects

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# Row

The rows that make up a query result table.

## Contents

### Data

The data that populates a row in a query result table.

Type: Array of [Datum](#) objects

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# SessionConfiguration

Contains session configuration information.

## Contents

### EncryptionConfiguration

If query and calculation results are encrypted in Amazon S3, indicates the encryption option used (for example, SSE\_KMS or CSE\_KMS) and key information.

Type: [EncryptionConfiguration](#) object

Required: No

### ExecutionRole

The ARN of the execution role used to access user resources for Spark sessions and Identity Center enabled workgroups. This property applies only to Spark enabled workgroups and Identity Center enabled workgroups.

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

### IdleTimeoutSeconds

The idle timeout in seconds for the session.

Type: Long

Required: No

### WorkingDirectory

The Amazon S3 location that stores information for the notebook.

Type: String

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)



# SessionStatistics

Contains statistics for a session.

## Contents

### DpuExecutionInMillis

The data processing unit execution time for a session in milliseconds.

Type: Long

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# SessionStatus

Contains information about the status of a session.

## Contents

### EndDateTime

The date and time that the session ended.

Type: Timestamp

Required: No

### IdleSinceDateTime

The date and time starting at which the session became idle. Can be empty if the session is not currently idle.

Type: Timestamp

Required: No

### LastModifiedDateTime

The most recent date and time that the session was modified.

Type: Timestamp

Required: No

### StartDateTime

The date and time that the session started.

Type: Timestamp

Required: No

### State

The state of the session. A description of each state follows.

CREATING - The session is being started, including acquiring resources.

CREATED - The session has been started.

IDLE - The session is able to accept a calculation.

BUSY - The session is processing another task and is unable to accept a calculation.

TERMINATING - The session is in the process of shutting down.

TERMINATED - The session and its resources are no longer running.

DEGRADED - The session has no healthy coordinators.

FAILED - Due to a failure, the session and its resources are no longer running.

Type: String

Valid Values: CREATING | CREATED | IDLE | BUSY | TERMINATING | TERMINATED | DEGRADED | FAILED

Required: No

### StateChangeReason

The reason for the session state change (for example, canceled because the session was terminated).

Type: String

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

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# SessionSummary

Contains summary information about a session.

## Contents

### Description

The session description.

Type: String

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

Required: No

### EngineVersion

The engine version used by the session (for example, PySpark engine version 3).

Type: [EngineVersion](#) object

Required: No

### NotebookVersion

The notebook version.

Type: String

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

Required: No

### SessionId

The session ID.

Type: String

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

Required: No

### Status

Contains information about the session status.

Type: [SessionStatus](#) object

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# TableMetadata

Contains metadata for a table.

## Contents

### Name

The name of the table.

Type: String

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

Required: Yes

### Columns

A list of the columns in the table.

Type: Array of [Column](#) objects

Required: No

### CreateTime

The time that the table was created.

Type: Timestamp

Required: No

### LastAccessTime

The last time the table was accessed.

Type: Timestamp

Required: No

### Parameters

A set of custom key/value pairs for table properties.

Type: String to string map

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

Key Pattern: `[\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]*`

Value Length Constraints: Maximum length of 51200.

Required: No

### PartitionKeys

A list of the partition keys in the table.

Type: Array of [Column](#) objects

Required: No

### TableType

The type of table. In Athena, only EXTERNAL\_TABLE is supported.

Type: String

Length Constraints: Maximum length of 255.

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# Tag

A label that you assign to a resource. Athena resources include workgroups, data catalogs, and capacity reservations. Each tag consists of a key and an optional value, both of which you define. For example, you can use tags to categorize Athena resources by purpose, owner, or environment. Use a consistent set of tag keys to make it easier to search and filter the resources in your account. For best practices, see [Tagging Best Practices](#). Tag keys can be from 1 to 128 UTF-8 Unicode characters, and tag values can be from 0 to 256 UTF-8 Unicode characters. Tags can use letters and numbers representable in UTF-8, and the following characters: + - = . \_ : / @. Tag keys and values are case-sensitive. Tag keys must be unique per resource. If you specify more than one tag, separate them by commas.

## Contents

### Key

A tag key. The tag key length is from 1 to 128 Unicode characters in UTF-8. You can use letters and numbers representable in UTF-8, and the following characters: + - = . \_ : / @. Tag keys are case-sensitive and must be unique per resource.

Type: String

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

Required: No

### Value

A tag value. The tag value length is from 0 to 256 Unicode characters in UTF-8. You can use letters and numbers representable in UTF-8, and the following characters: + - = . \_ : / @. Tag values are case-sensitive.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No



## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# UnprocessedNamedQueryId

Information about a named query ID that could not be processed.

## Contents

### ErrorCode

The error code returned when the processing request for the named query failed, if applicable.

Type: String

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

Required: No

### ErrorMessage

The error message returned when the processing request for the named query failed, if applicable.

Type: String

Required: No

### NamedQueryId

The unique identifier of the named query.

Type: String

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

Pattern: \S+

Required: No

## See Also

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

- [Amazon SDK for C++](#)

- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# UnprocessedPreparedStatementName

The name of a prepared statement that could not be returned.

## Contents

### ErrorCode

The error code returned when the request for the prepared statement failed.

Type: String

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

Required: No

### ErrorMessage

The error message containing the reason why the prepared statement could not be returned.

The following error messages are possible:

- `INVALID_INPUT` - The name of the prepared statement that was provided is not valid (for example, the name is too long).
- `STATEMENT_NOT_FOUND` - A prepared statement with the name provided could not be found.
- `UNAUTHORIZED` - The requester does not have permission to access the workgroup that contains the prepared statement.

Type: String

Required: No

### StatementName

The name of a prepared statement that could not be returned due to an error.

Type: String

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

Pattern: `[a-zA-Z_][a-zA-Z0-9_@:]{1,256}`

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# UnprocessedQueryExecutionId

Describes a query execution that failed to process.

## Contents

### ErrorCode

The error code returned when the query execution failed to process, if applicable.

Type: String

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

Required: No

### ErrorMessage

The error message returned when the query execution failed to process, if applicable.

Type: String

Required: No

### QueryExecutionId

The unique identifier of the query execution.

Type: String

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

Pattern: \S+

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)

- [Amazon SDK for Ruby V3](#)

# WorkGroup

A workgroup, which contains a name, description, creation time, state, and other configuration, listed under [WorkGroup:Configuration](#). Each workgroup enables you to isolate queries for you or your group of users from other queries in the same account, to configure the query results location and the encryption configuration (known as workgroup settings), to enable sending query metrics to Amazon CloudWatch, and to establish per-query data usage control limits for all queries in a workgroup. The workgroup settings override is specified in `EnforceWorkGroupConfiguration` (true/false) in the `WorkGroupConfiguration`. See [WorkGroupConfiguration:EnforceWorkGroupConfiguration](#).

## Contents

### Name

The workgroup name.

Type: String

Pattern: `[a-zA-Z0-9._-]{1,128}`

Required: Yes

### Configuration

The configuration of the workgroup, which includes the location in Amazon S3 where query and calculation results are stored, the encryption configuration, if any, used for query and calculation results; whether the Amazon CloudWatch Metrics are enabled for the workgroup; whether workgroup settings override client-side settings; and the data usage limits for the amount of data scanned per query or per workgroup. The workgroup settings override is specified in `EnforceWorkGroupConfiguration` (true/false) in the `WorkGroupConfiguration`. See [WorkGroupConfiguration:EnforceWorkGroupConfiguration](#).

Type: [WorkGroupConfiguration](#) object

Required: No

### CreationTime

The date and time the workgroup was created.

Type: Timestamp



Required: No

## Description

The workgroup description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

## IdentityCenterApplicationArn

The ARN of the IAM Identity Center enabled application associated with the workgroup.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

Pattern: `^arn:(aws|aws-us-gov|aws-cn|aws-iso|aws-iso-b):sso::\d{12}:application/(sso)?ins-[a-zA-Z0-9-]{16}/ap1-[a-zA-Z0-9]{16}$`

Required: No

## State

The state of the workgroup: ENABLED or DISABLED.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)



# WorkGroupConfiguration

The configuration of the workgroup, which includes the location in Amazon S3 where query and calculation results are stored, the encryption option, if any, used for query and calculation results, whether the Amazon CloudWatch Metrics are enabled for the workgroup and whether workgroup settings override query settings, and the data usage limits for the amount of data scanned per query or per workgroup. The workgroup settings override is specified in `EnforceWorkGroupConfiguration` (true/false) in the `WorkGroupConfiguration`. See [WorkGroupConfiguration:EnforceWorkGroupConfiguration](#).

## Contents

### AdditionalConfiguration

Specifies a user defined JSON string that is passed to the notebook engine.

Type: String

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

Required: No

### BytesScannedCutoffPerQuery

The upper data usage limit (cutoff) for the amount of bytes a single query in a workgroup is allowed to scan.

Type: Long

Valid Range: Minimum value of 10000000.

Required: No

### CustomerContentEncryptionConfiguration

Specifies the KMS key that is used to encrypt the user's data stores in Athena. This setting does not apply to Athena SQL workgroups.

Type: [CustomerContentEncryptionConfiguration](#) object

Required: No

## EnableMinimumEncryptionConfiguration

Enforces a minimal level of encryption for the workgroup for query and calculation results that are written to Amazon S3. When enabled, workgroup users can set encryption only to the minimum level set by the administrator or higher when they submit queries.

The `EnforceWorkGroupConfiguration` setting takes precedence over the `EnableMinimumEncryptionConfiguration` flag. This means that if `EnforceWorkGroupConfiguration` is true, the `EnableMinimumEncryptionConfiguration` flag is ignored, and the workgroup configuration for encryption is used.

Type: Boolean

Required: No

## EnforceWorkGroupConfiguration

If set to "true", the settings for the workgroup override client-side settings. If set to "false", client-side settings are used. For more information, see [Workgroup Settings Override Client-Side Settings](#).

Type: Boolean

Required: No

## EngineVersion

The engine version that all queries running on the workgroup use. Queries on the `AmazonAthenaPreviewFunctionality` workgroup run on the preview engine regardless of this setting.

Type: [EngineVersion](#) object

Required: No

## ExecutionRole

The ARN of the execution role used to access user resources for Spark sessions and IAM Identity Center enabled workgroups. This property applies only to Spark enabled workgroups and IAM Identity Center enabled workgroups. The property is required for IAM Identity Center enabled workgroups.

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

### **IdentityCenterConfiguration**

Specifies whether the workgroup is IAM Identity Center supported.

Type: [IdentityCenterConfiguration](#) object

Required: No

### **PublishCloudWatchMetricsEnabled**

Indicates that the Amazon CloudWatch metrics are enabled for the workgroup.

Type: Boolean

Required: No

### **QueryResultsS3AccessGrantsConfiguration**

Specifies whether Amazon S3 access grants are enabled for query results.

Type: [QueryResultsS3AccessGrantsConfiguration](#) object

Required: No

### **RequesterPaysEnabled**

If set to `true`, allows members assigned to a workgroup to reference Amazon S3 Requester Pays buckets in queries. If set to `false`, workgroup members cannot query data from Requester Pays buckets, and queries that retrieve data from Requester Pays buckets cause an error. The default is `false`. For more information about Requester Pays buckets, see [Requester Pays Buckets](#) in the *Amazon Simple Storage Service Developer Guide*.

Type: Boolean

Required: No

### **ResultConfiguration**

The configuration for the workgroup, which includes the location in Amazon S3 where query and calculation results are stored and the encryption option, if any, used for query and

calculation results. To run the query, you must specify the query results location using one of the ways: either in the workgroup using this setting, or for individual queries (client-side), using [ResultConfiguration:OutputLocation](#). If none of them is set, Athena issues an error that no output location is provided.

Type: [ResultConfiguration](#) object

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# WorkGroupConfigurationUpdates

The configuration information that will be updated for this workgroup, which includes the location in Amazon S3 where query and calculation results are stored, the encryption option, if any, used for query results, whether the Amazon CloudWatch Metrics are enabled for the workgroup, whether the workgroup settings override the client-side settings, and the data usage limit for the amount of bytes scanned per query, if it is specified.

## Contents

### AdditionalConfiguration

Contains a user defined string in JSON format for a Spark-enabled workgroup.

Type: String

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

Required: No

### BytesScannedCutoffPerQuery

The upper limit (cutoff) for the amount of bytes a single query in a workgroup is allowed to scan.

Type: Long

Valid Range: Minimum value of 10000000.

Required: No

### CustomerContentEncryptionConfiguration

Specifies the customer managed KMS key that is used to encrypt the user's data stores in Athena. When an Amazon managed key is used, this value is null. This setting does not apply to Athena SQL workgroups.

Type: [CustomerContentEncryptionConfiguration](#) object

Required: No

### EnableMinimumEncryptionConfiguration

Enforces a minimal level of encryption for the workgroup for query and calculation results that are written to Amazon S3. When enabled, workgroup users can set encryption only to the

minimum level set by the administrator or higher when they submit queries. This setting does not apply to Spark-enabled workgroups.

The `EnforceWorkGroupConfiguration` setting takes precedence over the `EnableMinimumEncryptionConfiguration` flag. This means that if `EnforceWorkGroupConfiguration` is true, the `EnableMinimumEncryptionConfiguration` flag is ignored, and the workgroup configuration for encryption is used.

Type: Boolean

Required: No

### **EnforceWorkGroupConfiguration**

If set to "true", the settings for the workgroup override client-side settings. If set to "false" client-side settings are used. For more information, see [Workgroup Settings Override Client-Side Settings](#).

Type: Boolean

Required: No

### **EngineVersion**

The engine version requested when a workgroup is updated. After the update, all queries on the workgroup run on the requested engine version. If no value was previously set, the default is Auto. Queries on the `AmazonAthenaPreviewFunctionality` workgroup run on the preview engine regardless of this setting.

Type: [EngineVersion](#) object

Required: No

### **ExecutionRole**

The ARN of the execution role used to access user resources for Spark sessions and Identity Center enabled workgroups. This property applies only to Spark enabled workgroups and Identity Center enabled workgroups.

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

### **PublishCloudWatchMetricsEnabled**

Indicates whether this workgroup enables publishing metrics to Amazon CloudWatch.

Type: Boolean

Required: No

### **QueryResultsS3AccessGrantsConfiguration**

Specifies whether Amazon S3 access grants are enabled for query results.

Type: [QueryResultsS3AccessGrantsConfiguration](#) object

Required: No

### **RemoveBytesScannedCutoffPerQuery**

Indicates that the data usage control limit per query is removed.

[WorkGroupConfiguration:BytesScannedCutoffPerQuery](#)

Type: Boolean

Required: No

### **RemoveCustomerContentEncryptionConfiguration**

Removes content encryption configuration from an Apache Spark-enabled Athena workgroup.

Type: Boolean

Required: No

### **RequesterPaysEnabled**

If set to `true`, allows members assigned to a workgroup to specify Amazon S3 Requester Pays buckets in queries. If set to `false`, workgroup members cannot query data from Requester Pays buckets, and queries that retrieve data from Requester Pays buckets cause an error. The default is `false`. For more information about Requester Pays buckets, see [Requester Pays Buckets](#) in the *Amazon Simple Storage Service Developer Guide*.

Type: Boolean

Required: No

## **ResultConfigurationUpdates**

The result configuration information about the queries in this workgroup that will be updated. Includes the updated results location and an updated option for encrypting query results.

Type: [ResultConfigurationUpdates](#) object

Required: No

## **See Also**

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# WorkGroupSummary

The summary information for the workgroup, which includes its name, state, description, and the date and time it was created.

## Contents

### CreationTime

The workgroup creation date and time.

Type: Timestamp

Required: No

### Description

The workgroup description.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1024.

Required: No

### EngineVersion

The engine version setting for all queries on the workgroup. Queries on the AmazonAthenaPreviewFunctionality workgroup run on the preview engine regardless of this setting.

Type: [EngineVersion](#) object

Required: No

### IdentityCenterApplicationArn

The ARN of the IAM Identity Center enabled application associated with the workgroup.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

Pattern: `^arn:(aws|aws-us-gov|aws-cn|aws-iso|aws-iso-b):sso::\d{12}:application/(sso)?ins-[a-zA-Z0-9-]{16}/apl-[a-zA-Z0-9]{16}$`

Required: No

## Name

The name of the workgroup.

Type: String

Pattern: [a-zA-Z0-9.\_-]{1,128}

Required: No

## State

The state of the workgroup.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

## See Also

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

- [Amazon SDK for C++](#)
- [Amazon SDK for Java V2](#)
- [Amazon SDK for Ruby V3](#)

# Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [Signing Amazon 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 Amazon 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 Amazon 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 Amazon Security Token Service (Amazon STS). For a list of services that support temporary security credentials from Amazon STS, see [Amazon Web Services services that work with IAM](#) in the *IAM User Guide*.

Condition: If you're using temporary security credentials from Amazon 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 Amazon API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

# Common Errors

This section lists the errors common to the API actions of all Amazon 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 Amazon 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 Amazon 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 Amazon 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 Amazon service.

HTTP Status Code: 400