

[Cloud SQL](https://cloud.google.com/sql/) (<https://cloud.google.com/sql/>)

[Documentation](https://cloud.google.com/sql/docs/) (<https://cloud.google.com/sql/docs/>)

[MySQL](https://cloud.google.com/sql/docs/mysql/) (<https://cloud.google.com/sql/docs/mysql/>) [Reference](#)

REST Resource: operations

Resource: Operation

An Operation resource. For successful operations that return an Operation resource, only the fields relevant to the operation are populated in the resource.

JSON representation

```
{
  "kind": string,
  "targetLink": string,
  "status": enum (SqlOperationStatus (https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/operations#SqlOperationStatus)),
  "user": string,
  "insertTime": string,
  "startTime": string,
  "endTime": string,
  "error": {
    object (OperationErrors (https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/operations#OperationErrors))
  },
  "operationType": enum (SqlOperationType (https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/operations#SqlOperationType)),
  "importContext": {
    object (ImportContext (https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/operations#ImportContext))
  },
  "exportContext": {
    object (ExportContext (https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/operations#ExportContext))
  },
  "name": string,
  "targetId": string,
  "selfLink": string,
  "targetProject": string
}
```

Fields

Fields	
kind	string This is always sql#operation .
targetLink	string
status	enum (SqlOperationStatus (https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/operations#SqlOperationStatus)) The status of an operation. Valid values are PENDING , RUNNING , DONE , SQL_OPERATION_STATUS_UNSPECIFIED .
user	string The email address of the user who initiated this operation.

Fields

insertTime	<p>string (<u>Timestamp</u> (https://developers.google.com/protocol-buffers/docs/reference/google.protobuf#google.protobuf.Timestamp) format)</p> <p>The time this operation was enqueued in UTC timezone in <u>RFC 3339</u> (https://tools.ietf.org/html/rfc3339) format, for example</p> <p>2012-11-15T16:19:00.094Z</p> <p>.</p> <p>A timestamp in RFC3339 UTC "Zulu" format, accurate to nanoseconds. Example: "2014-10-02T15:01:23.045123456Z".</p>
startTime	<p>string (<u>Timestamp</u> (https://developers.google.com/protocol-buffers/docs/reference/google.protobuf#google.protobuf.Timestamp) format)</p> <p>The time this operation actually started in UTC timezone in <u>RFC 3339</u> (https://tools.ietf.org/html/rfc3339) format, for example</p> <p>2012-11-15T16:19:00.094Z</p> <p>.</p> <p>A timestamp in RFC3339 UTC "Zulu" format, accurate to nanoseconds. Example: "2014-10-02T15:01:23.045123456Z".</p>
endTime	<p>string (<u>Timestamp</u> (https://developers.google.com/protocol-buffers/docs/reference/google.protobuf#google.protobuf.Timestamp) format)</p> <p>The time this operation finished in UTC timezone in <u>RFC 3339</u> (https://tools.ietf.org/html/rfc3339) format, for example</p> <p>2012-11-15T16:19:00.094Z</p> <p>.</p> <p>A timestamp in RFC3339 UTC "Zulu" format, accurate to nanoseconds. Example: "2014-10-02T15:01:23.045123456Z".</p>

Fields

error

object ([OperationErrors](https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/operations#OperationErrors)
(<https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/operations#OperationErrors>)
)

If errors occurred during processing of this operation, this field will be populated.

operationType

enum ([SqlOperationType](https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/operations#SqlOperationType)
(<https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/operations#SqlOperationType>)
)

The type of the operation. Valid values are

CREATE

,

DELETE

,

UPDATE

,

RESTART

,

IMPORT

,

EXPORT

,

BACKUP_VOLUME

,

RESTORE_VOLUME

,

Fields	<p>CREATE_USER</p> <p>,</p> <p>DELETE_USER</p> <p>,</p> <p>CREATE_DATABASE</p> <p>,</p> <p>DELETE_DATABASE</p> <p>.</p>
importContext	<p>object (<u>ImportContext</u> (https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/operations#ImportContext))</p> <p>The context for import operation, if applicable.</p>
exportContext	<p>object (<u>ExportContext</u> (https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/operations#ExportContext))</p> <p>The context for export operation, if applicable.</p>
name	<p>string</p> <p>An identifier that uniquely identifies the operation. You can use this identifier to retrieve the Operations resource that has information about the operation.</p>
targetId	<p>string</p> <p>Name of the database instance related to this operation.</p>
selfLink	<p>string</p> <p>The URI of this resource.</p>

Fields

targetProject	string
	The project ID of the target instance related to this operation.

SqlOperationStatus

The status of an operation.

Enums

SQL_OPERATION_STATUS_UNSPECIFIED	The state of the operation is unknown.
PENDING	The operation has been queued, but has not started yet.
RUNNING	The operation is running.
DONE	The operation completed.

OperationErrors

Database instance operation errors list wrapper.

JSON representation



```
{
  "kind": string,
  "errors": [
    {
      object (OperationError (https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/Op
    )
  ]
}
```

Fields

Fields	
kind	string This is always sql#operationErrors .
errors[]	object (OperationError (https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/OperationError)) The list of errors encountered while processing this operation.



SqlOperationType

The type of Cloud SQL operation.

Enums	
SQL_OPERATION_TYPE_UNSPECIFIED	Unknown operation type.
IMPORT	Imports data into a Cloud SQL instance.
EXPORT	Exports data from a Cloud SQL instance to a Cloud Storage bucket.
CREATE	Creates a new Cloud SQL instance.
UPDATE	Updates the settings of a Cloud SQL instance.
DELETE	Deletes a Cloud SQL instance.
RESTART	Restarts the Cloud SQL instance.
BACKUP	 This item is deprecated!
SNAPSHOT	 This item is deprecated!

Enums	
BACKUP_VOLUME	Performs instance backup.
DELETE_VOLUME	Deletes an instance backup.
RESTORE_VOLUME	Restores an instance backup.
INJECT_USER	Injects a privileged user in mysql for MOB instances.
CLONE	Clones a Cloud SQL instance.
STOP_REPLICA	Stops replication on a Cloud SQL read replica instance.
START_REPLICA	Starts replication on a Cloud SQL read replica instance.
PROMOTE_REPLICA	Promotes a Cloud SQL replica instance.
CREATE_REPLICA	Creates a Cloud SQL replica instance.
CREATE_USER	Creates a new user in a Cloud SQL instance.
DELETE_USER	Deletes a user from a Cloud SQL instance.
UPDATE_USER	Updates an existing user in a Cloud SQL instance.
CREATE_DATABASE	Creates a database in the Cloud SQL instance.
DELETE_DATABASE	Deletes a database in the Cloud SQL instance.
UPDATE_DATABASE	Updates a database in the Cloud SQL instance.
FAILOVER	Performs failover of an HA-enabled Cloud SQL failover replica.
DELETE_BACKUP	Deletes the backup taken by a backup run.
RECREATE_REPLICA	
TRUNCATE_LOG	Truncates a general or slow log table in MySQL.
DEMOTE_MASTER	Demotes the stand-alone instance to be a Cloud SQL read replica for an external database server.
MAINTENANCE	Indicates that the instance is currently in maintenance. Maintenance typically causes the instance to be unavailable for 1-3 minutes.

Enums

ENABLE_PRIVATE_IP	This field is deprecated, and will be removed in future version of API.
	This item is deprecated!
DEFER_MAINTENANCE	This item is deprecated!
	This item is deprecated!
CREATE_CLONE	Creates clone instance.
RESCHEDULE_MAINTENANCE	Reschedule maintenance to another time.

ImportContext

Database instance import context.

JSON representation

```
{
  "uri": string,
  "database": string,
  "kind": string,
  "fileType": enum (SqlFileType (https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4),
  "csvImportOptions": {
    "table": string,
    "columns": [
      string
    ]
  },
  "importUser": string,
  "bakImportOptions": {
    "encryptionOptions": {
      "certPath": string,
      "pvkPath": string,
      "pvkPassword": string
    }
  }
}
```

Fields

uri	<p>string</p> <p>Path to the import file in Cloud Storage, in the form</p> <p>gs: //bucketName/fileName</p> <p>. Compressed gzip files (.gz) are supported // when</p> <p>fileType</p> <p>is</p> <p>SQL</p> <p>. The instance must have // write permissions to the bucket and read access to the file.</p>
database	<p>string</p> <p>The target database for the import. If</p> <p>fileType</p> <p>is</p> <p>SQL</p> <p>, this field is required only if the import file does not specify a database, and is overridden by any database specification in the import file. If</p> <p>fileType</p> <p>is</p> <p>CSV</p> <p>, one database must be specified.</p>
kind	<p>string</p> <p>This is always</p> <p>sql#importContext</p> <p>.</p>

Fields	
fileType	<p>enum (SqlFileType (https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/operations#SqlFileType))</p> <p>The file type for the specified uri.</p> <p>SQL</p> <p>: The file contains SQL statements.</p> <p>CSV</p> <p>: The file contains CSV data.</p>
csvImportOptions	<p>object</p> <p>Options for importing data as CSV.</p>
csvImportOptions.table	<p>string</p> <p>The table to which CSV data is imported.</p>
csvImportOptions.columns[]	<p>string</p> <p>The columns to which CSV data is imported. If not specified, all columns of the database table are loaded with CSV data.</p>
importUser	<p>string</p> <p>The PostgreSQL user for this import operation. PostgreSQL instances only.</p>
bakImportOptions	<p>object</p> <p>instances.import parameters specific to SQL Server .BAK files</p>
bakImportOptions. encryptionOptions	<p>object</p>

Fields

<code>bakImportOptions. encryptionOptions.certPath</code>	<p>string</p> <p>Path to the Certificate (.cer) in Cloud Storage, in the form <code>gs://bucketName/fileName</code> (gs://bucketName/fileName)</p> <p>. The instance must have write permissions to the bucket and read access to the file.</p>
<code>bakImportOptions. encryptionOptions.pvkPath</code>	<p>string</p> <p>Path to the Certificate Private Key (.pvk) in Cloud Storage, in the form <code>gs://bucketName/fileName</code> (gs://bucketName/fileName)</p> <p>. The instance must have write permissions to the bucket and read access to the file.</p>
<code>bakImportOptions. encryptionOptions.pvkPassword</code>	<p>string</p> <p>Password that encrypts the private key</p>

SqlFileType

Enums

<code>SQL_FILE_TYPE_UNSPECIFIED</code>	Unknown file type.
<code>SQL</code>	File containing SQL statements.
<code>CSV</code>	File in CSV format.
<code>BAK</code>	

ExportContext

Database instance export context.

JSON representation

```
{
  "uri": string,
  "databases": [
    string
  ],
  "kind": string,
  "sqlExportOptions": {
    "tables": [
      string
    ],
    "schemaOnly": boolean,
    "mysqlExportOptions": {
      "masterData": integer
    }
  },
  "csvExportOptions": {
    "selectQuery": string
  },
  "fileType": enum (SqlFileType (https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4.
}
```

Fields

uri	string
	The path to the file in Google Cloud Storage where the export will be stored. The URI is in the form
	gs: //bucketName/fileName
	. If the file already exists, the requests // succeeds, but the operation fails. If
	fileType
	is //
	SQL
	and the filename ends with .gz, the contents are // compressed.

Fields

<code>databases[]</code>	<p>string</p> <p>Databases to be exported. MySQL instances: If fileType is SQL and no database is specified, all databases are exported, except for the mysql system database. If fileType is CSV, you can specify one database, either by using this property or by using the csvExportOptions.selectQuery property, which takes precedence over this property. PostgreSQL instances: You must specify one database to be exported. If fileType is CSV, this database must match the one specified in the csvExportOptions.selectQuery property.</p>
--------------------------	---

Fields	
kind	<p>string</p> <p>This is always</p> <p>sql#exportContext</p> <p>.</p>
sqlExportOptions	<p>object</p> <p>Options for exporting data as SQL statements.</p>
sqlExportOptions.tables[]	<p>string</p> <p>Tables to export, or that were exported, from the specified database. If you specify tables, specify one and only one database. For PostgreSQL instances, you can specify only one table.</p>
sqlExportOptions.schemaOnly	<p>boolean</p> <p>instances.export only schemas.</p>
sqlExportOptions.mysqlExportOptions	<p>object</p>
sqlExportOptions.mysqlExportOptions.masterData	<p>integer</p> <p>Option to include SQL statement required to set up replication. If set to</p> <p>1</p> <p>, the dump file includes a CHANGE MASTER TO statement with the binary log coordinates. If set to</p> <p>2</p> <p>, the CHANGE MASTER TO statement is written as a SQL comment, and has no effect. All other values are ignored.</p>
csvExportOptions	<p>object</p> <p>Options for exporting data as CSV.</p>
csvExportOptions.selectQuery	<p>string</p> <p>The select query used to extract the data.</p>

Fields

fileType	<p>enum (SqlFileType (https://cloud.google.com/sql/docs/mysql/admin-api/rest/v1beta4/operations#SqlFileType))</p> <p>The file type for the specified uri.</p> <p>SQL</p> <p>: The file contains SQL statements.</p> <p>CSV</p> <p>: The file contains CSV data.</p>
-----------------	--

Methods

<u>get</u>	Retrieves an instance operation that has been performed on an (https://cloud.google.com/sql/docs/mysql/instance/admin-api/rest/v1beta4/operations/get)
<u>list</u>	Lists all instance operations that have been performed on the (https://cloud.google.com/sql/docs/mysql/given Cloud SQL instance in the reverse chronological order of the start time)

Except as otherwise noted, the content of this page is licensed under the [Creative Commons Attribution 4.0 License](https://creativecommons.org/licenses/by/4.0/) (<https://creativecommons.org/licenses/by/4.0/>), and code samples are licensed under the [Apache 2.0 License](https://www.apache.org/licenses/LICENSE-2.0) (<https://www.apache.org/licenses/LICENSE-2.0>). For details, see our [Site Policies](https://developers.google.com/terms/site-policies) (<https://developers.google.com/terms/site-policies>). Java is a registered trademark of Oracle and/or its affiliates.

Last updated December 9, 2019.