We are aware of an ongoing issue concerning Course Progress and Recent Courses. We are working to correct this. Please note that your course progress is being recorded, even if it is not being displayed correctly. Thank you for your understanding.

# Working with Data in Google Cloud SQL

114 Min. Remaining  Beginner

Cancel Lab  Complete Lab

How was this lab?

## Credentials

How do I connect?

**Google Labs Account**

Username

cloud_user_p_271297@linuxacademygclabs.com

Password

nXQ8EqAA

Open Google Console

## Additional Information and Resources

The team has come to you with a big project: Set up a Cloud SQL instance to handle a MySQL database of over 600,000 items. After setting up the instance and the database, you'll need to bring the relevant files into a Cloud Storage bucket so you can import the schema and populate the database. Once that has been accomplished, they want you to run a couple of sample queries to confirm that all is working properly.

To accomplish this task, you'll need to complete the following steps:

1. Enable necessary APIs.
2. Create Cloud Storage bucket.
3. Get remote files and copy to bucket.
4. Create Cloud SQL instance.
5. Create MySQL database.
6. Import schema and data.
7. Run test queries.

## Learning Objectives

**Enable APIs.**

1. From the main Google Cloud console navigation, choose **APIs & Services** > **Library**.
2. Search for **Cloud SQL** and enable the service, if necessary.
3. Return to the APIs Library page and search for **Cloud Storage** and enable it as well, if necessary.

## Tools

Instant Terminal  Diagram

Video  Guide

4. In the Location Type section, select **Region** and click **Continue**.
5. Click **Create**.

### Clone a GitHub repository and copy to bucket.

1. Click the icon in the upper right navigation menu to **Activate Cloud Shell**.
2. From the Cloud Shell, issue the following command to clone the repository for this course:

```
git clone
https://github.com/linuxacademy/content-gcpro-
developer
```

3. Copy the necessary files to the Cloud Storage bucket:

```
cd content-gcpro-developer/sql-lab
```

```
gsutil cp * gs://<BUCKET_NAME>
```

### Create a Cloud SQL instance.

1. Navigate to **SQL**.
2. Click **Create instance**.
3. Select **Choose MySQL**.
4. Set ***Instance ID*** to **la-met**.
5. Set ***Root password*** to **root**.
6. Leave the region and zone options as their defaults.
7. Click **Create**.

### Create database, table, and import schema.

1. From the SQL dashboard, click the **la-met** entry.
2. Select the **Databases** tab.
3. Click **Create database**.
4. Name the database **met_museum**.

**Create Cloud Storage bucket.**

1. From the Google Cloud console main navigation, choose **Cloud Storage**.
2. Click **Create bucket**.
3. Name the bucket uniquely and click **Continue**
4. In the Location Type section, select **Region** and click **Continue**.
5. Click **Create**.

**Clone a GitHub repository and copy to bucket.**

1. Activate the **Cloud Shell**.
2. From the Cloud Shell, issue the following command to clone the repository for this course:

```
git clone
https://github.com/linuxacademy/content
-gcpro-developer
```

3. Copy the necessary files to the Cloud Storage bucket:

```
cd content-gcpro-developer/sql-lab
gsutil cp * gs://[BUCKET_NAME]
```

**Create a Cloud SQL instance.**

1. From the main console navigation, choose **Cloud SQL**.
2. Click **Create Instance**.
3. Select **Choose MySQL**.
4. Set the instance ID to **la-met**.
5. Set the password to **root**.
6. Leave the region and zone options as their defaults.
7. Click **Create**.

**Create database, table, and import schema.**

1. From the Cloud SQL dashboard, click the **la-met** entry.
2. Select the **Databases** tab.
3. Choose **Create database**.
4. Name the database **met_museum**.
5. Leave the other settings as their defaults and click **Create**.
6. Choose **Import**.
7. Locate the bucket containing the uploaded files by clicking **Browse**.
8. Choose **MetObjects_Table.sql** and click **Select**.
9. Make sure the ***Format of import*** is set to **SQL**.
10. From the ***Database*** list, choose **met_museum**.
11. Click **Import**.

**Import data.**

1. Choose **Import**.
2. Locate the bucket containing the uploaded files by clicking **Browse**.
3. Choose **MetObjects_subset.csv** and click **Select**.
4. Make sure the ***Format of import*** is set to **CSV**.
5. From the ***Database*** list, choose **met_museum**.
6. In the ***Table*** field, enter **MetObjects**.
7. Click **Import**.

**Query database.**

1. In the Cloud Shell, connect to the database instance with the following command:

```
gcloud sql connect la-met --user=root
```

2. When prompted, enter the password: **root**.
3. Declare the database to use:

```
use met_museum;
```

4. Enter the following queries:

```
SELECT Title, Medium FROM MetObjects
LIMIT 20;
SELECT Title, Medium, Link_Resource
FROM MetObjects WHERE Object_Begin_Date
>= '2000' LIMIT 20;
```

5. Click any link returned to view Met object.