Quickstart for Cloud SQL for MySQL

MySQL | PostgreSQL | SQL Server
This page shows you how to create and connect to a MySQL instance and perform basic SQL operations using the Google Cloud Console and a client. The resources created in this Quickstart typically cost less than a dollar, assuming you complete the steps, including the clean up, in a timely manner.

Before you begin

Note: The name you use for your project must be between 4 and 30 characters. When you type the name, the form suggests a project ID, which you can edit. The project ID must be between 6 and 30 characters, with a lowercase letter as the first character. You can use a dash, lowercase letter, or digit for the remaining characters, but the last character cannot be a dash.

1. In the Google Cloud Console, on the project selector page, select or create a Google Cloud project.

   Note: If you don't plan to keep the resources that you create in this procedure, create a project instead of selecting an existing project. After you finish these steps, you can delete the project, removing all resources associated with the project. Go to project selector

2. Make sure that billing is enabled for your Cloud project. Learn how to confirm that billing is enabled for your project.

Note: If you are running a local instance of MySQL, stop it before beginning to work with a Cloud SQL instance. Otherwise you might encounter errors such as `address already in use`.

Create an instance

In this procedure, you use the Google Cloud Console. To use the `gcloud` command-line tool, cURL, or PowerShell, see Creating instances.

1. Go to the Cloud SQL Instances page.

2. Select your project and click **Continue**.

3. Click **Create Instance**.
4. Click **MySQL**.
5. If you're prompted to enable the **Compute API**, click the **Enable API** button.
6. Enable the **Cloud SQL Admin API**.
7. Enter `myinstance` for **Instance ID**.
8. Enter a password for the root user.

9. Use the default values for the other fields.
10. Click **Create**.

   You are returned to the instances list; you can click into the new instance right away to see the details, but it won't be available until it initializes and starts.

   Note: In this example, the instance is created using default settings, including a public IP address.

Connect to your instance using the mysql client in Cloud Shell

1. In the Google Cloud Console, click the Cloud Shell icon ( ) in the upper right corner.

   When Cloud Shell finishes initializing, the following appears:

   ```
   Welcome to Cloud Shell! Type "help" to get started.
   username@example-id:~$
   ```

2. At the Cloud Shell prompt, connect to your Cloud SQL instance:

   ```
   gcloud sql connect myinstance --user=root
   ```

3. Enter your root password.

   The `mysql` prompt appears.

Create a database and upload data

1. Create a SQL database on your Cloud SQL instance:

   ```
   CREATE DATABASE guestbook;
   ```

2. Insert sample data into the guestbook database:

   ```
   USE guestbook;
   CREATE TABLE entries (guestName VARCHAR(255), content VARCHAR(255),
       entryID INT NOT NULL AUTO_INCREMENT, PRIMARY KEY(entryID));
       INSERT INTO entries (guestName, content) values ("first guest", "I got
   here!");
       INSERT INTO entries (guestName, content) values ("second guest", "Me
   too!");
   ```

3. Retrieve the data:

```
SELECT * FROM entries;
```

The result is:

```
+-------------+-------------------+---------+
| guestName   | content           | entryID |
+-------------+-------------------+---------+
| first guest | I got here!       |       1 |
| second guest | Me too!          |       2 |
+-------------+-------------------+---------+
2 rows in set (0.00 sec)
mysql>
```

Clean up

To avoid incurring charges to your Google Cloud account for the resources used in this quickstart, follow these steps.

1. Go to the Cloud SQL Instances page in the Google Cloud Console.
   Go to the Cloud SQL Instances page
2. Select the `myinstance` instance to open the **Instance details** page.
3. In the icon bar at the top of the page, click **Delete**.
4. In the **Delete instance** window, type `myinstance`, then click **Delete** to delete the instance.

   You cannot reuse an instance name for about 7 days after an instance is deleted.

What's next

Based on your needs, you can learn more about creating Cloud SQL instances.
You also can learn about creating MySQL users and databases for your Cloud SQL instance.

Also see the Cloud SQL pricing information.

In this quickstart you connected to the instance using Cloud Shell. In most use cases, how you connect depends on your networking configuration, such as:

- If your Cloud SQL instance has a public or private IP address.
- If you're connecting from inside Google Cloud (from the same project or from a different project).
- If you're connecting from outside of Google Cloud.

Learn more about:

- All of the connectivity options in Cloud SQL.
- Configuring your Cloud SQL instance with a public IP address.
- Configuring your Cloud SQL instance with a private IP address.

Additionally, you can learn about connecting to a Cloud SQL instance from other Google Cloud applications:

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