

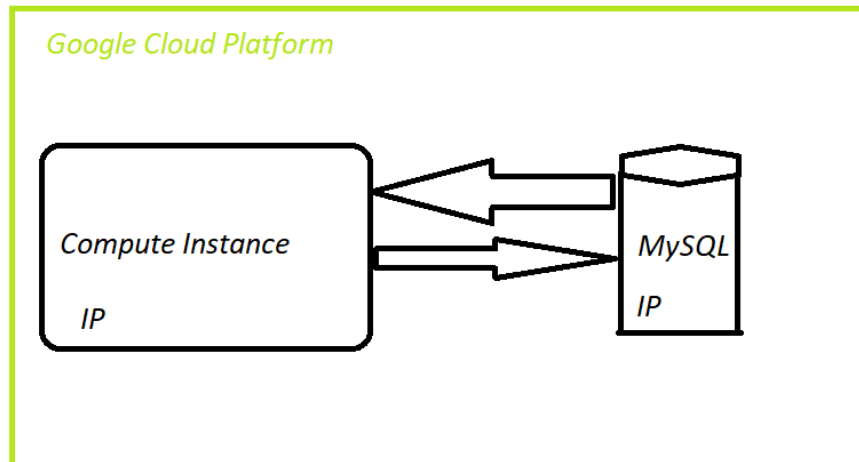
# GCP Learning Series: connecting MySQL Client from Compute Engine



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Often you need to host a database in a cloud for different purposes. It is the most basic thing that needs to be done for any online software or apps. We already have computing capability in the cloud so, it will be a good idea to use compute instance to connect database instance for carrying out the task.

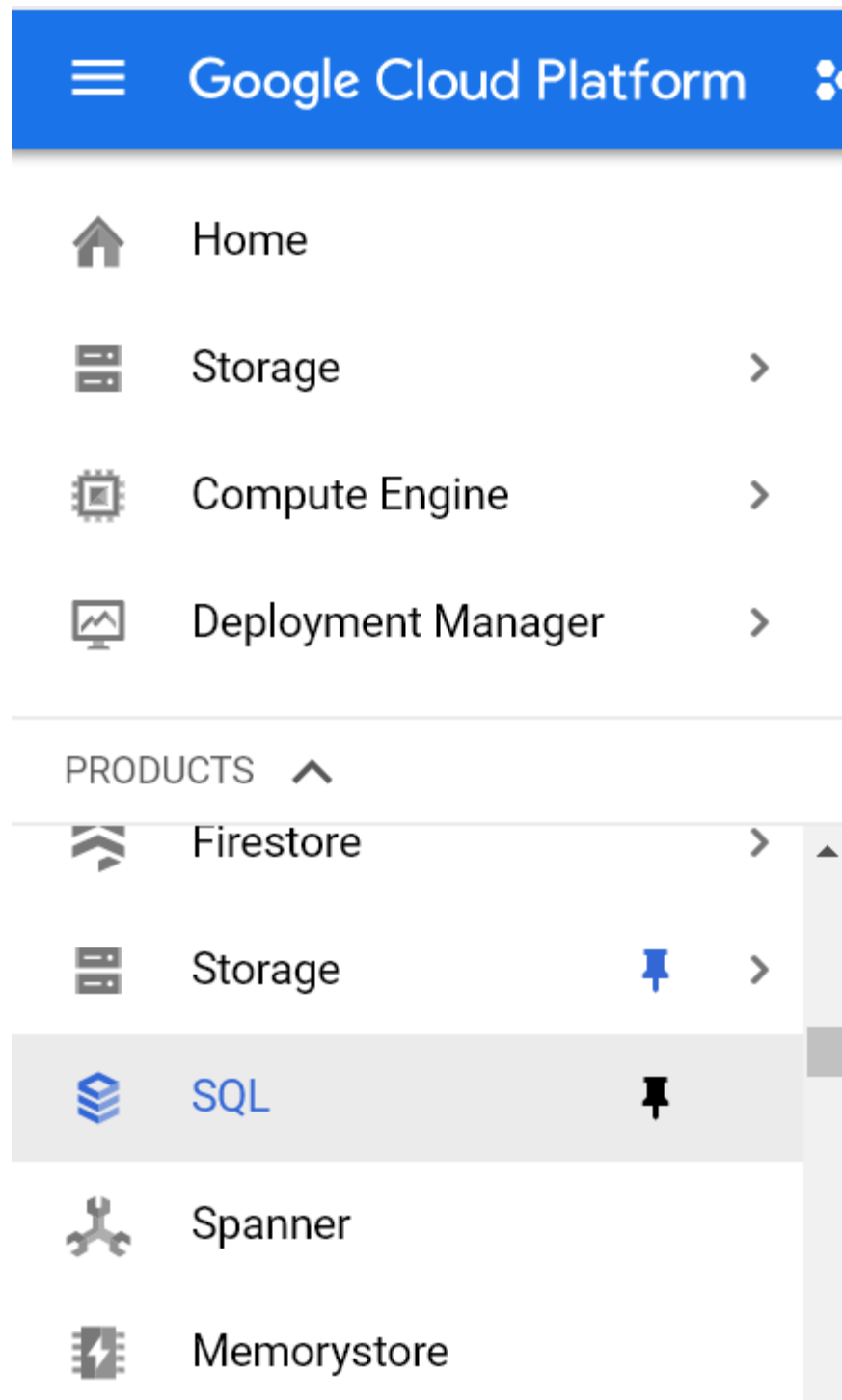


The process is consist of three steps

1. Setup Cloud SQL
2. Setup Compute Instance
3. Connect two instances

## 1 Setup Cloud SQL

First, goto GCP Console and click on SQL



Second, click on Create Instance

## Cloud SQL

## Cloud SQL Instances

Cloud SQL instances are fully managed, relational MySQL and PostgreSQL databases. Google handles replication, patch management and database management to ensure availability and performance. [Learn more](#)


To get started with Cloud SQL, you can create a new instance or use Cloud SQL to migrate your SQL database to Google Cloud.


[Create instance](#)

or

[Migrate data](#)

Select MySQL

 Google Cloud Platform Webproject ▼

 SQL | [← Create an instance](#)


### Choose a database engine

☒ MySQL  
Versions 5.6 or 5.7

☐ PostgreSQL  
Version 9.6

[Next](#)

Select the second generation, which is also mentioned as recommended.

 SQL

[←](#) Choose a MySQL instance type

### MySQL Second Generation (Recommended)


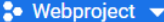
High performance, high storage capacity, low cost.


- Up to 7X throughput and 20X storage capacity of First Generation
- Less expensive than First Generation for most use cases
- Option to add High Availability failover and read replication
- Configurable backup period and maintenance window
- Supports only MySQL 5.6 and 5.7

[Choose Second Generation](#)

### MySQL First Generation (Legacy)

Now input the instance name for your database, root password and the location of the database.

 Google Cloud Platform 

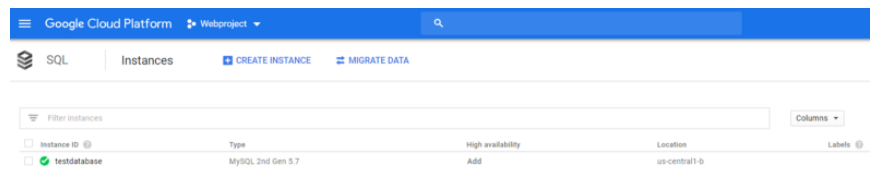
 Navigation menu

[←](#) Create a MySQL Second Generation instance

  [Generate](#)[Create](#) [Cancel](#)

After a while, you will see that the database instance is ready. It generally takes few minutes so be patient. After the instance becomes

ready you will notice green tick mark in its name.

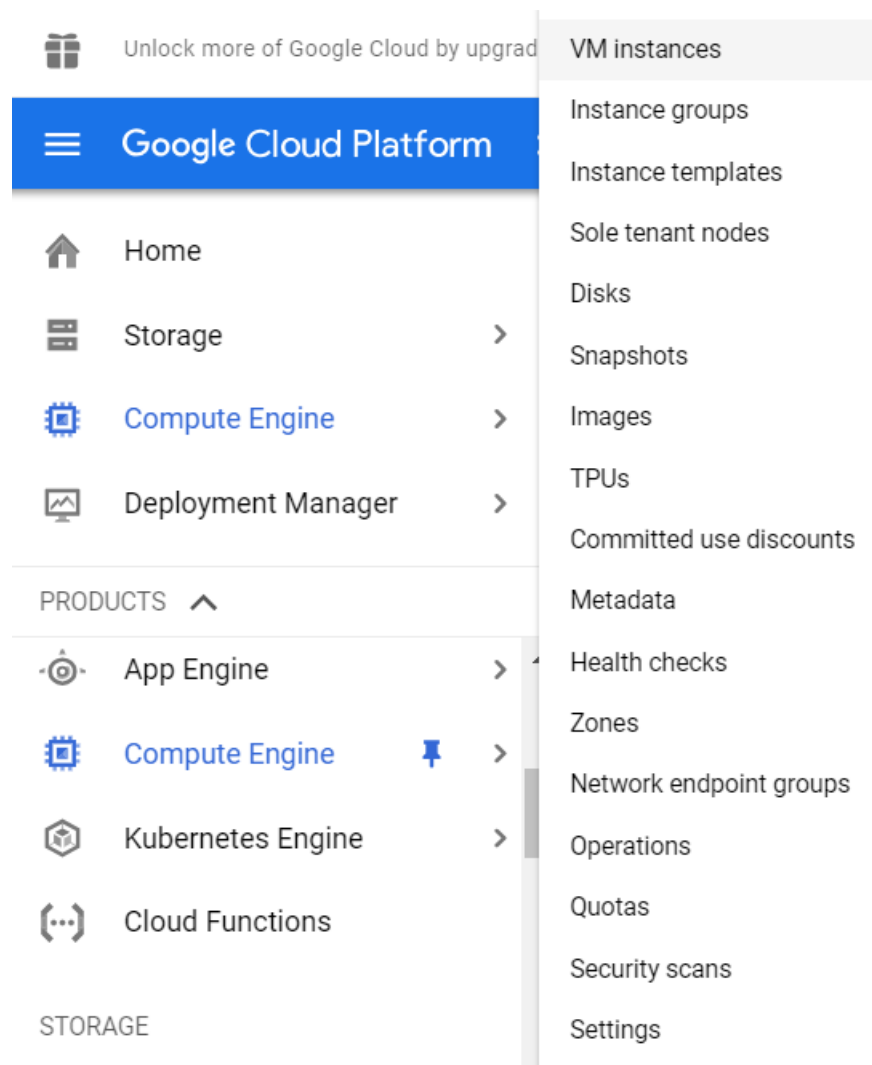


The screenshot shows the Google Cloud Platform console for SQL instances. At the top, there's a navigation bar with 'Google Cloud Platform' and a search bar. Below it, the 'SQL' section is active, showing 'Instances' with buttons for 'CREATE INSTANCE' and 'MIGRATE DATA'. A table lists instances, with one instance named 'testdatabase' highlighted, showing it is of type 'MySQL 2nd Gen 5.7' and located in 'us-central1-b'.

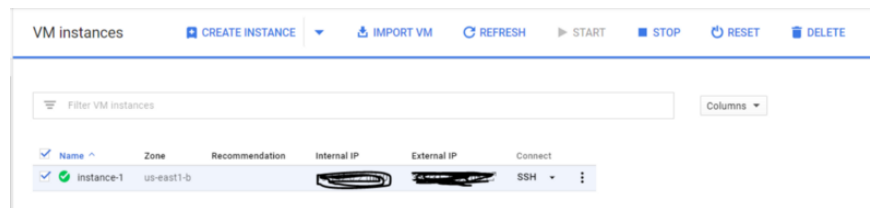
Instance ID	Type	High availability	Location	Labels
testdatabase	MySQL 2nd Gen 5.7	Add	us-central1-b	

## 2. Setup Compute Instance

Goto cloud console, click on Compute engine and then VM Instances



The idea here is to create a simple Linux machine with the capabilities of MySQL client.



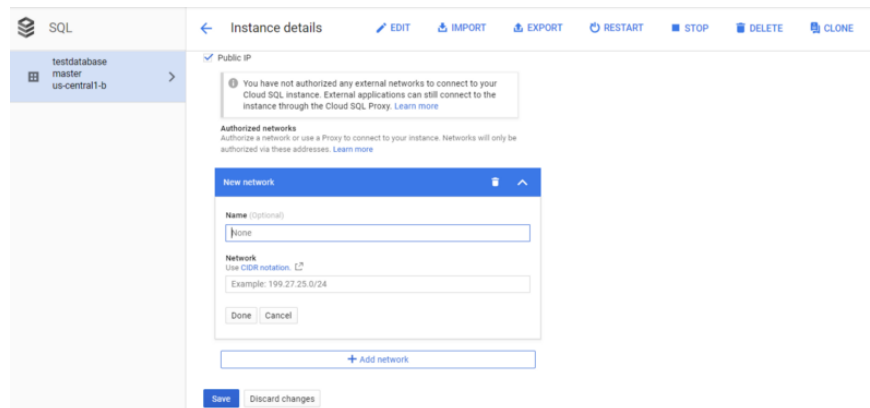
Now that we have both machines ready, we can now install SQL by giving following commands

```
sudo apt-get update
sudo apt-get install mysql-client
```

Now, both our machines are ready. Let's connect them.

### 3. Connect two instances

Firstly, go to compute instance and copy the public IP of the instance and paste that into SQL>connection>add network.



Now go to users and change the root password

## ✔ testdatabase

MySQL Second Generation master

OVERVIEW

CONNECTIONS

**USERS**

### MySQL user accounts

User accounts enable users and applications to connect to your Cloud SQL instance. [Learn more](#)

Create user account

User name	Host name	
mysql.sys	localhost	⋮
root	% (any host)	⋮

Change password

Delete

After changing password head over to the compute instance and use the following command to connect to MySQL

```
# mysql -h (IP address of MySQL instance) -u root -p
```

Now you will see the screen as below which confirms that you have successfully setup database connection within the cloud

```
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MySQL connection id is 73
Server version: 5.7.14-google-log (Google)

Copyright (c) 2000, 2017, Oracle, MariaDB Corporation Ab and others.
```

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

```
MySQL [(none)]> show databases;
```

```
+-----+  
| Database          |  
+-----+  
| information_schema |  
| mydb               |  
| mysql              |  
| performance_schema |  
| sys                |  
+-----+  
5 rows in set (0.03 sec)
```



