# Migrate a MySQL Database to Google Cloud SQL

**GSP306**

# Overview

In a challenge lab you're given a scenario and a set of tasks. Instead of following step-by-step instructions, you will use the skills learned from the labs in the quest to figure out how to complete the tasks on your own! An automated scoring system (shown on this page) will provide feedback on whether you have completed your tasks correctly.

When you take a challenge lab, you will not be taught new Google Cloud concepts. You are expected to extend your learned skills, like changing default values and reading and researching error messages to fix your own mistakes.

To score 100% you must successfully complete all tasks within the time period!

This lab is only recommended for students who have Compute Engine skills. Are you up for the challenge?

## Topics tested

- Create a Google Cloud SQL instance and create a database
- Import a MySQL database into Cloud SQL
- Reconfigure an application to use Cloud SQL instead of a local MySQL database

# Setup

**Before you click the Start Lab button**

Read these instructions. Labs are timed and you cannot pause them. The timer, which starts when you click **Start Lab**, shows how long Google Cloud resources will be made available to you.

This Qwiklabs hands-on lab lets you do the lab activities yourself in a real cloud environment, not in a simulation or demo environment. It does so by giving you new, temporary credentials that you use to sign in and access Google Cloud for the duration of the lab.

**What you need**

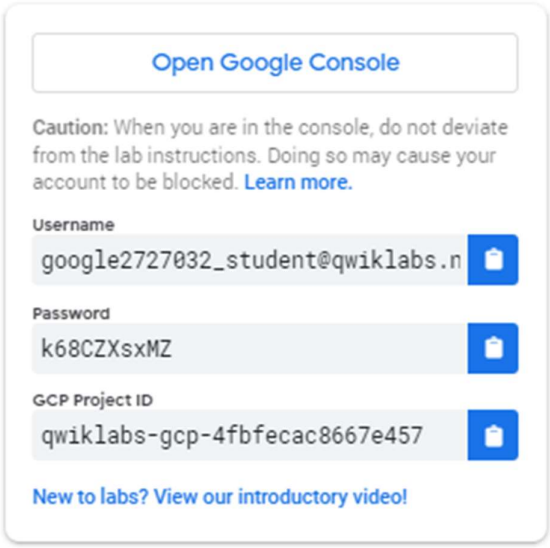
To complete this lab, you need:

- Access to a standard internet browser (Chrome browser recommended).
- Time to complete the lab.
  **Note:** If you already have your own personal Google Cloud account or project, do not use it for this lab.

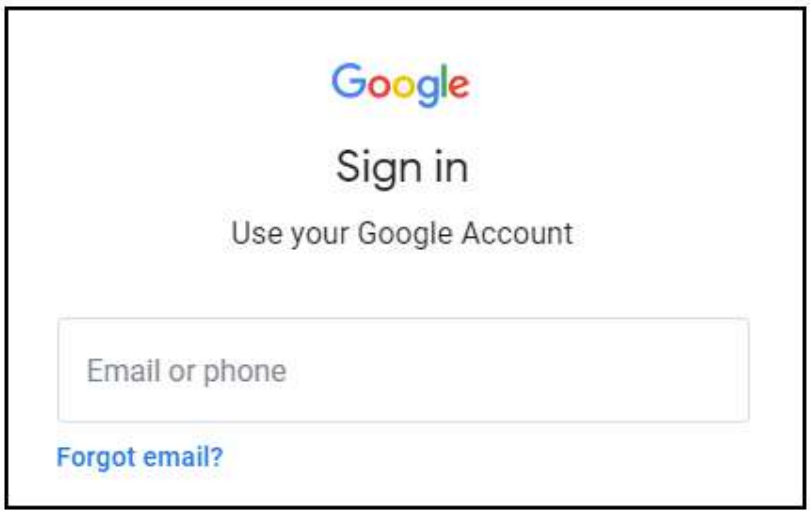
  **Note:** If you are using a Pixelbook, open an Incognito window to run this lab.

  **How to start your lab and sign in to the Google Cloud Console**

  1. Click the **Start Lab** button. If you need to pay for the lab, a pop-up opens for you to select your payment method. On the left is a panel populated with the temporary credentials that you must use for this lab.

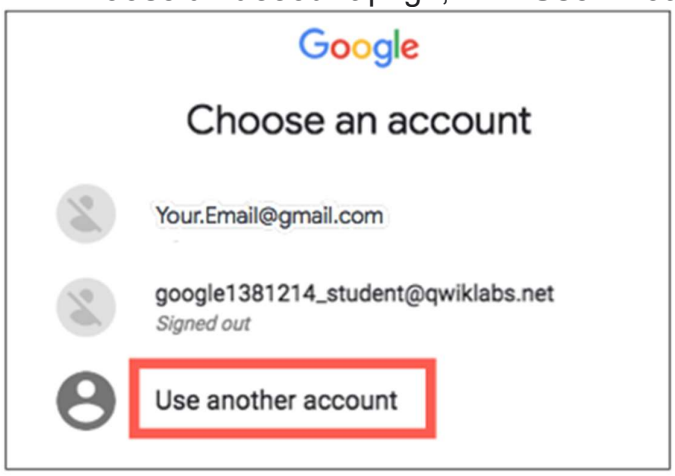



  2. Copy the username, and then click **Open Google Console**. The lab spins up resources, and then opens another tab that shows the **Sign in** page.




  ***Tip:*** Open the tabs in separate windows, side-by-side.

If you see the **Choose an account** page, click **Use Another Account**.




3. In the **Sign in** page, paste the username that you copied from the Connection Details panel. Then copy and paste the password.

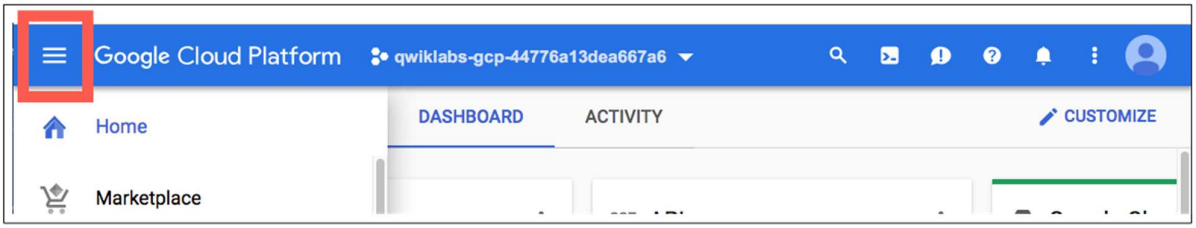
   ***Important:*** You must use the credentials from the Connection Details panel. Do not use your Qwiklabs credentials. If you have your own Google Cloud account, do not use it for this lab (avoids incurring charges).

4. Click through the subsequent pages:

   - Accept the terms and conditions.
   - Do not add recovery options or two-factor authentication (because this is a temporary account).
   - Do not sign up for free trials.

After a few moments, the Cloud Console opens in this tab.

**Note:** You can view the menu with a list of Google Cloud Products and Services by clicking the **Navigation menu** at the top-left.



# Challenge scenario

Your WordPress blog is running on a server that is no longer suitable. As the first part of a complete migration exercise, you are migrating the locally hosted database used by the blog to Cloud SQL.

The existing WordPress installation is installed in the `/var/www/html/wordpress` directory in the instance called `blog` that is already running in the lab. You can access the blog by opening a web browser and pointing to the external IP address of the blog instance.

The existing database for the blog is provided by MySQL running on the same server. The existing MySQL database is called `wordpress` and the user called **blogadmin** with password **Password1***, which provides full access to that database.

# Your challenge

You need to create a new Cloud SQL instance to host the migrated database. Once you have created the new database and configured it, you can then create a database dump of the existing database and import it into Cloud SQL. When the data has been migrated, you will then reconfigure the blog software to use the migrated database.

For this lab, the WordPress site configuration file is located here: `/var/www/html/wordpress/wp-config.php`.

To sum it all up, your challenge is to migrate the database to Cloud SQL and then reconfigure the application so that it no longer relies on the local MySQL database. Good luck!

**Note:** Your lab activity tracking score will initially report a score of 20 points because your blog is running. If you reconfigure the blog application to use Cloud SQL database successfully, those points will remain in your grand total.

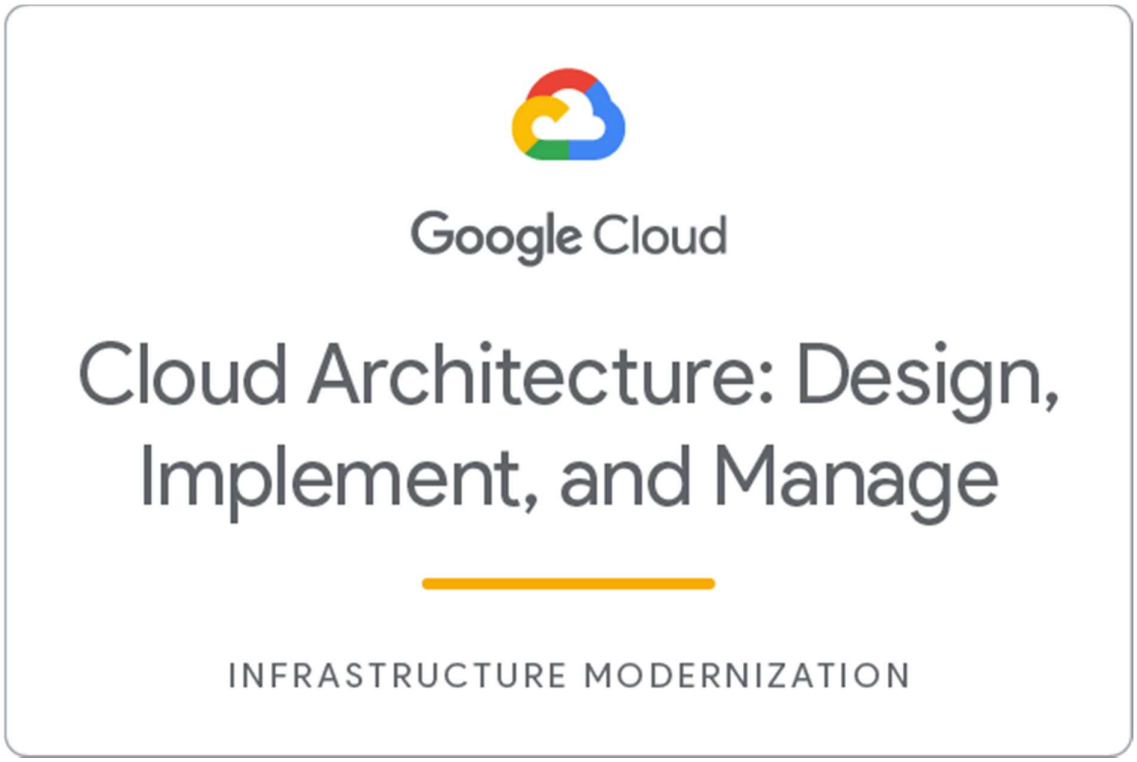
If the database has been incorrectly migrated, the "blog is running" test will fail, reducing your score by 20 points.

## Tips and Tricks

**Google Cloud SQL - How-To Guides**: The Cloud SQL documentation includes a set of How-to guides that provide guidance on how to create instances and databases, and how to connect applications to those databases.
**WordPress Installation and Migration:** The WordPress Codex provides information on how to install, configure, and migrate WordPress sites. You will find the instructions on how to create and prepare databases for use with WordPress here.

# Congratulations!

You have completed the challenge lab.




## Finish Your Quest

This self-paced lab is part of the Qwiklabs Cloud Architecture: Design, Implement, and Manage Quest. A Quest is a series of related labs that form a learning path. Completing this Quest earns you the badge above, to recognize your achievement. You can make your badge (or badges) public and link to them in your online resume or social media account. Enroll in this Quest and get immediate completion credit if you've taken this lab. See other available Qwiklabs Quests.

## Take Your Next Lab

Continue your Quest with Build and Deploy a Docker Image to a Kubernetes Cluster, or check out these suggestions:

- Configure a Firewall and a Startup Script with Deployment Manager
- Configure Secure RDP Using a Windows Bastion Host

## Next Steps / Learn More

Have you checked out the Data Science on the Google Cloud Platform Quest? Students are given the opportunity to practice all aspects of ingestion, preparation, processing, querying, exploring and visualizing data sets using Google Cloud tools and services. The exercises in the quest are taken from book **Data Science on the Google Cloud Platform** by Valliappa Lakshmanan, published by O'Reilly Media, Inc.

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Manual Last Updated February 11, 2021


SOLUTION: https://www.youtube.com/watch?v=jbsObWzxJSM