

Google Cloud SDK: Qwik Start - Redhat/Centos

GSP122



Google Cloud Self-Paced Labs

In this lab you will learn how to install Cloud SDK to a virtual machine, initialize it and run core gcloud commands from the command-line. The Cloud SDK RPM packages are supported for Red Hat Enterprise Level 7 and CentOS 7.

Setup and Requirements

Qwiklabs 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:

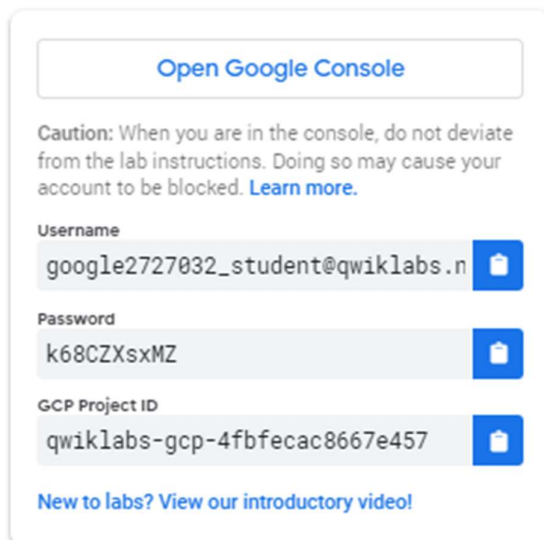
- Access to a standard internet browser (Chrome browser recommended).
- Time to complete the lab.

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

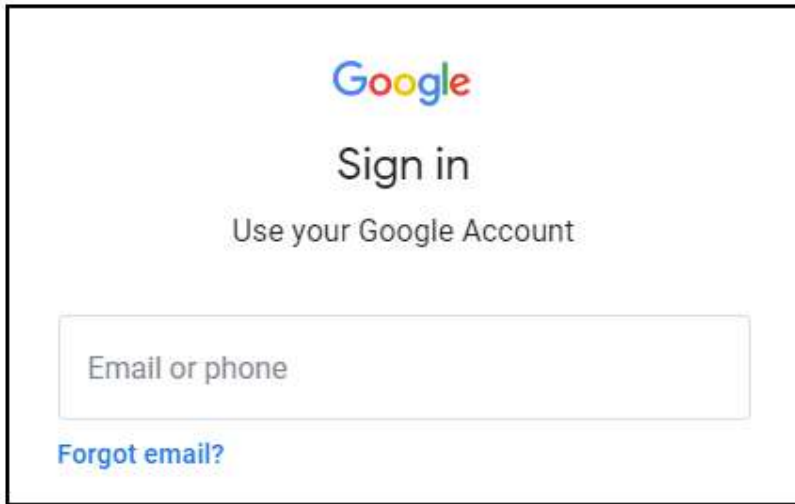
1. Click the **Start Lab** button. If you need to pay for the lab, a pop-up opens for you to select your payment method. On the left is a panel populated with the temporary credentials that you must use for this lab.



The screenshot shows a panel with the following content:

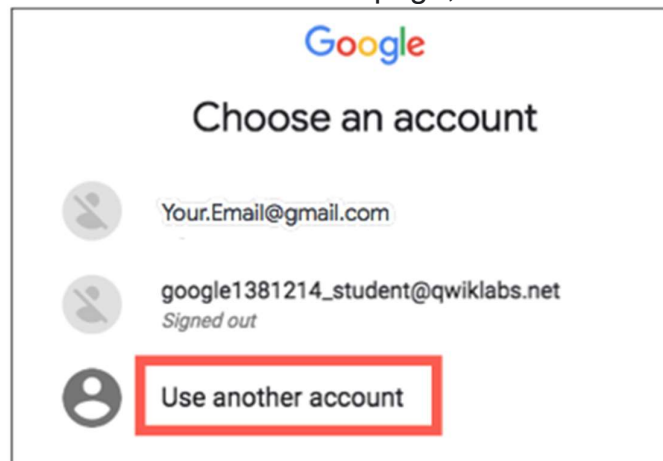
- A button at the top labeled "Open Google Console".
- A caution message: "Caution: When you are in the console, do not deviate from the lab instructions. Doing so may cause your account to be blocked. [Learn more.](#)"
- Three credential fields, each with a copy icon to its right:
 - Username: google2727032_student@qwiklabs.n
 - Password: k68CZXsxMZ
 - GCP Project ID: qwiklabs-gcp-4fbfecac8667e457
- A link at the bottom: "New to labs? View our introductory video!"

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.

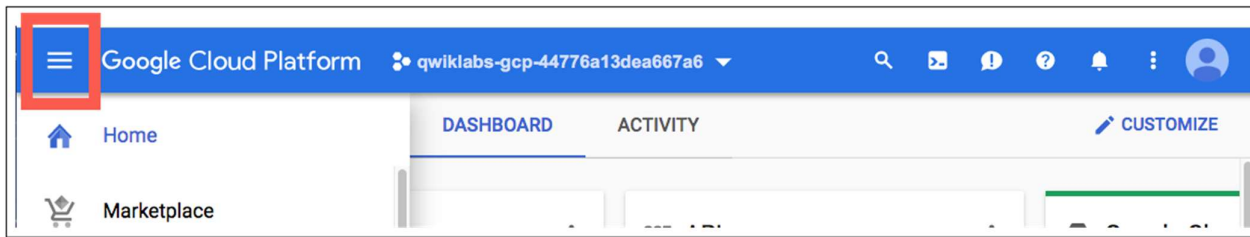
Important: You must use the credentials from the Connection Details panel. Do not use your Qwiklabs credentials. If you have your own Google Cloud account, do not use it for this lab (avoids incurring charges).

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.

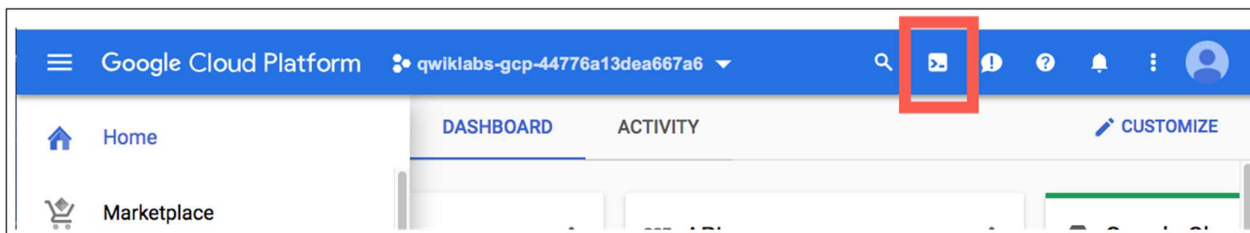


The Google Cloud Shell

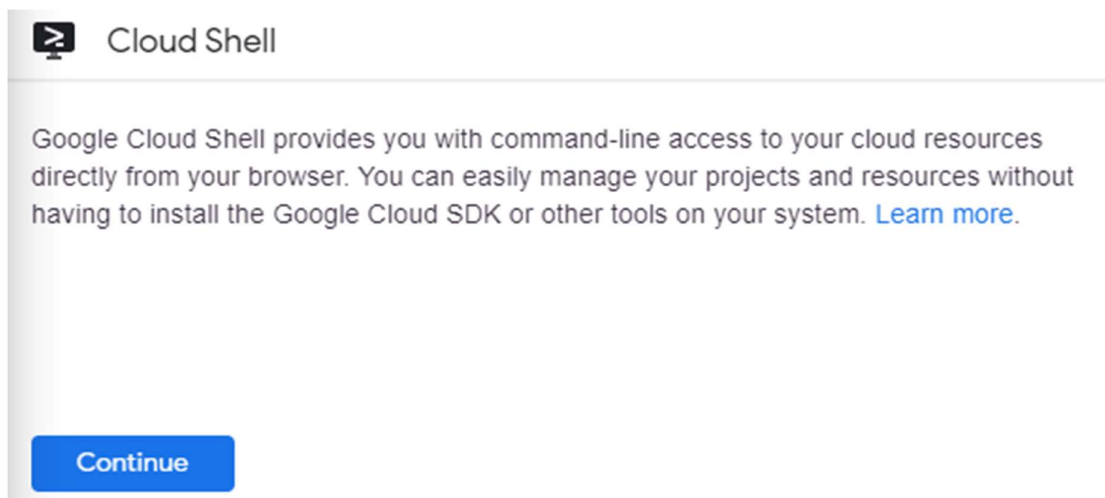
Activate Cloud Shell

Cloud Shell is a virtual machine that is loaded with development tools. It offers a persistent 5GB home directory and runs on the Google Cloud. Cloud Shell provides command-line access to your Google Cloud resources.

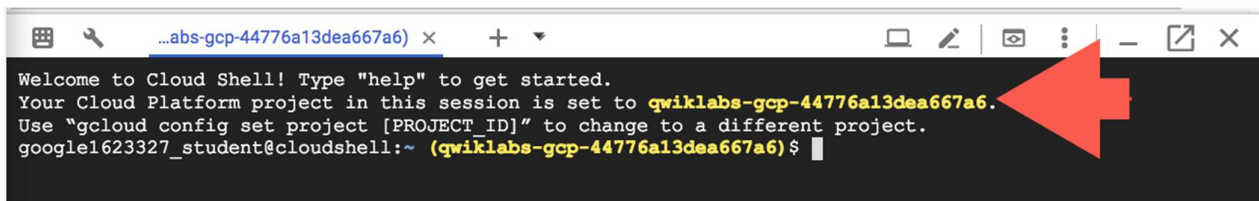
In the Cloud Console, in the top right toolbar, click the **Activate Cloud Shell** button.



Click **Continue**.



It takes a few moments to provision and connect to the environment. When you are connected, you are already authenticated, and the project is set to your *PROJECT_ID*. For example:



```
...abs-gcp-44776a13dea667a6) x + ▾
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to qwiklabs-gcp-44776a13dea667a6.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
google1623327_student@cloudshell:~ (qwiklabs-gcp-44776a13dea667a6) $
```

`gcloud` is the command-line tool for Google Cloud. It comes pre-installed on Cloud Shell and supports tab-completion.

You can list the active account name with this command:

```
gcloud auth list
```

(Output)

```
Credentialed accounts:
- <myaccount>@<mydomain>.com (active)
```

(Example output)

```
Credentialed accounts:
- google1623327_student@qwiklabs.net
```

You can list the project ID with this command:

```
gcloud config list project
```

(Output)

```
[core]
project = <project_ID>
```

(Example output)

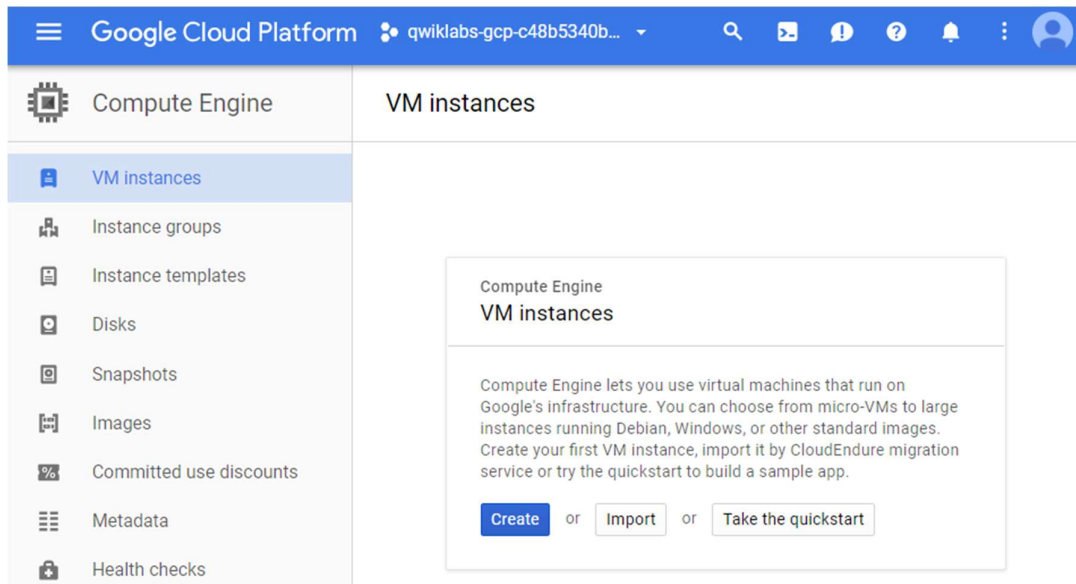
```
[core]
project = qwiklabs-gcp-44776a13dea667a6
```

For full documentation of `gcloud` see the [gcloud command-line tool overview](#).

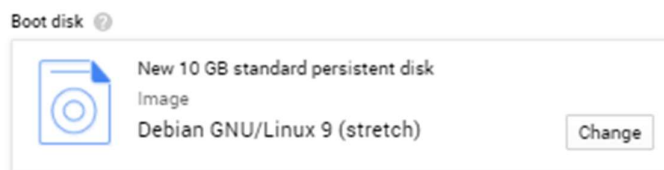
Set up a VM to use

Create a VM with either Centos or Redhat. You can choose which one to use, the steps will be the same.

In the Cloud Console, go to **Compute Engine > VM instances**, then click **Create**.



In the **Boot disk** section, click **Change** to begin configuring your boot disk:



- Choose **CentOS 7**, then click the **Select** button.
In the **Firewall** section, select **Allow HTTP traffic**.

Click **Create**.

Click **Check my progress** to verify the objective.

Then click on the **SSH** button for your instance.

Now you're ready to set this instance up with Cloud SDK.

Update the Cloud SDK RPM packages

The Cloud SDK RPM packages are supported for Red Hat Enterprise Level 7 and CentOS 7. They may also work on Fedora systems using yum or dnf, but this has not been tested.

Run the following in the SSH window to set up Cloud SDK:

```
# Update YUM with Cloud SDK repo information:
sudo tee -a /etc/yum.repos.d/google-cloud-sdk.repo << EOM
[google-cloud-sdk]
name=Google Cloud SDK
baseurl=https://packages.cloud.google.com/yum/repos/cloud-sdk-el7-x86_64
enabled=1
gpgcheck=1
repo_gpgcheck=1
gpgkey=https://packages.cloud.google.com/yum/doc/yum-key.gpg
        https://packages.cloud.google.com/yum/doc/rpm-package-key.gpg
EOM

# The indentation for the 2nd line of gpgkey is important.

# Install the Cloud SDK
sudo yum install google-cloud-sdk
```

Respond **Y** when prompted to confirm the total download size.

Initialize the SDK in your instance

Use the `gcloud init` command to perform several common SDK setup tasks. These include authorizing the SDK tools to access Google Cloud using your user account credentials and setting up the default SDK configuration.

To initialize the SDK, run the following:

```
gcloud init --console-only
```

Note: This prevents the `gcloud init` command from launching a web browser. Choose option 2, to log in with a new account.

Type the number for adding a new account.

```
Pick cloud project to use:
[1] XXXXXxXXX-compute@developer.gserviceaccount.com
[2] log in with new account
...
Please enter your numeric choice or text value:
```

You will get confirmation that you're running on virtual machine. Type **Y** to allow the credentials you logged into the lab with (this is your personal account for this lab) to be used to authenticate your account.

```
You are running on a Google Compute Engine virtual machine. It is recommended that you
use service accounts for authentication. You can run:
$ gcloud config set account 'ACCOUNT'
To switch accounts as necessary.

Y to authenticate with your personal acct
Do you want to continue (Y/n)?
```

You'll be given a long URL click on it or paste it into a new browser. You may be asked to select your lab credentials again, and **Allow** access to your account.

This URL will give you your authentication code. Copy the code and paste it into the SSH window at the command prompt, then press **Enter**.

Now type the number corresponding to you Project ID.

You will see a confirmation that you have completed the setup steps successfully that will look like this:

```
Your current project has been set to [qwiklabs-gcp-fe1e6438a8b814c2].
...

This gcloud configuration is called [default]
```

Click **Check my progress** to verify the objective.

Run core gcloud commands

Run these `gcloud` commands to view information about your SDK installation:

List accounts whose credentials are stored on this VM:

```
gcloud auth list
```

A list of credentialed accounts displays:

```
      Credentialed Accounts
ACTIVE          ACCOUNT
*               xxxxxxxx-compute@developer.gserviceaccount.com
               gcpxxxxxxxxx_student@qwiklabs.net
```

This command will list the properties in your active SDK configuration:

```
gcloud config list
```

The list of properties will display:

```
[compute]
Region = us-central1
Zone = us-central1-a
[core]
Account = gcpstaging10738_student@qwiklabs.net
Disable_usage_reporting = True
Project = qwiklabs-gcp-fe1e6438a8b814c2
```

Run the following to view information on your Cloud SDK installation and the active SDK configuration:

```
gcloud info
```

The summary includes information about:

- your system
- the installed SDK components
- the active user account and current project
- the properties in the active SDK configuration

You can see information about `gcloud` commands and other topics from the command line by running the following:

```
gcloud help
```

Press **Enter** or the spacebar to scroll down the Help content. Press **q** to exit Help.

In Help you can specify a command. For example, the help for `gcloud compute instances create` would be this:

```
gcloud help compute instances create
```

You'll see a help topic that contains a description of the command, a list of command flags and arguments, and examples of how to use it.

Congratulations!

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Next Steps / Learn More

This lab is also part of a series of labs called Qwik Starts. These labs are designed to give you a little taste of the many features available with Google Cloud. Search for "Qwik Starts" in the [lab catalog](#) to find the next lab you'd like to take! Learn more about [Google SDK](#).

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