# Cloud Source Repositories: Qwik Start

**GSP121**

# Overview

Google Cloud Source Repositories provides Git version control to support collaborative development of any application or service. In this lab, you will create a local Git repository that contains a sample file, add a Google Source Repository as a remote, and push the contents of the local repository. You will use the source browser included in Source Repositories to view your repository files from within the Cloud Console.

# Setup and Requirements

**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**

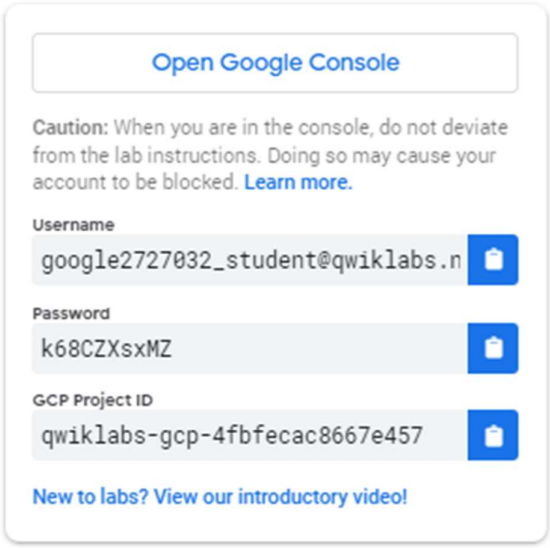
To complete this lab, you need:

- 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.

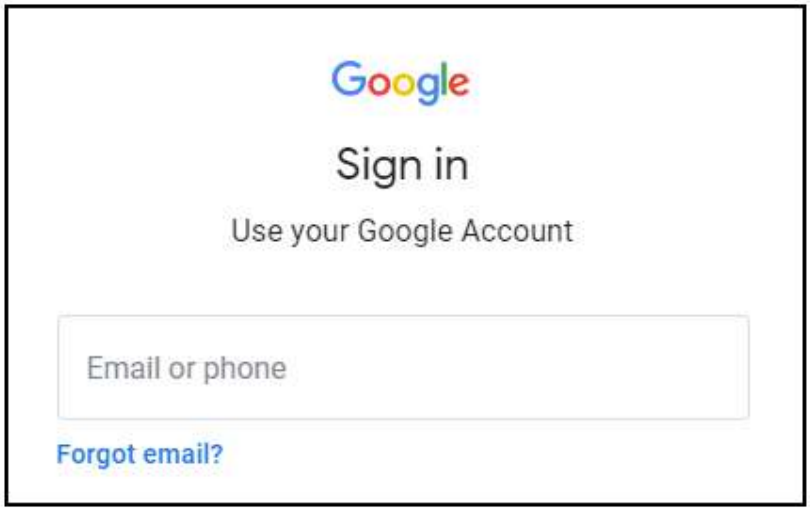
**Note:** If you are using a Pixelbook, open an Incognito window to run this lab.

**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.

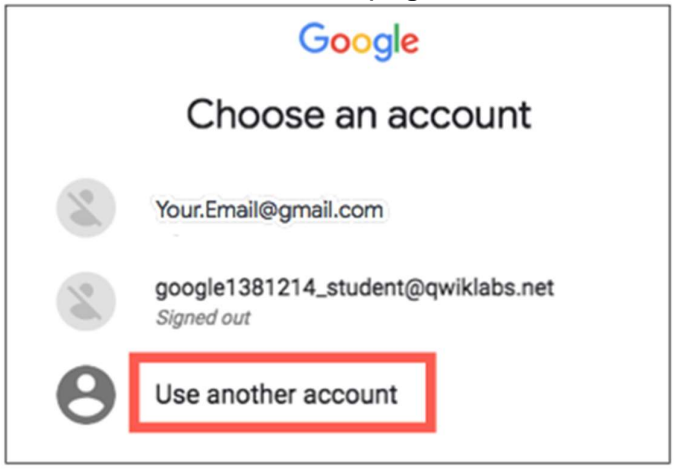



2. Copy the username, and then click **Open Google Console**. The lab spins up resources, and then opens another tab that shows the **Sign in** page.




***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.

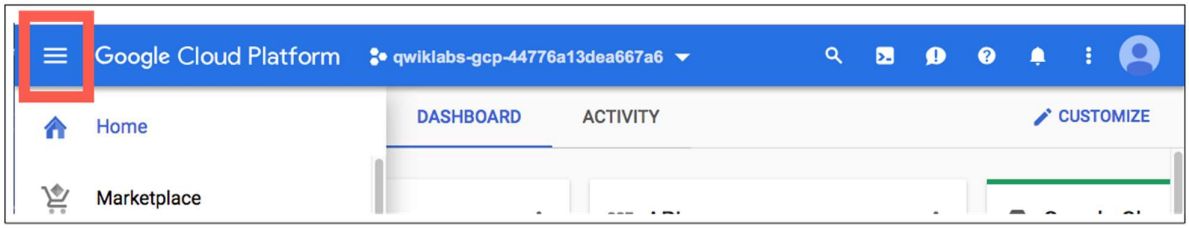
   ***Important:*** You must use the credentials from the Connection Details panel. Do not use your Qwiklabs credentials. If you have your own Google Cloud account, do not use it for this lab (avoids incurring charges).

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.

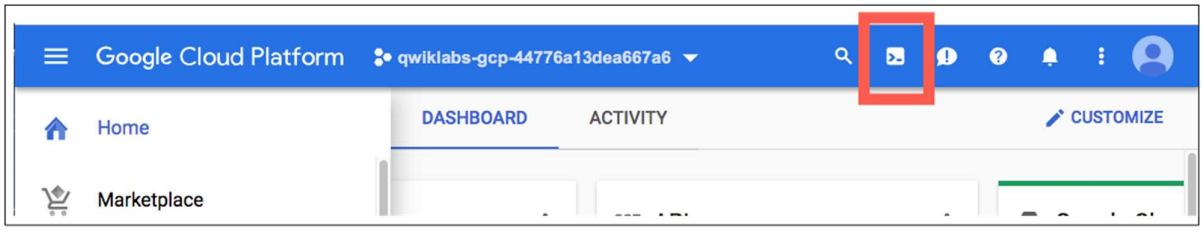
**Note:** You can view the menu with a list of Google Cloud Products and Services by clicking the **Navigation menu** at the top-left.



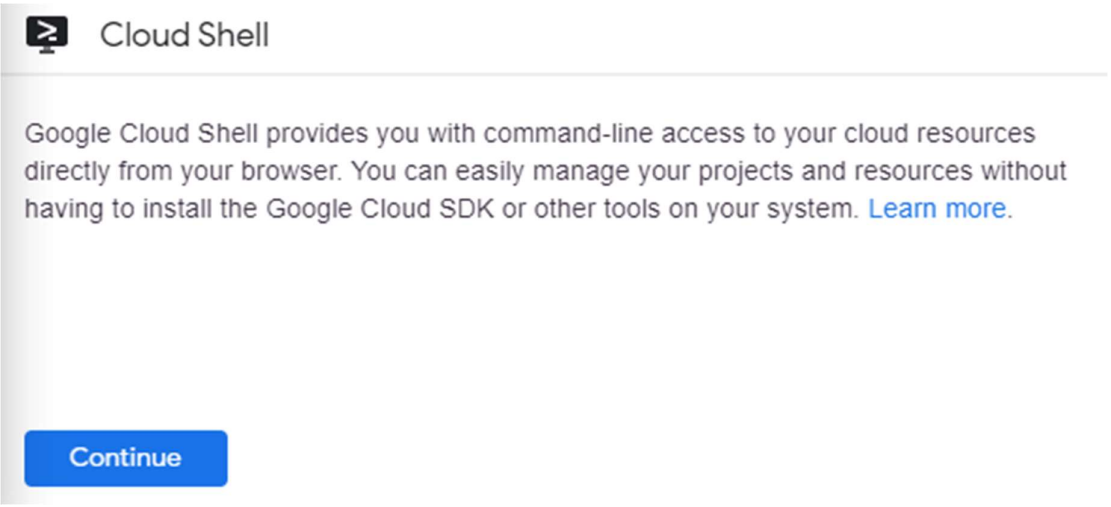

## Activate Cloud Shell

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.

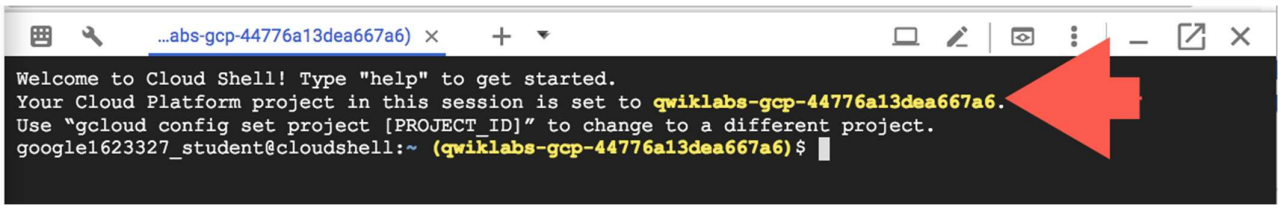
In the Cloud Console, in the top right toolbar, click the **Activate Cloud Shell** button.




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:




`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.

# Create a new repository

Start a new session in Cloud Shell and run the following command to create a new Cloud Source Repository named `REPO_DEMO`:

```
gcloud source repos create REPO_DEMO
```

You can safely ignore any billing warnings for creating repositories.

## Test Completed Task

Click **Check my progress** to verify your performed task. If you have created a new repository you will see an assessment score.

# Clone the new repository into your Cloud Shell session

Clone the contents of your new Cloud Source Repository to a local repo in your Cloud Shell session:

```
gcloud source repos clone REPO_DEMO
```

The `gcloud source repos clone` command adds Cloud Source Repositories as a remote named origin and clones it into a local Git repository.

# Push to the Cloud Source Repository

Go into the local repository you created:

```
cd REPO_DEMO
```

Run the following command to create a file `myfile.txt` in your local repository:

```
echo 'Hello World!' > myfile.txt
```

Commit the file using the following Git commands:

```
git config --global user.email "you@example.com"

git config --global user.name "Your Name"

git add myfile.txt

git commit -m "First file using Cloud Source Repositories" myfile.txt
```

Your output should resemble the following:

```
[master (root-commit) c072ab6] First file using Cloud Source Repositories
 1 file changed, 1 insertion(+)
 create mode 100644 myfile.txt
```

Once you've committed code to the local repository, add its contents to Cloud Source Repositories using the `git push` command:

```
git push origin master
```

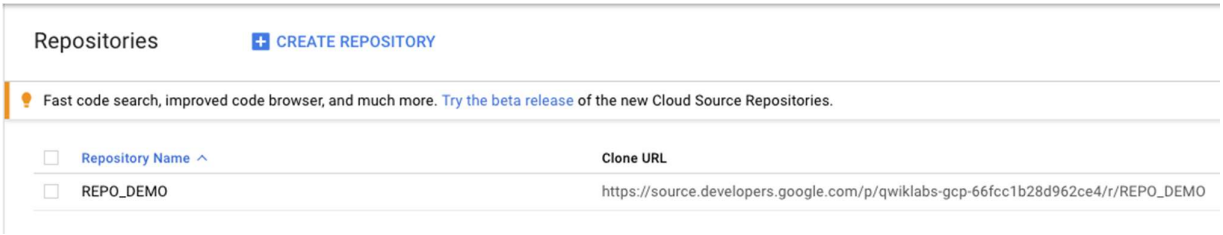
Git pushes the sample application files from the `master` branch to the `origin` remote:

```
Counting objects: 3, done.
Writing objects: 100% (3/3), 247 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://source.developers.google.com/p/qwiklabs-gcp-ba5b4dcd/r/REPO_DEMO
 * [new branch]      master -> master
```

# Browse files in the Google Cloud Source repository

Use the Google Cloud Source Repositories source code browser to view repository files. You can filter your view to focus on a specific branch, tag, or comment.

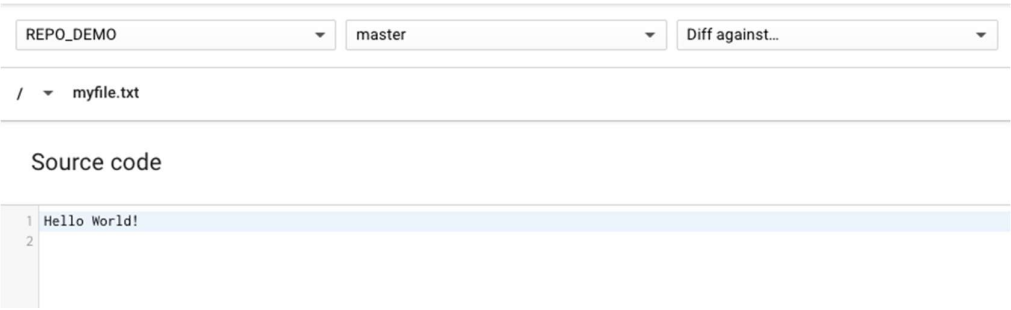
Browse the sample files you pushed to the repository by opening the Navigation menu and selecting **Source Repositories** > **Source Code**.




The console shows the files in the master branch at the most recent commit.

# View a file in the Google Cloud repository

Click `REPO_DEMO` > `myfile.txt` to view the file's contents in the source code browser:




# Test your Understanding

Below are multiple-choice questions to reinforce your understanding of this lab's concepts. Answer them to the best of your abilities.

You can add content to Cloud Source Repositories using the ____ command.
git push
The gcloud source repos clone command adds Cloud Source Repositories as a remote named origin.
True

# Congratulations!

## Finish Your Quest

Continue your Quest with Baseline: Deploy & Develop or DevOps Essentials. 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 a Quest and get immediate completion credit if you've taken this lab. See other available Qwiklabs Quests.

## 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!

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Manual Last Updated December 4, 2020

Lab Last Tested October 3, 2019

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