APP DEVELOPMENT: SETTING UP A DEVELOPMENT ENVIRONMENT

OBJECTIVES

- Provision a Google Compute Engine instance.
- Connect to the instance using SSH.
- Install software on the instance.
- Verify the software installation.

STEP 1

Sign in to google cloud platform with the provided username and password from qwiklabs,

STEP 2

Click to activate cloud shell, if prompted, click continue

TO CREATE A COMPUTE ENGINE VM INSTANCE

```
gcloud beta compute --project=qwiklabs-gcp-03-cc77e8cb39e2 instances create
dev-instance --zone=us-central1-a --machine-type=e2-medium --subnet=default -
-network-tier=PREMIUM --maintenance-policy=MIGRATE --service-
account=880209359233-compute@developer.gserviceaccount.com --
scopes=https://www.googleapis.com/auth/cloud-platform --tags=http-server --
image=debian-10-buster-v20200902 --image-project=debian-cloud --boot-disk-
size=10GB --boot-disk-type=pd-standard --boot-disk-device-name=dev-instance -
-no-shielded-secure-boot --no-shielded-vtpm --no-shielded-integrity-
monitoring --reservation-affinity=any

gcloud compute --project=qwiklabs-gcp-03-cc77e8cb39e2 firewall-rules create
default-allow-http --direction=INGRESS --priority=1000 --network=default --
action=ALLOW --rules=tcp:80 --source-ranges=0.0.0.0/0 --target-tags=http-
server
```

TO INSTALL THE SOFTWARE

On the **VM instances** page, in the row for the **dev-instance**, click **SSH** (in the **Connect** column)

1. n the SSH session, to update the Debian package list, execute the following command:

```
2. sudo apt-get update
```

3. To install Git, execute the following command:

```
4. sudo apt-get install git
```

   If prompted, press Enter.

5. To download the Node.js setup script, execute the following command:

```
6. curl -sL https://deb.nodesource.com/setup_6.x | sudo -E bash -
```

7. To install npm and Node.js, execute the following command:

```
sudo apt install nodejs
```

TO CONFIGURE THE VM TO RUN APPLICATION SOFTWARE

1. o check the version of Node.js, execute the following command:

```
2. node -v
```

   You should see the Node.js version number for version 6.

3. To clone the class repository, execute the following command:

```
git clone https://github.com/GoogleCloudPlatform/training-data-analyst
```

3. To change the working directory, execute the following command:

```
4. cd ~/training-data-analyst/courses/developingapps/nodejs/devenv/
```

5. To run a simple web server, execute the following command:

```
6. sudo node server/app.js
```

7. Return to the Cloud Console VM instances list, and click on the External IP address for the dev-instance.

   You should see a `Hello GCP dev!` message from Node.js.

8. Return to the SSH window, and stop the application by pressing **Ctrl+C**.

9. To install the Node.js library for Compute Engine, execute the following command:

```
10.  npm install
```

11. To run a simple Node.js application that lists Compute Engine instances, execute the following command:

```
node list-gce-instances.js
```