# Getting Started with Compute engine

In this lab, you will create virtual machines (VMs) and connect to them. You will also create connections between the instances.

## Task 1: login to Cloud console using Qwiklabs provided credentials

## Task 2. Create a vm instance

1.In GCP console, on the top right toolbar, click the Open Cloud Shell button.

2.1.Set your default project so you don't have to supply the --project flag with each command:

gcloud config set project [ provide your PROJECT\_ID]

3. Create the instance

gcloud compute instances create my-vm-1 --zone=us-central1-a --machine-type=e2-medium --subnet=default --network-tier=PREMIUM --maintenance-policy=MIGRATE --image=debian-9-stretch-v20200910 --image-project=debian-cloud --boot-disk-size=10GB --boot-disk-type=pd-standard --boot-disk-device-name=my-vm-1

gcloud compute 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

## Task 3. Create a VM using cloud shell

1. To display a list of all the zones in the region to which Qwiklabs assigned you

gcloud compute zones list | grep us-central1

1. Choose a zone from that list other than the zone to which Qwiklabs assigned you. For example, if Qwiklabs assigned you to region us-central1 and zone us-central1-a you might choose zone us-central1-b.
2. To set your default zone to the one you just chose, enter this command

gcloud config set compute/zone us-central1-b

1. To create a VM instance called **my-vm-2** in that zone, execute this command:

gcloud compute instances create "my-vm-2" \

--machine-type "n1-standard-1" \

--image-project "debian-cloud" \

--image "debian-9-stretch-v20190213" \

--subnet "default"

## Task 4: Connect between VM instances

1. Connect via ssh to my-vm-2

gcloud compute ssh my-vm-2

1. Use the ping command to confirm that **my-vm-2** can reach **my-vm-1** over the network

Ping my-vm-1

1. Press **Ctrl+C** to abort the ping command.
2. Use the **ssh** command to open a command prompt on **my-vm-1**:

ssh my-vm-1

If you are prompted about whether you want to continue connecting to a host with unknown authenticity, enter **yes** to confirm that you do.

1. At the command prompt on **my-vm-1**, install the Nginx web server:

sudo apt-get install nginx-light –y

1. Use the **nano** text editor to add a custom message to the home page of the web server:

sudo nano /var/www/html/index.nginx-debian.html

1. Use the arrow keys to move the cursor to the line just below the h1 header. Add text like this, and replace YOUR\_NAME with your name:

Hi from YOUR\_NAME

1. Press **Ctrl+O** and then press **Enter** to save your edited file, and then press **Ctrl+X** to exit the nano text editor.
2. Confirm that the web server is serving your new page. At the command prompt on **my-vm-1**, execute this command:
3. curl <http://localhost/>
4. To exit the command prompt on **my-vm-1**, execute this command:

Exit

1. To confirm that **my-vm-2** can reach the web server on **my-vm-1**, at the command prompt on **my-vm-2**, execute this command:

curl <http://my-vm-1/>

1. Copy the External IP address for **my-vm-1** and paste it into the address bar of a new browser tab. You will see your web server's home page, including your custom text.

Task 5: End the Lab