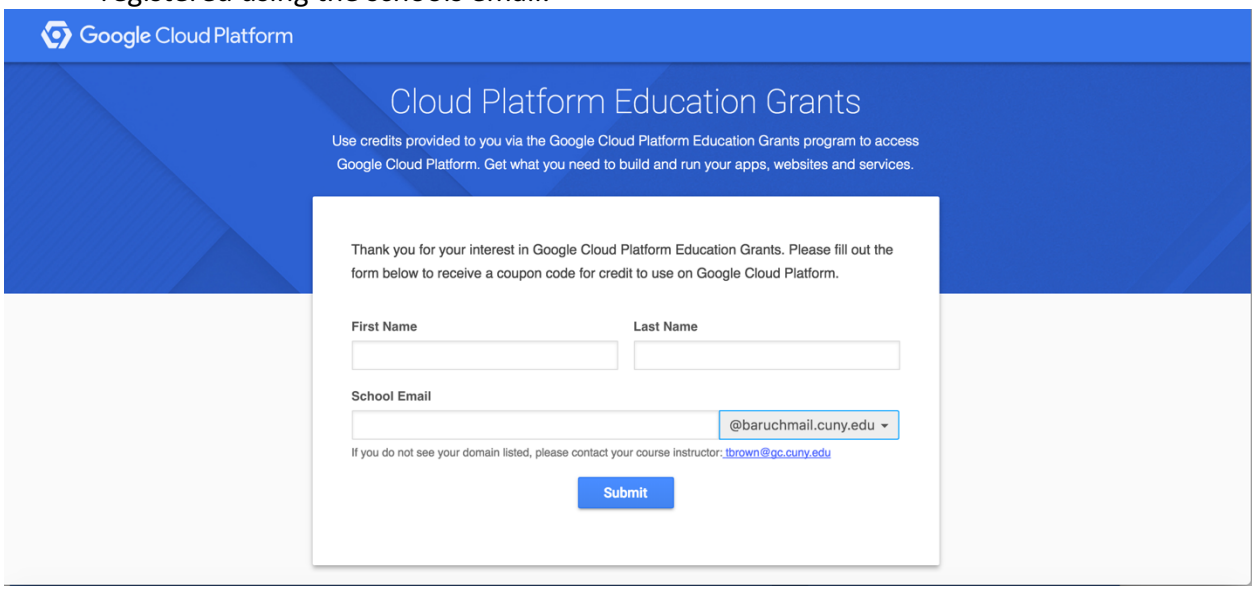
Setting up a Compute Engine VM on the Google Cloud Platform

By: Ammad Khan

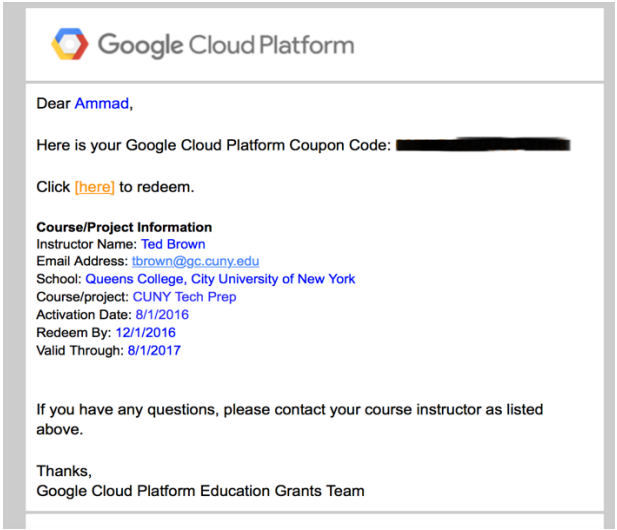
The following are the list of steps to create a VM on Google cloud platform

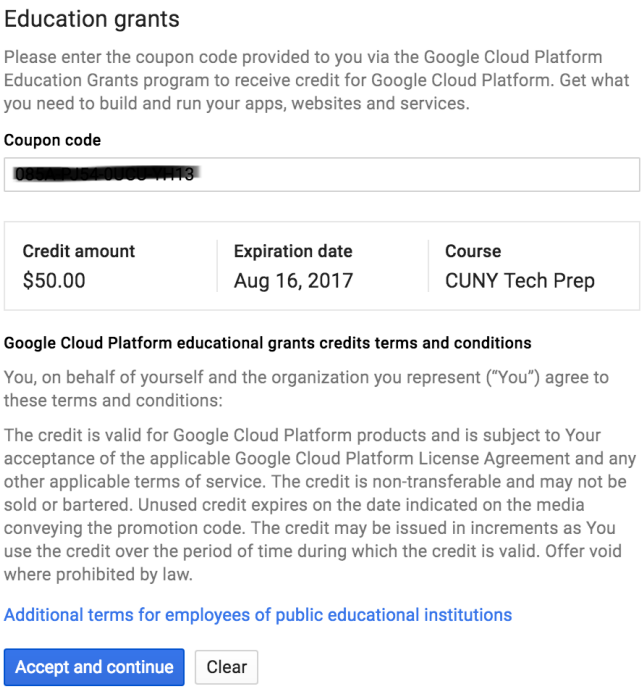
Part 1: Receiving credits and creation of account

- First create your account on the provided link (http://goo.gl/gcpedu/d8K7RY)
- Note this will give you $50 dollar credit for your Google cloud platform which will be registered using the schools email.



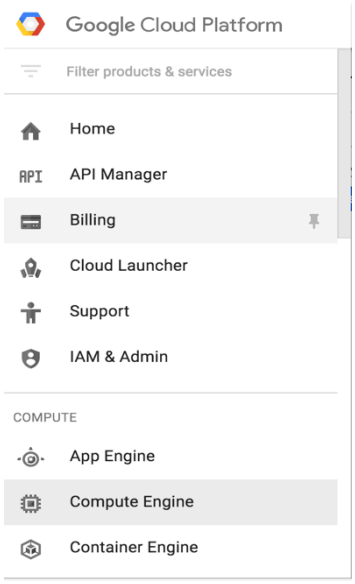
- After inputting your details, you will be receiving, email verification link on your school email id. After verification of our email address you will receive the link to the cloud platform. You have to use your google account to login to the Google cloud platform. If you don't have one you have to create one.



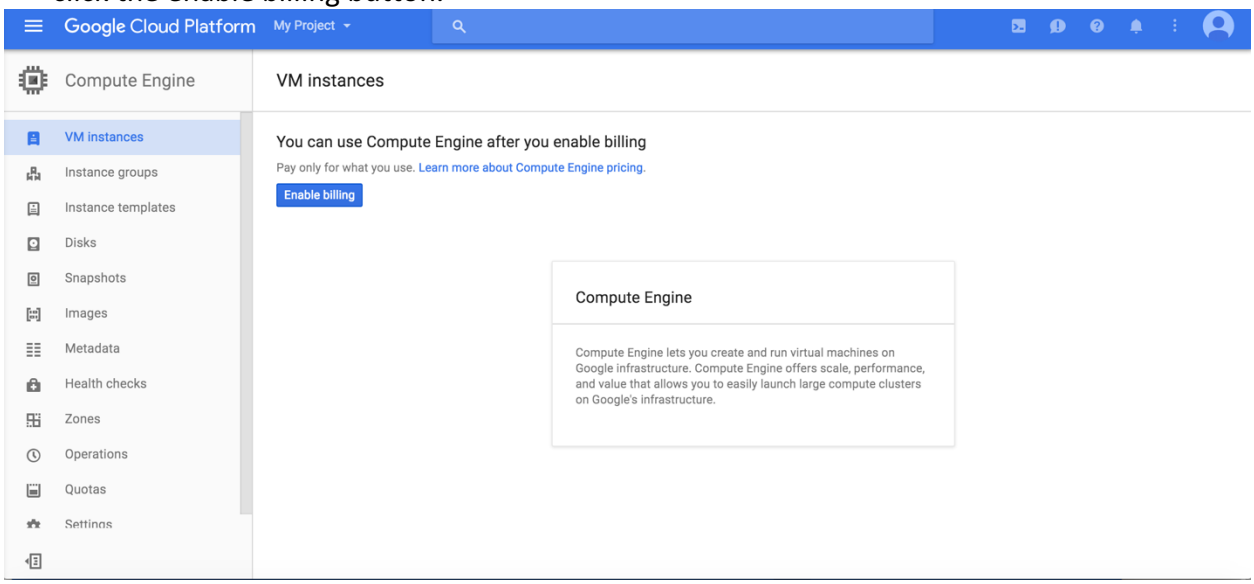


Part 2: Creating a Project and Link the credits to Billing

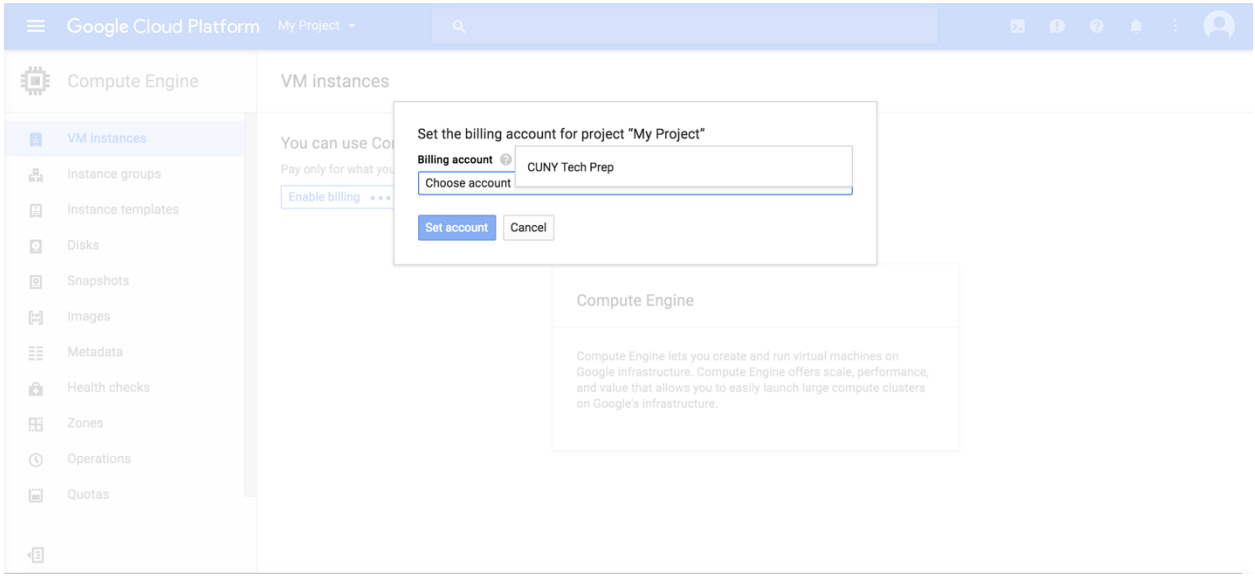
- The next step is to link the received credit to the Compute Engine Billing. Click the ☰ icon on the left corner this will open a menu from here click the compute engine.



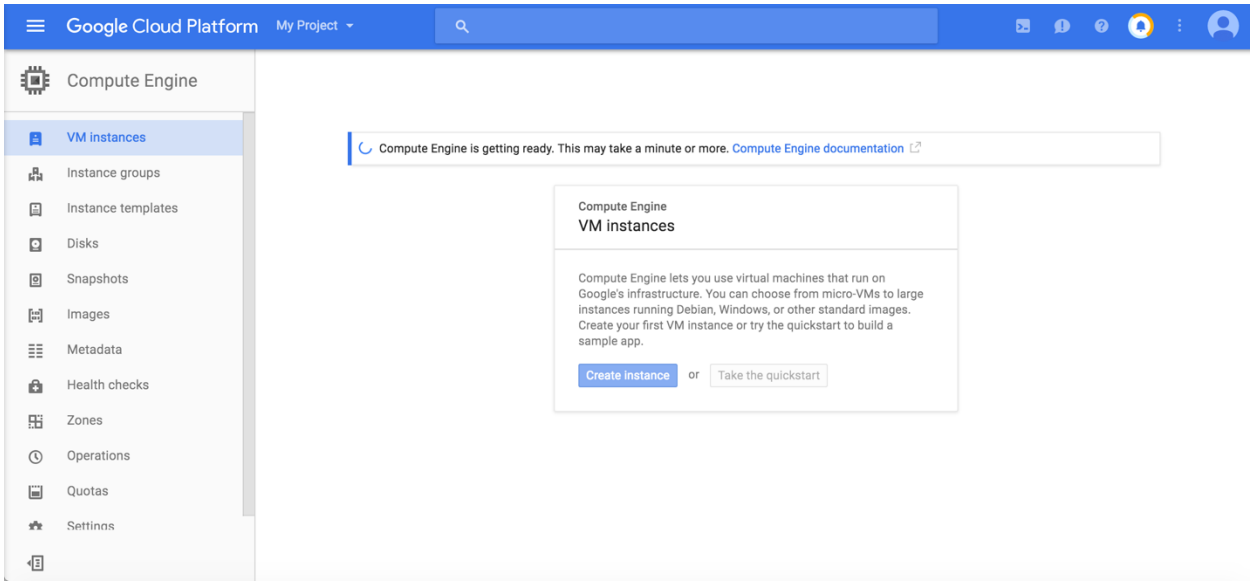
- You will be getting the following Google Compute Engine VM Console. Here first step is to click the enable billing button.



- After clicking the enable billing you will be getting the following option to select the billing account for your VM instance. Select the “CUNY TECH PREP”. This will link the VM instance to take amount from the $50 credit.



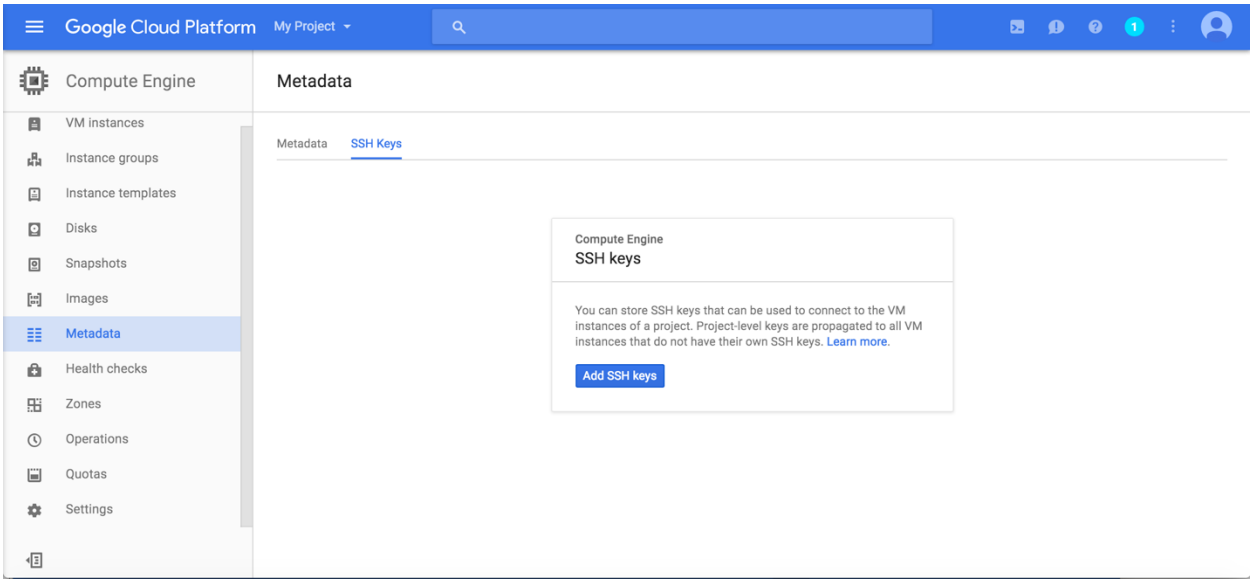
- Wait for the Compute Engine to get ready. And you will be getting the message that you can create a VM instance. But before creating an VM instance we have to create SSH keys to connect to the VM instance.



Part 3. Create SSH Keys

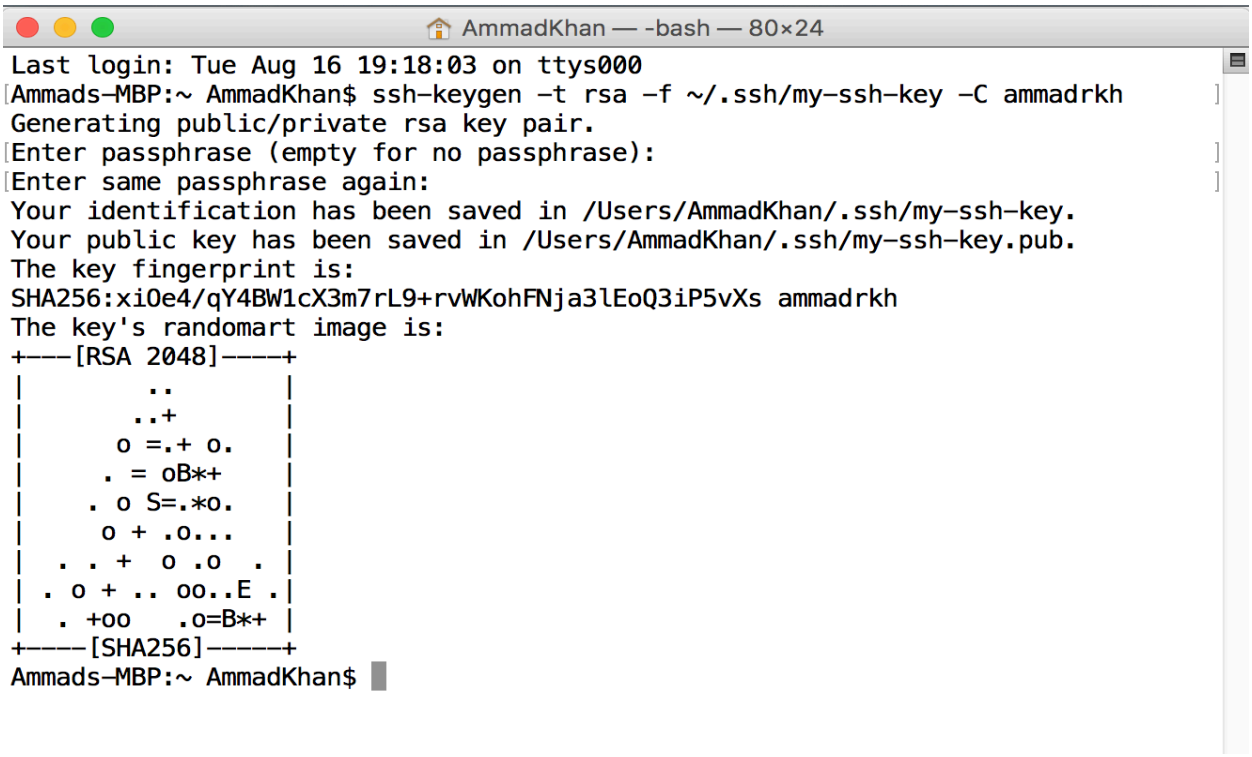
SSH keys are keys used to connect to the remote machine securely. We are creating SSH keys to connect securely to our VM instance.

- Go the metadata from the left sidebar you will notice that currently there are no SSH key created.



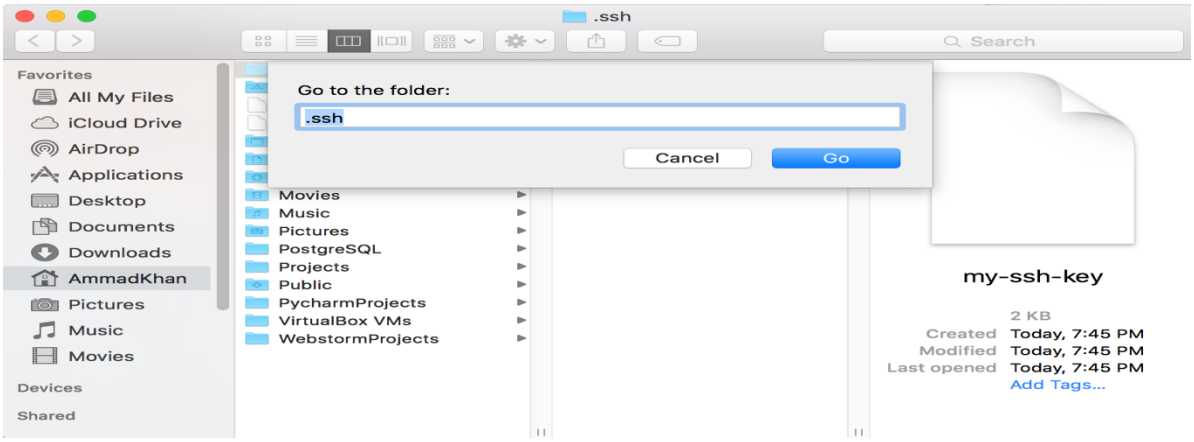
- In order to create an SSH Key use the following command in the terminal window

```
ssh-keygen -t rsa -f ~/.ssh/[KEY_FILE_NAME] -C [USERNAME]
```

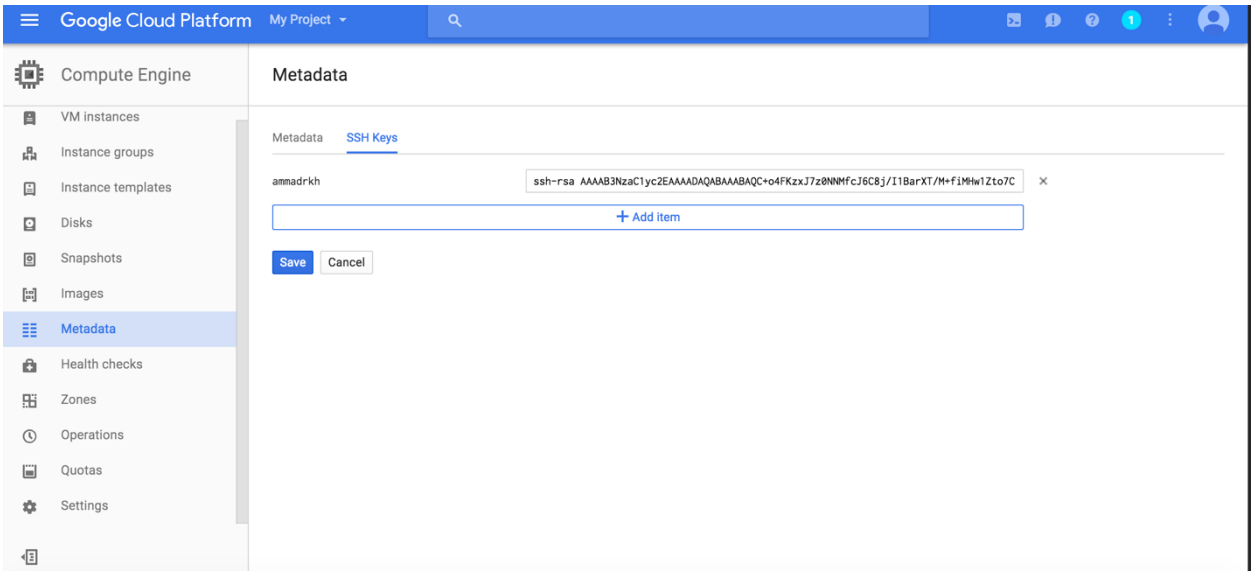


For passphrase its up to you to set it up or leave it black.

- Next step is to add the SSH-key that is generated on your local system to your Google cloud platform Compute Engine. This will ensure only your local machine is connected to the VM instance that you created.
- Note that the key generated is in .ssh folder in your user directory which is a hidden folder. You can access the folder in mac by going to finder and select go option from the top bar and go to folder and type .ssh



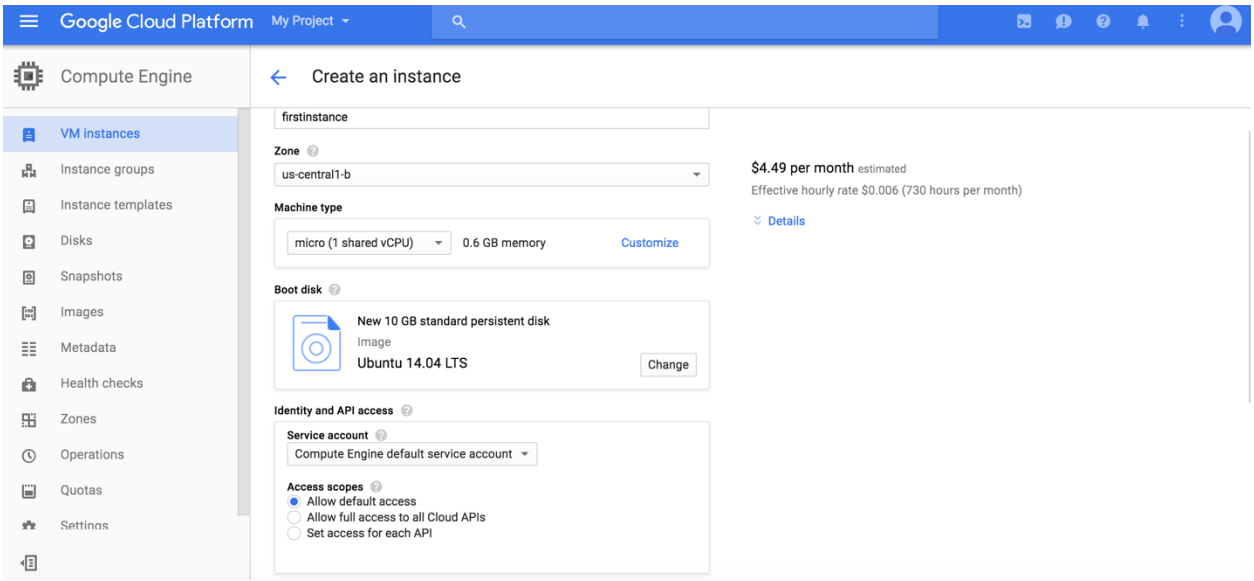
- Open the file “my-ssh-key.pub” in text-editor and copy into the SSH keys console on Google Cloud Platform and add the key. **MAKE SURE IT IS THE PUBLIC key**



Part 4. Create the instance

The next step is to go on the VM instance option. And click create instance. After creating the instance, you will be getting the option of choosing the settings. Choose the following settings

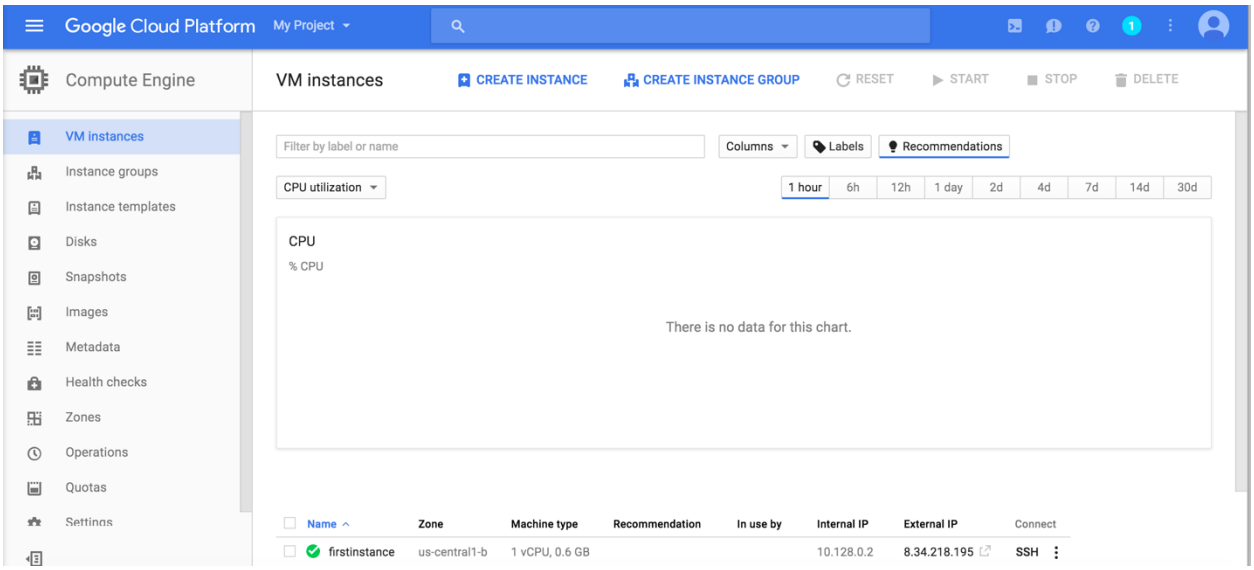
- Change machine type from “1vCPU” to “micro (1 shared vCPU)”. **This will ensure that you credit will last more. As 1vCPU cost more.**
- Put **check on** HTTP and HTTPS traffic.
- Change Boot disk from “Debian GNU/Linux 8(jessie)” to “**Ubuntu 14.04 LTS**”

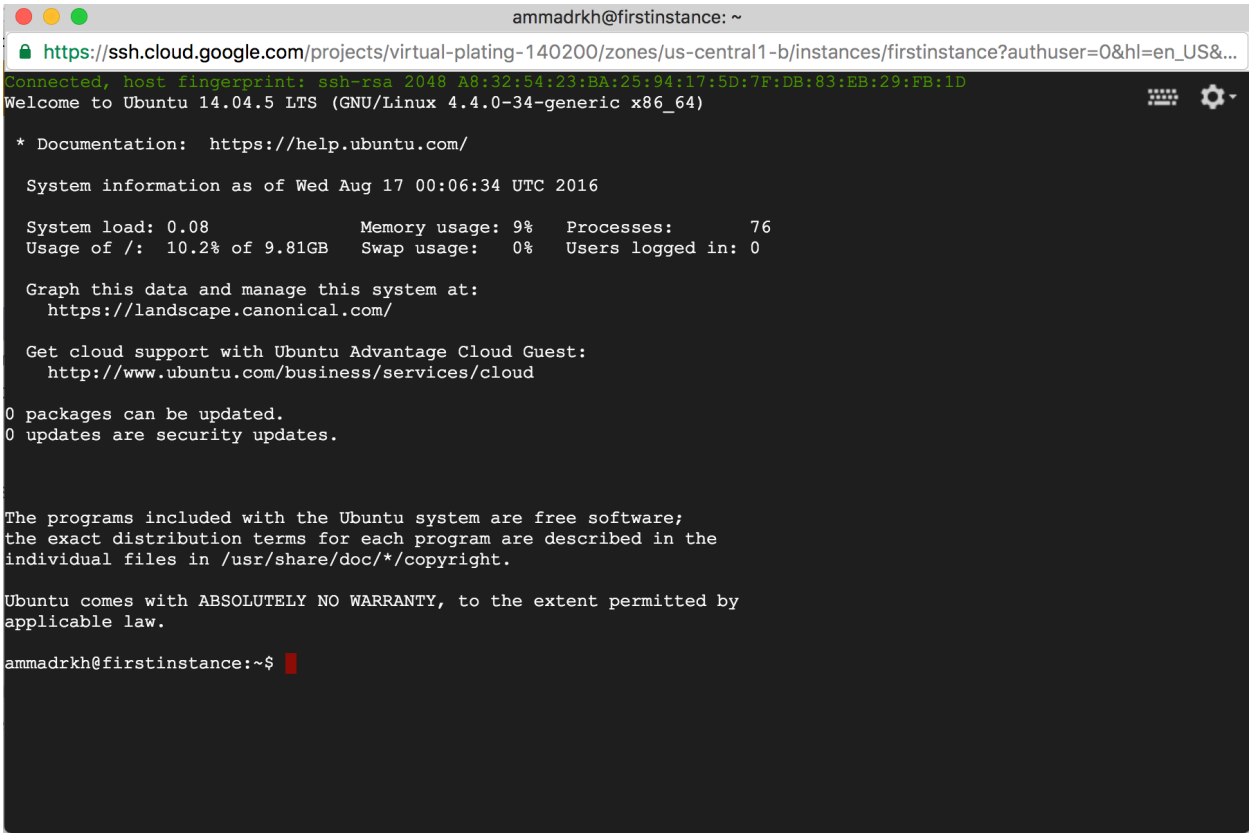


Step 5. Login to the instance via SSH on your Host machines command line and the SSH key generated in step 3

Connect to the VM instance. There are two ways to connect to the VM instance.

- First way is to click connect ssh located in the right end of the instance row.



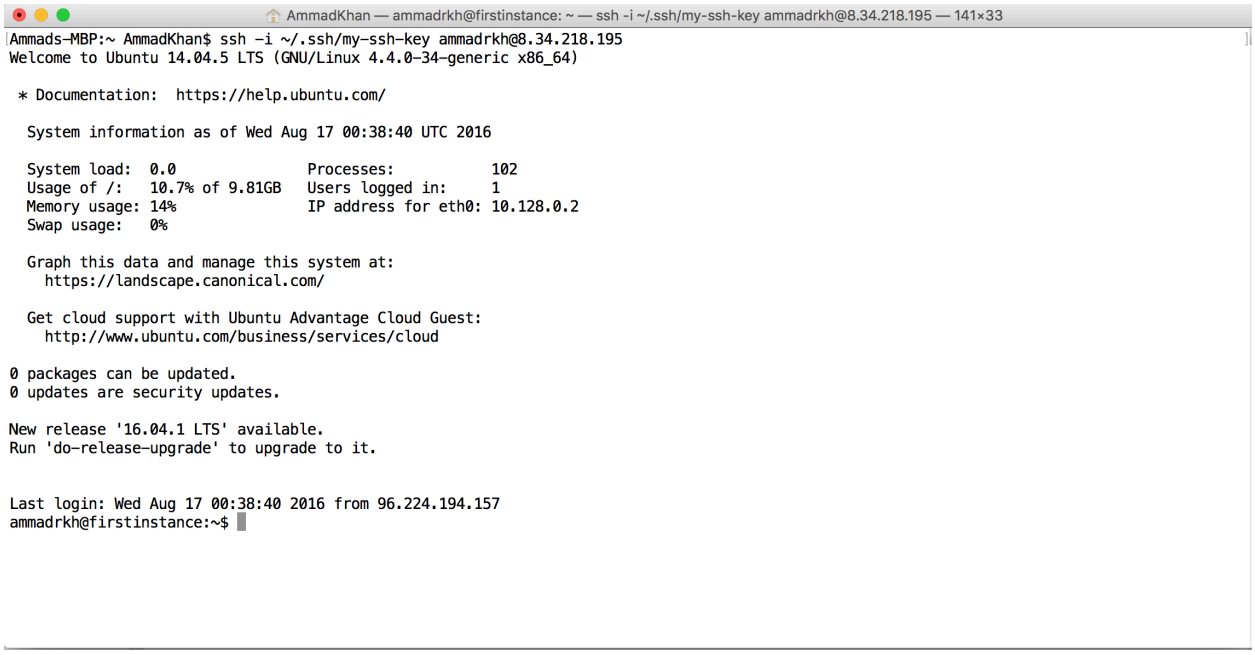


- 2nd (**BETTER**) way is to login from the terminal window.
- First you need to change the permission of the key file from public to private using the following syntax

```
chmod 400 ~/.ssh/my-ssh-key
```

- Then connect to you VM instance with the following address. You can get the public IP of VM instance from the VM page which is labelled as **"External IP".**

```
ssh -i ~/.ssh/my-gcloud-key googleID@pubic_IP_VM_Instance
```



You are now connected to your VM instance.