

First meet a TA or the Instructor to set up your Google Cloud VM

- Email oscourse@binghamton.edu for an appointment if you need a Google Cloud VM. Meet the TA/Instructor in person. They will guide you through the setup procedure.
- After your GCP account is set up, you will have \$50 GCP credits to use for this course.
- Do not use your own credit card or any other payment to sign up.

Create a virtual machine instance

This page: <https://cloud.google.com/compute/docs/instances/create-start-instance> describes various ways that you can create a VM instance on Google Cloud Platform. Below is a simpler version of these instructions that would suffice for this course.

1. In the Cloud Platform Console, go to the [VM instances](#) page.
2. Click the **Create instance** button.
3. In the **Machine type** section, select **1 vCPU** in the drop-down list. Click “Customize” and reduce the memory size from 3.75 GB to **2 GB**.
 - a. Why reduce the memory? You might notice that the cost of using your VM per hour is shown in the top right of the console. More VCPUs and memory cost more money. You don’t want to exhaust your GCP credits before the end of the semester.
4. In the **Boot disk** section, click **Change** to begin configuring your boot disk.
5. In the **OS images** tab, choose **the UBUNTU 18.04 LTS image** and click **Select**.
 - a. Don’t select images with large disk sizes. It will cost you more and you’ll exhaust your GCP credits before the semester ends.
 - b. Select only Ubuntu image for this course. That way, the TAs can help you with the configuration if you need help. Other images might also help.
6. Under Firewall rules, **DO NOT** select the options for opening HTTP/HTTPS ports. This is unnecessary for our course. Opening unnecessary ports may leave your VM vulnerable to attacks.
7. Click the **Create** button to create the instance of your VM.

Remotely connect to your instance

This page: <https://cloud.google.com/compute/docs/instances/connecting-to-instance> describes three ways to connect remotely to your VM instance -- using a browser, using gcloud command line tool, and using ssh. Using the browser is easy, but using gcloud or ssh commands lets you open more than one terminal windows.

Clean up after you are done

To avoid unnecessary charges to your Google Cloud Platform account, always STOP your VM after you finish your work.

This page explains how to STOP your VM instance.:

<https://cloud.google.com/compute/docs/instances/stopping-or-deleting-an-instance>

1. In the Cloud Platform Console, go to the [VM instances](#) page.
2. Click the name of the instance you created.
3. At the top of the instance's details page, click **STOP**.
 - a. You may want to first shutdown your VM normally from within the SSH terminal using the command
`$ sudo halt`

When you want to reuse your VM, come back to the VM instances page, select the instance you created earlier, and click **START**.

P.S: Don't DELETE your VM instance every time. Just STOPping it should be good enough to prevent depleting your GCP credits.