

Getting started

You will be using a virtual machine hosted on the Amazon EC2 cloud, you can access this using SSH from any machine and you will be doing your development remotely using command line utilities.

We have pre-built a virtual machine based upon the [SEED Ubuntu 16.04 VM](#).

You are welcome to use the original VM if you are familiar with Virtual Box or VMware but hosting it on the Amazon EC2 cloud provides 24x7 access from anywhere.

You have \$50 of credit for this course. This should be sufficient for one VM for the duration of this assignment.

Video tutorials

There are three video tutorials:

- [Creating your VM](#)
- [Accessing your VM for the first time](#)
- [Housekeeping](#)

The rest of the document describes the steps shown in the videos.

Creating your VM

Before you set up your VM you will need a AWS Educate account and accepted the invitation that I sent before the assignment started.

Follow these steps to create your virtual machine:

- Visit <https://www.awseducate.com/signin/SiteLogin> and log into the site.
- Open **My Classrooms** and click on the link for your CYBR271 classroom.
- Select the classroom .
- Open **AWS Console** .
- Select **EC2** (you may need to use **Find Services** to locate it the first time).
- Choose **Launch Instance** .
- Select for the **ami-01184eabe2de86a55** AMI (it is in the Community AMIs, you may also need to change your region to US East (N. Virginia) if you cannot find the instance).
- Select **Review and Launch** .
- Select **Launch** .
- Make sure that you **Create a new key pair** .
- Enter a name for your key pair file, for example **ian-keypair** .
- Select **Download Key Pair** and save the file somewhere accessible to only you.
- Select **Launch Instance** .
- Your virtual machine now launches and stays active until you stop it via the AWS console or the course ends.

Accessing your VM for the first time

Now remotely access your VM after waiting for a few minutes for the instance to start.

- Visit <https://www.awseducate.com/signin/SiteLogin> and log into the site.
- Open **My c1assrooms** and click on the link for your CYBR271 classroom.
- Select the classroom .
- Go to the **AWS Conso1e**.
- Select **EC2**.
- Select **Instances**.
- Select your instance.
- Right-click and choose **Connect**.
- Open a terminal window.
- Change directory to where you have saved the key pair pem file.
- Linux and Mac OS X users need to change the permissions on the file:
 - e.g. `chmod 400 keypair.pem`
 - where `keypair.pem` is the name of the key pair file.
- Use `ssh` to log into the VM
 - e.g. `ssh -i "mykeypair.pem" seed@ec2-54-85-18-151.compute-1.amazonaws.com`
 - `ec2-54-85-18-151.compute-1.amazonaws.com` will be replaced with your virtual machine's hostname.
 - `mykeypair.pem` is the name you used for the keypair file you created earlier.

Housekeeping

You can now use the `ssh` command to access you VM anytime from anywhere.

Should you want to create another VM, I would suggest terminating your existing version at some point in order to stop consuming your credit. You can do this by following these steps:

- Visit <https://www.awseducate.com/signin/SiteLogin> and log into the site.
- Open **My c1assrooms** and click on the link for your CYBR271 classroom.
- Select the classroom .
- Open **AWS Conso1e**.
- Select **EC2** (you may need to use **Find Services** to locate it the first time).

Stopping an instance:

- Select your VM and right click.
- Choose **Instance State -> Stop**.
- It will take a while for the VM to be stopped.

Starting a stopped instance:

- Select your stopped VM and right click.
- Choose **Instance State -> Start**.
- Eventually it will be restarted.

- Note that it will have a new name.

Removing an instance permanently:

- Select your VM and click.
- Choose `Instance State -> Terminate`.
- Eventually it will be terminated and removed from the system.