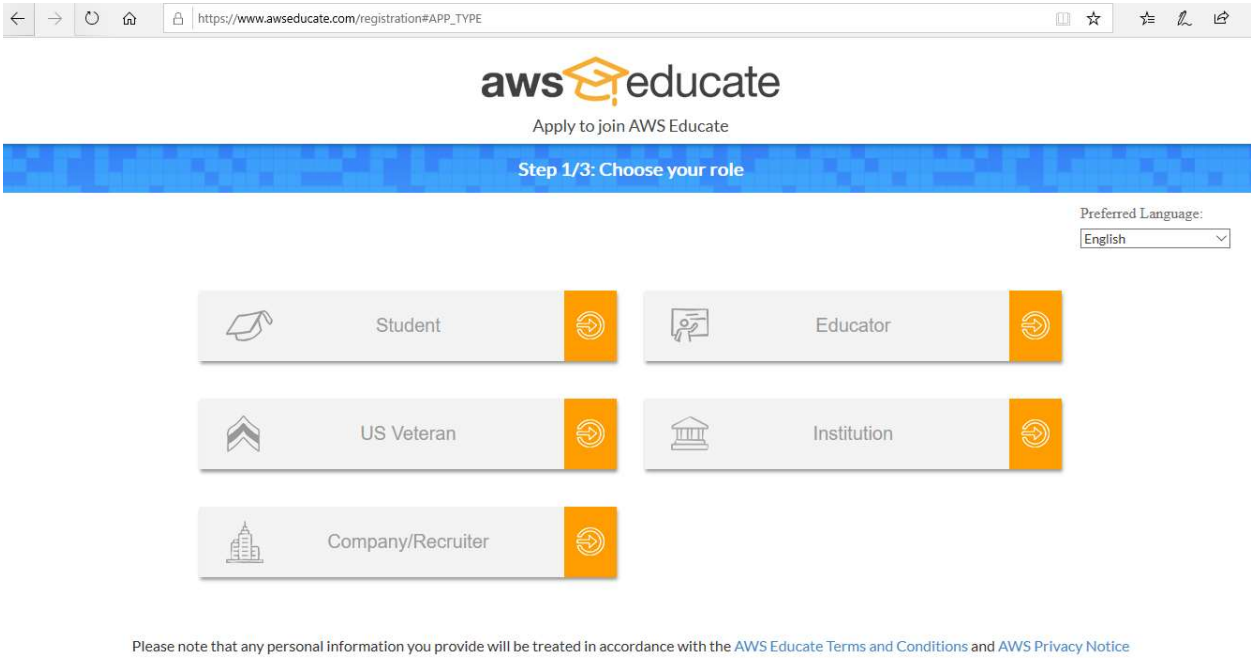
Lab 01

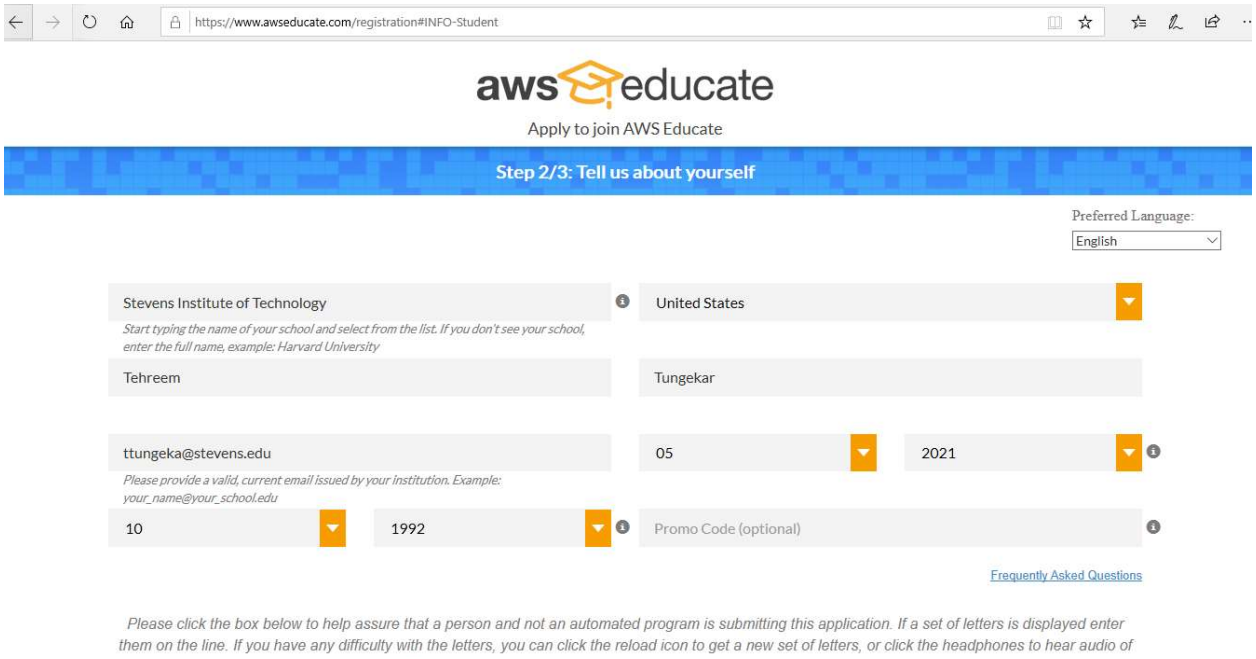
Steps to create Amazon Educate Student Account:

1. Go to https://aws.amazon.com/education/awseducate/

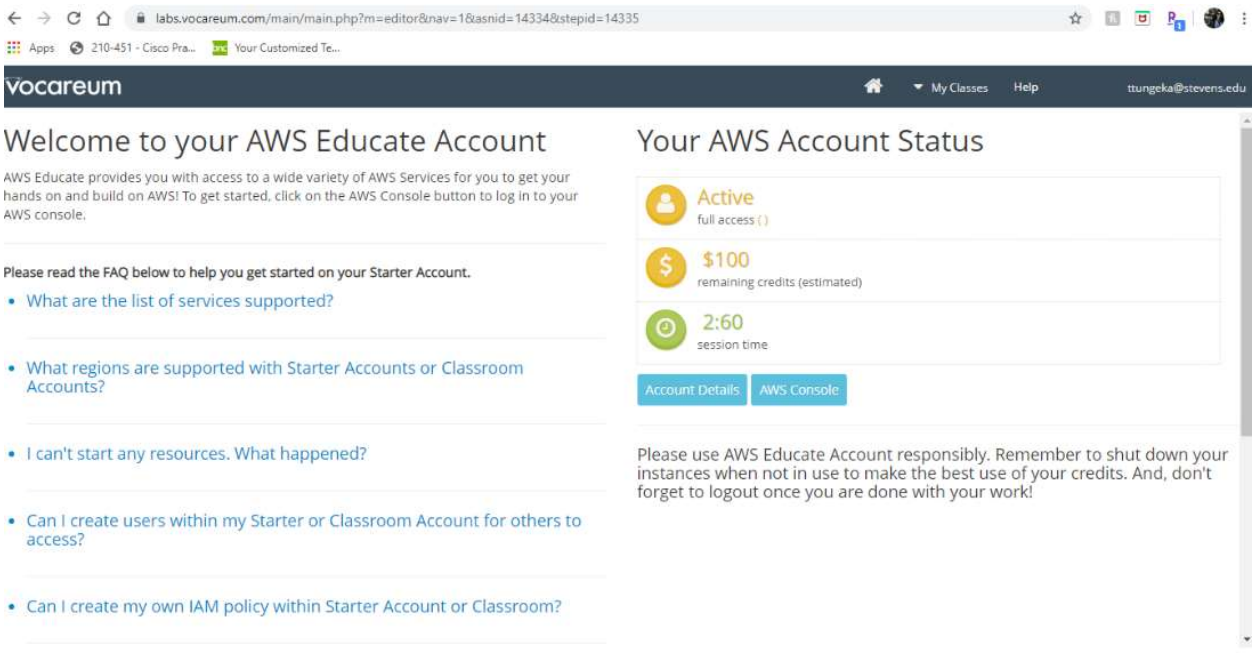
2. Click on Join AWS Educate, Select role as “Student”:



3. Fill in all the personal details and Click “Next”:



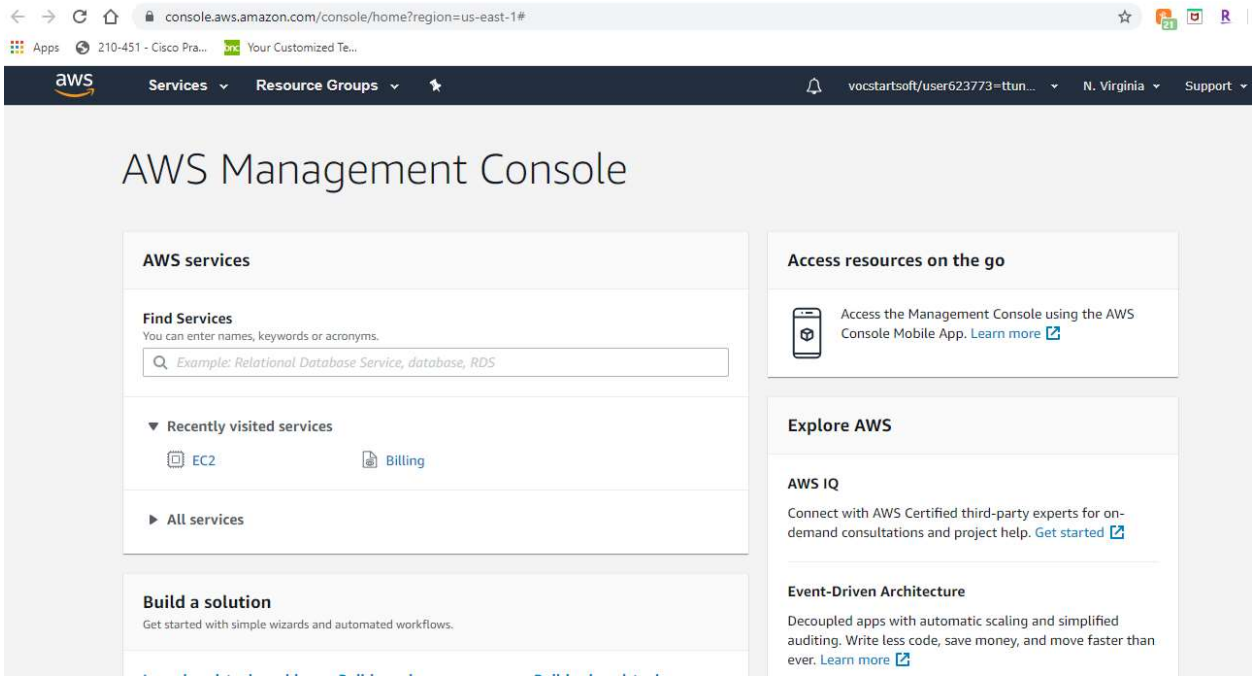
4. After some time, your account will be verified and you will receive a confirmation email from AWS Educate and your account will be activated:



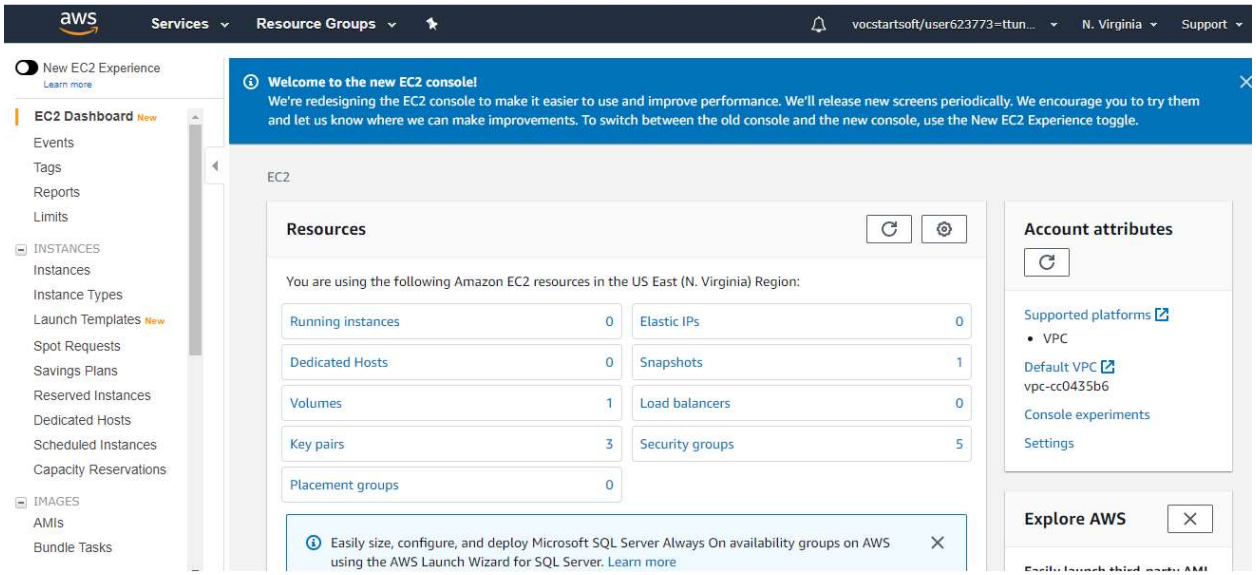
These are the steps to create a free AWS Account which shows I got $100 credits remaining!

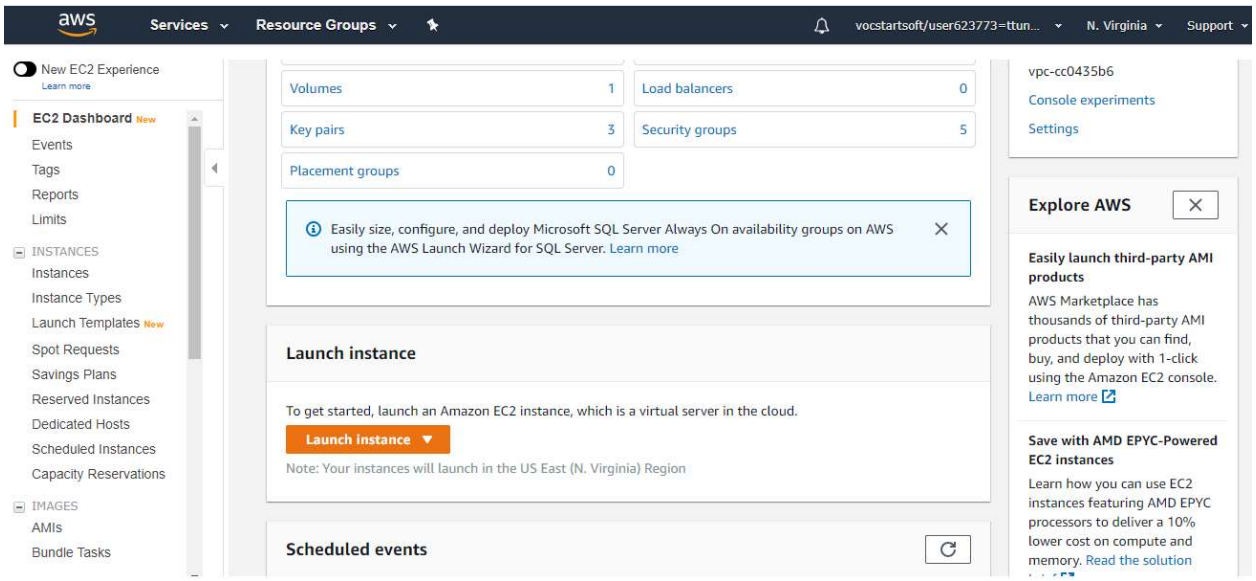
Steps to create an EC2 instance with Amazon Machine Image (AMI): Basic 64-bit Amazon Linux AMI:

1. Login to your AWS Educate Account and go to AWS Management Console:

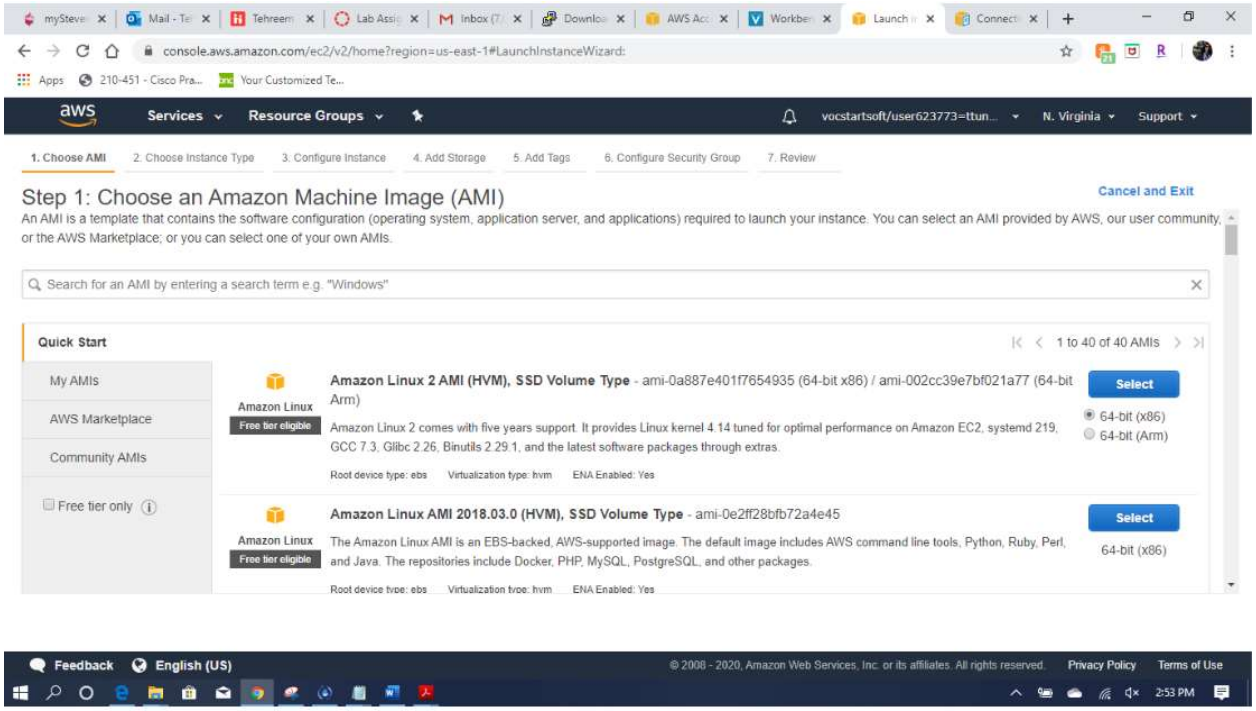


2. Under Services dropdown, select EC2 and the following screen appears, click “Launch Instance”:

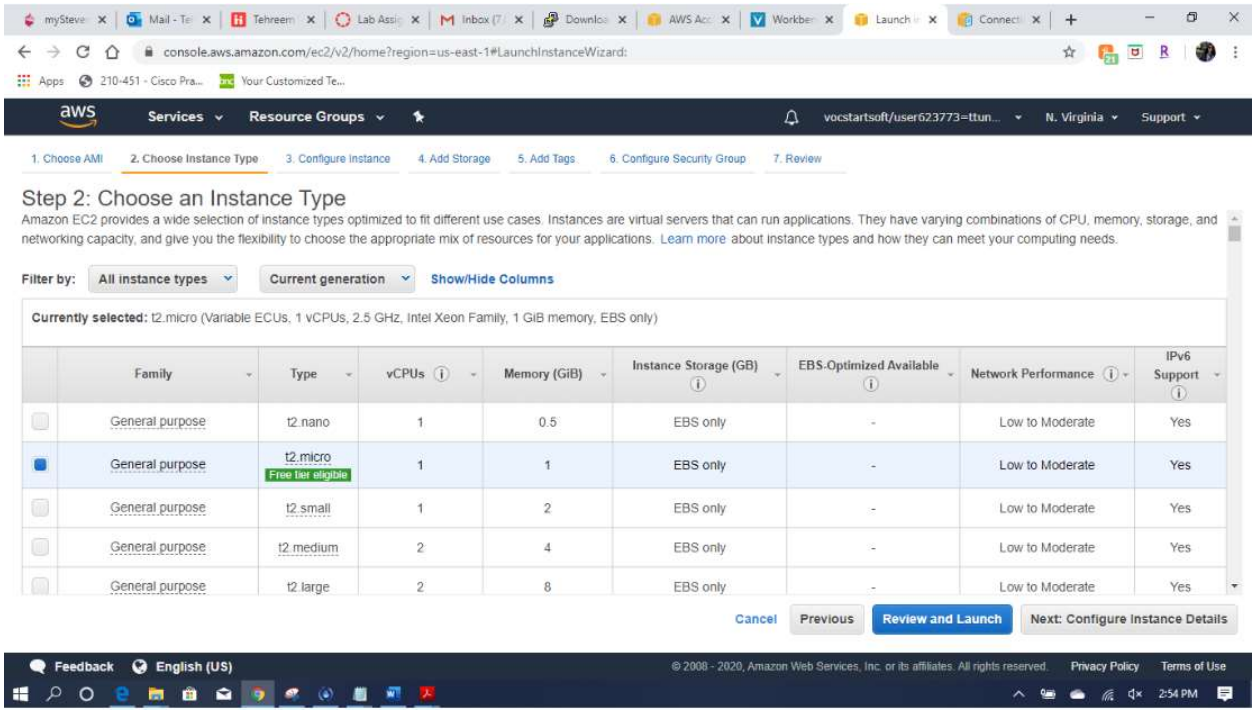




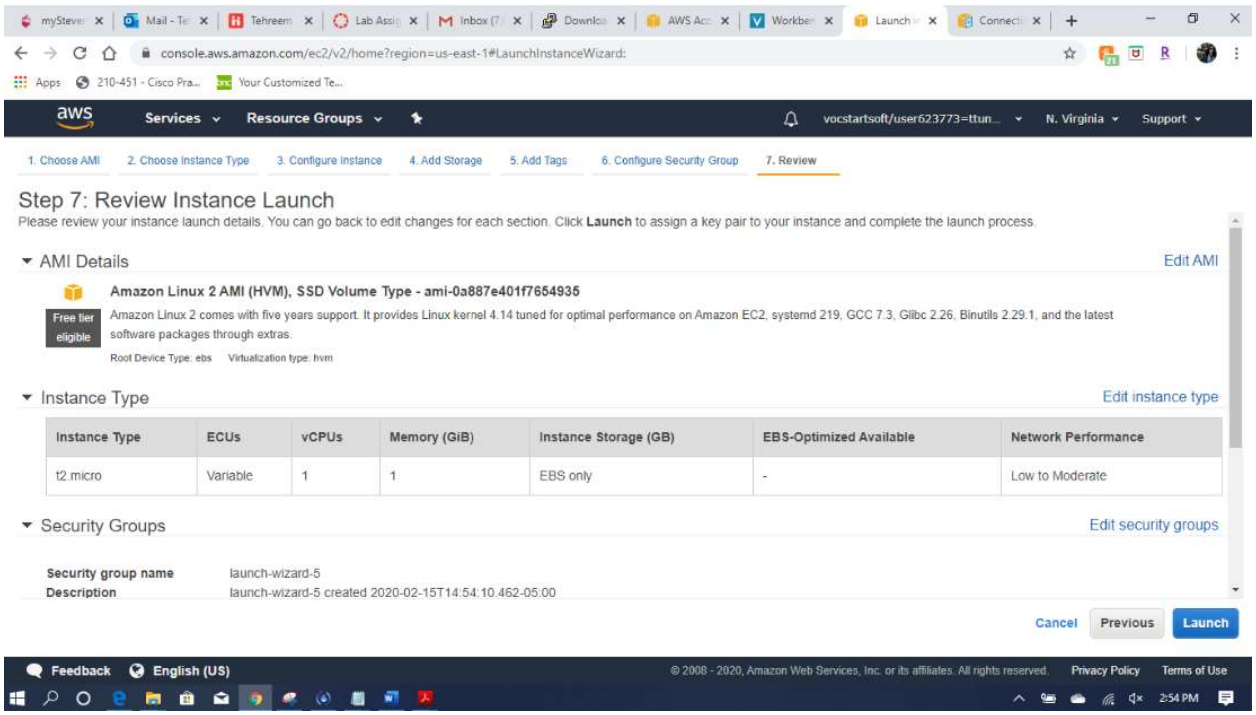
3. Choose your AMI- Linux 64-bit:



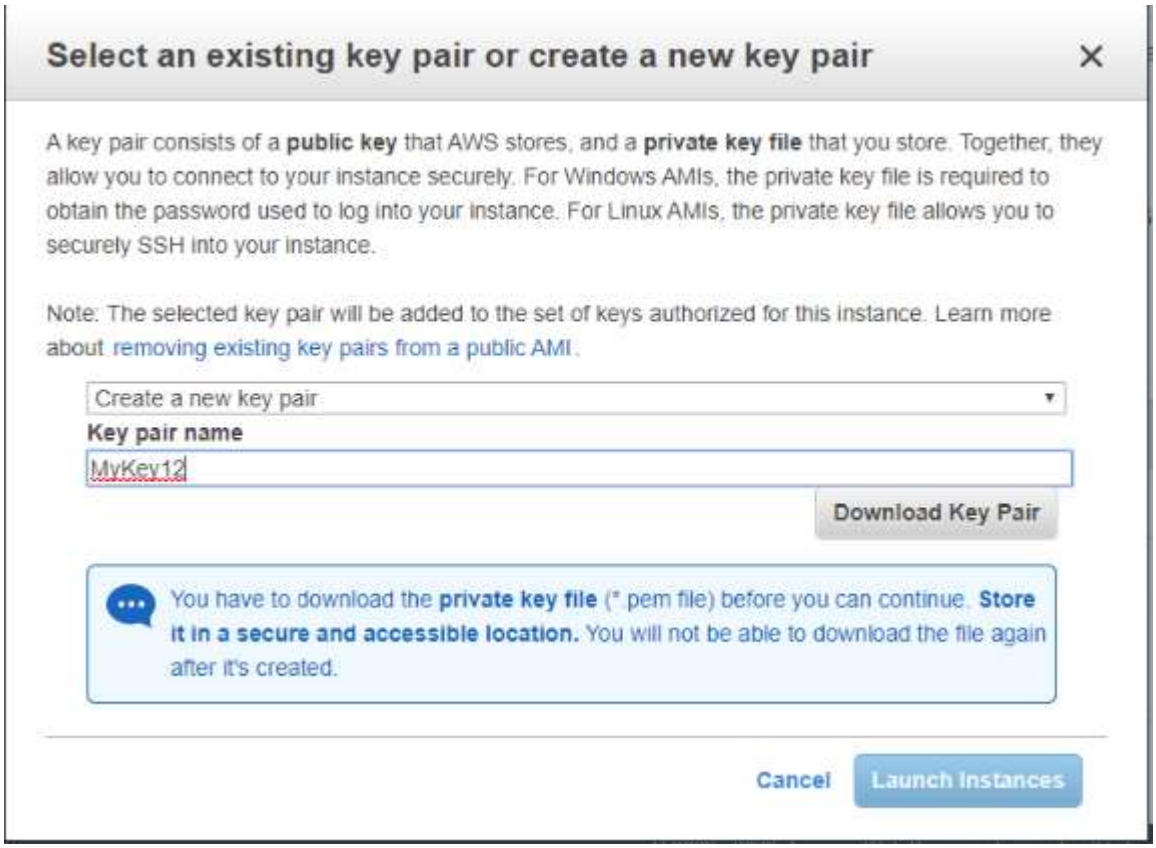
4. On the next screen, choose t2.micro and select “Review and Launch”:



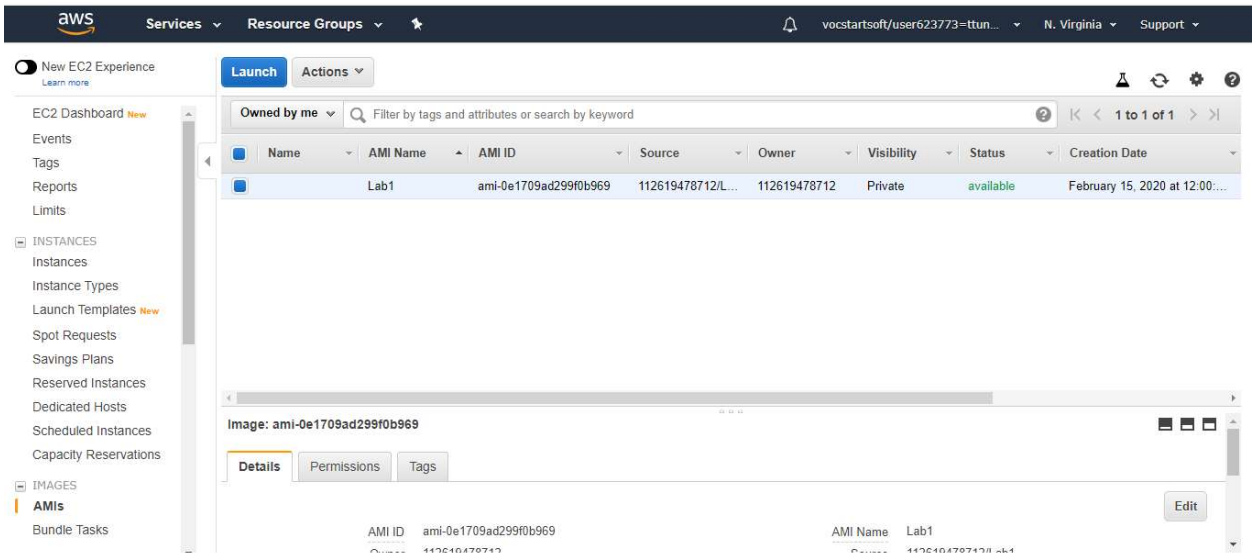
5. Click “Launch” on the next page:



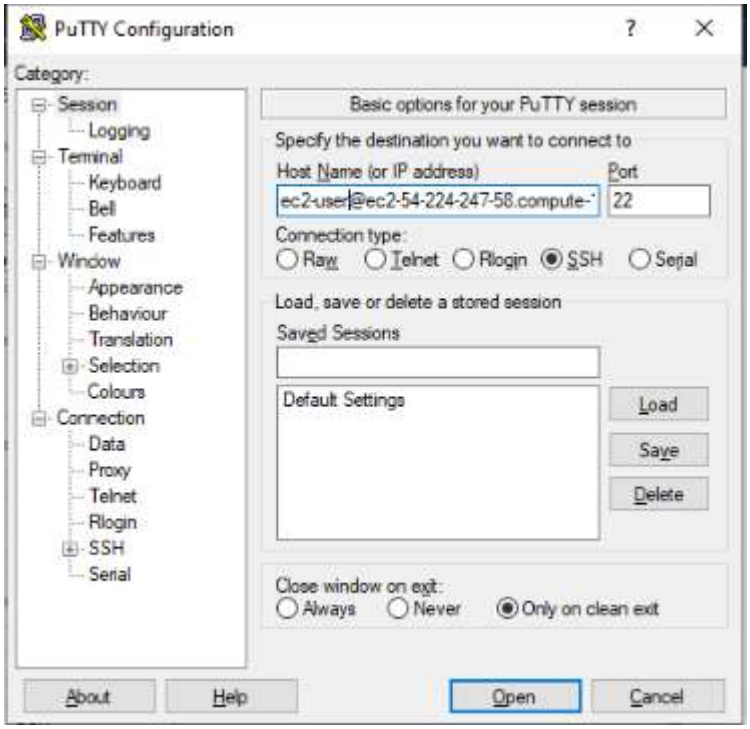
6. It will give a prompt to select or create a new pair, select “Create a new key pair” and add “MyKey12” as the Key pair name and click on “Download Key Pair”. After the key pair is downloaded, click “Launch Instances”:



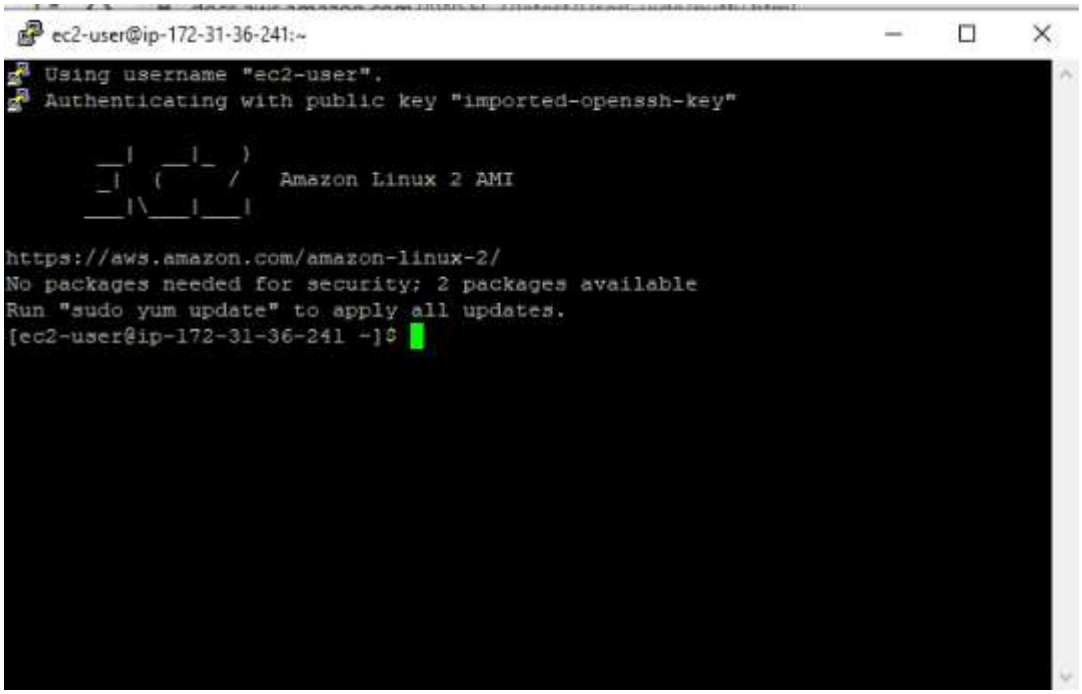
7. Now the AMI has been created:



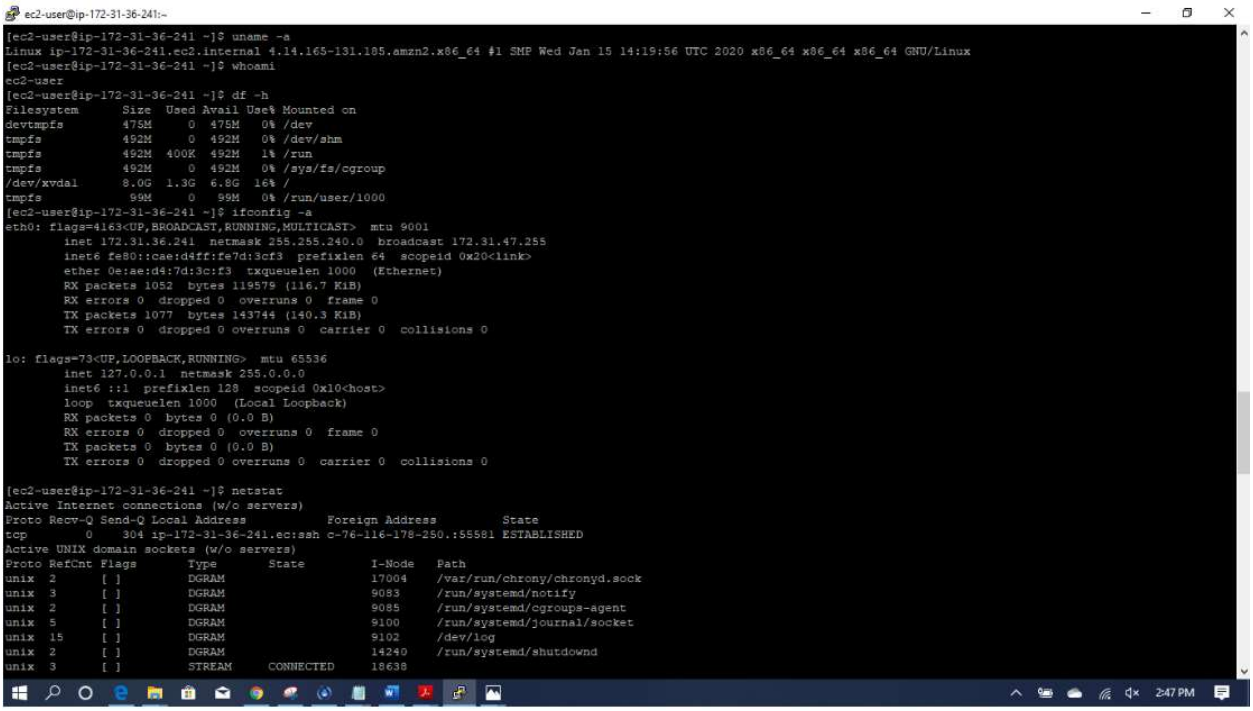
8. Once the status is ‘running’, launch the instance by clivking on Launch and then Connect to that AMI. For connecting it, download PuTTY and open PuTTY and make the pem key to .ppk key.
   After this, enter the following details in PuTTY: HostName as ec2-user@dns of your EC2 machine. Port name should be 22; expand SSH category and under Auth, select the .ppk file you just created. Click Open.



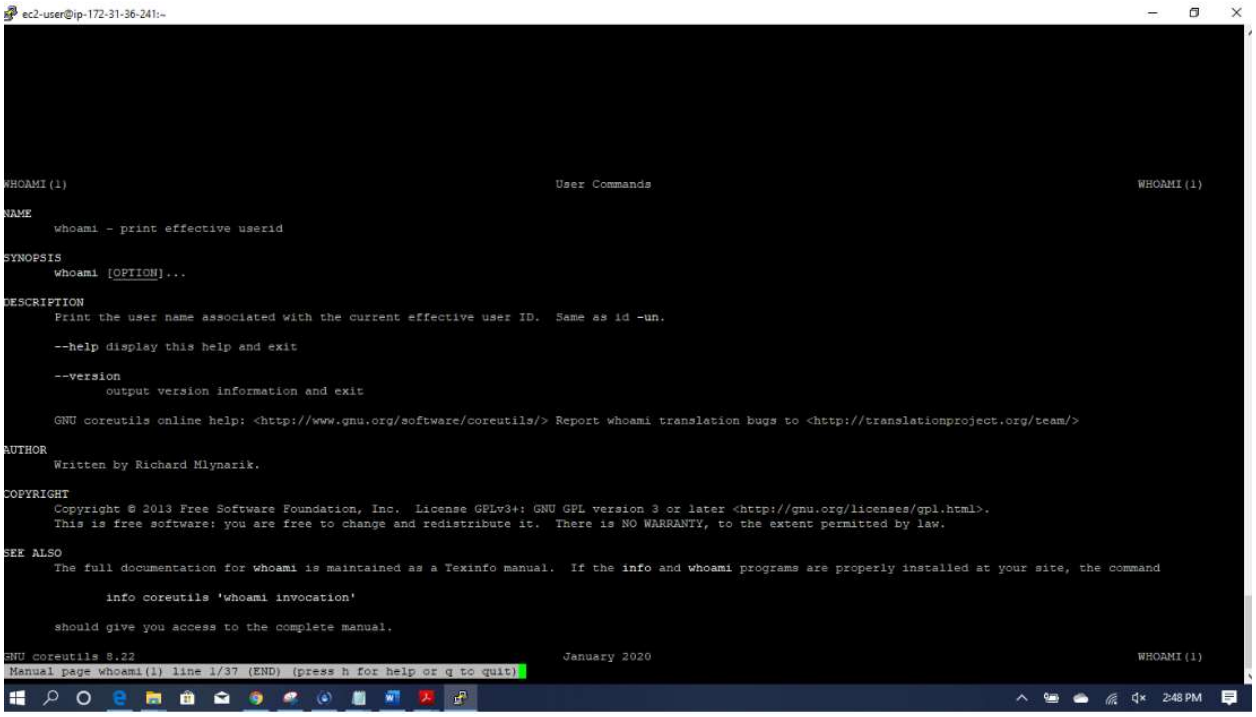
9. The following screen appears:



10. Type the following commands: uname -a
    whoami
    df -h
    ifconfig -a
    netstat



11. After typing these commands, you can check what do these commands actually do, like what are their functions by typing man <command name> Example: If you type man whoami ; it gives out what that command actually does:



Commands and their functions:

1. **uname -a**
   The command uname prints system information. It can have the following options:
   - -a, --all: Prints all information
   - -s, --kernel-name: Prints the kernel name
   - -n, --nodename: Prints the network node hostname
   - -r, --kernel-release: Prints the kernel release
   - -v, --kernel-version: Prints the kernel version
   - -m, --machine: Prints the machine hardware name
   - -p, --processor: Prints the processor type or “unknown”
   - -i, --hardware platform: Prints the hardware platform or “unknown”
   - -o, --operating system: Prints the operating system

2. **whoami**
   The command whoami prints effective user id.

3. **df -h**

   The command df reports file system disk usage. It can have the following options:

   - -a, --all: Include pseudo, duplicate, inaccessible file systems.
   - -B, --block-size-SIZE: Scales sizes by SIZE before printing them
   - --direct: Shows statistics for a file instead of mount point
   - --total: Produces a grand total
   - -h, --human-readable: Prints sizes in human readable format
   - -H, --si: likewise, but use powers of 1000 not 1024
   - -i, --inodes: Lists inode information instead of block usage

4. **ifconfig -a**

   The command ifconfig configures a network interface. It can have the following options:

   - -a: Displays all interfaces which are currently unavailable
   - -s: Displays a short list
   - -v: Be more verbose for some error conditions
   - interface: the name of the interface
   - up: This flag causes the interface to be activated
   - down: This flag causes the driver for this interface to be shut down

5. **netstat**

   This command prints network connections, routing tables, interface statistics, masquerade connections and multicast memberships. It has the following options:

   - -r, --route: Displays the kernel routing tables
   - -g, --groups: Displays multicast group membership information for IPv4 and IPv6
   - -i, --interfaces: Displays a table of all network interfaces
   - M, masquerade: Displays a list of masqueraded connections
   - -s, --statistics: Displays summary statistics for each protocol.