Assessment - 10

EC2 & EBS

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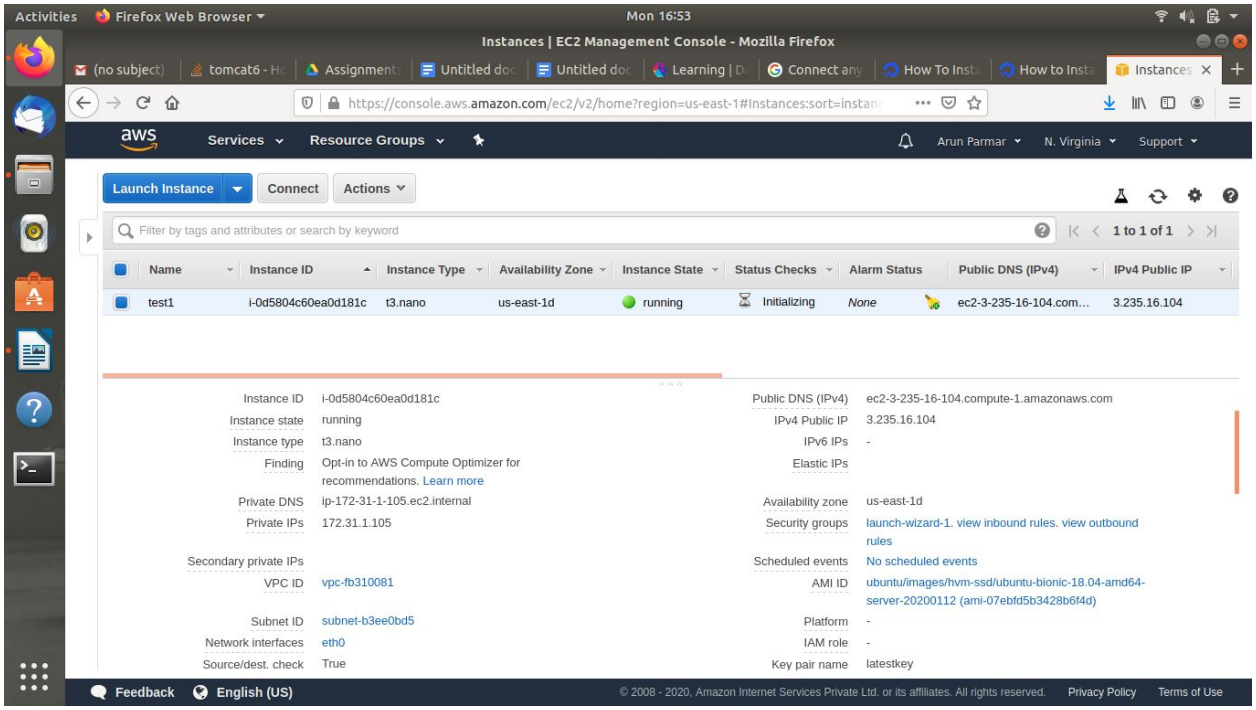
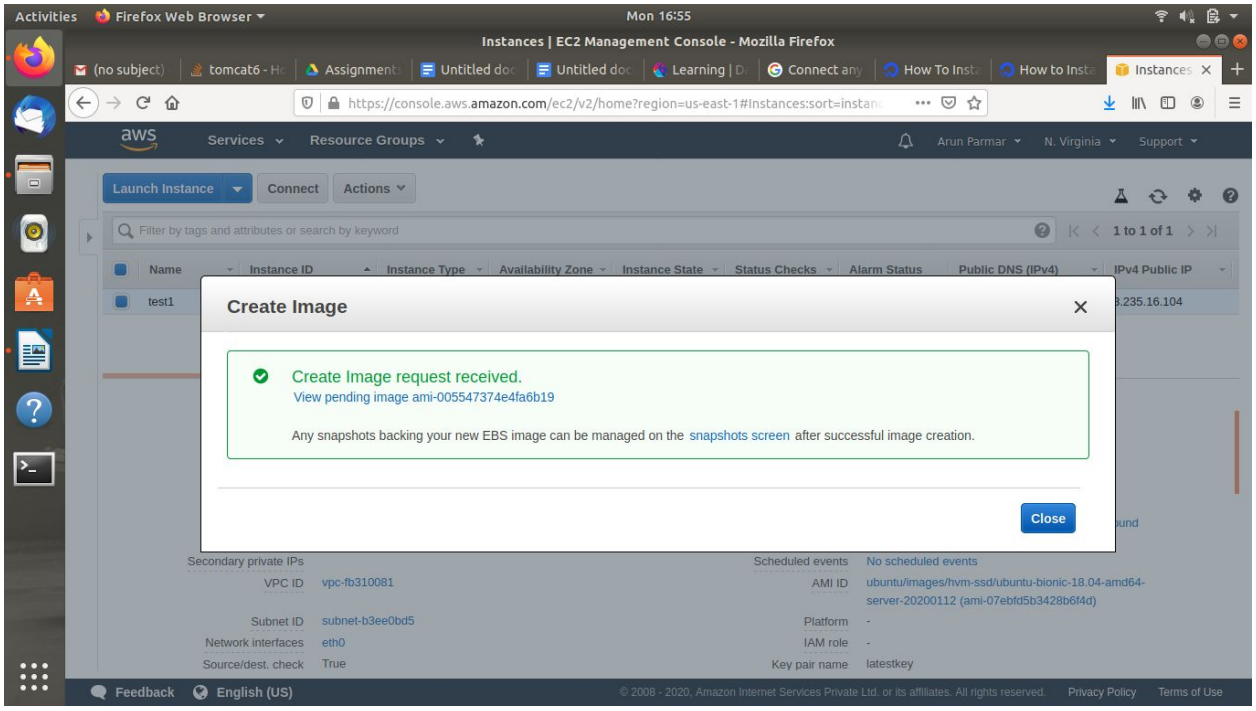
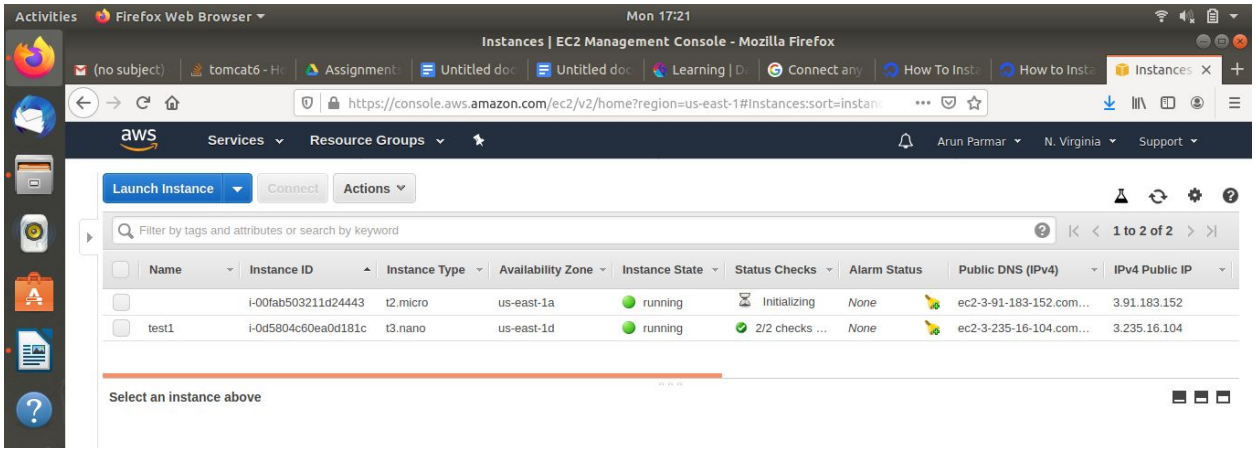
College: UPES

1. Create an EC2 instance (Ubunutu 18.04, T3 nano).(instance A)

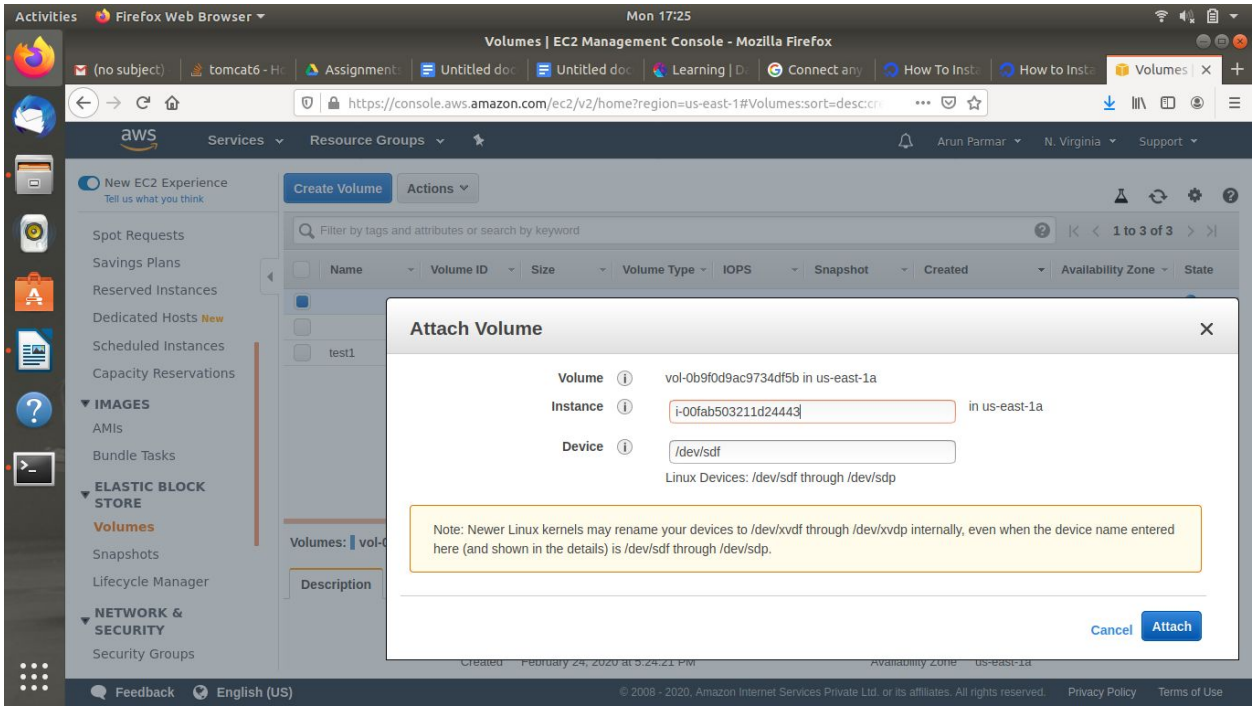


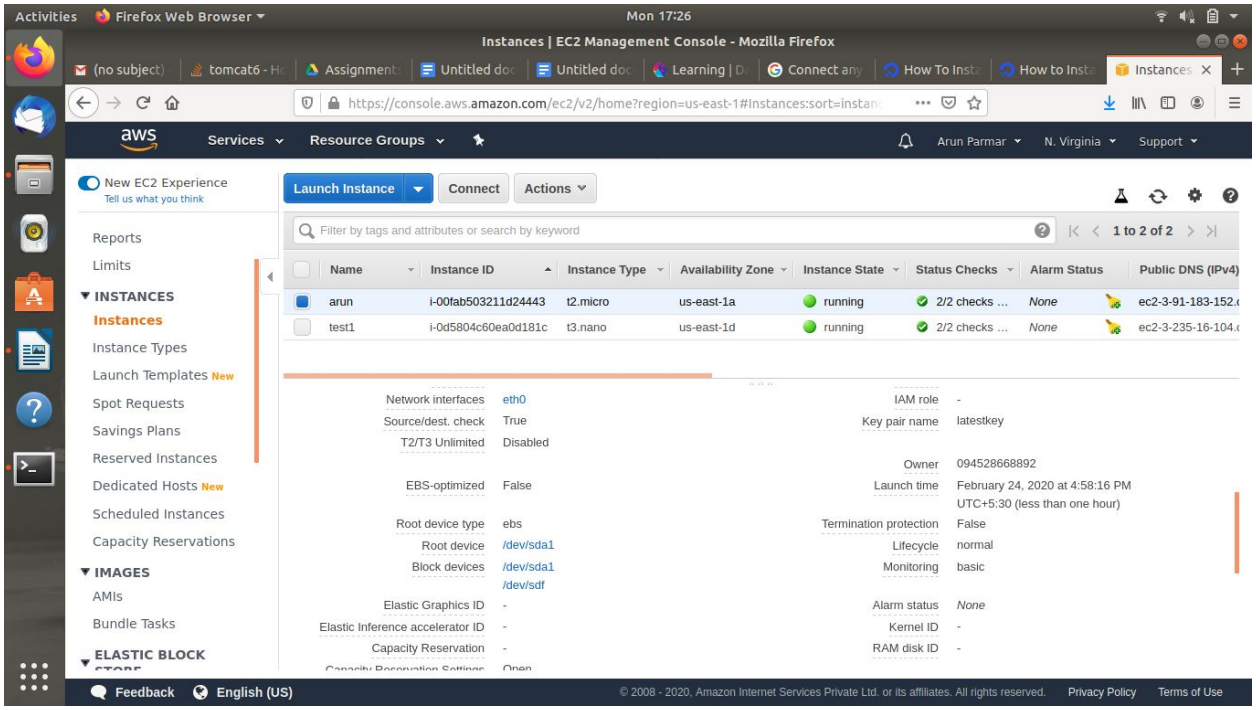
2. Create AMI of above instance and launch it. (instance B)

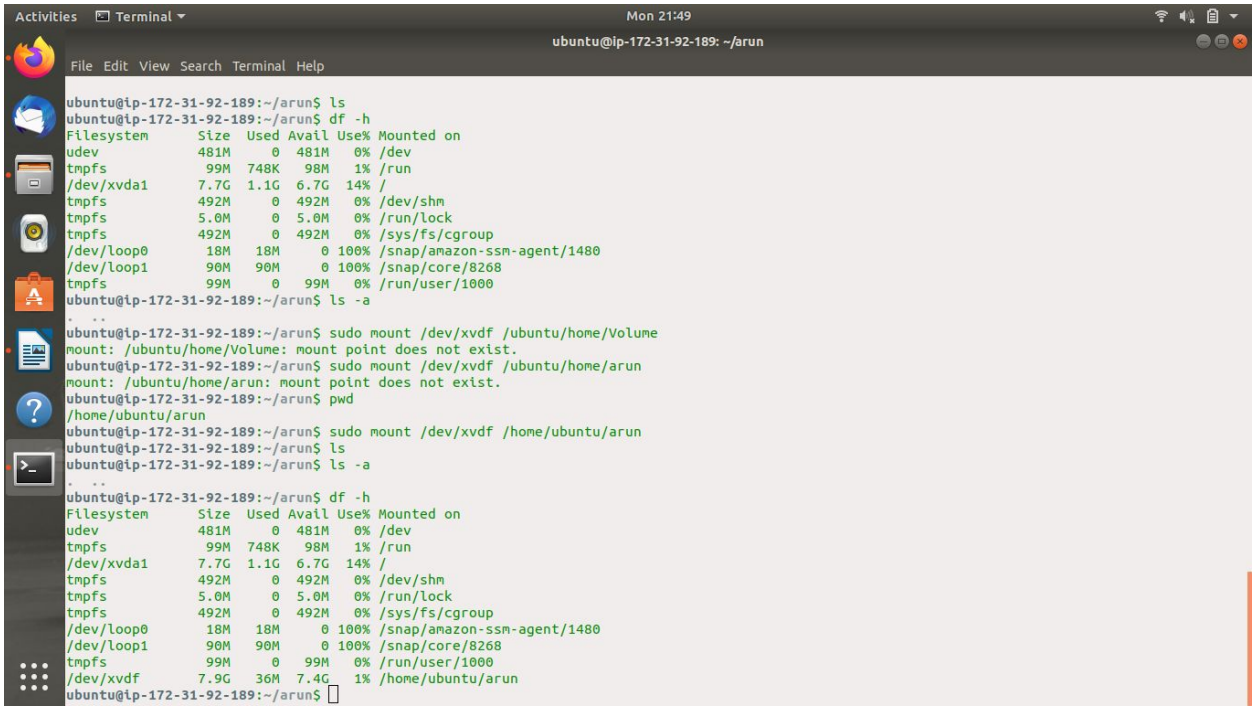




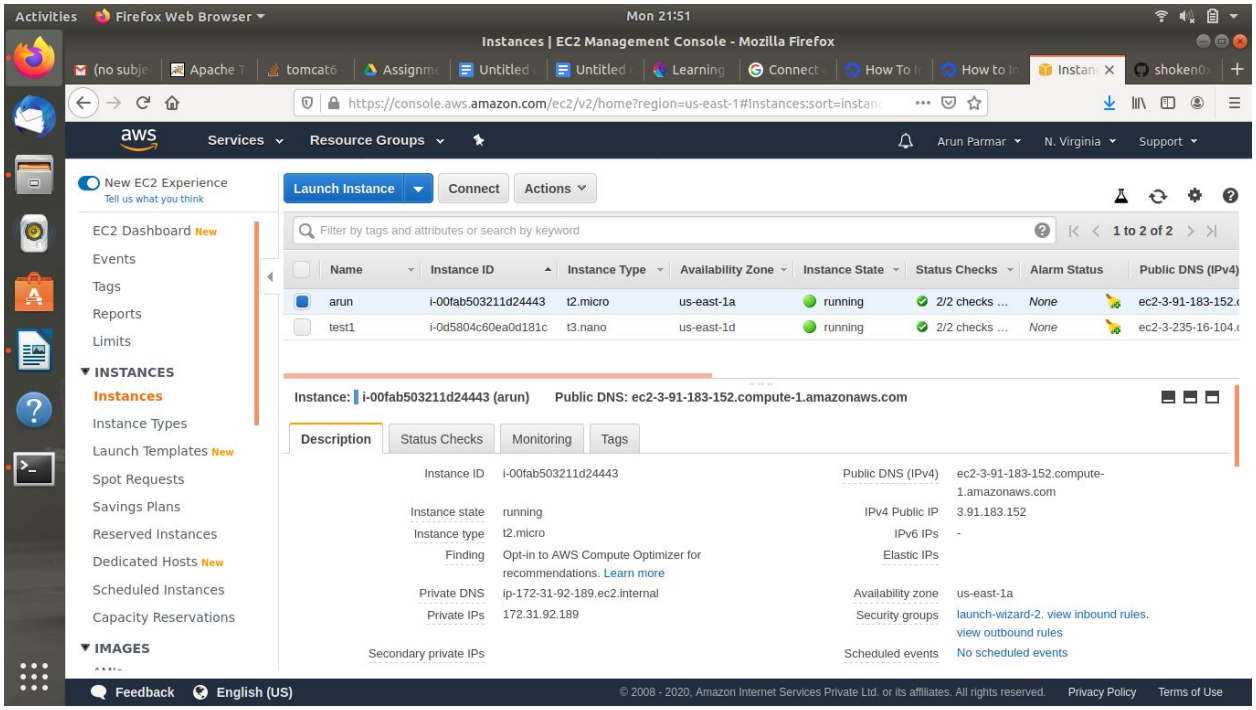
3. Attach EBS (8 GB) on that running instance.

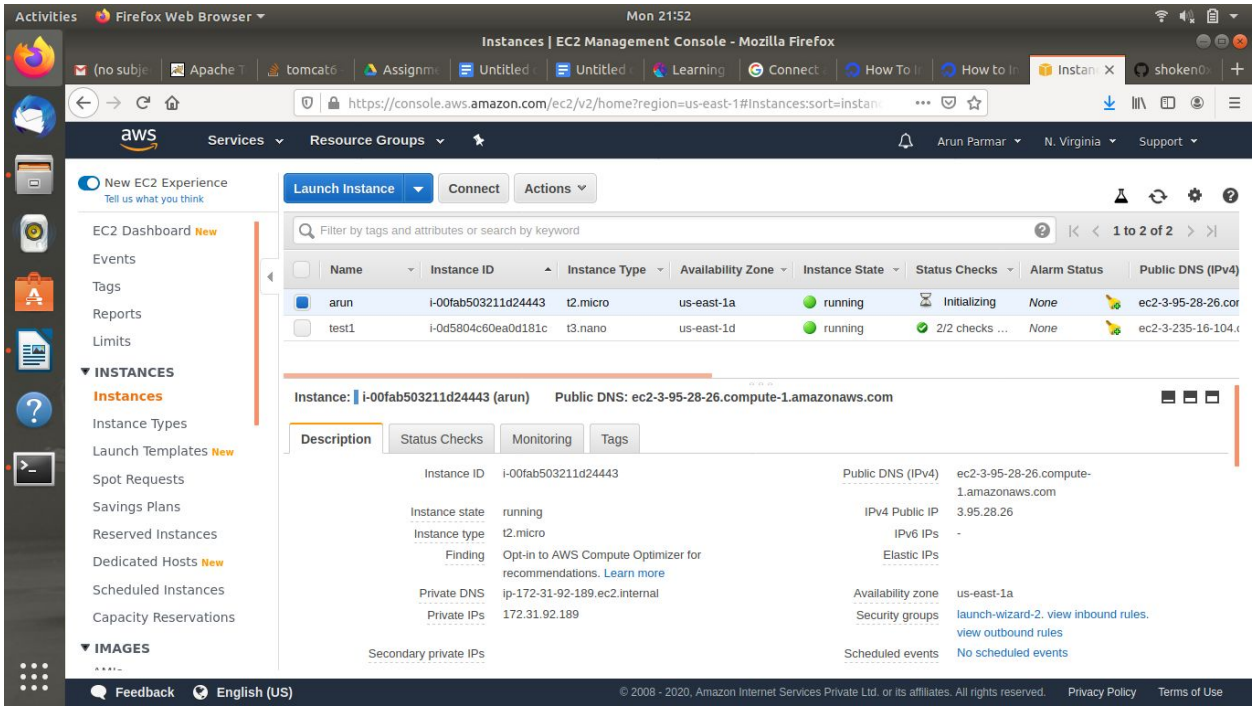




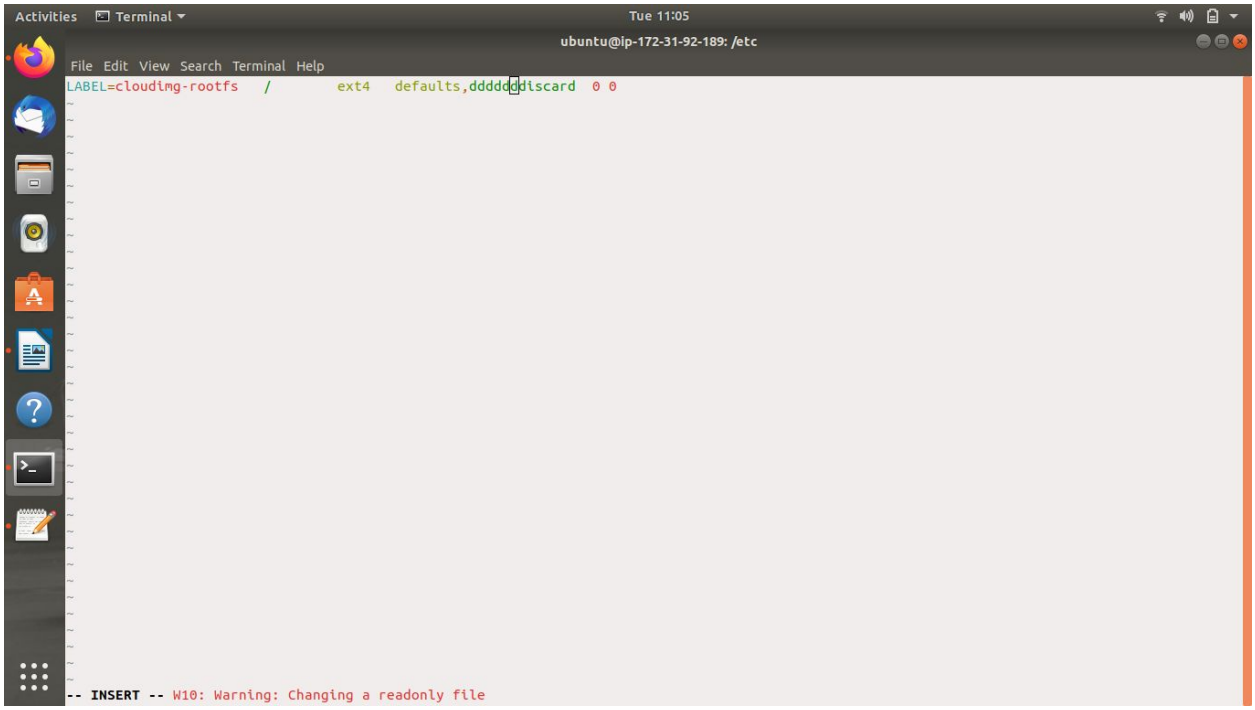


4. Stop, Start, Restart that EBS (EBS must be auto-attached).

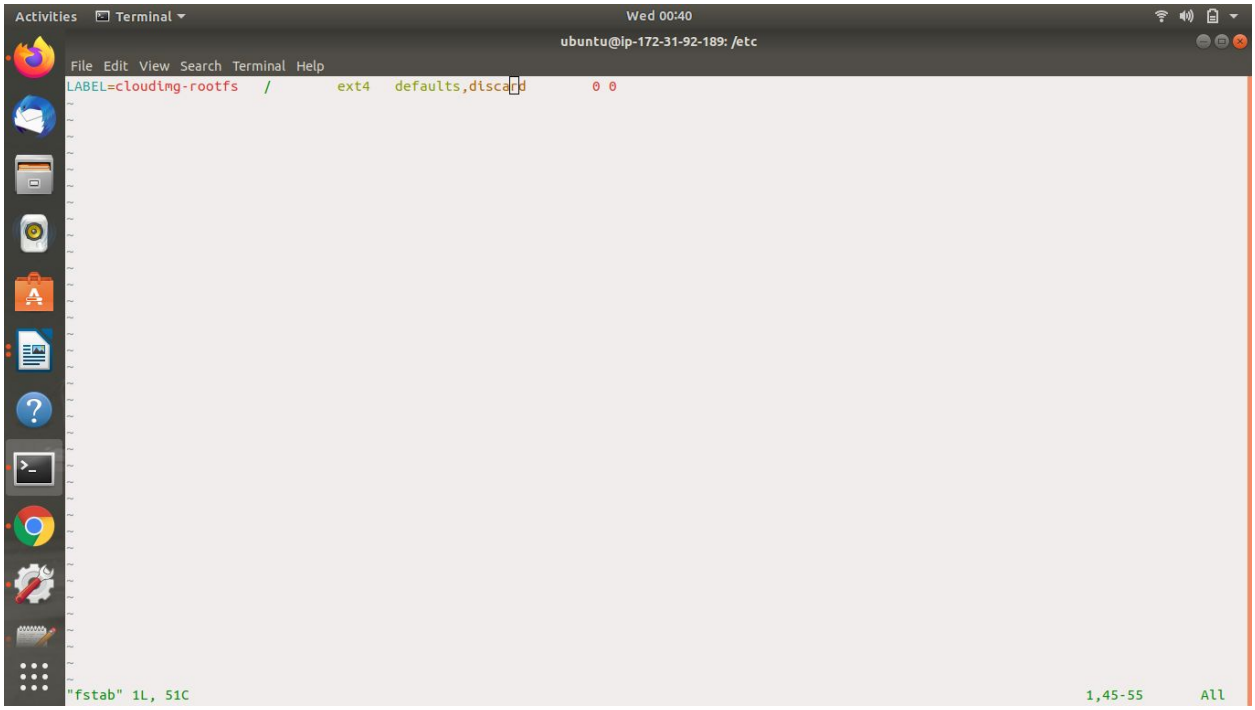




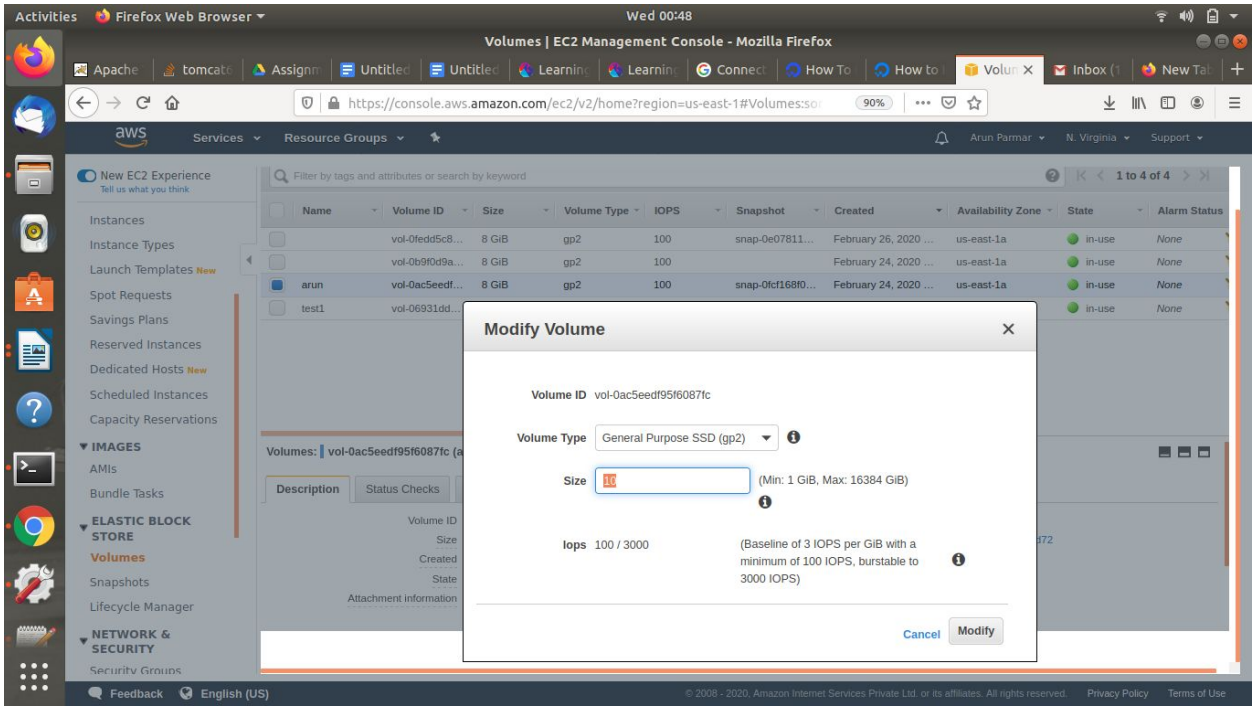
5. Make some mistake in fstab file, stop and start the instance, then troubleshoot it.
   - None of the files will be edited in filesystem, they will be readonly.



- Detach the root volume from Instance
- Create a maintainance instance
- Attach root volume of main instance to maintainance instance
- Mount the volume
- Correct the fstab file
- Detach the volume
- Attach the root volume to main instance again, restart.



6. Resize the EBS from 8 to 10GB

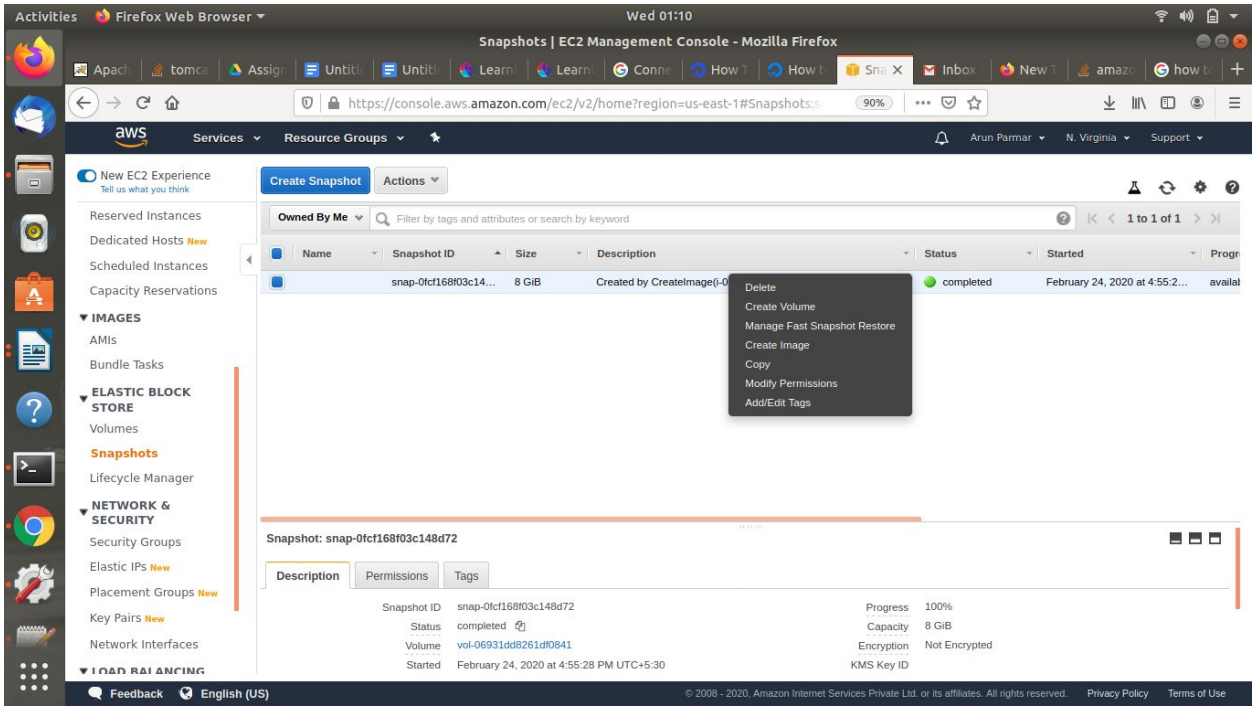


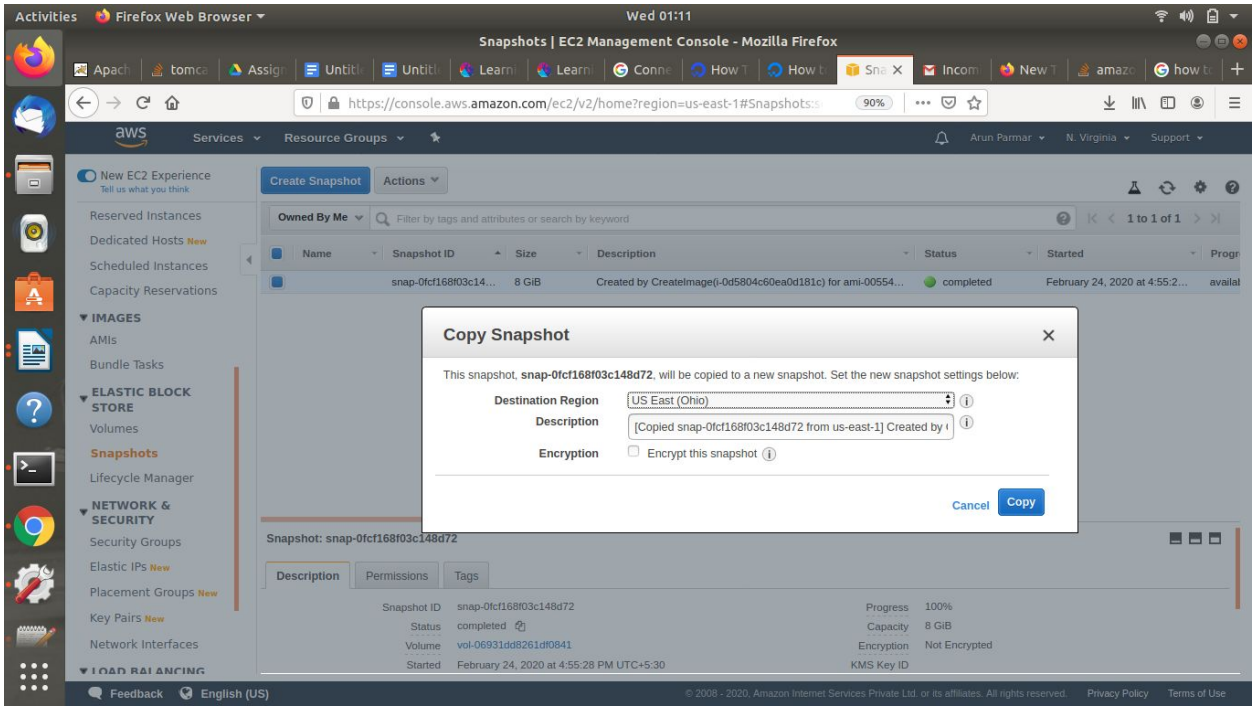
7. SSH from one instance A to instance B.

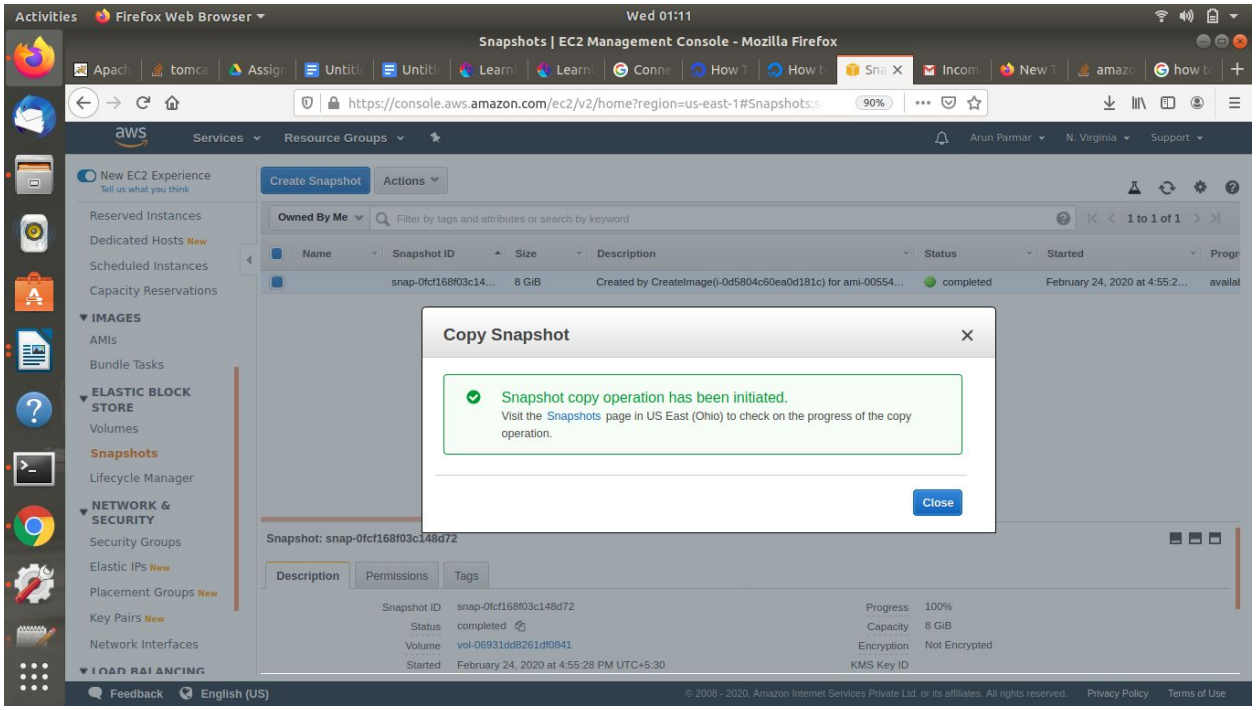
- Generate key for Instance 1 with ssh-keygen

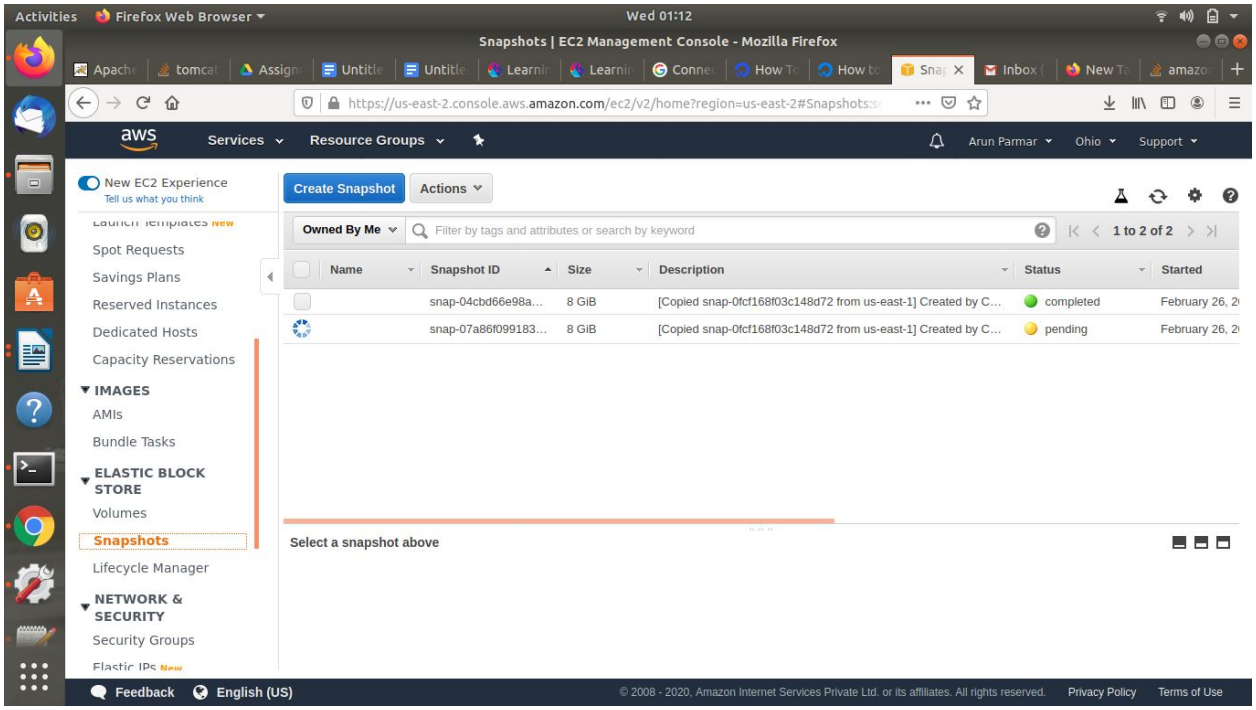
- Copy this key to authorized keys of Instance B
- SSH from B to A.

8. Copy the EBS in different region(oregon).







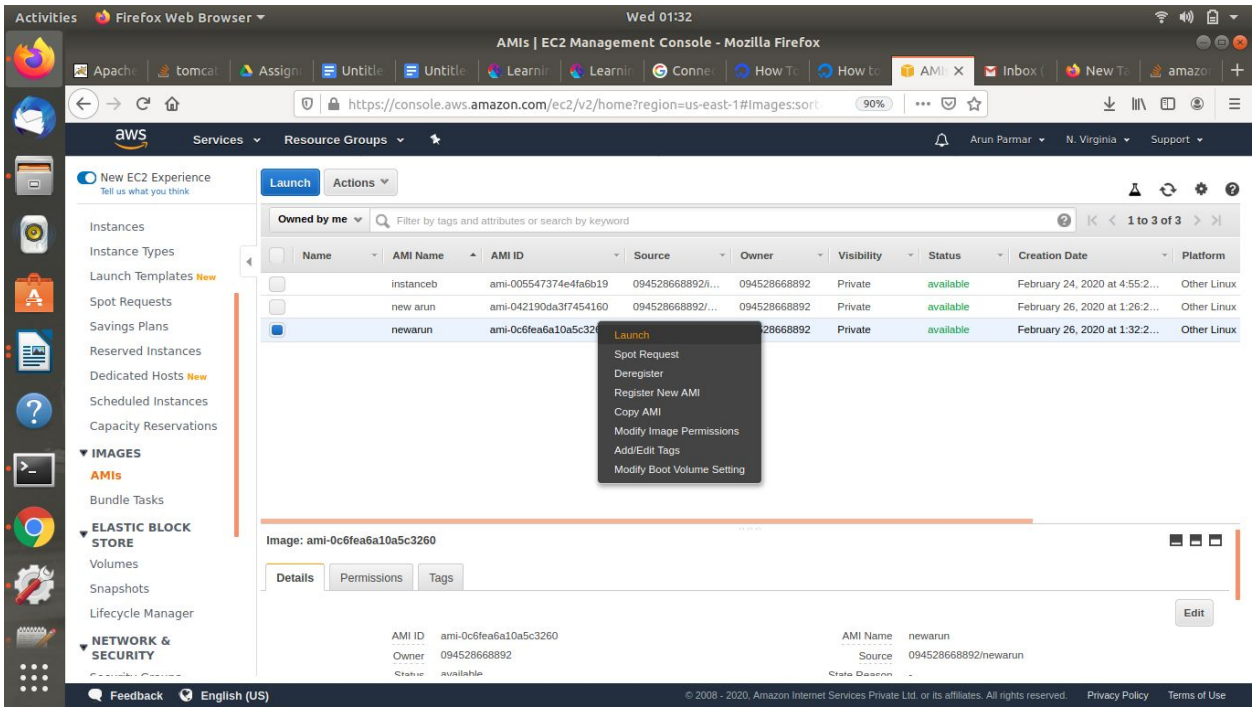


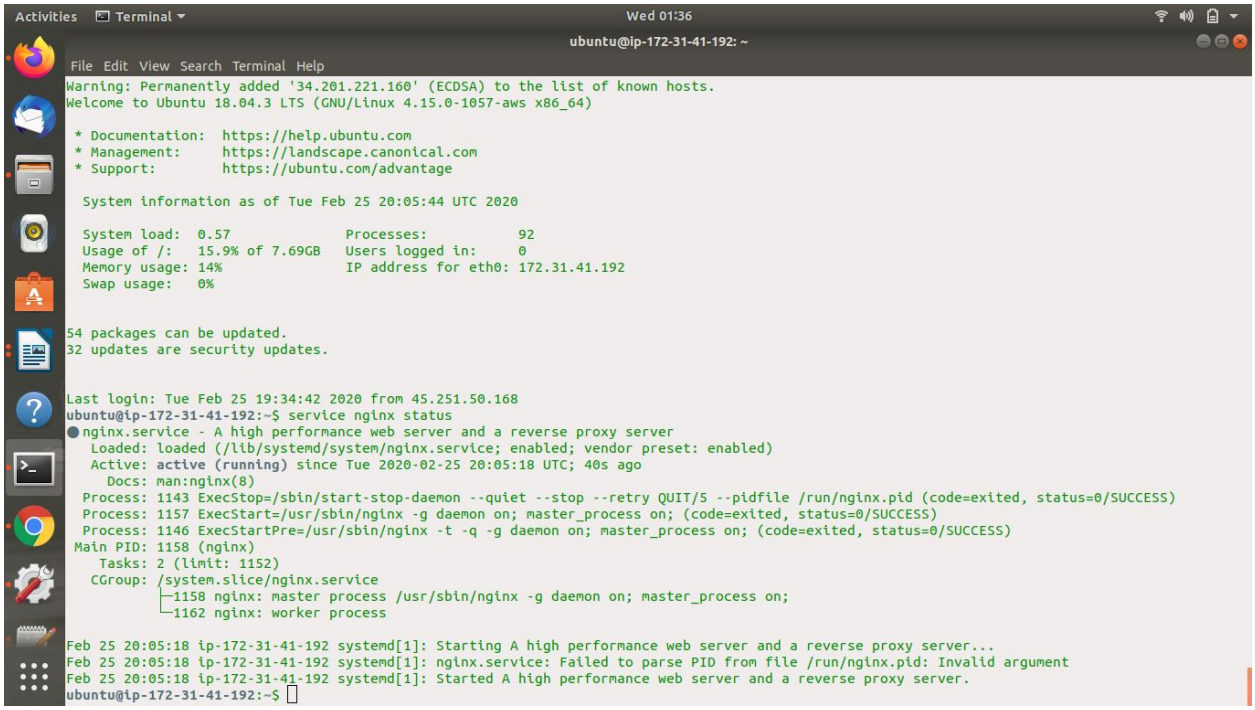
9. Detach the root EBS, create its snapshot, than create the AMI and run it as instance such that nginx should be preinstalled at the boot time of instance.

- Stop Instance B and detach the root volume.
- Create snapshot for root volume of B.
- Create image

- Launch an instance from the AMI
- Add user data as follows
  #!/bin/bash
  Sudo apt-get update
  Sudo apt-get install nginx
  Sudo service nginx restart

- Once the instance is launched, ssh into the instance and chcek nginx status using “sudo service nginx status”




Activities
Terminal
Wed 01:36
ubuntu@ip-172-31-41-192: ~
File Edit View Search Terminal Help
Warning: Permanently added '34.201.221.160' (ECDSA) to the list of known hosts.
Welcome to Ubuntu 18.04.3 LTS (GNU/Linux 4.15.0-1057-aws x86_64)
* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/advantage
System information as of Tue Feb 25 20:05:44 UTC 2020
System load: 0.57 Processes: 92
Usage of /: 15.9% of 7.69GB Users logged in: 0
Memory usage: 14% IP address for eth0: 172.31.41.192
Swap usage: 0%
54 packages can be updated.
32 updates are security updates.
Last login: Tue Feb 25 19:34:42 2020 from 45.251.50.168
ubuntu@ip-172-31-41-192:~$ service nginx status
nginx.service - A high performance web server and a reverse proxy server
Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)
Active: active (running) since Tue 2020-02-25 20:05:18 UTC; 40s ago
Docs: man:nginx(8)
Process: 1143 ExecStop=/sbin/start-stop-daemon --quiet --stop --retry QUIT/5 --pidfile /run/nginx.pid (code=exited, status=0/SUCCESS)
Process: 1157 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
Process: 1146 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
Main PID: 1158 (nginx)
Tasks: 2 (limit: 1152)
CGroup: /system.slice/nginx.service
├─1158 nginx: master process /usr/sbin/nginx -g daemon on; master_process on;
└─1162 nginx: worker process
Feb 25 20:05:18 ip-172-31-41-192 systemd[1]: Starting A high performance web server and a reverse proxy server...
Feb 25 20:05:18 ip-172-31-41-192 systemd[1]: nginx.service: Failed to parse PID from file /run/nginx.pid: Invalid argument
Feb 25 20:05:18 ip-172-31-41-192 systemd[1]: Started A high performance web server and a reverse proxy server.
ubuntu@ip-172-31-41-192:~$