



ASSIGNMENT – 01

COURSE : AWS DEVOPS

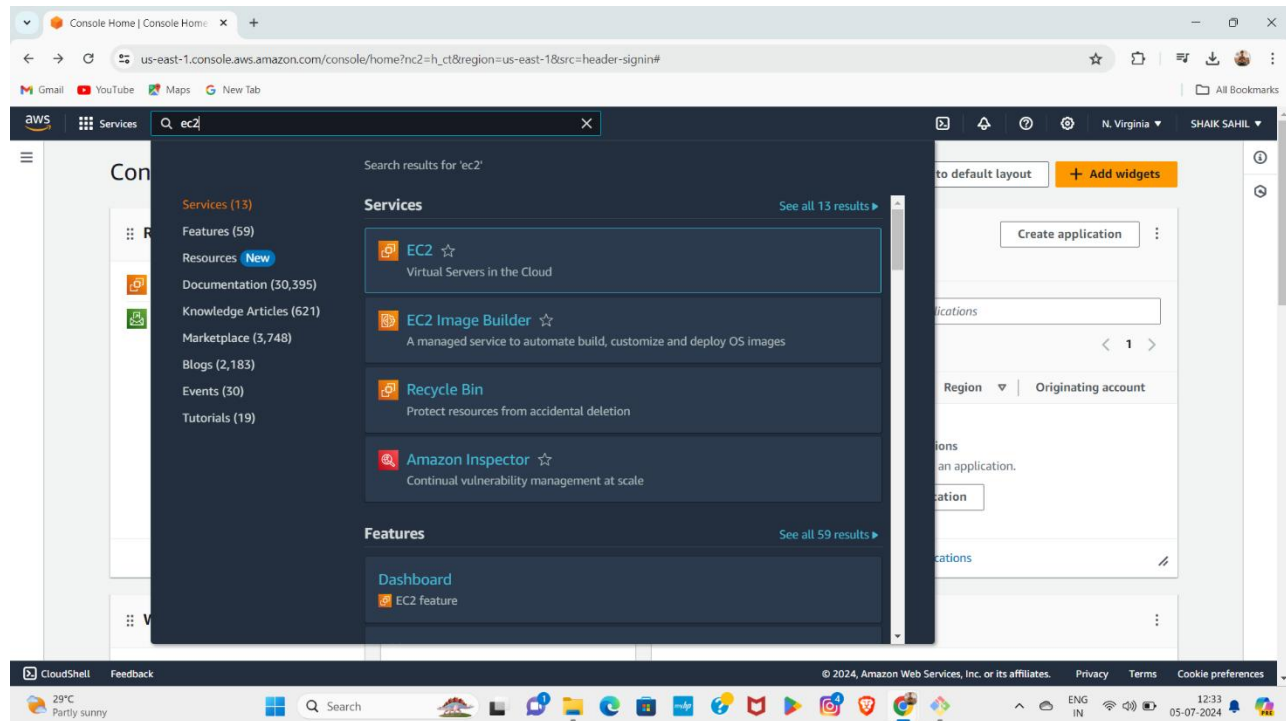
Trainer : Mr . MADHUKAR REDDY

NAME : NIKHILA

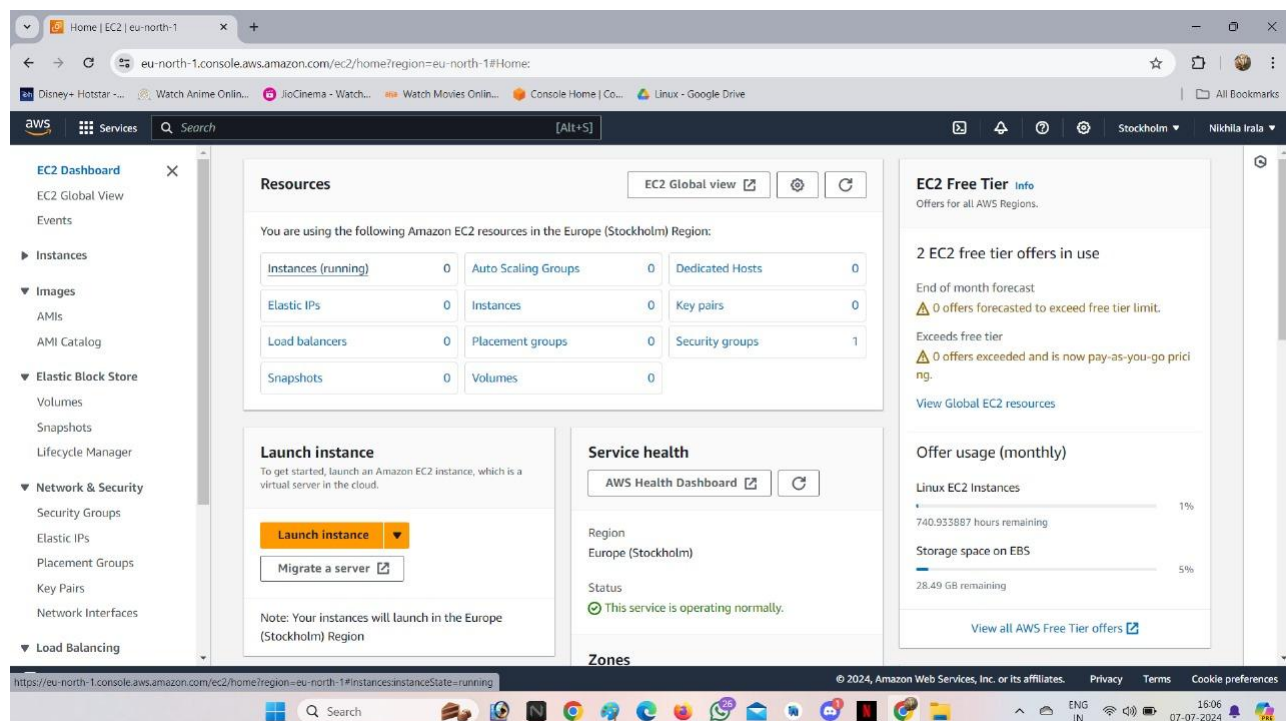
Mail id : Nikhilairala@gmail.com

1 . CREATE THREE INSTANCE

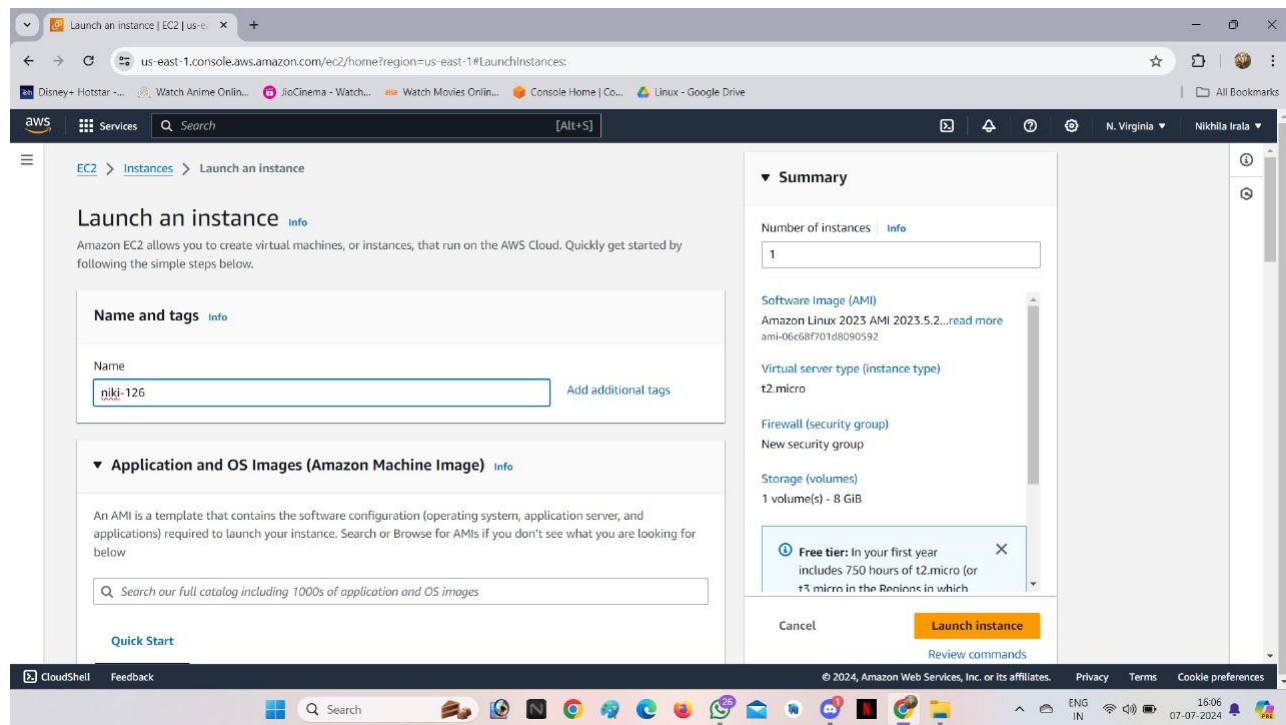
Go to AWS search bar and search EC2 and click on it.



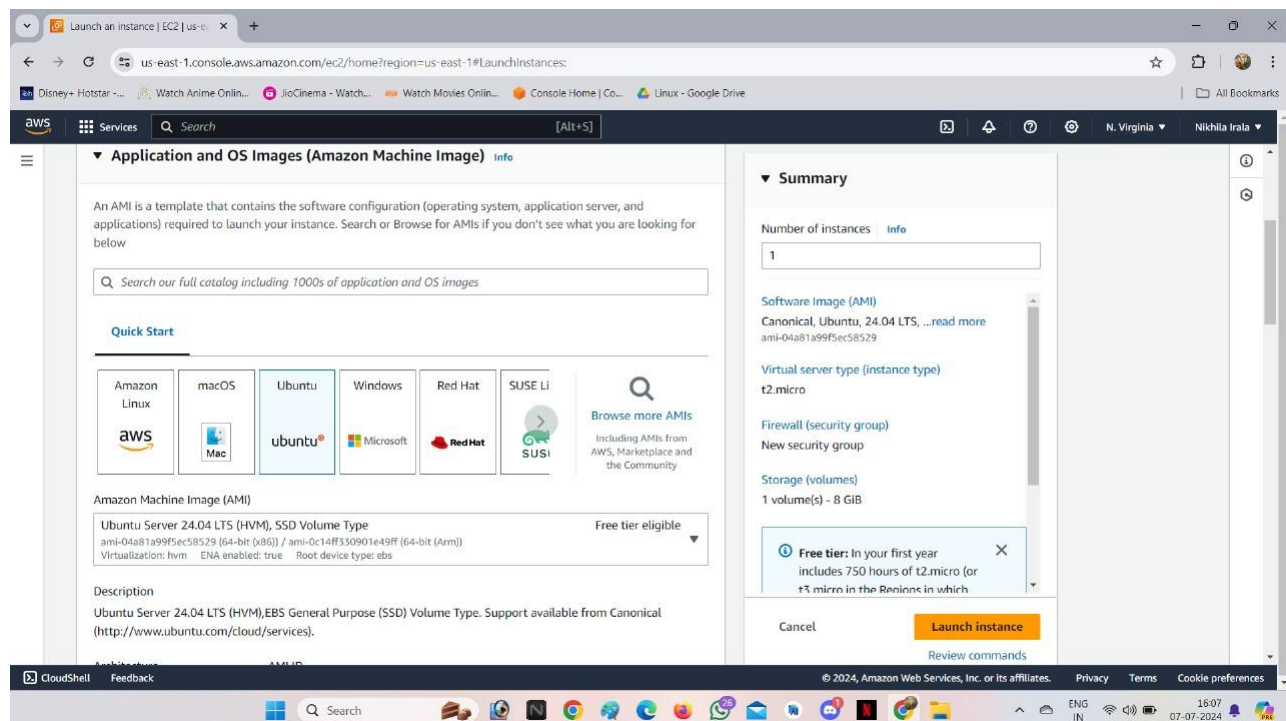
Click on launch instance



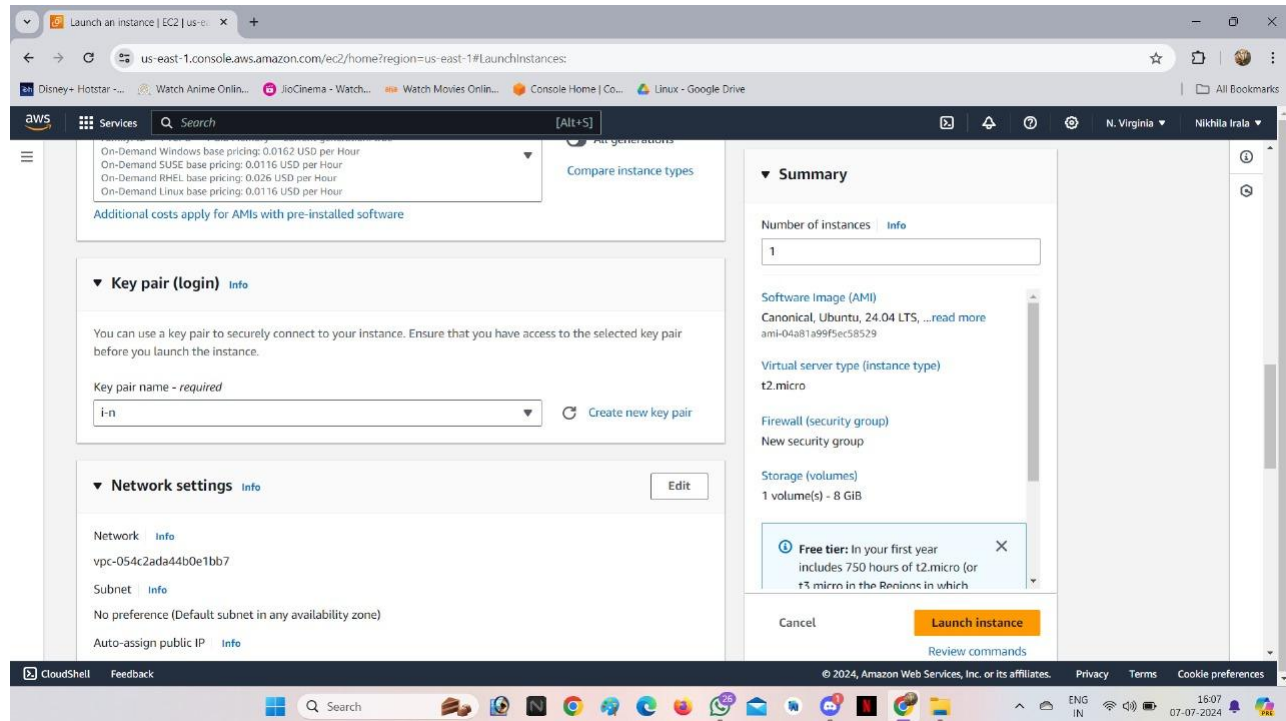
Give a name to the server.



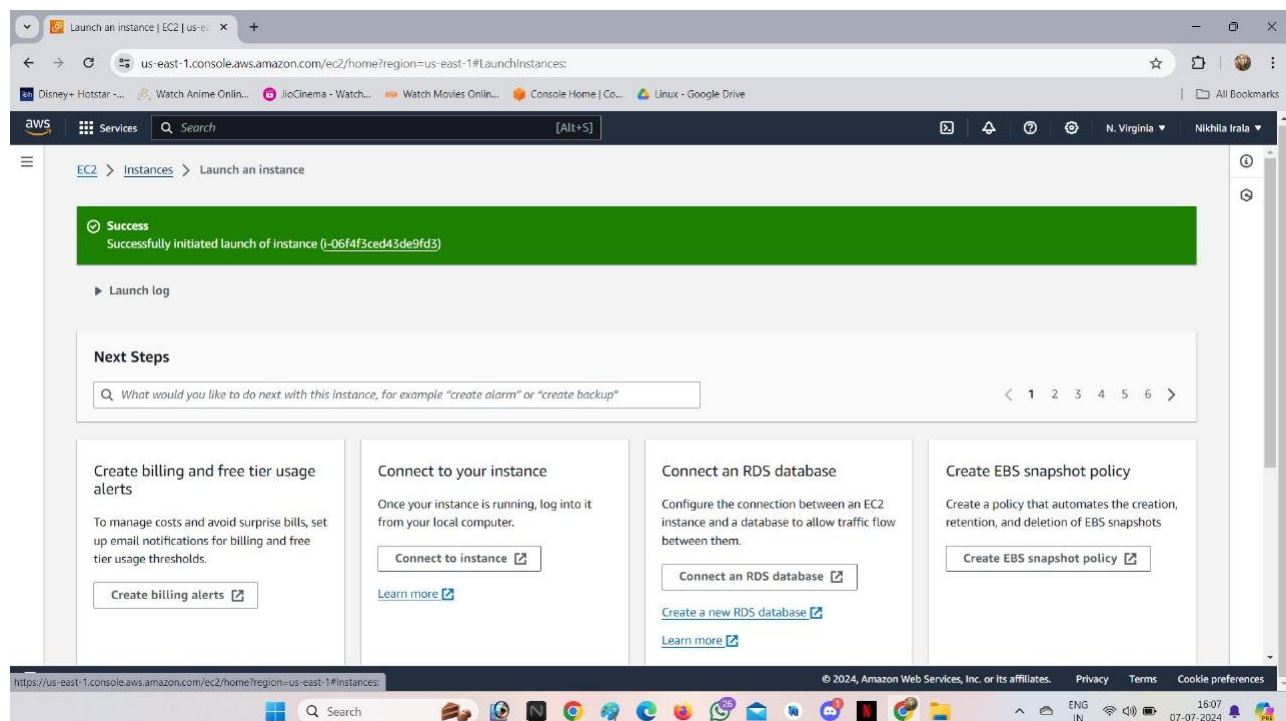
Select an Operating system(OS).



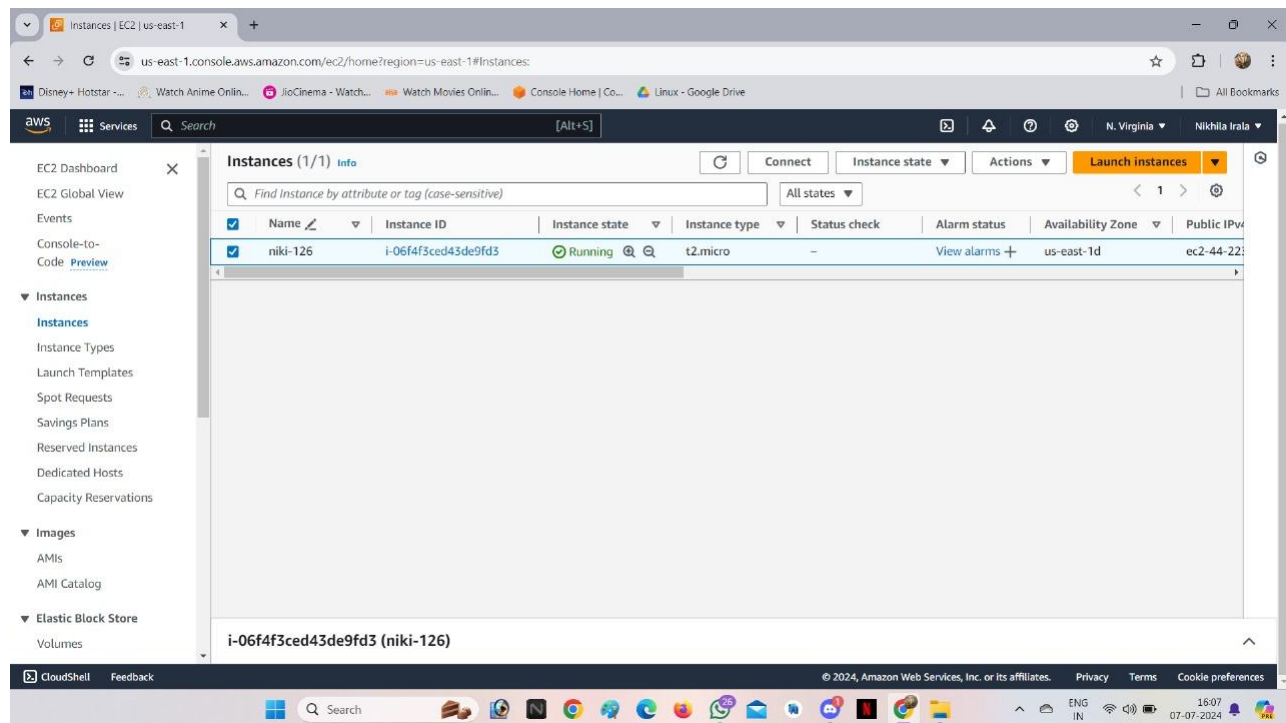
Create a key pair and Click on launch instance.



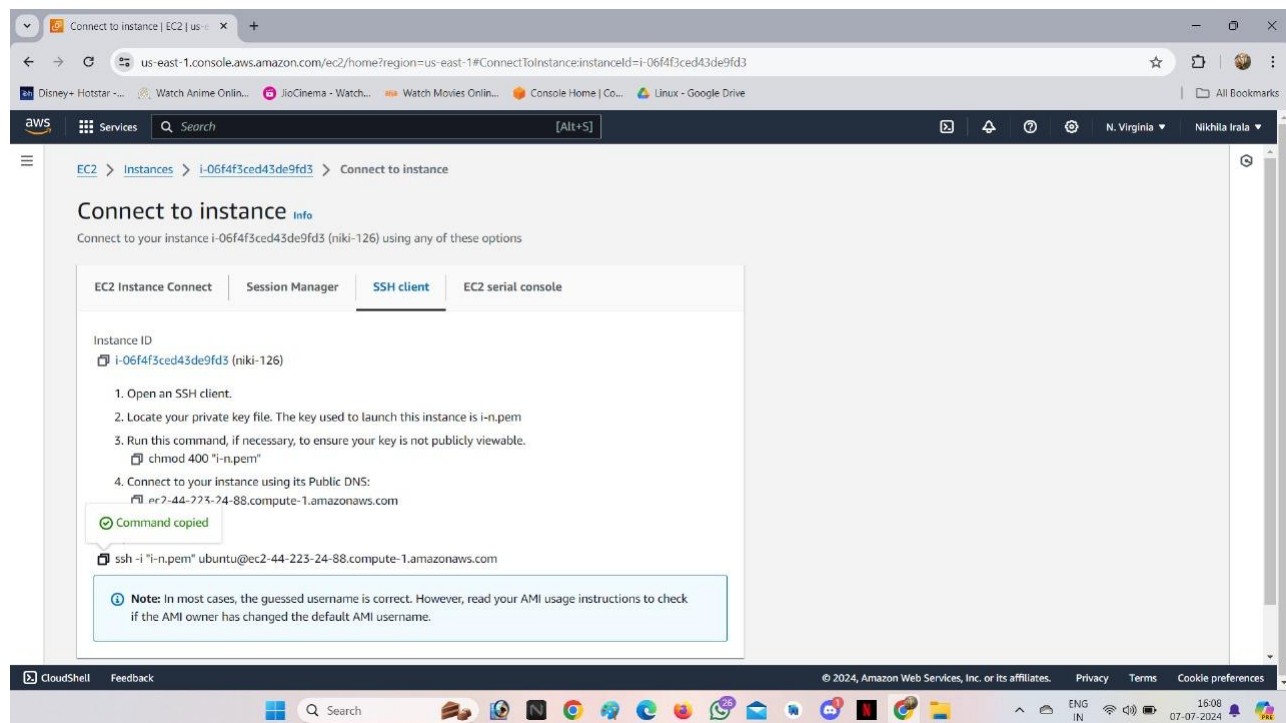
Repeat the same process to have three instances.



To check the storage of the instances-
Go to instances click on instance ID.



Connect to instance and copy the command below in SSH Client.



Check storage in OS with copied command and modify or increase the volume of the instance.

```
krant@nikhila MINGW64 ~/OneDrive/Desktop
$ ssh -i "i-n.pem" ubuntu@ec2-44-223-24-88.compute-1.amazonaws.com
```

```
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-31-11:~$ sudo -i
root@ip-172-31-31-11:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        6.8G  1.6G  5.2G  23% /
tmpfs            479M   0  479M   0% /dev/shm
tmpfs            192M  868K  191M   1% /run
tmpfs            5.0M   0   5.0M   0% /run/lock
/dev/xvda16      881M   76M  744M  10% /boot
/dev/xvda15      105M   6.1M   99M   6% /boot/efi
tmpfs            96M   12K   96M   1% /run/user/1000
root@ip-172-31-31-11:~#
Broadcast message from root@ip-172-31-31-11 (Sun 2024-07-07 10:41:46 UTC):

The system will reboot now!

Broadcast message from root@ip-172-31-31-11 (Sun 2024-07-07 10:41:46 UTC):

The system will reboot now!

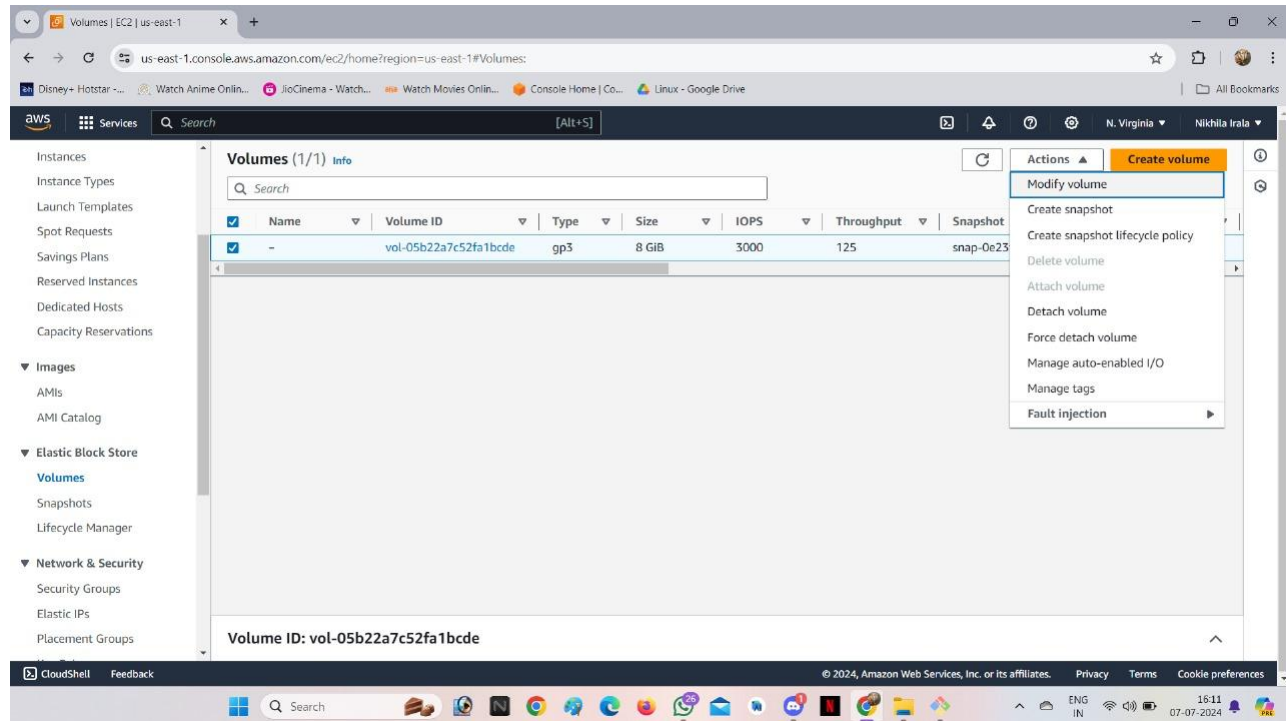
Connection to ec2-44-223-24-88.compute-1.amazonaws.com closed by remote host.
Connection to ec2-44-223-24-88.compute-1.amazonaws.com closed.

krant@nikhila MINGW64 ~/OneDrive/Desktop
$ ssh -i "i-n.pem" ubuntu@ec2-44-223-24-88.compute-1.amazonaws.com
```

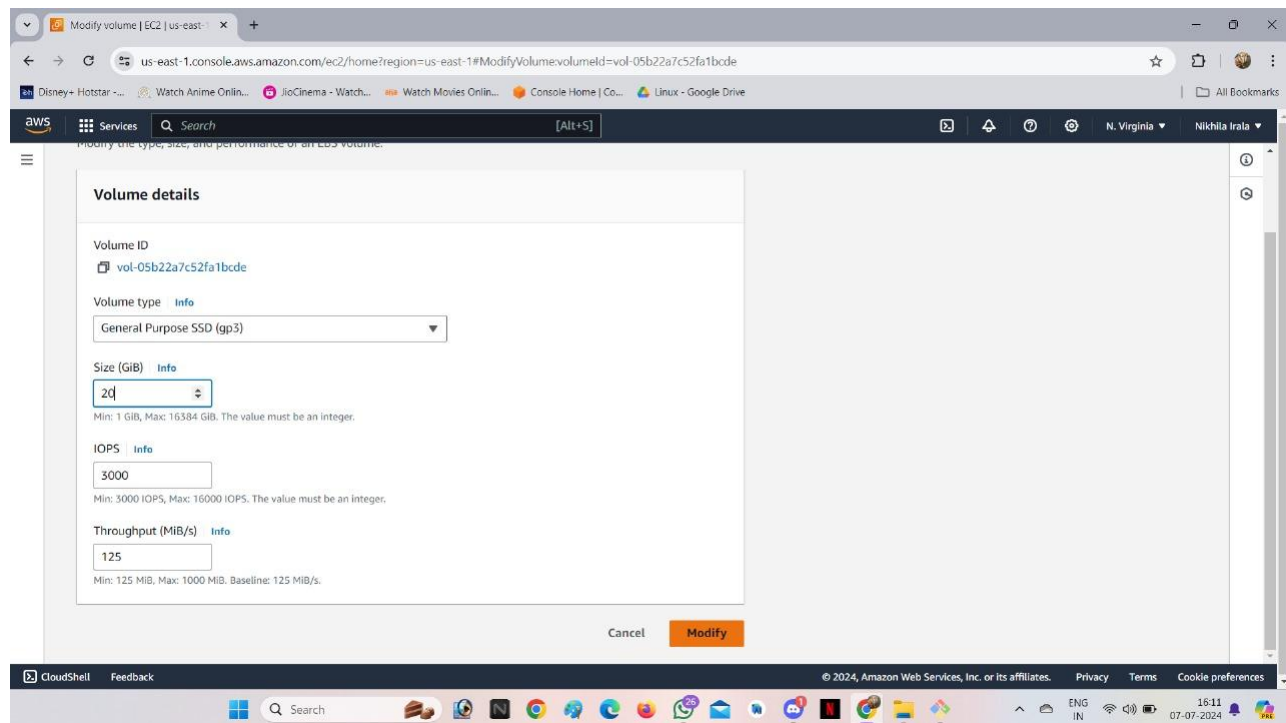
ELASTIC BLOCK STORE:

a. Attach one ebs to one instance.

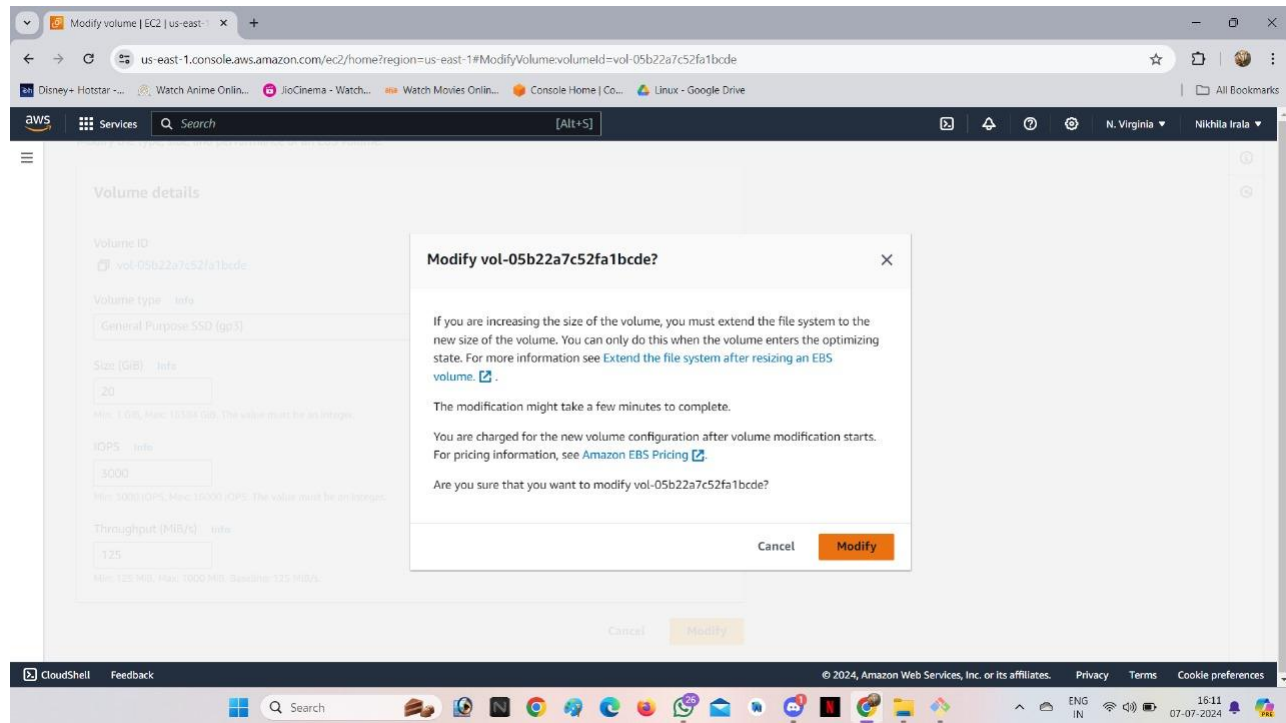
-Go to volumes and click on actions and the modify volume.



Increase or modify the volume with required size.

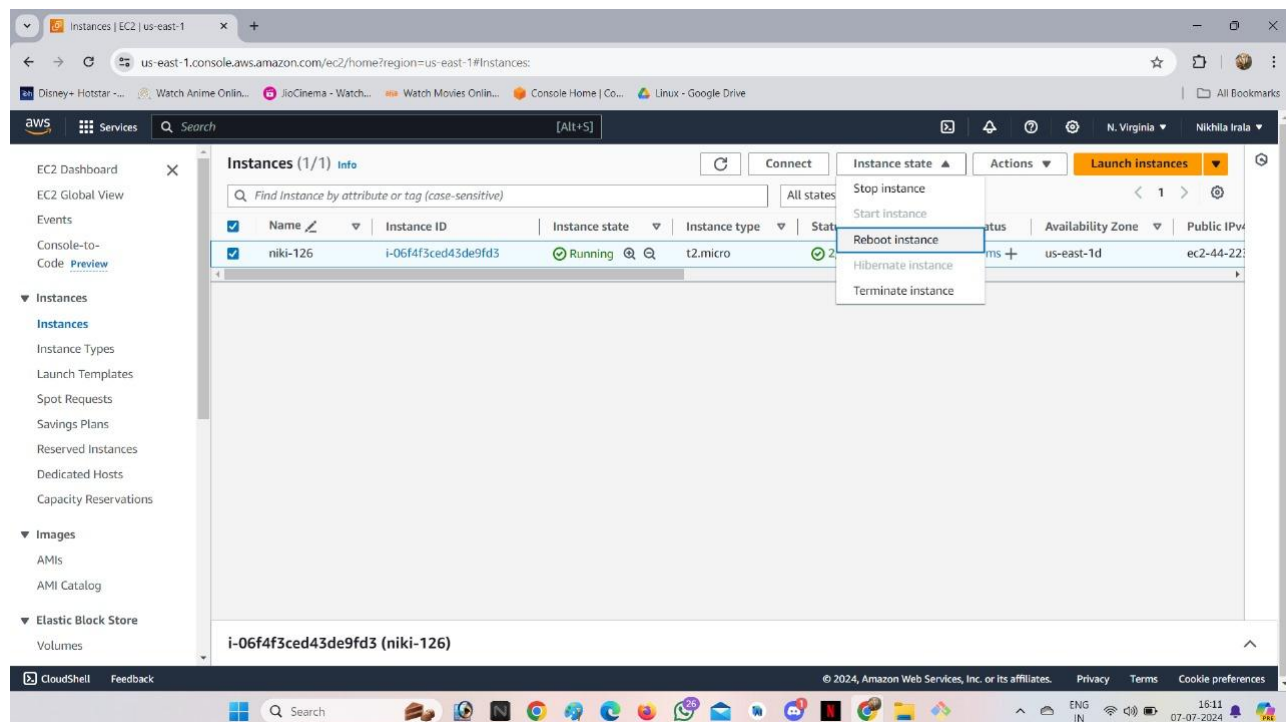


Click on modify.



Go to instance

-Click on instance state and reboot instance for before checking storage of volume.




```
root@ip-172-31-31-11:~#
* Support: https://ubuntu.com/pro

System information as of Sun Jul 7 10:42:43 UTC 2024

System load: 0.91          Processes: 110
Usage of /: 8.4% of 18.3GB Users logged in: 0
Memory usage: 20%         IPv4 address for enx0: 172.31.31.11
Swap usage: 0%

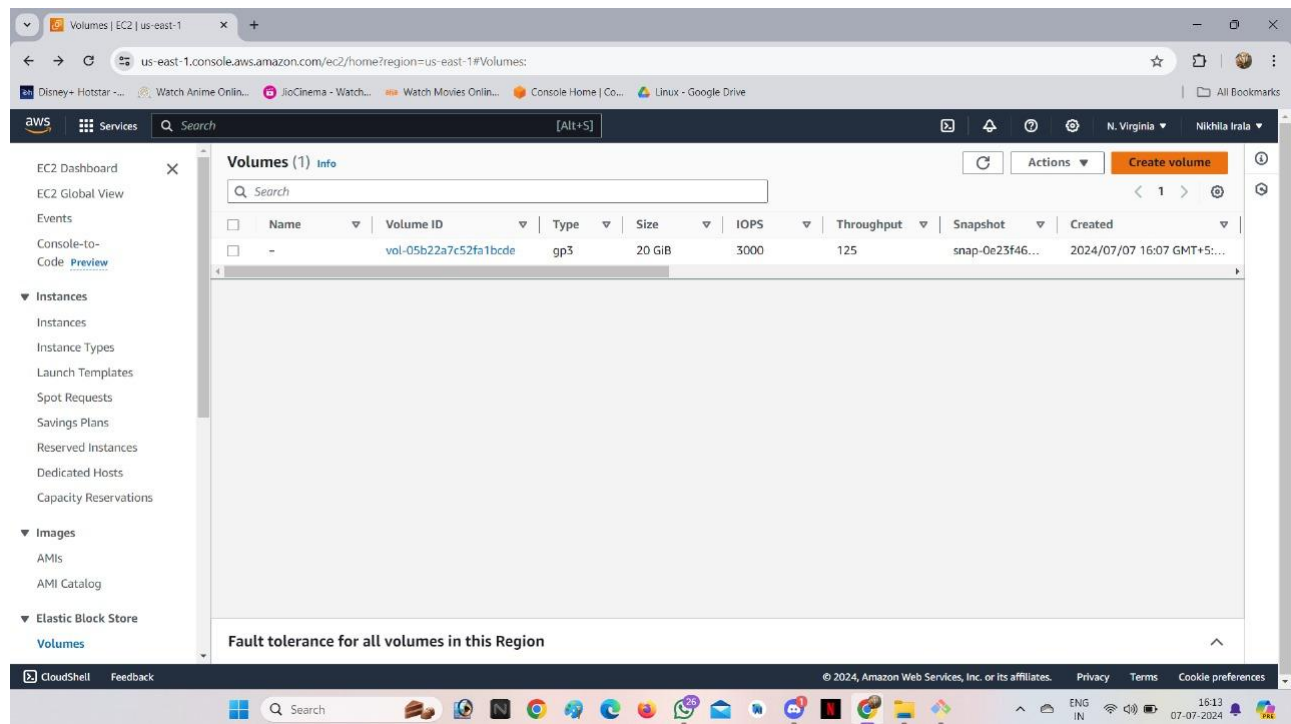
Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

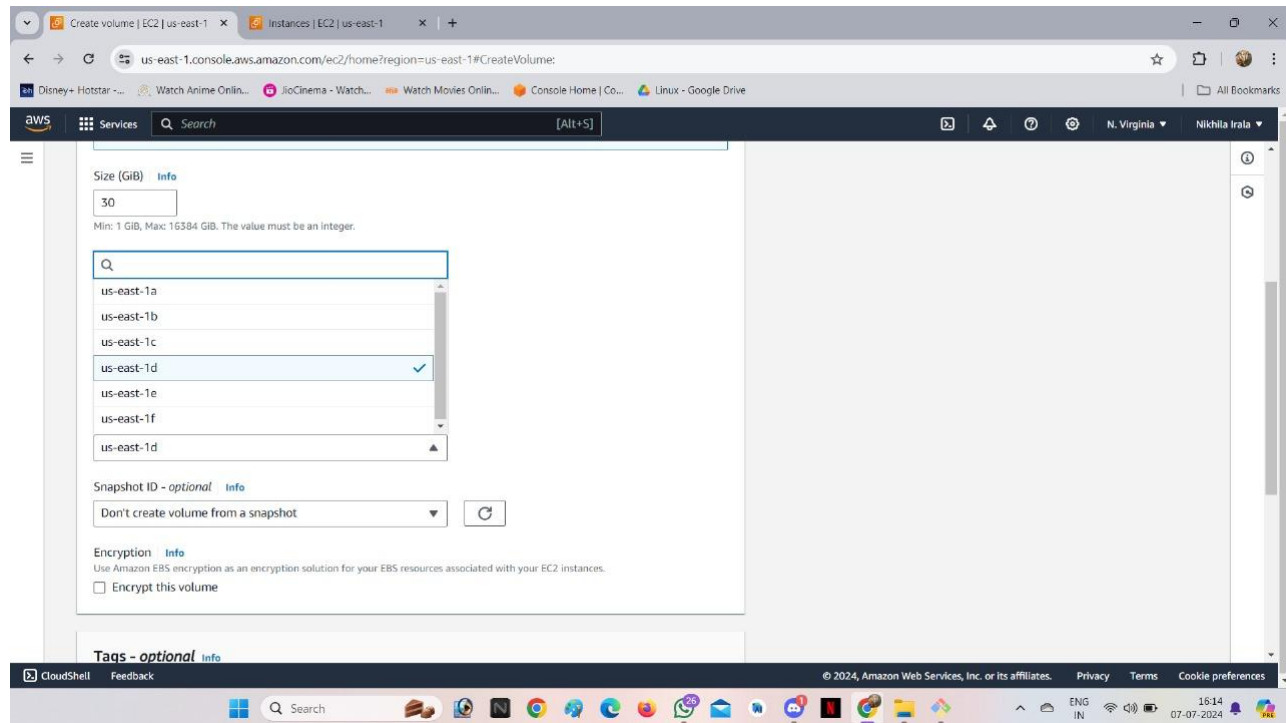
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Sun Jul 7 10:39:59 2024 from 205.254.168.154
ubuntu@ip-172-31-31-11:~$ sudo -i
root@ip-172-31-31-11:~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root        19G   1.6G   17G   9% /
tmpfs            479M   0    479M   0% /dev/shm
tmpfs            192M  872K   191M   1% /run
tmpfs            5.0M   0    5.0M   0% /run/lock
/dev/xvda16      881M   76M   744M  10% /boot
/dev/xvda15      105M   6.1M   99M   6% /boot/efi
tmpfs            96M   12K   96M   1% /run/user/1000
root@ip-172-31-31-11:~#
```

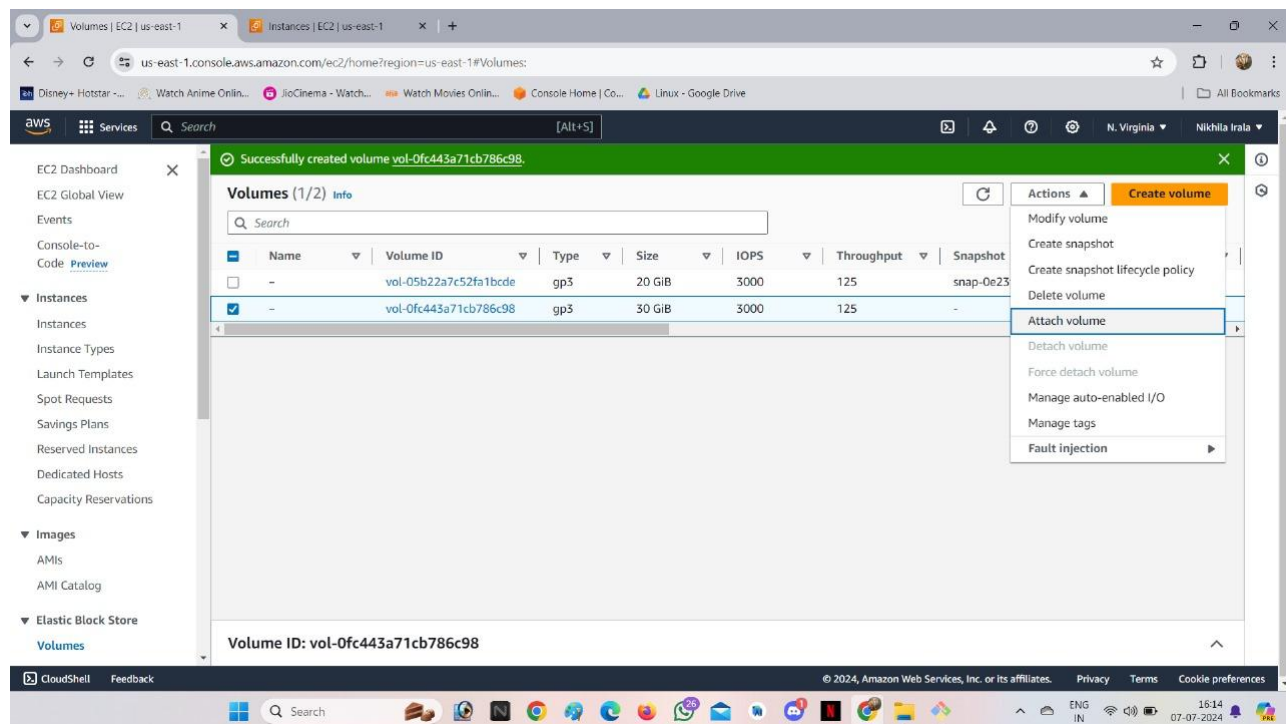
Go to volumes and click on create volume.



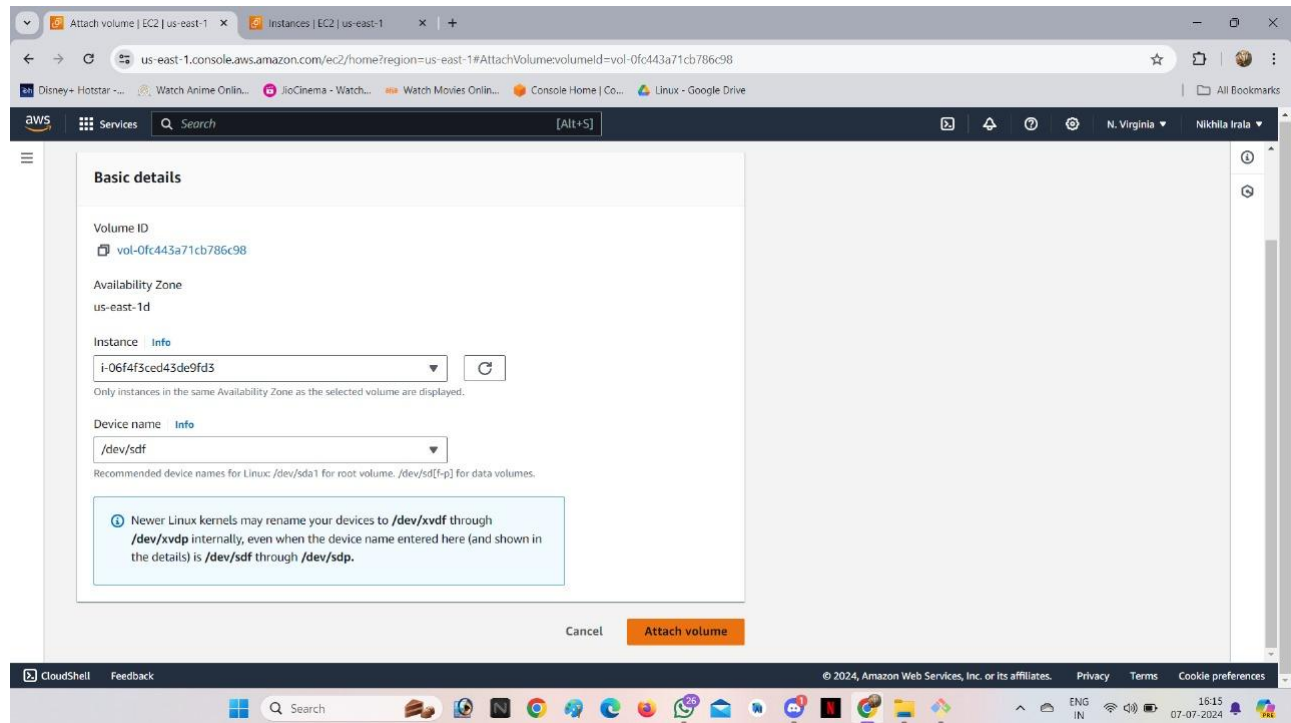
Create a volume size as required with same availability zone as instance.



Go to volumes and click on Actions and then Attach volume.



Check the availability zone , instance Id and select device name.



So the volume is attached to instance.

- To check list of all block device by using “lsblk” command.
- To check file system by using “file -s /dev/xvdf” command.
- To create file system by using “mkfs -t xfs /dev/xvdf” command.
- To create directory by using “mkdir -p apps/volume” command.
- Mount the directory by using “mount /dev/xvdf apps/volume” command.
- To check the disk free with human readable language by using “df -h” command.

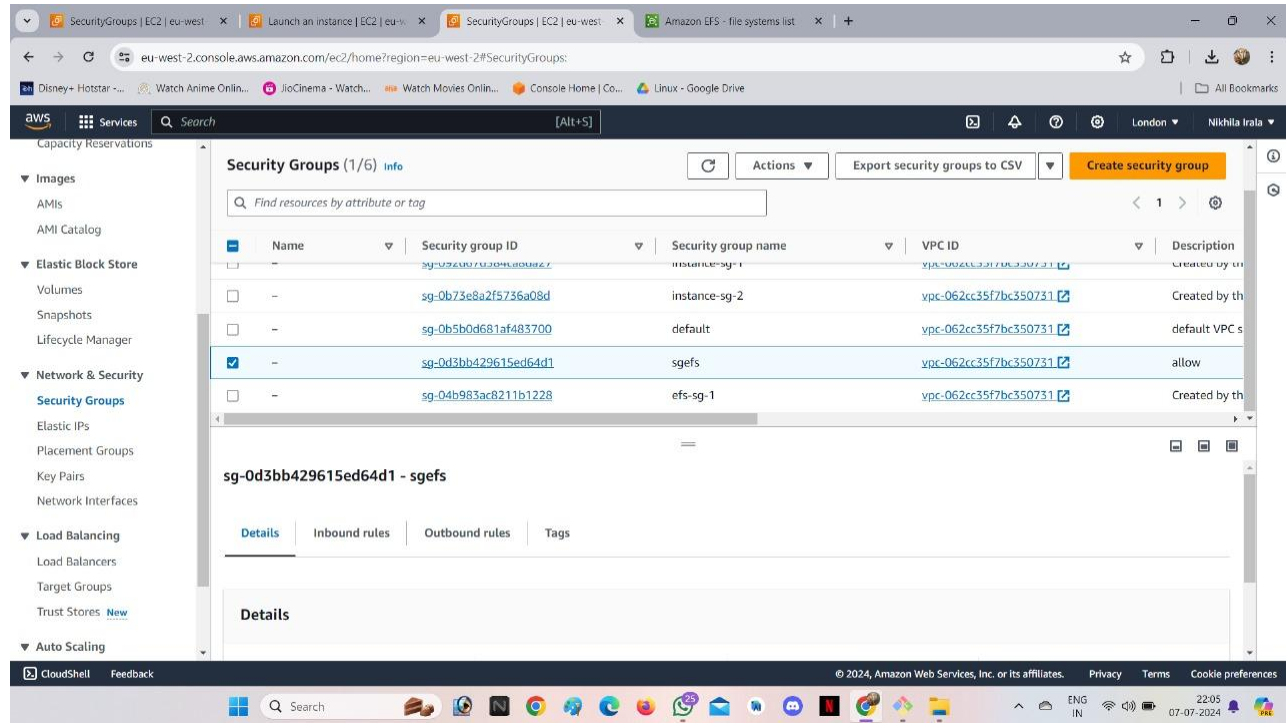
```
root@ip-172-31-31-11: ~  
tmpfs 5.0M 0 5.0M 0% /run/lock  
/dev/xvda16 883M 70M 744M 10% /boot  
/dev/xvda15 109M 6.3M 99M 6% /boot/efi  
tmpfs 90M 12K 90M 1% /run/user/1000  
root@ip-172-31-31-11:~# lsblk  
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS  
loop0 7:0 0 25.2M 1 loop /snap/amazon-ssm-agent/7993  
loop1 7:1 0 35.7M 1 loop /snap/core18/2829  
loop2 7:2 0 38.8M 1 loop /snap/snapd/21759  
xvda 202:0 0 20G 0 disk  
|-xvda1 202:1 0 15G 0 part /  
|-xvda14 202:14 0 4M 0 part  
|-xvda15 202:15 0 100M 0 part /boot/efi  
|-xvda16 202:16 0 919M 0 part /boot  
xvdf 202:80 0 30G 0 disk  
root@ip-172-31-31-11:~# file -s /dev/xvdf  
/dev/xvdf: data  
root@ip-172-31-31-11:~# lsblk  
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS  
loop0 7:0 0 25.2M 1 loop /snap/amazon-ssm-agent/7993  
loop1 7:1 0 35.7M 1 loop /snap/core18/2829  
loop2 7:2 0 38.8M 1 loop /snap/snapd/21759  
xvda 202:0 0 20G 0 disk  
|-xvda1 202:1 0 15G 0 part /  
|-xvda14 202:14 0 4M 0 part  
|-xvda15 202:15 0 100M 0 part /boot/efi  
|-xvda16 202:16 0 919M 0 part /boot  
xvdf 202:80 0 30G 0 disk  
root@ip-172-31-31-11:~# mkfs -t xfs /dev/xvdf  
mkfs: no device specified  
Try 'mkfs --help' for more information.  
root@ip-172-31-31-11:~# mkfs -t xfs /dev/xvdf  
meta-data=/dev/xvdf isize=512 agcount=4, agsize=1966080 blks  
- sectsz=32 attr=2, projid32bit=1  
- crc=1 finobt=1, sparse=1, rmapbt=1  
- reflink=1 bigtime=1 inobtcount=1 nrext64=0  
data = bsize=4096 blocks=7864320, imaxpct=25  
sunit=0 swidth=0 blks  
naming =version 2 bsize=4096 ascii-ci=0, ftype=1  
log =internal log bsize=4096 blocks=16384, version=2  
- sectsz=32 sunit=0 blks, lazy-count=1  
realtime=none extsz=4096 blocks=0, rtextents=0  
root@ip-172-31-31-11:~# file -s /dev/xvdf  
/dev/xvdf: xfs filesystem data (blksz 4096, inosz 512, v2 dirs)  
root@ip-172-31-31-11:~# mkdir -p nikki/vacue126  
root@ip-172-31-31-11:~# ls  
nikki snap  
root@ip-172-31-31-11:~# mount /dev/xvdf nikki/vacue126  
mount: nikki/vacue126: mount point does not exist.  
dmesg() may have more information after failed mount system call.  
root@ip-172-31-31-11:~# mount -p nikki/vacue126  
mount: invalid option -- 'p'  
Try 'mount --help' for more information.  
root@ip-172-31-31-11:~# mount /dev/xvdf nikki/vacue126  
root@ip-172-31-31-11:~# df -h  
Filesystem Size Used Avail Use% Mounted on  
/dev/root 19G 1.6G 17G 9% /  
tmpfs 479M 0 479M 0% /dev/shm  
tmpfs 150M 864K 150M 1% /run  
tmpfs 5.0M 0 5.0M 0% /run/lock  
/dev/xvda16 883M 70M 744M 10% /boot  
/dev/xvda15 109M 6.3M 99M 6% /boot/efi  
tmpfs 90M 12K 90M 1% /run/user/1000  
/dev/xvdf 30G 820M 30G 3% /root/nikki/vacue126  
root@ip-172-31-31-11:~#
```

NOTE : One ebs can be attached to one instance but it cannot be attached to multiple instances.

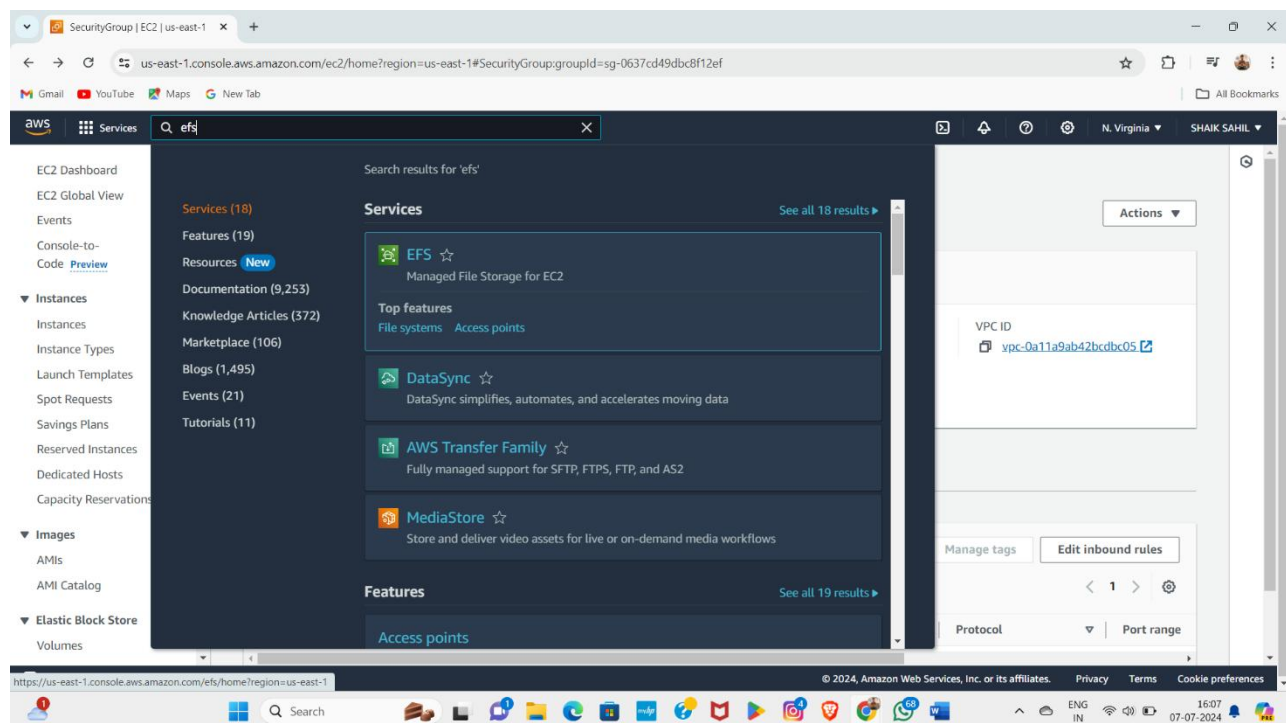
ELASTIC FILE SYSTEM :

b. Attach one efs to two instances.

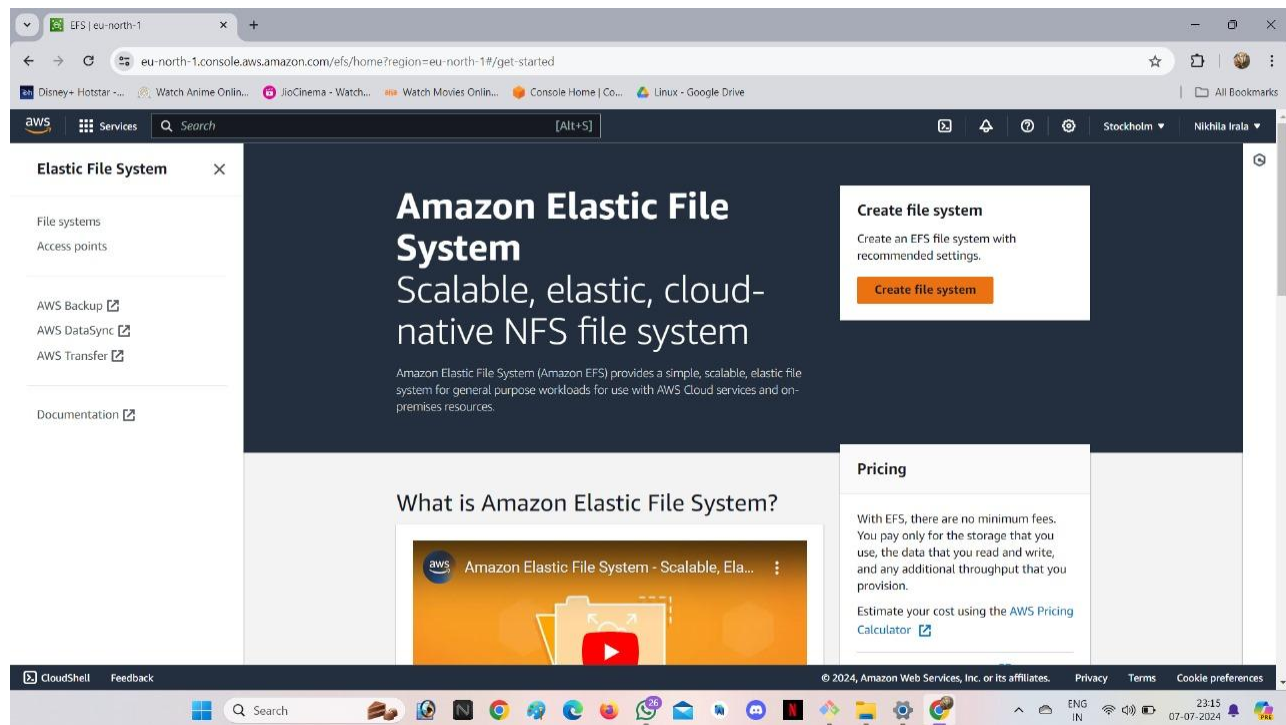
Go to security groups and create a security group with basic details.



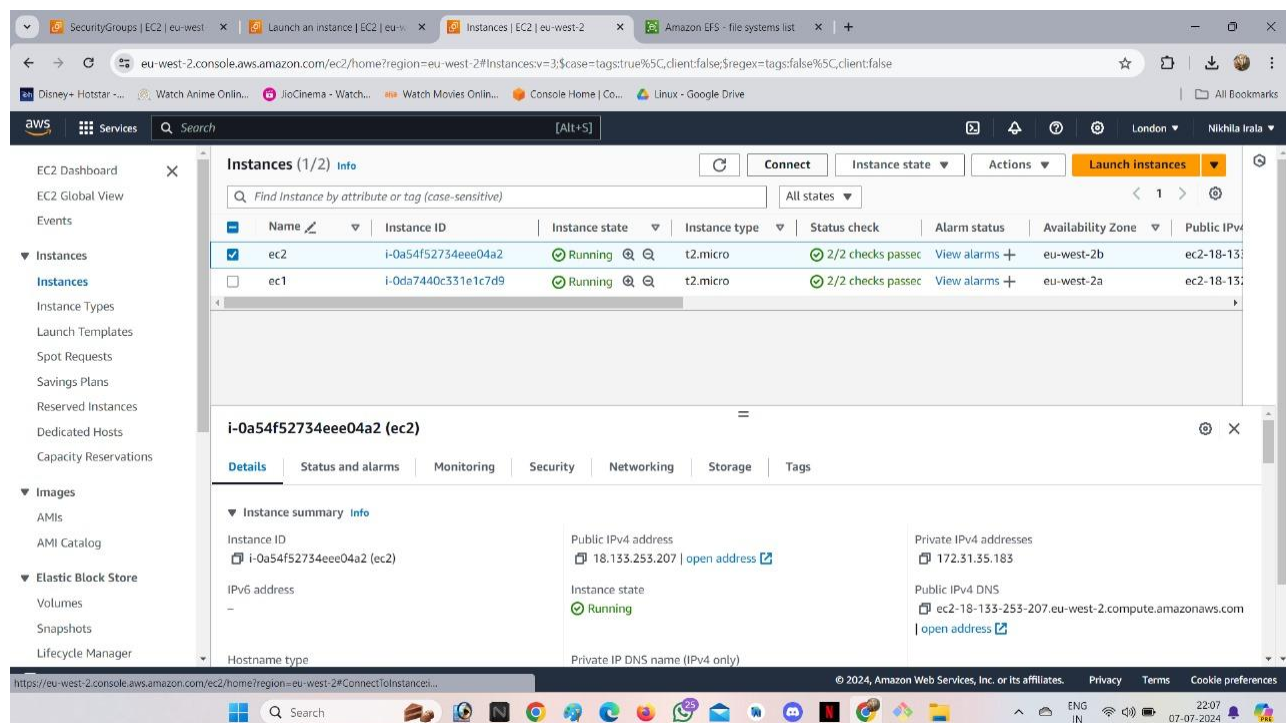
Search efs in aws search bar.



Click on create file system.

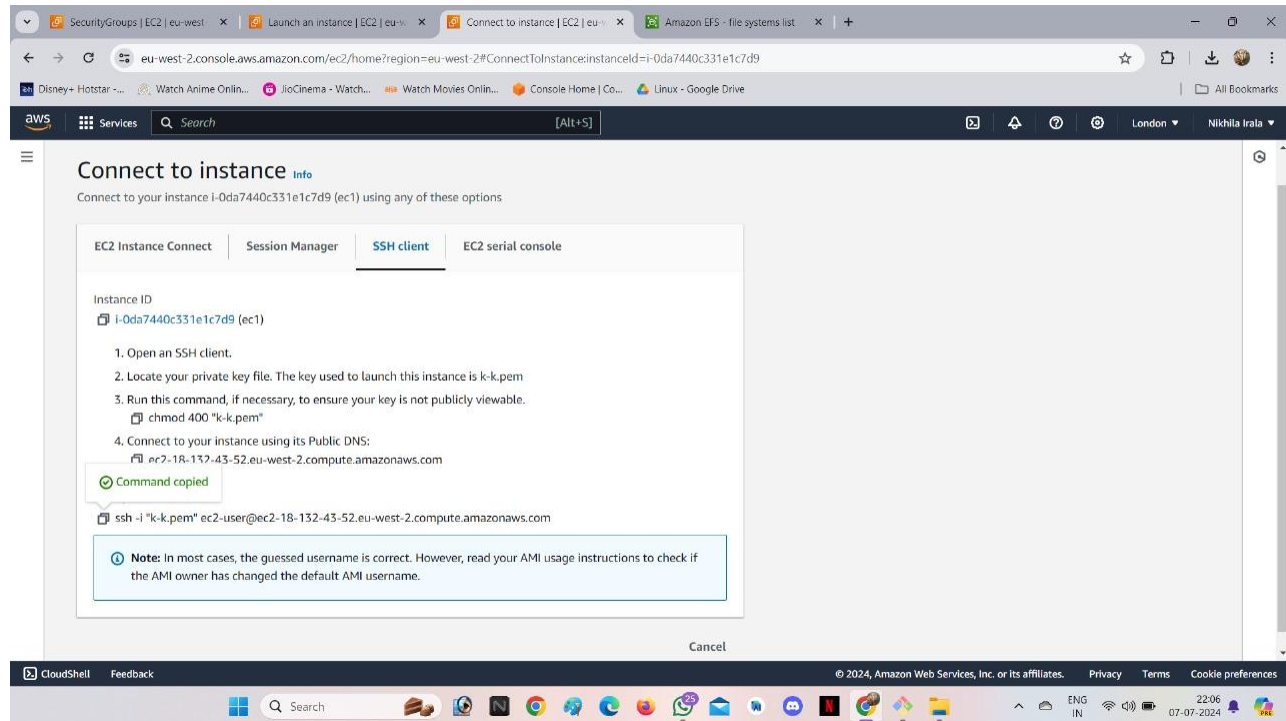


Go to instances and launch two instance with name,os and key pair.

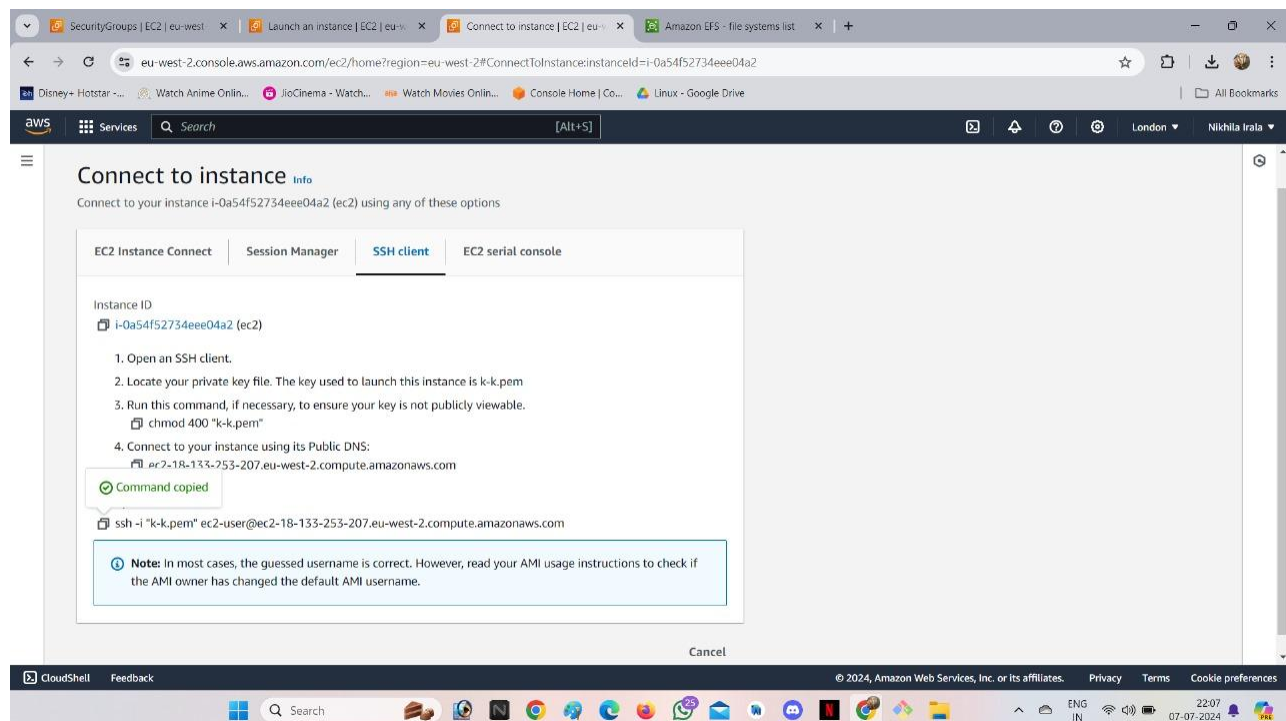


Go to both instance ID and connect to instance and copy the command from SSH client.

INSTANCE -1



INSTANCE-2



Git bash-1

```

MINGW64 ~/OneDrive/Desktop
krant@nikhila MINGW64 ~/OneDrive/Desktop
$ ssh -i "k-k.pem" ec2-user@ec2-18-133-253-207.eu-west-2.compute.amazonaws.com
The authenticity of host 'ec2-18-133-253-207.eu-west-2.compute.amazonaws.com (18.133.253.207)' can't be established.
ED25519 key fingerprint is SHA256:nhg/AE4cw1wa0XnUu2z70h81ufdd9+YdTALTxBKHBEM.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
warning: Permanently added 'ec2-18-133-253-207.eu-west-2.compute.amazonaws.com' (ED25519) to the list of known hosts.

      _#_
     _###_
    _####_
   _####_
  _####_
 _####_
#/_ _ _ _ https://aws.amazon.com/linux/amazon-linux-2023

      V~'  ' ->
     _ _ _ _
    _ _ _ _
   _ _ _ _
  _ _ _ _
 _ _ _ _
#/_ _ _ _

[ec2-user@ip-172-31-35-183 ~]$ sudo -i
[root@ip-172-31-35-183 ~]# cd /mnt/efs/fs1
[root@ip-172-31-35-183 fs1]# ls
nikki
[root@ip-172-31-35-183 fs1]# vi sahil
[root@ip-172-31-35-183 fs1]# client_loop: send disconnect: Connection reset by peer

krant@nikhila MINGW64 ~/OneDrive/Desktop
$

```

Git bash-2

[illegible]