Experiment 4

Part-2: Inserting a Files in EBS, Taking a Snapshot & Attaching to another Region EBS

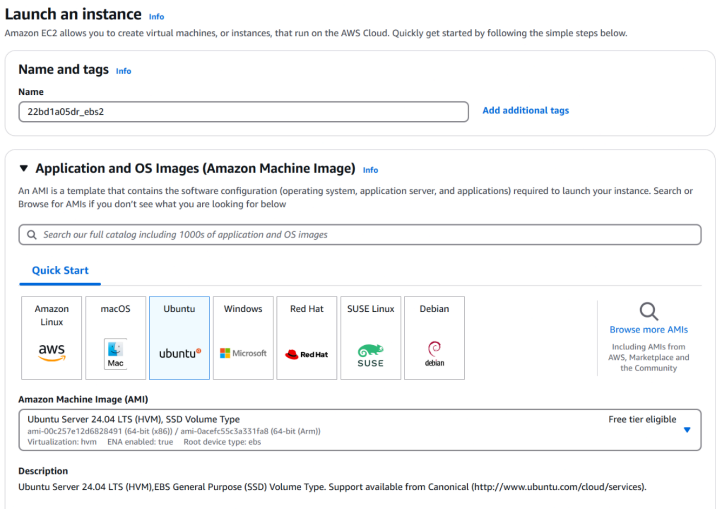
Step1 : Create two files **sample1.py** and **sample2.java**

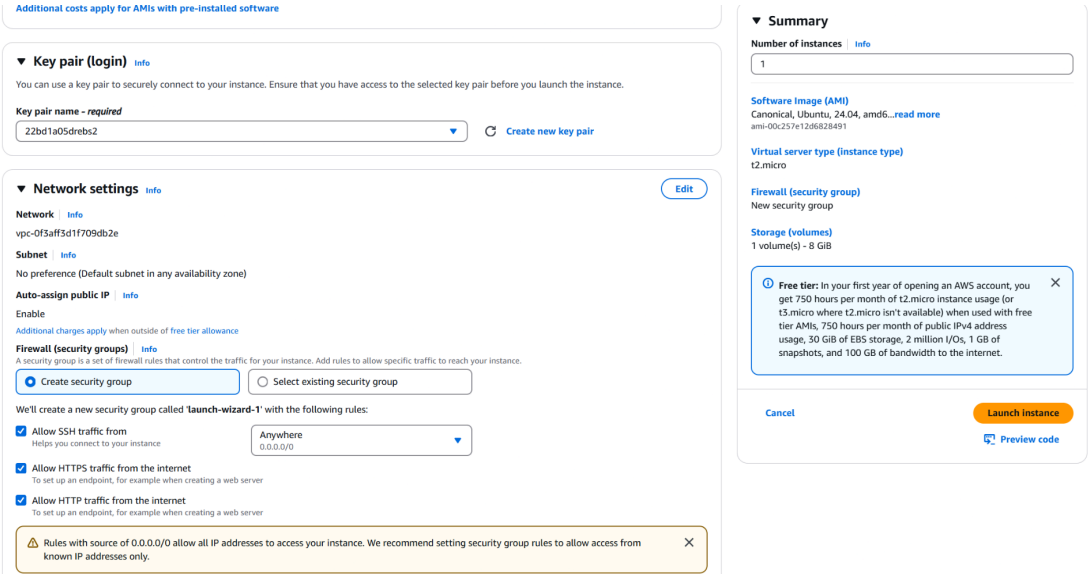
```
ubuntu@ip-172-31-93-166:/myebsvol$ pwd
/myebsvol
ubuntu@ip-172-31-93-166:/myebsvol$
```

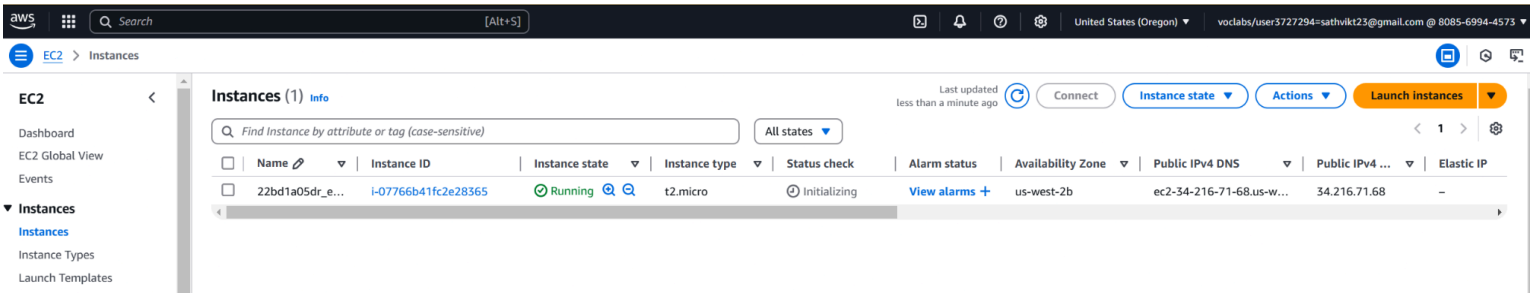
```
ubuntu@ip-172-31-93-166:/myebsvol$ sudo nano sample1.py
ubuntu@ip-172-31-93-166:/myebsvol$ sudo nano sample2.java
ubuntu@ip-172-31-93-166:/myebsvol$ ls -lart
total 8
drwxr-xr-x 24 root root 4096 Mar 14 14:19 ..
-rw-r--r--  1 root root   15 Mar 14 15:58 sample1.py
-rw-r--r--  1 root root    0 Mar 14 15:58 sample2.java
drwxr-xr-x  2 root root   44 Mar 14 15:58 .
```

Step 2 : Launch an new **instance in an new region**

- In this case :region United States (Oregon) us-west-2
- Select the OS as ubuntu , type as t2.micro and allow all Network permissions

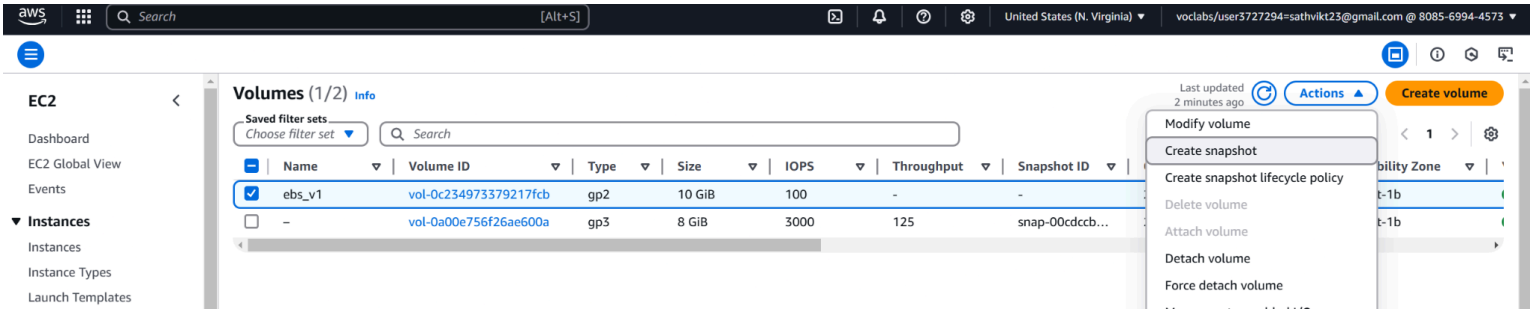






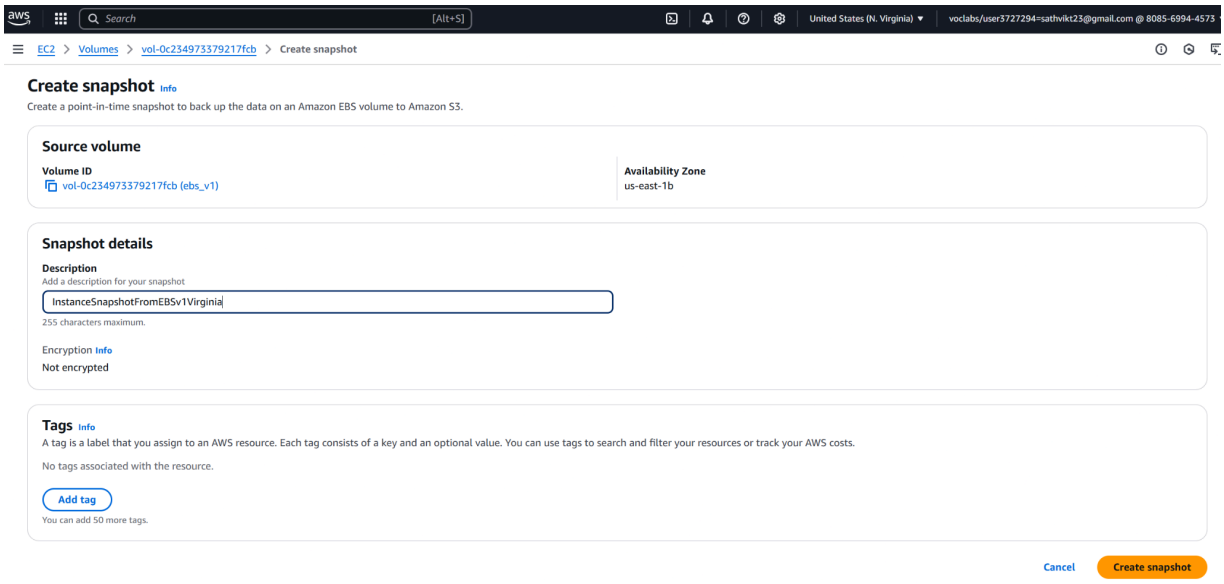
Step 3 : Create Snapshot of the EBS volume

- Select the EBS Volume which **was created in region us-east-1a**

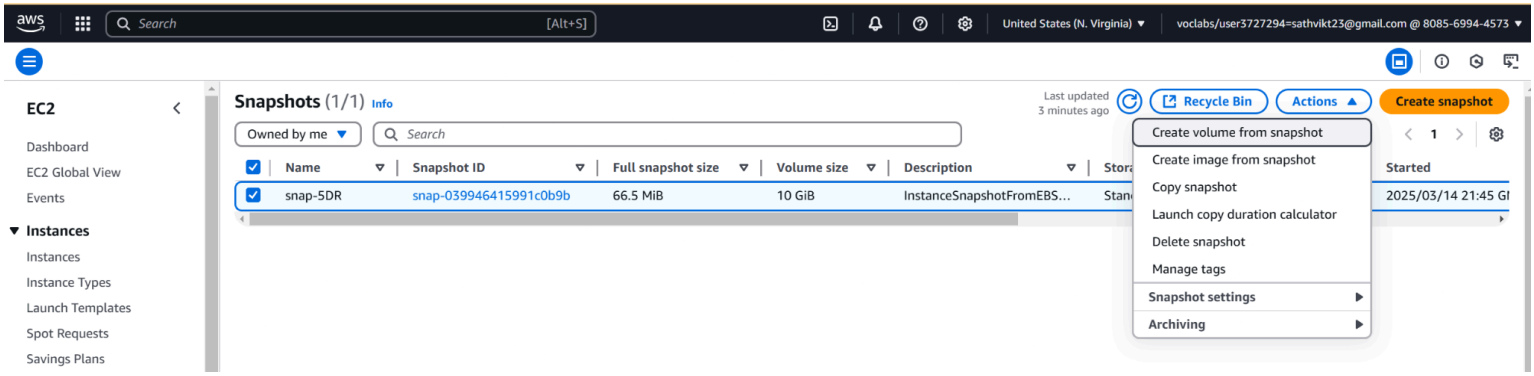


Step 4

- Click on create snapshot
- Enter snapshot details and click on create snapshot

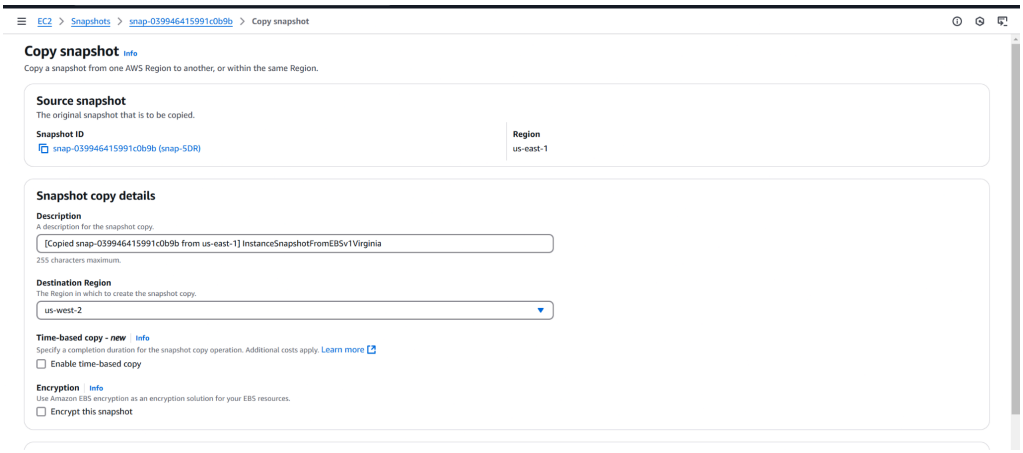


Step 5 : Now click on Copy Snapshot



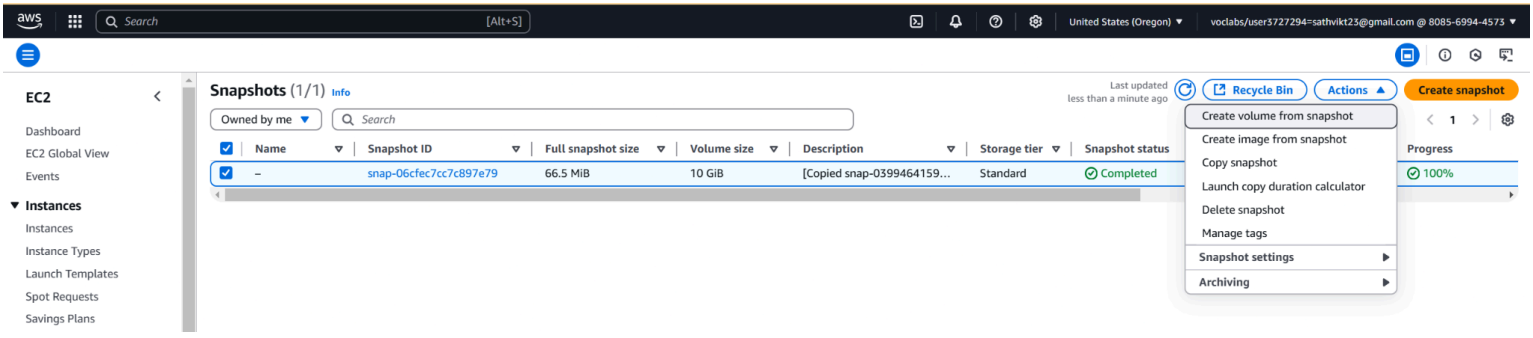
Step 6 : Enter the configuration details to copy the snapshot

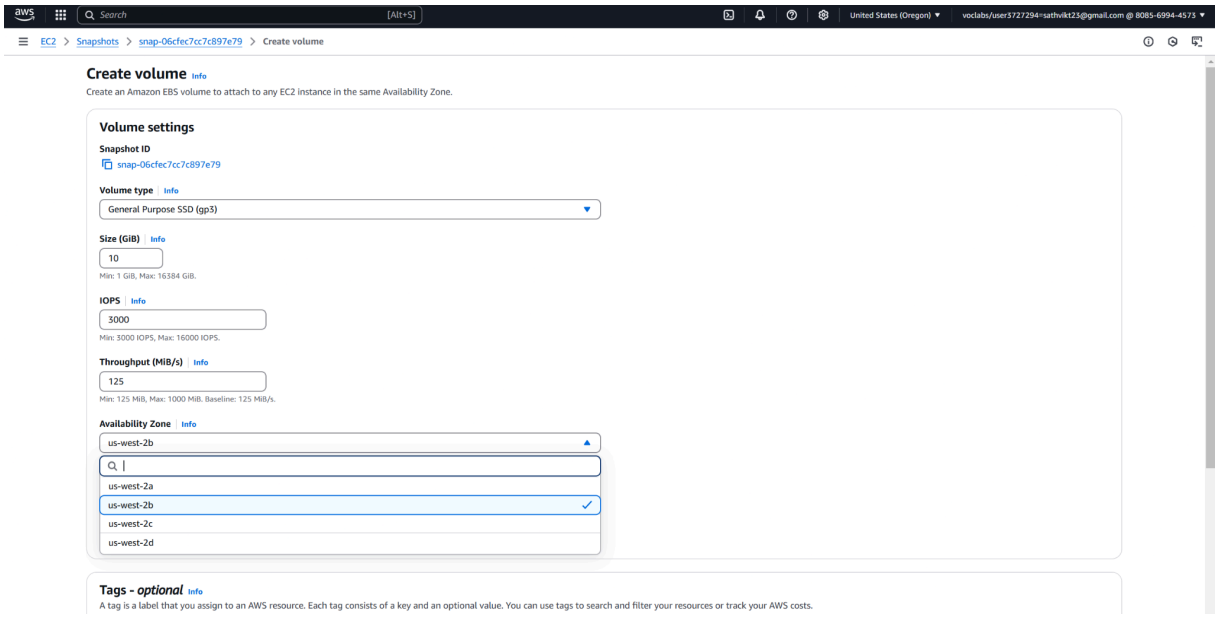
- Make sure to mention the destination region of the snapshot (us-west-2)
- Then click on copy snapshot



Step 7: Now switch to the region **United States (Oregon) us-west-2**

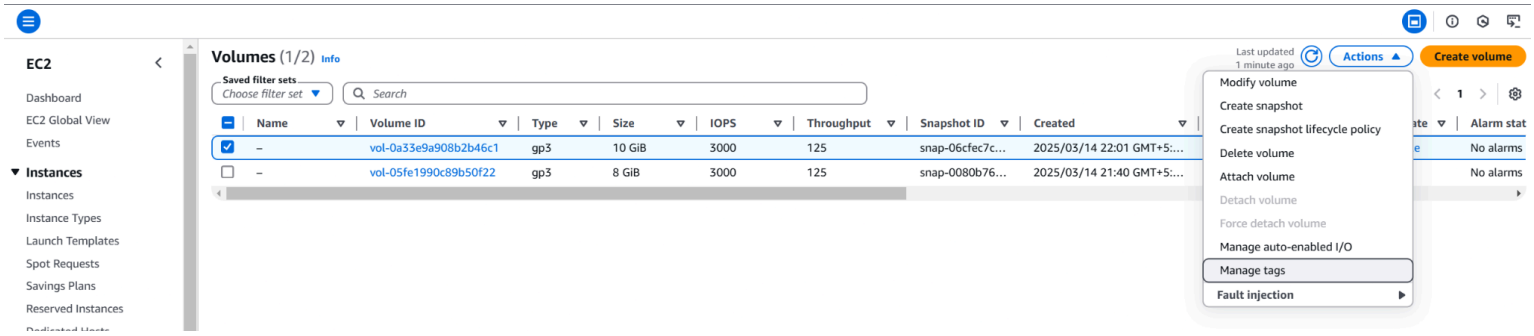
- Click on Create volume from snapshot
- Select volume type as gp-3 or gp-2 based on requirement
- Select the availability zone where us-west-2b is for US(Oregon)
- Then click on create volume

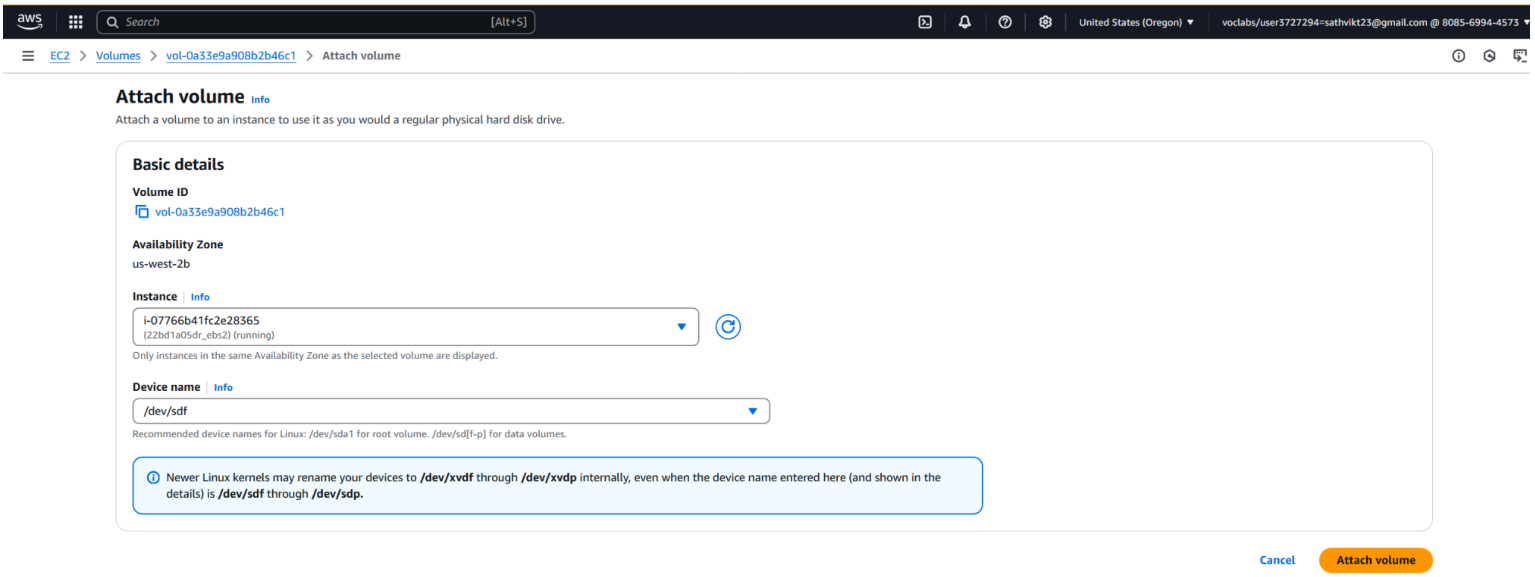




Step 8 : Click On Attach volume in the volumes section

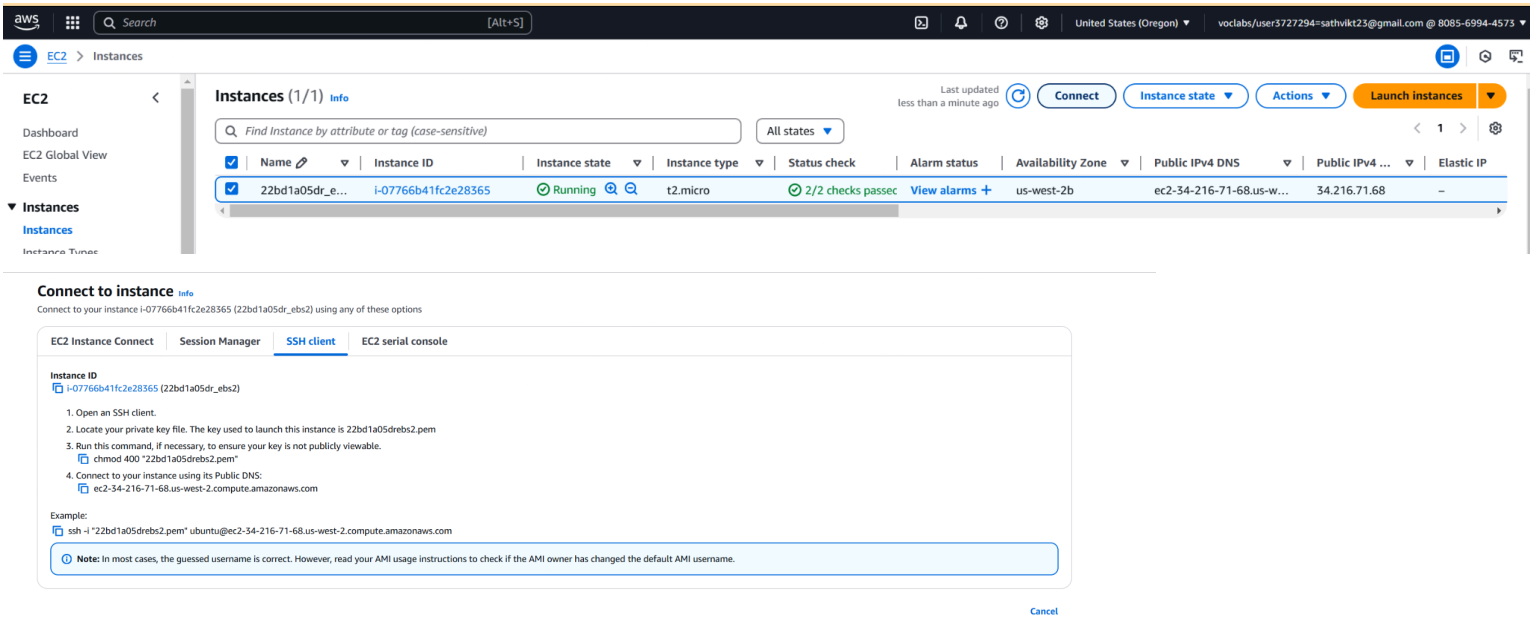
- Select the instance type and device name
- Then click on Attach volume





Step 9 Redirect to the Instance section(Region of new instance (us-west -2))

- Connect to the instance through ssh client



Step 10 Connect to instance from your terminal by ssh client

- Run command **$lsblk** to verify the attached snapshot
- Run command **$fdisk - l** to see the file system allocation

```
PS C:\languages\aws> ssh -i "22bd1a05drebs2.pem" ubuntu@ec2-34-216-71-68.us-west-2.compute.amazonaws.com
The authenticity of host 'ec2-34-216-71-68.us-west-2.compute.amazonaws.com (34.216.71.68)' can't be established.
ED25519 key fingerprint is SHA256:fYVsi3D4g+qoLaeiMR16QdZWpGJwttFIxugGCIuq4VY.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-34-216-71-68.us-west-2.compute.amazonaws.com' (ED25519) to the list of known hosts.
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-1021-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro

 System information as of Fri Mar 14 16:35:52 UTC 2025

  System load:  0.0               Processes:             103
  Usage of /:   24.9% of 6.71GB   Users logged in:       0
  Memory usage: 20%               IPv4 address for enX0: 172.31.19.142
  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


The list of available updates is more than a week old.
To check for new updates run: sudo apt update


The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

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

ubuntu@ip-172-31-19-142:~$
```

```
ubuntu@ip-172-31-19-142:~$ lsblk
NAME     MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0      7:0    0 26.3M  1 loop /snap/amazon-ssm-agent/9881
loop1      7:1    0 73.9M  1 loop /snap/core22/1722
loop2      7:2    0 44.4M  1 loop /snap/snapd/23545
xvda     202:0    0    8G  0 disk
├─xvda1  202:1    0    7G  0 part /
├─xvda14 202:14   0    4M  0 part
├─xvda15 202:15   0  106M  0 part /boot/efi
└─xvda16 259:0    0  913M  0 part /boot
xvdf     202:80   0   10G  0 disk
ubuntu@ip-172-31-19-142:~$
```

```
ubuntu@ip-172-31-19-142:~$ sudo fdisk -l
Disk /dev/loop0: 26.32 MiB, 27602944 bytes, 53912 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes


Disk /dev/loop1: 73.87 MiB, 77459456 bytes, 151288 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes


Disk /dev/loop2: 44.44 MiB, 46596096 bytes, 91008 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes


Disk /dev/xvda: 8 GiB, 8589934592 bytes, 16777216 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: gpt
Disk identifier: D7B2CFD6-F96A-42FB-B8E1-13FF6555EB07

Device       Start      End  Sectors  Size Type
/dev/xvda1  2099200 16777182 14677983    7G Linux filesystem
/dev/xvda14    2048    10239     8192    4M BIOS boot
/dev/xvda15   10240   227327   217088  106M EFI System
/dev/xvda16  227328  2097152  1869825  913M Linux extended boot

Partition table entries are not in disk order.


Disk /dev/xvdf: 10 GiB, 10737418240 bytes, 20971520 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
```

Step 11 : Run the command **$sudo file -d /dev/xvdf** to verify the attach and allotted device name and create a directory to mount the volume by using the command **$sudo mkdir dir_name**

```
ubuntu@ip-172-31-19-142:~$ sudo file -s /dev/xvdf
/dev/xvdf: SGI XFS filesystem data (blksz 4096, inosz 512, v2 dirs)
```

```
ubuntu@ip-172-31-19-142:~$ sudo mkdir /myebsvol2
```

Step 12 : Run the command **$sudo mount /dev/allocated_deviceName dir_nam**e

```
ubuntu@ip-172-31-19-142:~$ sudo mount /dev/xvdf  /myebsvol2
ubuntu@ip-172-31-19-142:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/root       6.8G  1.7G  5.1G  26% /
tmpfs           479M     0  479M   0% /dev/shm
tmpfs           192M  888K  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
/dev/xvdf        10G  228M  9.8G   3% /myebsvol2
ubuntu@ip-172-31-19-142:~$
```

Step 13 : Verify the old files

- Run the commands
- **$cd dir_name**
- **$ ls**
- **$ls -lart**

```
ubuntu@ip-172-31-19-142:/$ cd /myebsvol2
ubuntu@ip-172-31-19-142:/myebsvol2$ ls
sample1.py  sample2.java
ubuntu@ip-172-31-19-142:/myebsvol2$ ls -lart
total 8
-rw-r--r--  1 root root   15 Mar 14 15:58 sample1.py
-rw-r--r--  1 root root    0 Mar 14 15:58 sample2.java
drwxr-xr-x  2 root root   44 Mar 14 15:58 .
drwxr-xr-x 23 root root 4096 Mar 14 16:51 ..
ubuntu@ip-172-31-19-142:/myebsvol2$
```