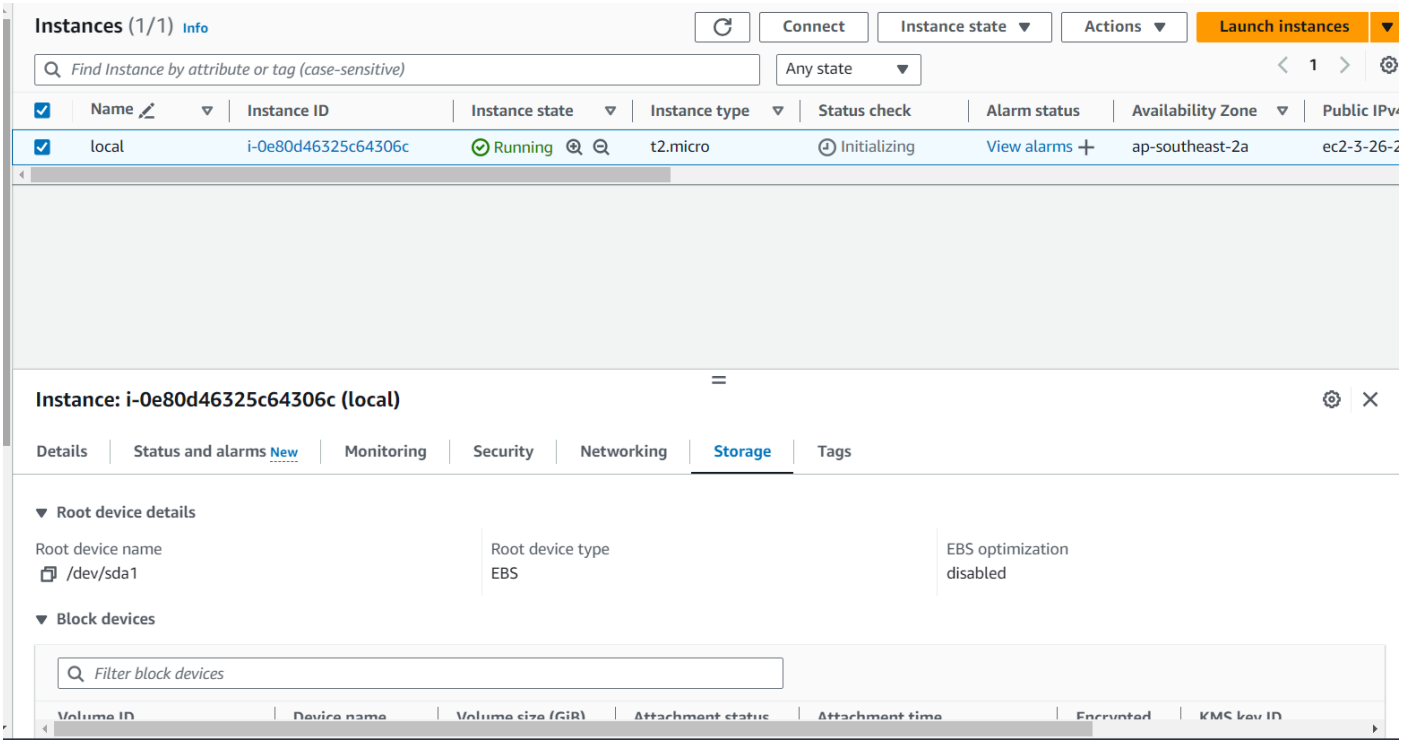
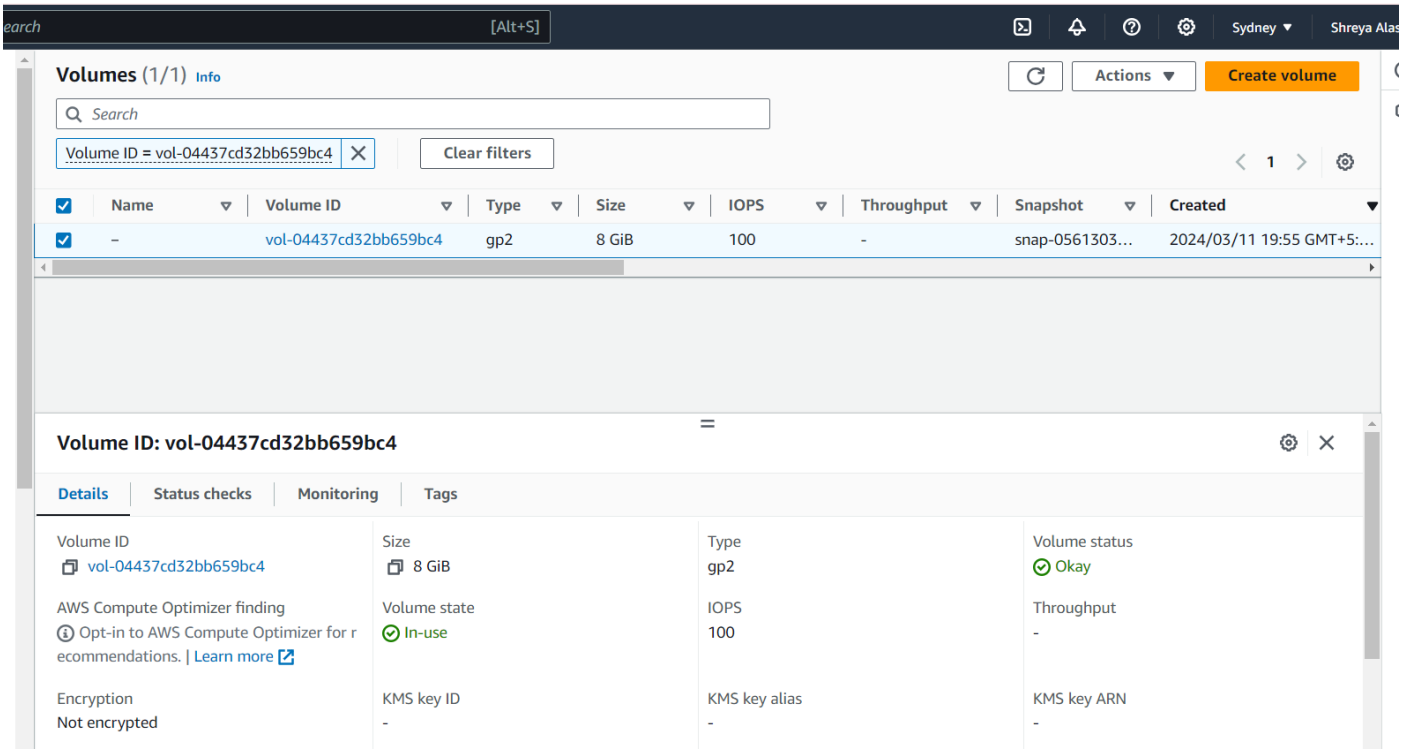
# Attaching additional drive

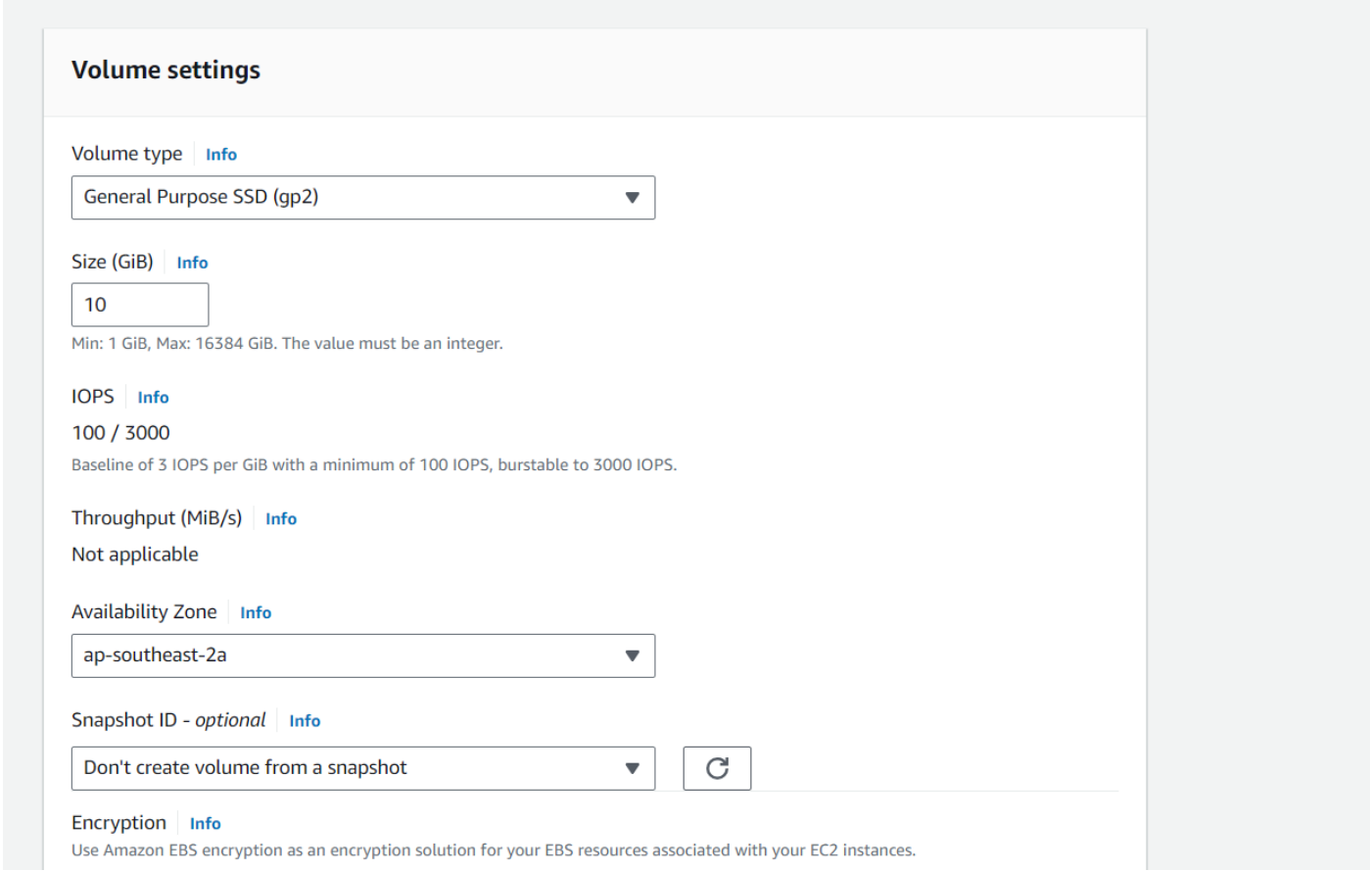
1: Create an instance in ubuntu

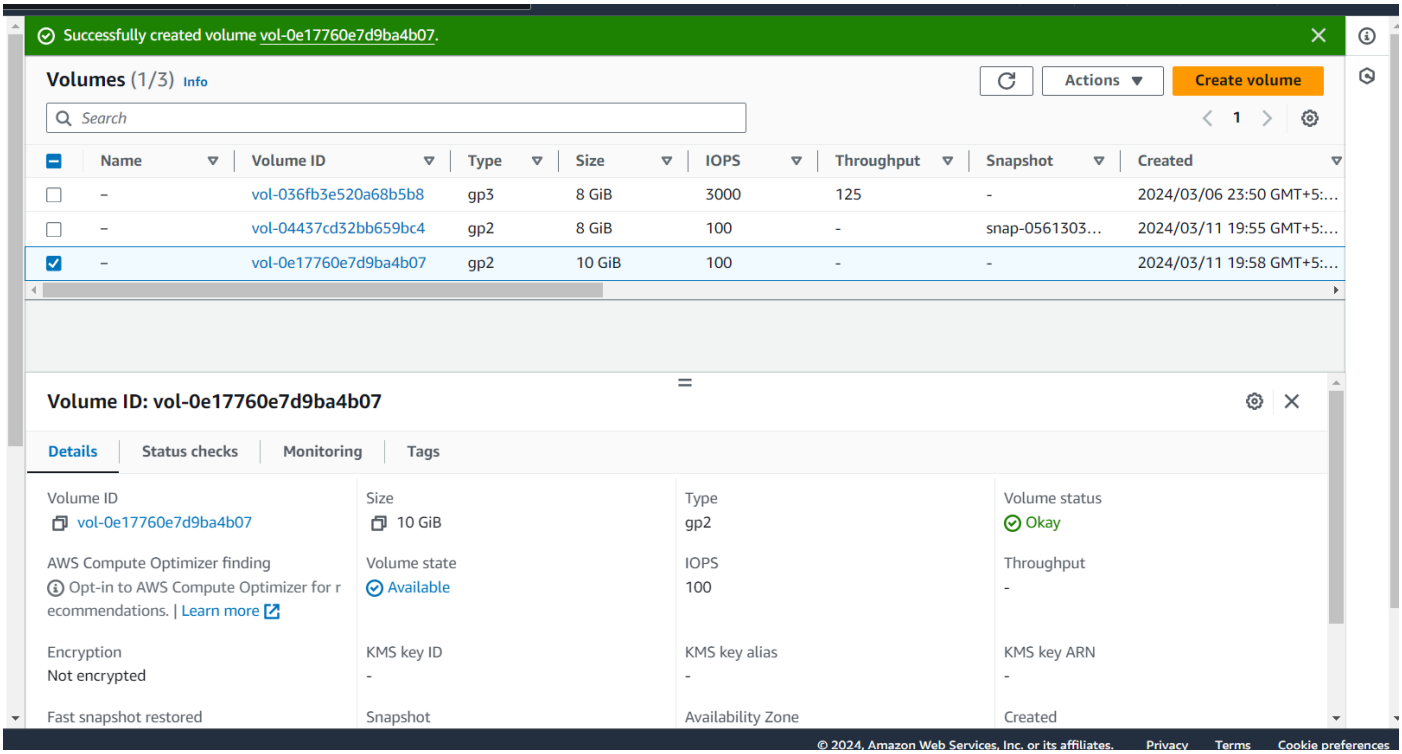



2: Select the instance and go to storage block and create new volume

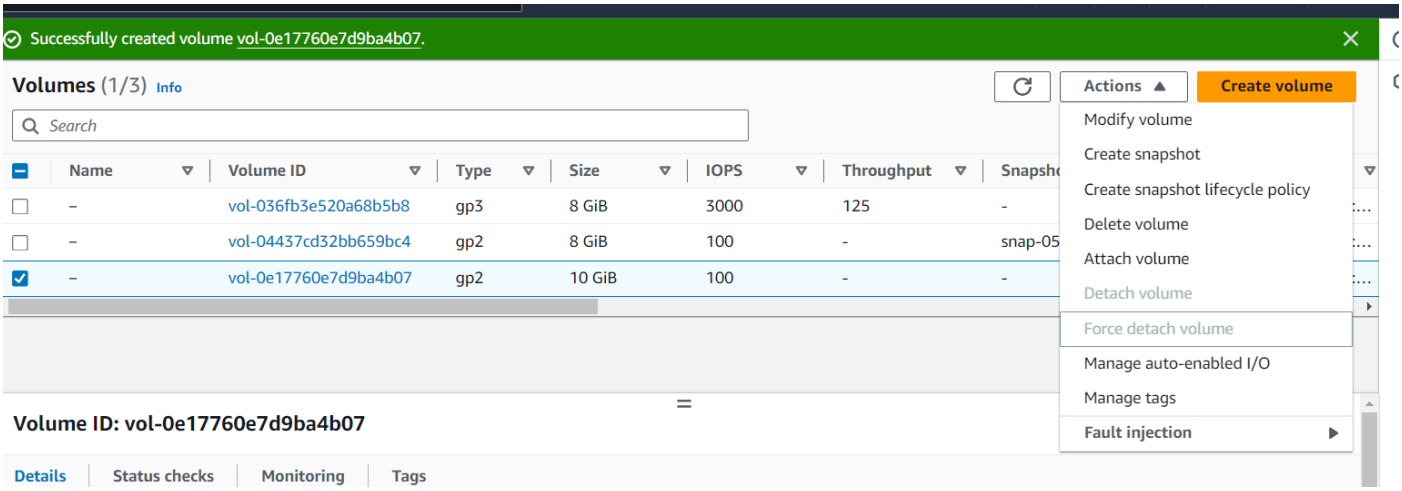


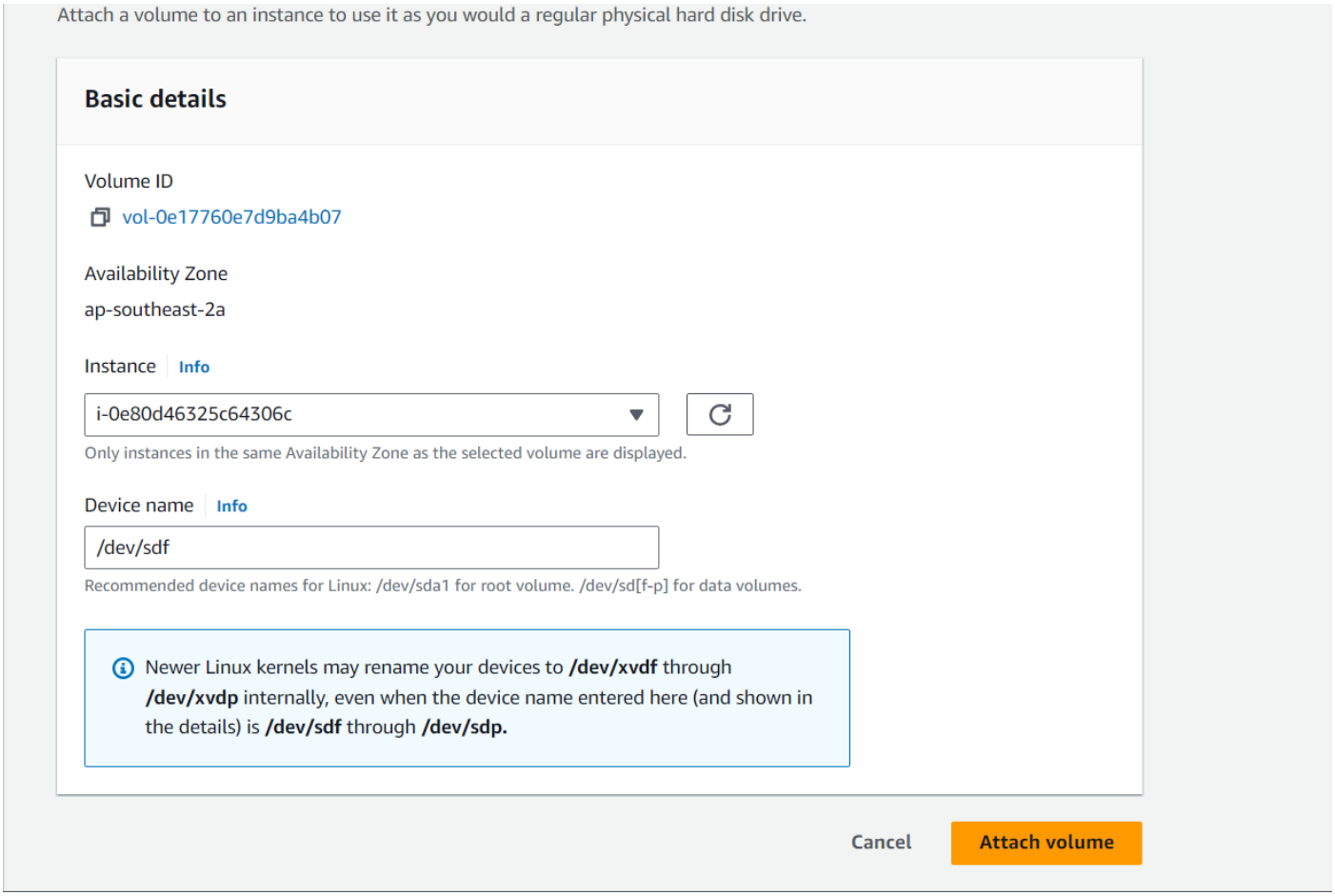

3: Size will be 10 gb and then scroll down and click on create volume




4: Select the volume you want to attach > Actions > Attach Volume




5: Connect to first instance using SSH

```
ubuntu@ip-172-31-39-214: ~

shrey@Shreya MINGW64 ~
$ ssh -i ec2ssh.pem ubuntu@ec2-3-26-216-159.ap-southeast-2.compute.amazonaws.com
The authenticity of host 'ec2-3-26-216-159.ap-southeast-2.compute.amazonaws.com (64:ff9b::31a:d89f)' can't be established.
ED25519 key fingerprint is SHA256:tCzu18VNoPAkY5x7DeYXFNKo16pqwFypq7fkVfnSdx4.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-3-26-216-159.ap-southeast-2.compute.amazonaws.com' (ED25519) to the list of known hosts.
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 6.2.0-1018-aws x86_64)

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

  System information as of Mon Mar 11 14:32:26 UTC 2024

  System load:  0.0               Processes:             97
  Usage of /:   20.3% of 7.57GB   Users logged in:       0
  Memory usage: 20%               IPv4 address for eth0: 172.31.39.214
  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.
```

- To mount the additional drive and to add file

1: List the available disks to find the new volume using command “lsblk”

```
See "man sudo_root" for details.

ubuntu@ip-172-31-39-214:~$ lsblk
NAME     MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
loop0      7:0    0 24.9M  1 loop /snap/amazon-ssm-agent/7628
loop1      7:1    0 55.7M  1 loop /snap/core18/2812
loop2      7:2    0 63.9M  1 loop /snap/core20/2105
loop3      7:3    0   87M  1 loop /snap/lxd/26881
loop4      7:4    0 40.4M  1 loop /snap/snapd/20671
xvda     202:0    0    8G  0 disk
├─xvda1  202:1    0  7.9G  0 part /
├─xvda14 202:14   0    4M  0 part
└─xvda15 202:15   0  106M  0 part /boot/efi
xvdf     202:80   0   10G  0 disk
ubuntu@ip-172-31-39-214:~$ sudo mkfs -t ext4 /dev/xvdf
```

2: Format the new volume > sudo mkfs -t ext4 /dev/xvdf

```
xvdf     202:80   0   10G  0 disk
ubuntu@ip-172-31-39-214:~$ sudo mkfs -t ext4 /dev/xvdf
mke2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 2621440 4k blocks and 655360 inodes
Filesystem UUID: 18060a79-8f34-4184-9666-c8c25c63c4ab
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done
```

3:  Create a directory to mount the new volume > sudo mkdir /mnt/mydrive

4: Mount the created volume to directory > sudo mount /dev/xvdf /mnt/mydrive

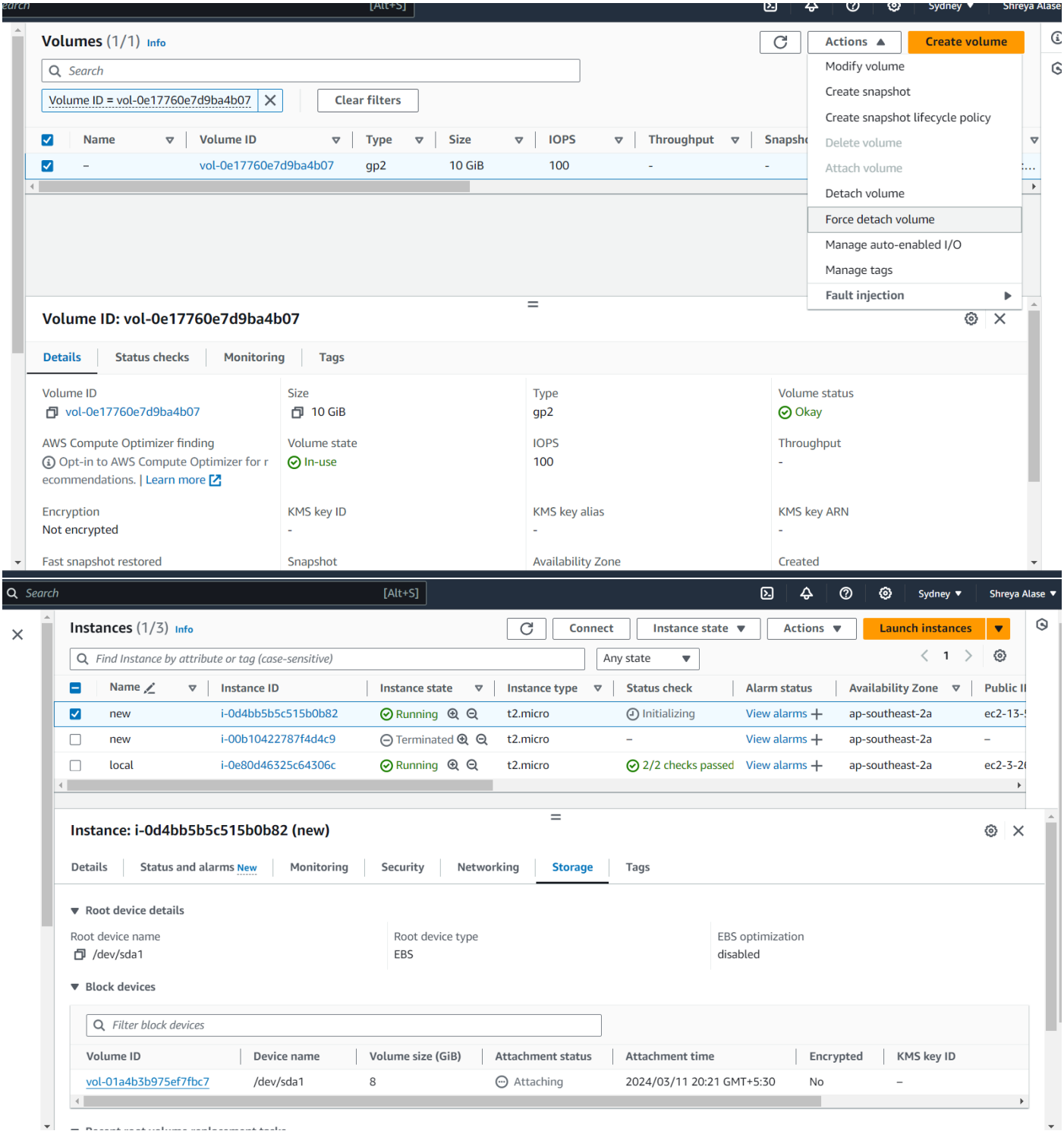
5: Add a file to mounted directory > echo "This is a sample file" | sudo tee /mnt/mydrive/sample.txt

6: Unmount the drive when file is added > sudo umount /mnt/mydrive

```
ubuntu@ip-172-31-39-214:~$ sudo mkdir /mnt/mydrive
ubuntu@ip-172-31-39-214:~$ sudo mount /dev/xvdf /mnt/mydrive
ubuntu@ip-172-31-39-214:~$ touch S.txt
ubuntu@ip-172-31-39-214:~$ ls
S.txt
ubuntu@ip-172-31-39-214:~$ vi S.txt
ubuntu@ip-172-31-39-214:~$ cat S.txt
Creating an extra volume of 10 gb and attaching it to instance
ubuntu@ip-172-31-39-214:~$ echo "This is a sample file" | sudo tee /mnt/mydrive/S.txt
This is a sample file
ubuntu@ip-172-31-39-214:~$ sudo umount /mnt/mydrive
ubuntu@ip-172-31-39-214:~$
```

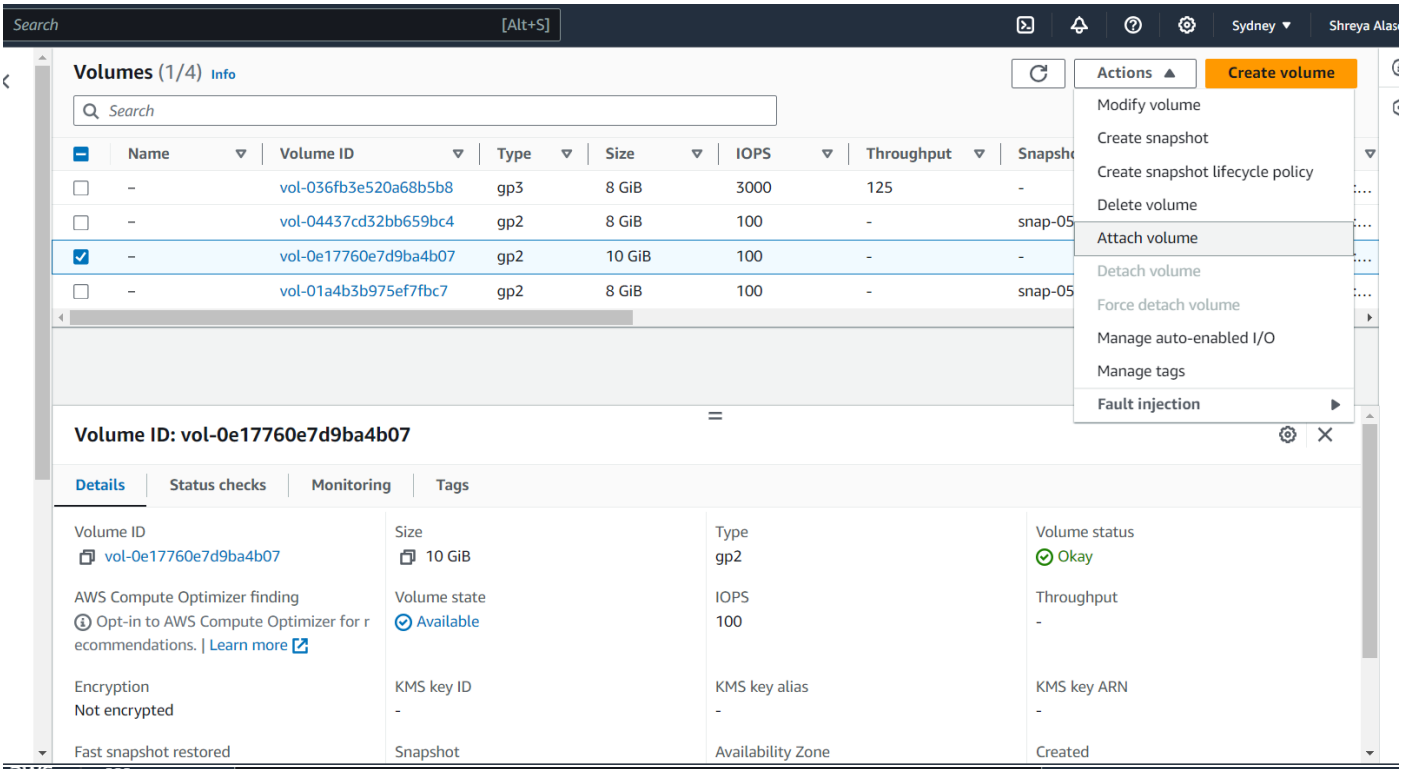
7: Detach the volume from first instance

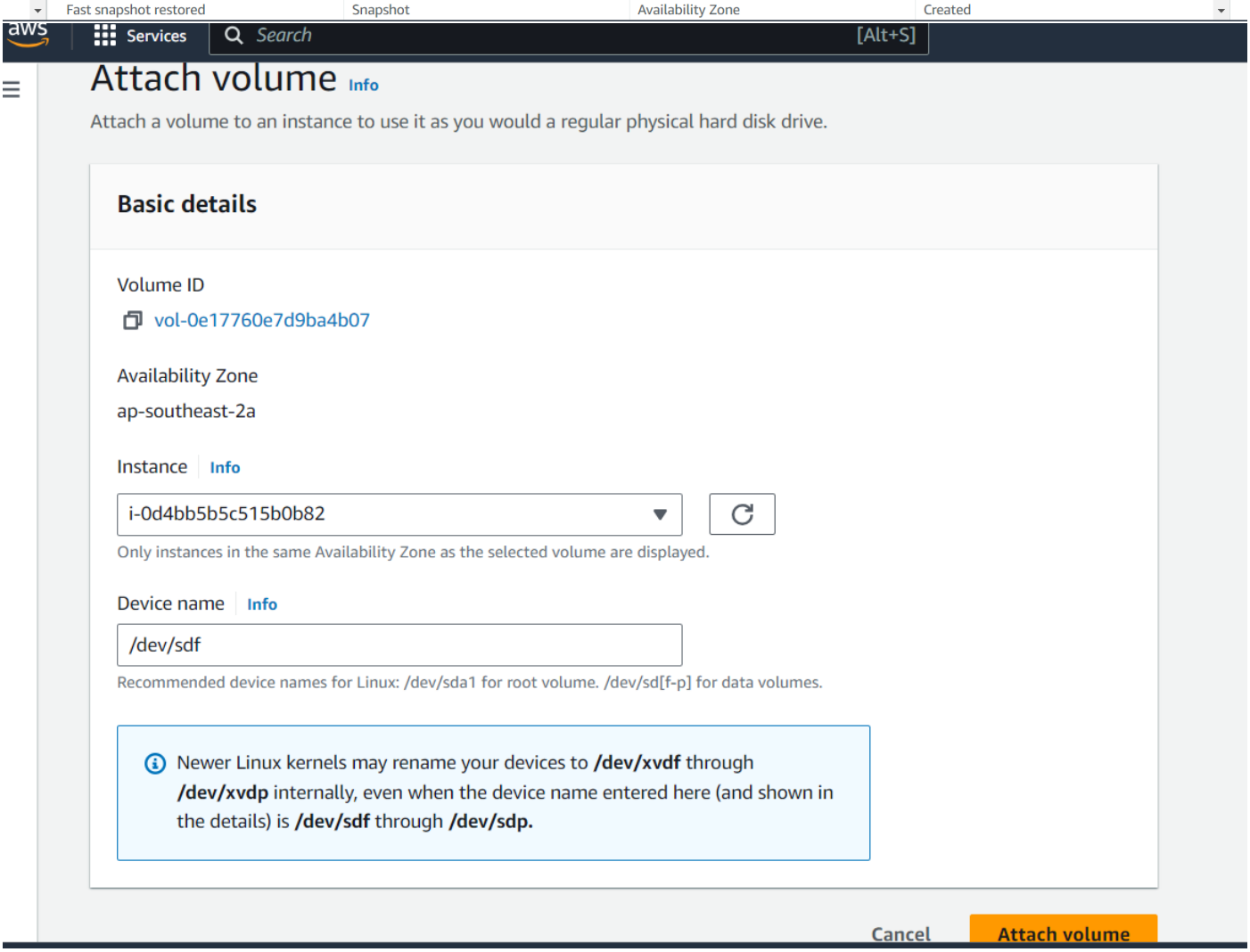
i. Go to EC2 Dashboard
ii. Select first instance
iii. Storage block > Click on volume > Actions > Detach volume

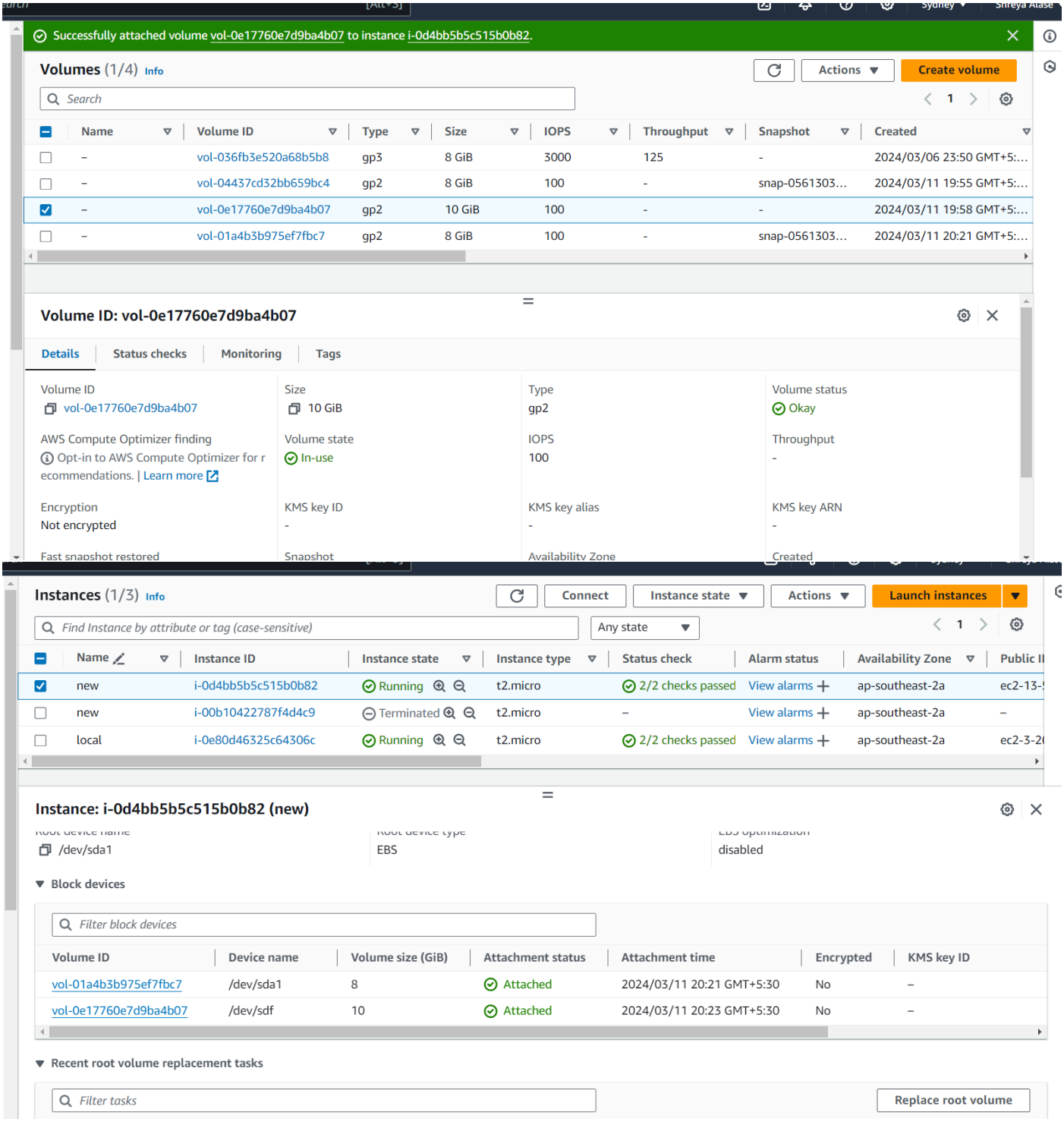



8: Attach volume to second instance

i. Go to EC2 Dashboard
ii. Select second instance
iii. In storage block, click on create volume and select the detached volume


Search [Alt+S]
Sydney
Shreya Alas
Volumes (1/4) Info
Search
Actions
Create volume
Modify volume
Create snapshot
Create snapshot lifecycle policy
Delete volume
Attach volume
Detach volume
Force detach volume
Manage auto-enabled I/O
Manage tags
Fault injection
Name
Volume ID
Type
Size
IOPS
Throughput
Snapsh
vol-036fb3e520a68b5b8 gp3 8 GiB 3000 125
vol-04437cd32bb659bc4 gp2 8 GiB 100
vol-0e17760e7d9ba4b07 gp2 10 GiB 100
vol-01a4b3b975ef7fbc7 gp2 8 GiB 100
Volume ID: vol-0e17760e7d9ba4b07
Details
Status checks
Monitoring
Tags
Volume ID
vol-0e17760e7d9ba4b07
Size
10 GiB
Type
gp2
Volume status
Okay
AWS Compute Optimizer finding
Opt-in to AWS Compute Optimizer for recommendations. | Learn more
Volume state
Available
IOPS
100
Throughput
-
Encryption
Not encrypted
KMS key ID
-
KMS key alias
-
KMS key ARN
-
Fast snapshot restored
Snapshot
Availability Zone
Created


aws
Services
Search [Alt+S]
Attach volume Info
Attach a volume to an instance to use it as you would a regular physical hard disk drive.
Basic details
Volume ID
vol-0e17760e7d9ba4b07
Availability Zone
ap-southeast-2a
Instance Info
i-0d4bb5b5c515b0b82
Only instances in the same Availability Zone as the selected volume are displayed.
Device name Info
/dev/sdf
Recommended device names for Linux: /dev/sda1 for root volume. /dev/sd[f-p] for data volumes.
Newer Linux kernels may rename your devices to /dev/xvdf through /dev/xvdp internally, even when the device name entered here (and shown in the details) is /dev/sdf through /dev/sdp.
Cancel
Attach volume




- Connect to second instance using SSH and mount then view file

1: Connect to instance using SSH

2: List the available disks to find a new volume “lsblk”

3: Create directory to mount the new volume

sudo mkdir /mnt/mydrive

4: Mount the volume to directory > “sudo mount /dev/xvdf /mnt/mydrive”

5: To view the file, go to mounted directory > “cd /mnt/mydrive”

6: View the file content > “cat sample.txt”