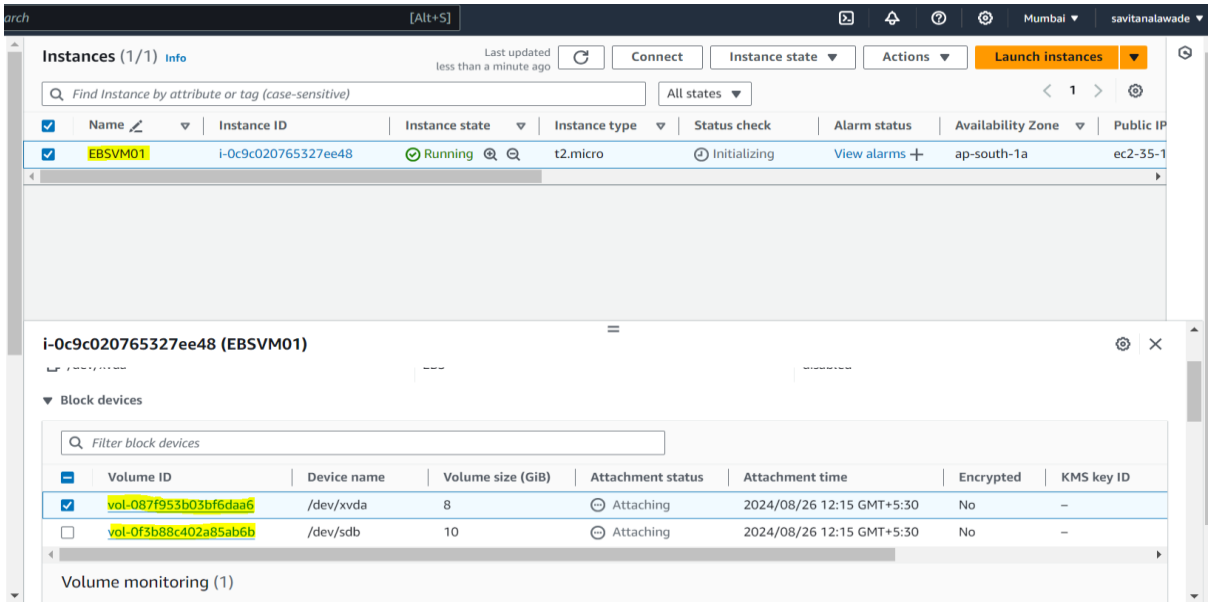
EBS- 26th August Practical – Savita Nalawade

Task1- create one instance and attached root & EBS volume

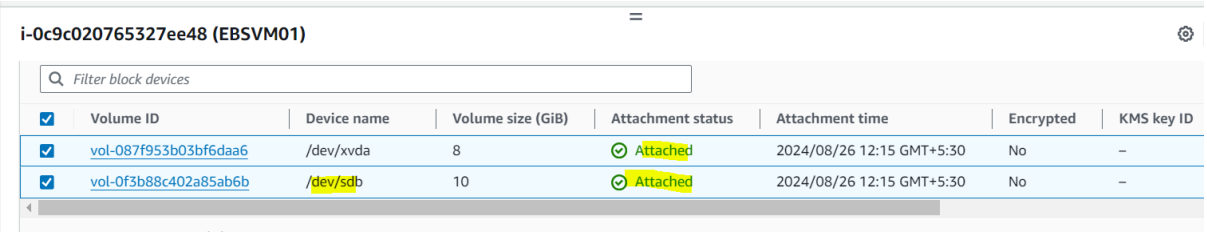
1) Created one instance with Root volume and EBS volume



2) Attaching EBS to instance

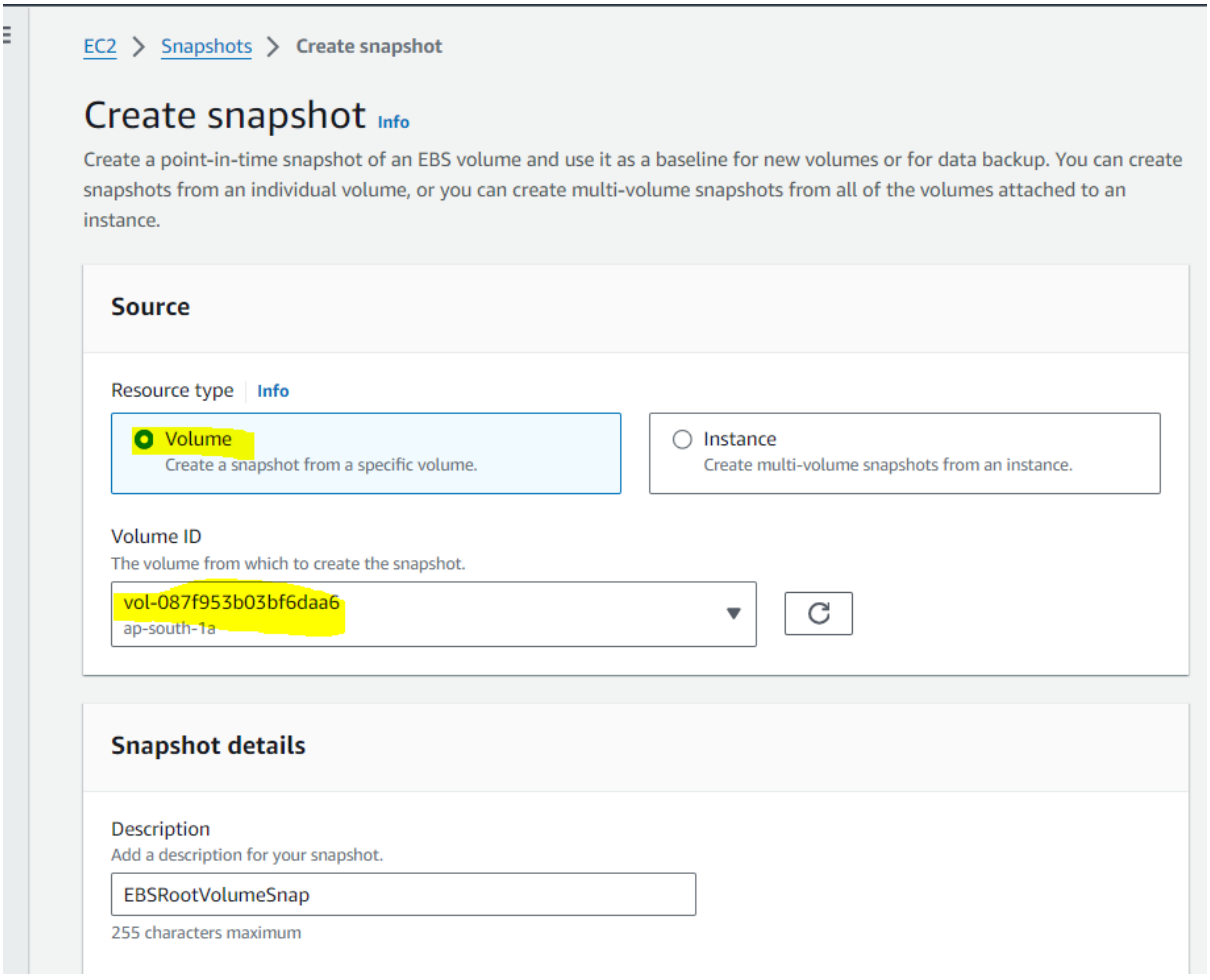
```
[root@ip-172-31-33-225 ~]# lsblk
NAME    MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda    202:0    0   8G  0 disk
└─xvda1 202:1    0   8G  0 part /
xvdb    202:16   0  10G  0 disk
[root@ip-172-31-33-225 ~]# file -s /dev/xvdb
/dev/xvdb: data
[root@ip-172-31-33-225 ~]# mkfs -t ext4 /dev/xvdb
mke2fs 1.42.9 (28-Dec-2013)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
655360 inodes, 2621440 blocks
131072 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=2151677952
80 block groups
32768 blocks per group, 32768 fragments per group
8192 inodes per group
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632

Allocating group tables: done
Writing inode tables: done
Creating journal (32768 blocks): done
Writing superblocks and filesystem accounting information: done

[root@ip-172-31-33-225 ~]# mkdir /home/ebs-file1
[root@ip-172-31-33-225 ~]# mount /dev/xvdb /home/ebs-file1
[root@ip-172-31-33-225 ~]# lsblk
NAME    MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda    202:0    0   8G  0 disk
└─xvda1 202:1    0   8G  0 part /
xvdb    202:16   0  10G  0 disk /home/ebs-file1
[root@ip-172-31-33-225 ~]#
```

We can see both volumes are in attached state

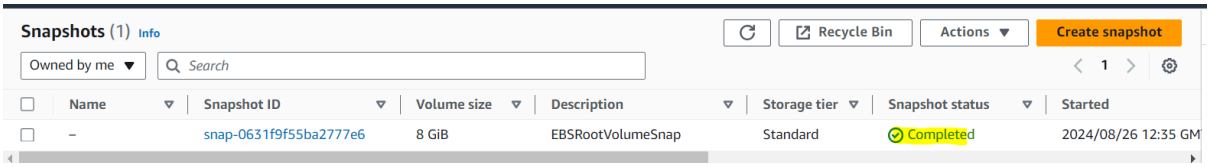


Task2 – Increase the size of root EBS Volume.

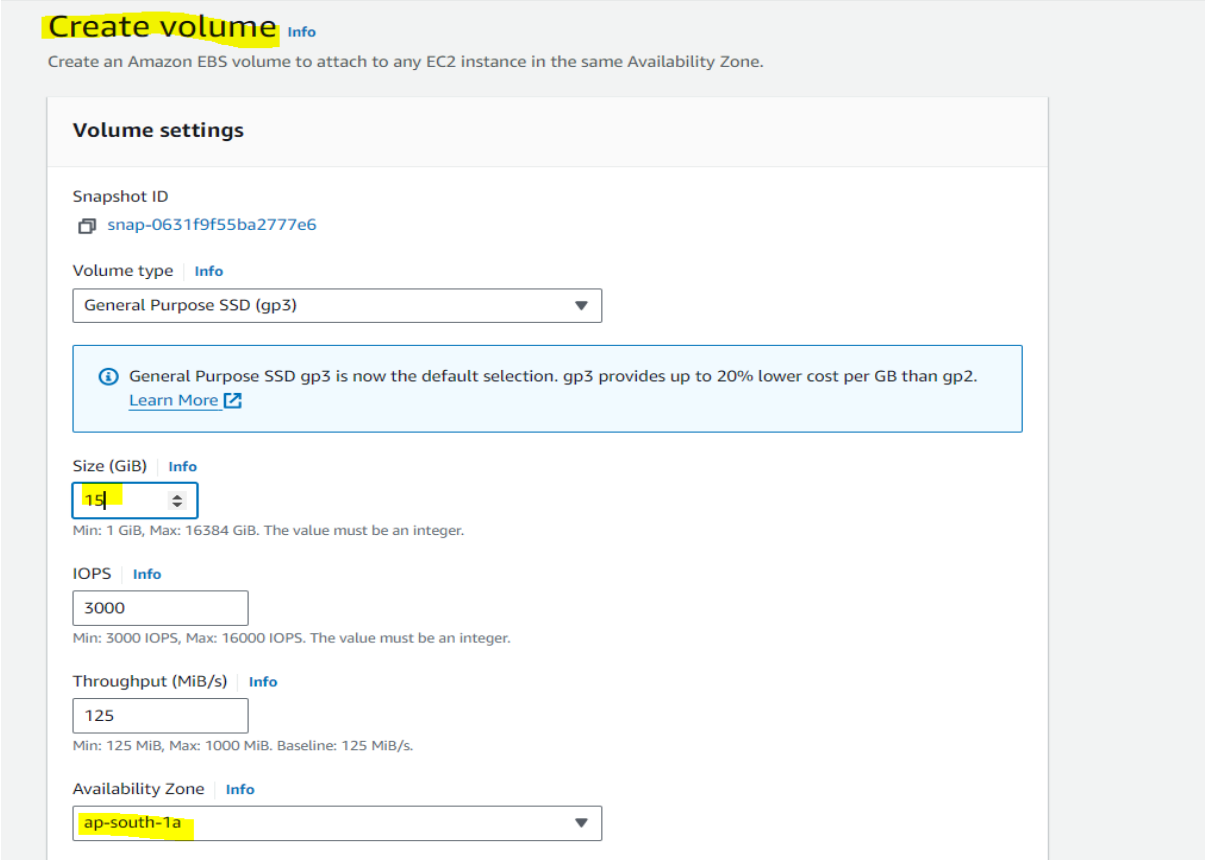
1) To increase root EBS volume we need snapshot (Its chargeable, size of snapshot=size of volume)
   Created snapshot for root EBS volume



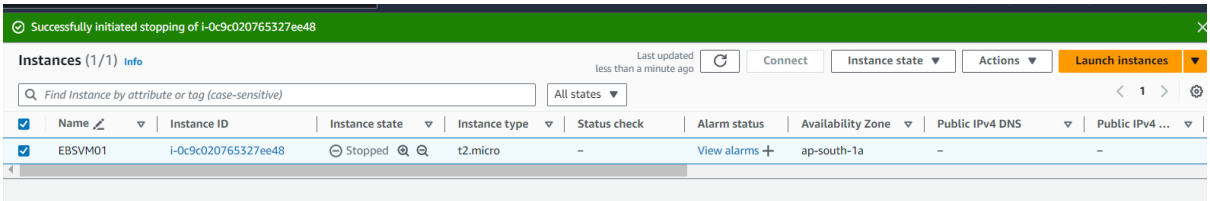
Snapshot have been created



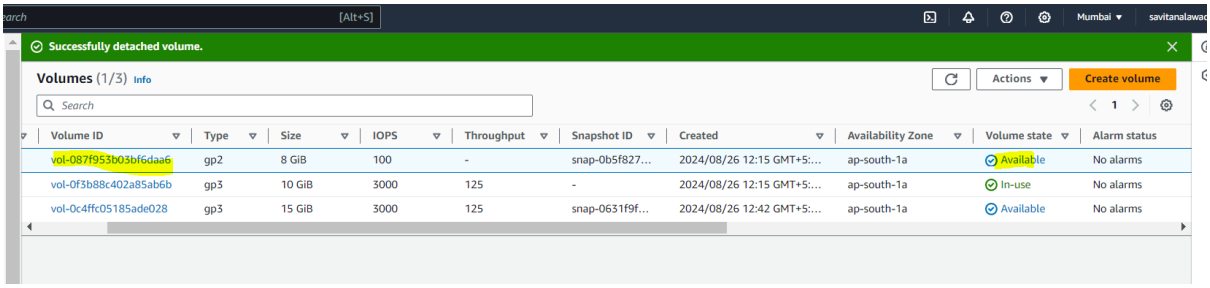
2) Create volume from Snapshot make sure availability zone should be same as instance



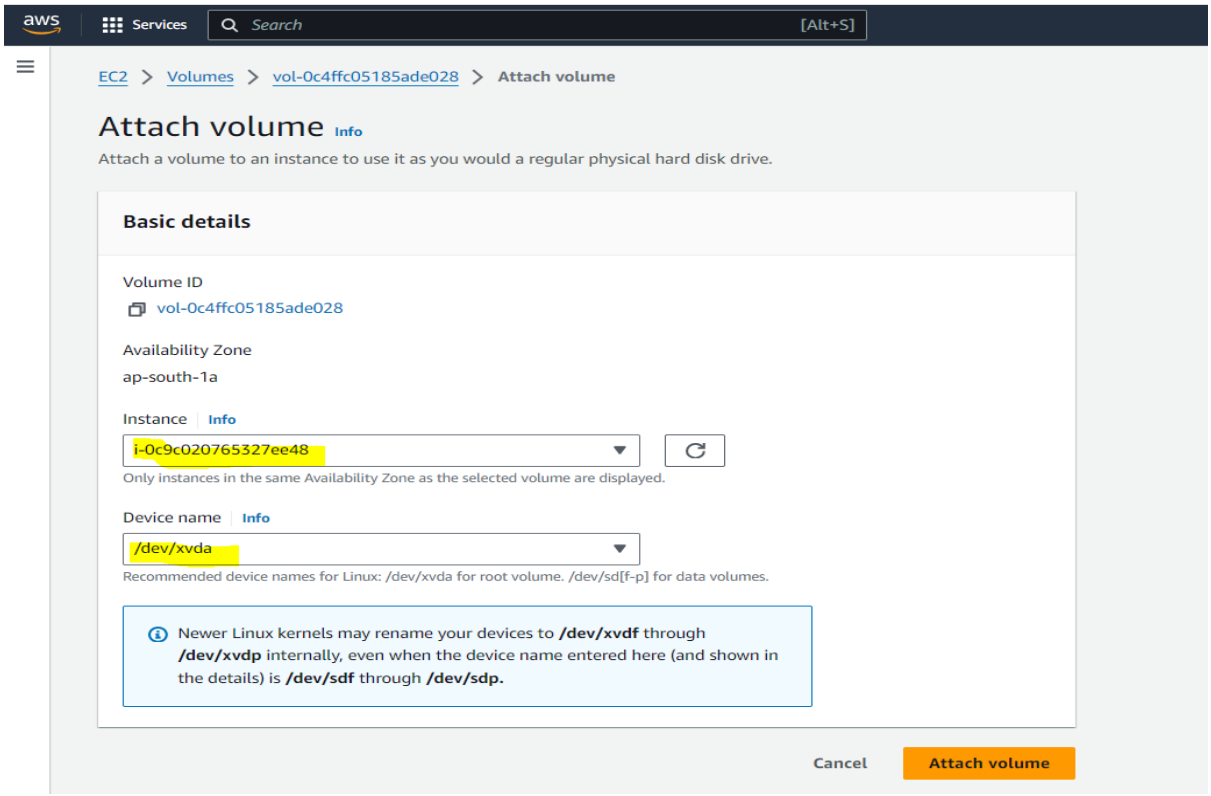
3) Stop the instance



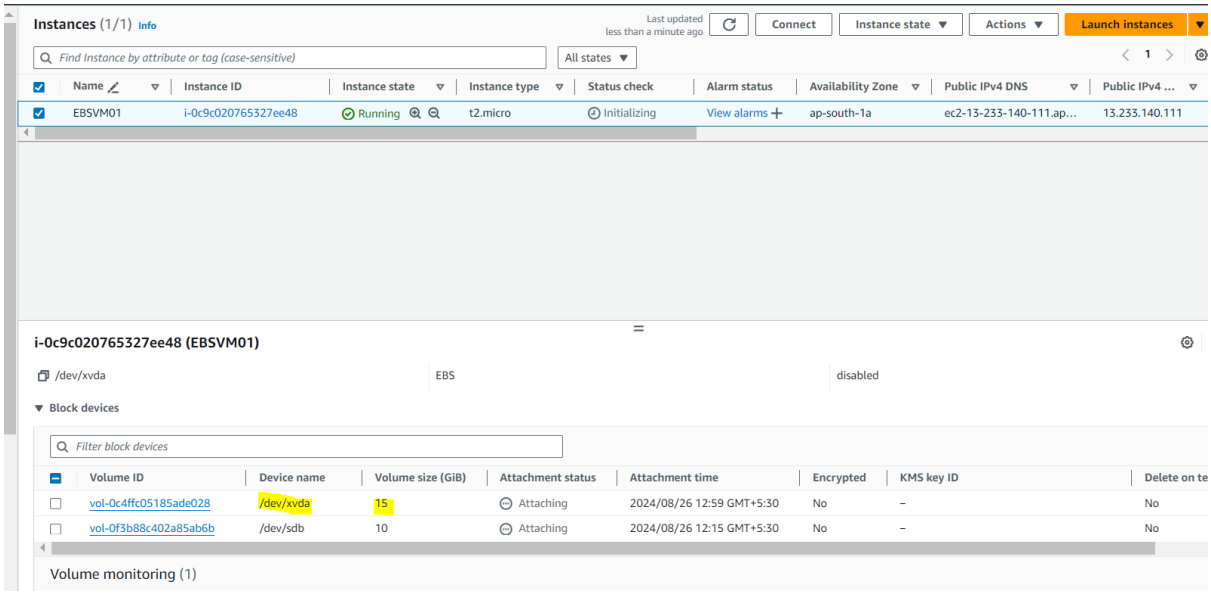
4) Detaching the EBS root volume



5) Attaching volume



6) Now start the instance and see the volume is extended.

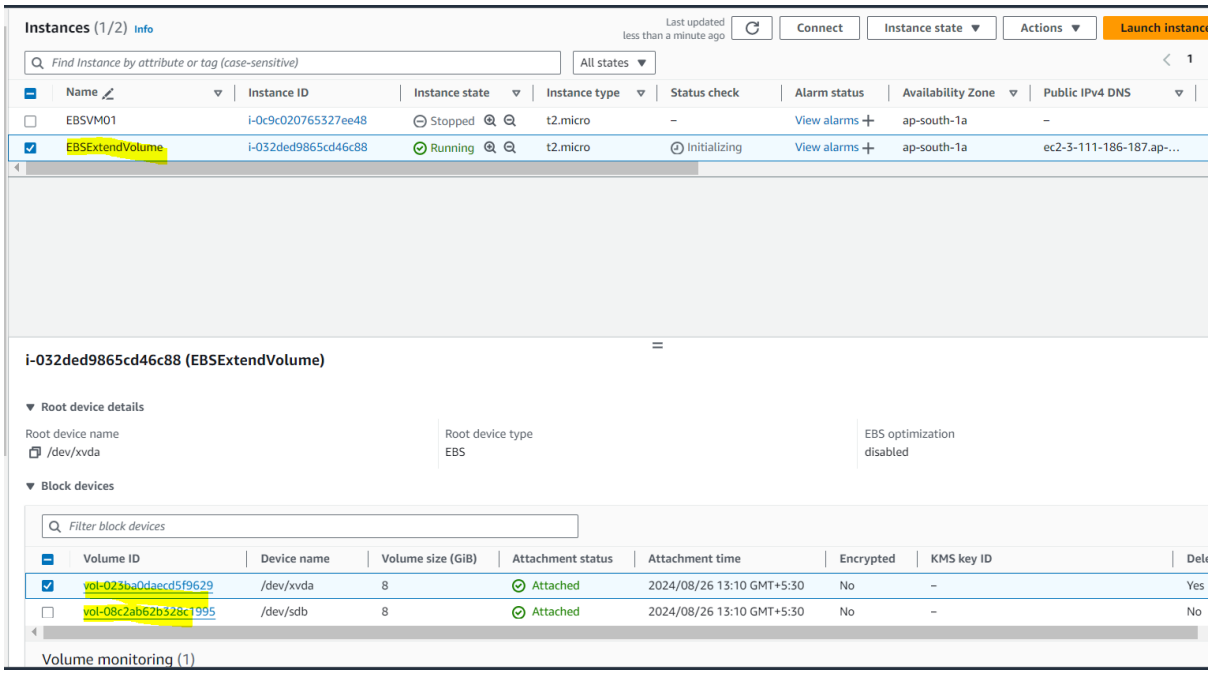


Successfully extended the root ebs volume (15GB)

```
[root@ip-172-31-33-225 /]# lsblk
NAME    MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda    202:0    0  15G  0 disk
└─xvda1 202:1    0  15G  0 part /
xvdb    202:16   0  10G  0 disk
[root@ip-172-31-33-225 /]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        467M     0  467M   0% /dev
tmpfs           477M     0  477M   0% /dev/shm
tmpfs           477M  404K  476M   1% /run
tmpfs           477M     0  477M   0% /sys/fs/cgroup
/dev/xvda1       15G  1.8G   14G  12% /
tmpfs            96M     0   96M   0% /run/user/1000
[root@ip-172-31-33-225 /]#
```

Task-3 Increase the size of EBS Volume.

1) Creating one instance which having Root EBS and EBS volume with 8 GB space



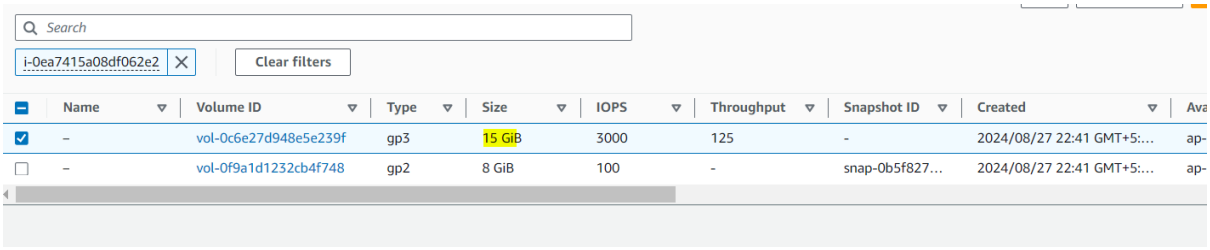
2) Need to increase the size of EBS volume

Before increase size:

```
[root@ip-172-31-33-132 ~]# lsblk
NAME    MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda    202:0    0   8G  0 disk
└─xvda1 202:1    0   8G  0 part /
xvdb    202:16   0   8G  0 disk
[root@ip-172-31-33-132 ~]#
```

Mdifying the volume size as per requirement:

3) Successfully extended the EBS Volume




```
[root@ip-172-31-42-164 ~]# file -s /dev/xvdb
/dev/xvdb: data
[root@ip-172-31-42-164 ~]# mkfs -t ext4 /dev/xvdb
mke2fs 1.42.9 (28-Dec-2013)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
524288 inodes, 2097152 blocks
104857 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=2147483648
64 block groups
32768 blocks per group, 32768 fragments per group
8192 inodes per group
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632

Allocating group tables: done
Writing inode tables: done
Creating journal (32768 blocks): done
Writing superblocks and filesystem accounting information: done

[root@ip-172-31-42-164 ~]# mkdir /home/EBSVolume.txt
[root@ip-172-31-42-164 ~]# mount /dev/xvdb /home/EBSVolume.txt
[root@ip-172-31-42-164 ~]# lsblk
NAME    MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda    202:0    0   8G  0 disk
└─xvda1 202:1    0   8G  0 part /
xvdb    202:16   0   8G  0 disk /home/EBSVolume.txt
[root@ip-172-31-42-164 ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        467M     0  467M   0% /dev
tmpfs           477M     0  477M   0% /dev/shm
tmpfs           477M  408K  476M   1% /run
tmpfs           477M     0  477M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.8G  6.3G  23% /
tmpfs            96M     0   96M   0% /run/user/1000
/dev/xvdb       7.8G   24K  7.3G   1% /home/EBSVolume.txt
[root@ip-172-31-42-164 ~]#
[root@ip-172-31-42-164 ~]# lsblk
```

Now use resize2fs command to extend volume size

```
[root@ip-172-31-42-164 ~]# resize2fs /dev/xvdb
resize2fs 1.42.9 (28-Dec-2013)
Filesystem at /dev/xvdb is mounted on /home/EBSVolume.txt; on-line resizing requ
ired
old_desc_blocks = 1, new_desc_blocks = 2
The filesystem on /dev/xvdb is now 3932160 blocks long.

[root@ip-172-31-42-164 ~]# lsblk
NAME    MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda    202:0    0   8G  0 disk
└─xvda1 202:1    0   8G  0 part /
xvdb    202:16   0  15G  0 disk /home/EBSVolume.txt
[root@ip-172-31-42-164 ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        467M     0  467M   0% /dev
tmpfs           477M     0  477M   0% /dev/shm
tmpfs           477M  408K  476M   1% /run
tmpfs           477M     0  477M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.8G  6.3G  23% /
tmpfs            96M     0   96M   0% /run/user/1000
/dev/xvdb        15G   24K   14G   1% /home/EBSVolume.txt
[root@ip-172-31-42-164 ~]#
```