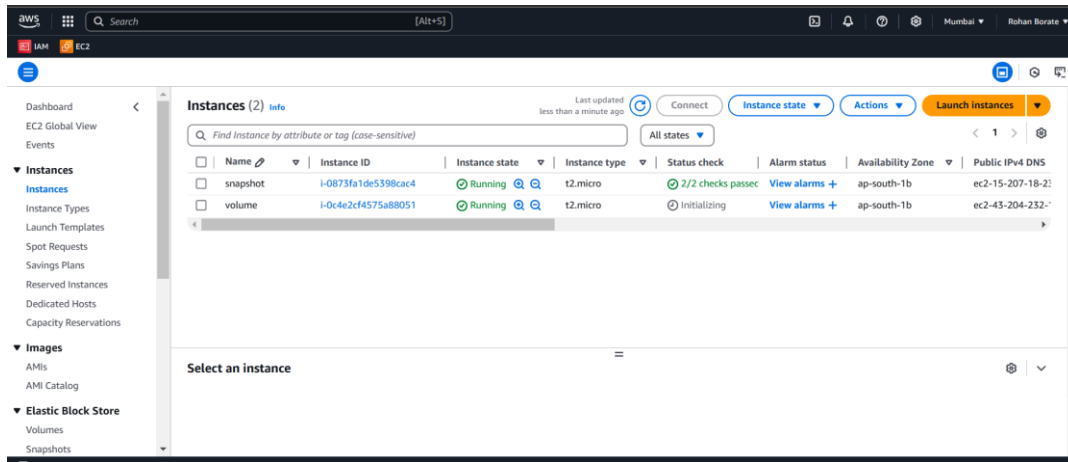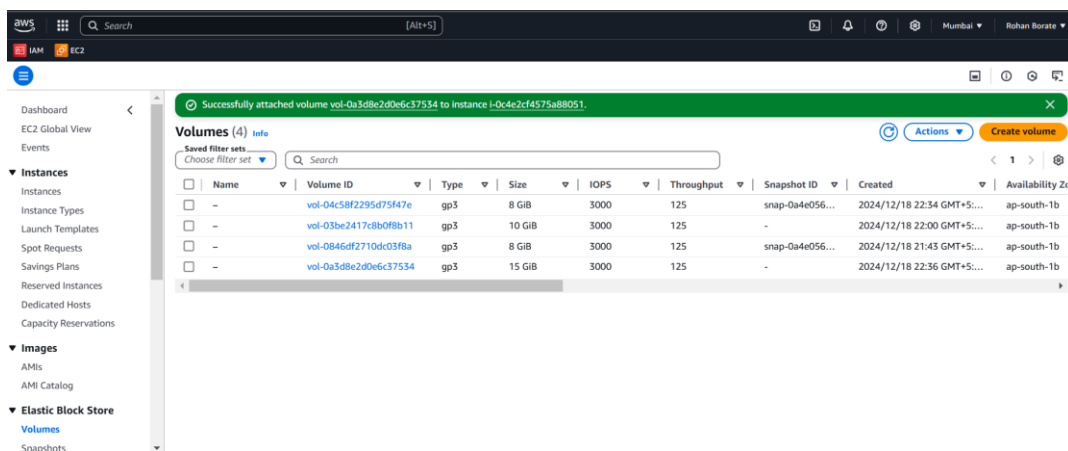Permanent volume mounting –

1. Create EC2 instance named as volume

2. Create new volume and attached to that EC2

3. Create partition for that volume

```
[root@ip-172-31-11-33 ~]# lsblk
NAME       MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda       202:0    0   8G  0 disk
├─xvda1    202:1    0   8G  0 part /
├─xvda127  259:0    0   1M  0 part
└─xvda128  259:1    0  10M  0 part /boot/efi
xvdb       202:16   0  15G  0 disk
[root@ip-172-31-11-33 ~]# fdisk /dev/xvdb

Welcome to fdisk (util-linux 2.37.4).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table.
Created a new DOS disklabel with disk identifier 0xb3f26e57.

Command (m for help): n
Partition type
   p   primary (0 primary, 0 extended, 4 free)
   e   extended (container for logical partitions)
Select (default p): p
Partition number (1-4, default 1): 1
First sector (2048-31457279, default 2048):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (2048-31457279, default 31457279): +10G

Created a new partition 1 of type 'Linux' and of size 10 GiB.

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

[root@ip-172-31-11-33 ~]#
```

4. Attaching file system

```
[root@ip-172-31-11-33 ~]# lsblk
NAME       MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda       202:0    0   8G  0 disk
├─xvda1    202:1    0   8G  0 part /
├─xvda127  259:0    0   1M  0 part
└─xvda128  259:1    0  10M  0 part /boot/efi
xvdb       202:16   0  15G  0 disk
└─xvdb1    202:17   0  10G  0 part
[root@ip-172-31-11-33 ~]# mkfs.ext2 /dev/xvdb1
mke2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 2621440 4k blocks and 655360 inodes
Filesystem UUID: 7ff674f6-d34b-4df8-9efa-76839f030216
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632

Allocating group tables: done
Writing inode tables: done
Writing superblocks and filesystem accounting information: done

[root@ip-172-31-11-33 ~]# cat fstab
cat: fstab: No such file or directory
[root@ip-172-31-11-33 ~]# cat /etc/fstab
#
UUID=3a8023d8-2841-47f7-985b-ab4b5825ae27        /          xfs     defaults,noatime  1   1
UUID=A012-E846        /boot/efi      vfat    defaults,noatime,uid=0,gid=0,umask=0077,shortname=winnt,x-systemd.automount 0 2
[root@ip-172-31-11-33 ~]# vim /etc/fstab
[root@ip-172-31-11-33 ~]# mount -a
mount: /mnt: wrong fs type, bad option, bad superblock on /dev/xvdb1, missing codepage or helper program, or other error.
[root@ip-172-31-11-33 ~]# cat /etc/fstab
#
UUID=3a8023d8-2841-47f7-985b-ab4b5825ae27        /          xfs     defaults,noatime  1   1
UUID=A012-E846        /boot/efi      vfat    defaults,noatime,uid=0,gid=0,umask=0077,shortname=winnt,x-systemd.automount 0 2
/dev/xvdb1 /mnt ext4 dafault 0 0
```

5. Permanent mounting of that volume through /etc/fstab


```
#
UUID=3a8023d8-2841-47f7-985b-ab4b5825ae27        /        xfs    defaults,noatime  1   1
UUID=A012-E846        /boot/efi      vfat     defaults,noatime,uid=0,gid=0,umask=0077,shortname=winnt,x-systemd.automount 0 2
/dev/xvdb1 /mnt ext4 defaults 0 0
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-- INSERT --                                                                                      4,2
```

6. mount -a → It tries to mount all the filesystems listed in /etc/fstab


```
[root@ip-172-31-11-33 ~]# cat /etc/fstab
#
UUID=3a8023d8-2841-47f7-985b-ab4b5825ae27        /        xfs    defaults,noatime  1   1
UUID=A012-E846        /boot/efi      vfat     defaults,noatime,uid=0,gid=0,umask=0077,shortname=winnt,x-systemd.automount 0 2
/dev/xvdb1 /mnt ext4 defaults 0 0
[root@ip-172-31-11-33 ~]# mount -a
[root@ip-172-31-11-33 ~]# lsblk
NAME      MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda      202:0    0   8G  0 disk
├─xvda1   202:1    0   8G  0 part /
├─xvda127 259:0    0   1M  0 part
└─xvda128 259:1    0  10M  0 part /boot/efi
xvdb      202:16   0  15G  0 disk
└─xvdb1   202:17   0  10G  0 part /mnt
[root@ip-172-31-11-33 ~]# 
```