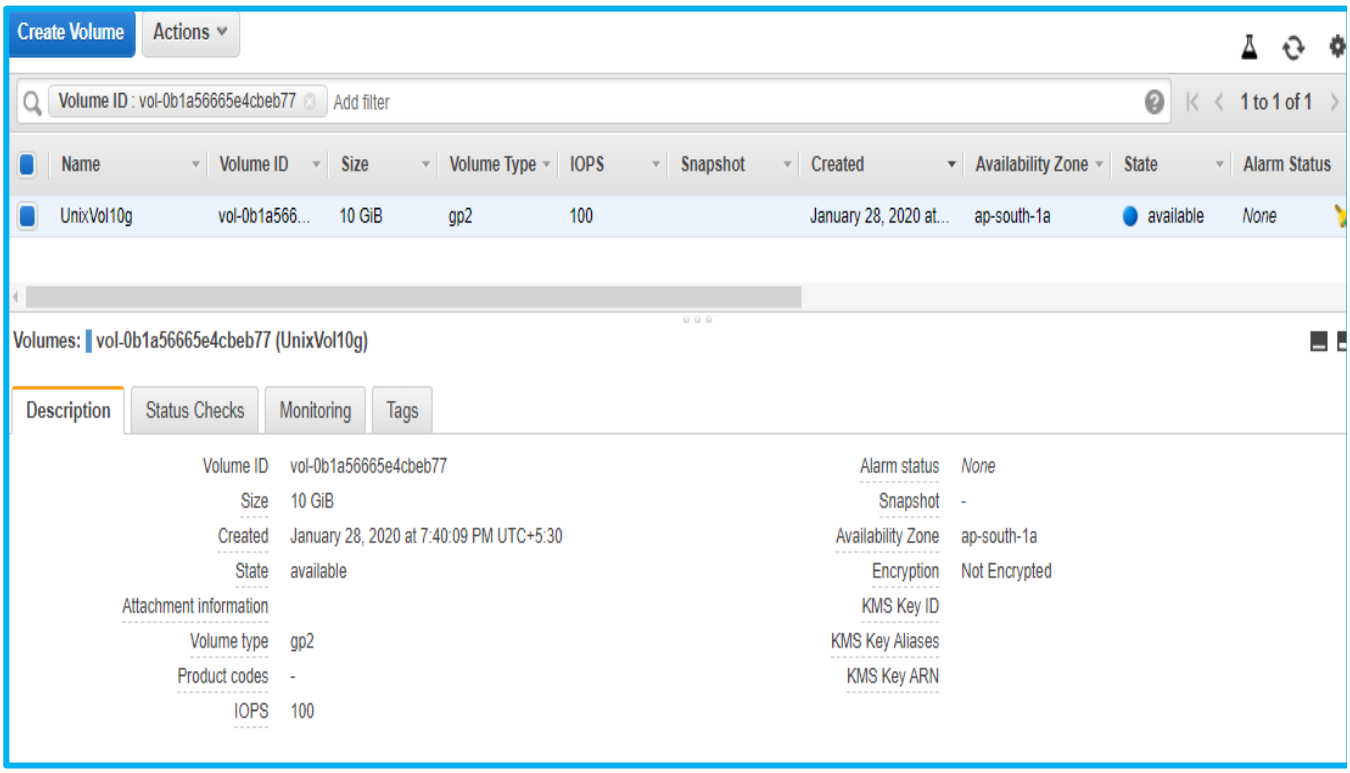
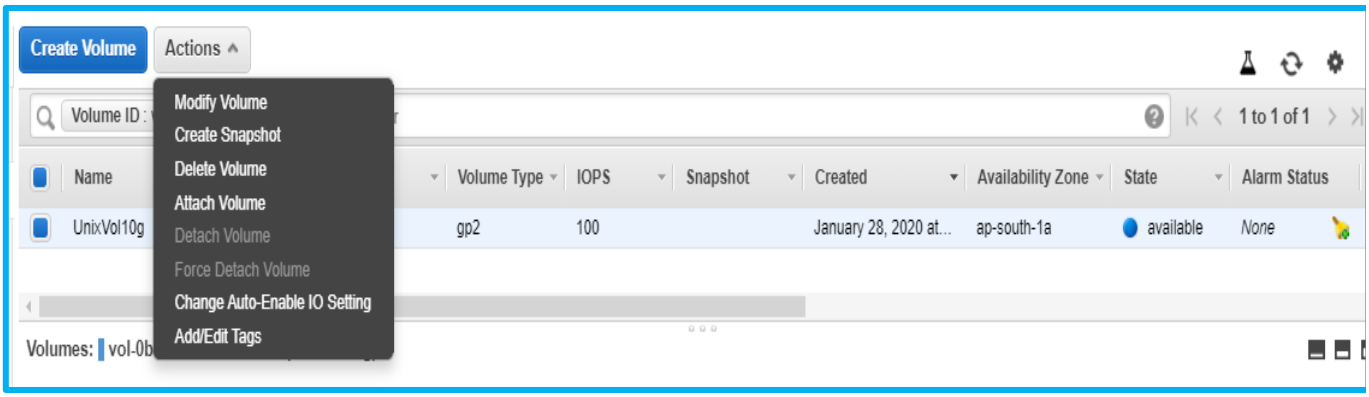
Storage Linux - Volume

Create and attach Volume to the instance

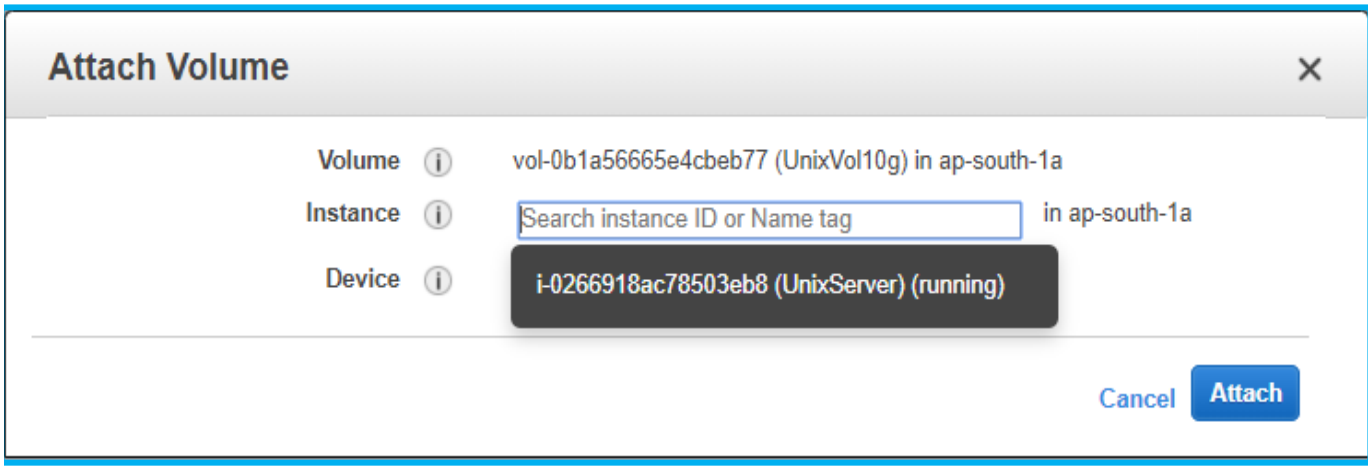
Navigate EC2->EBS->Volumes->Create Volume

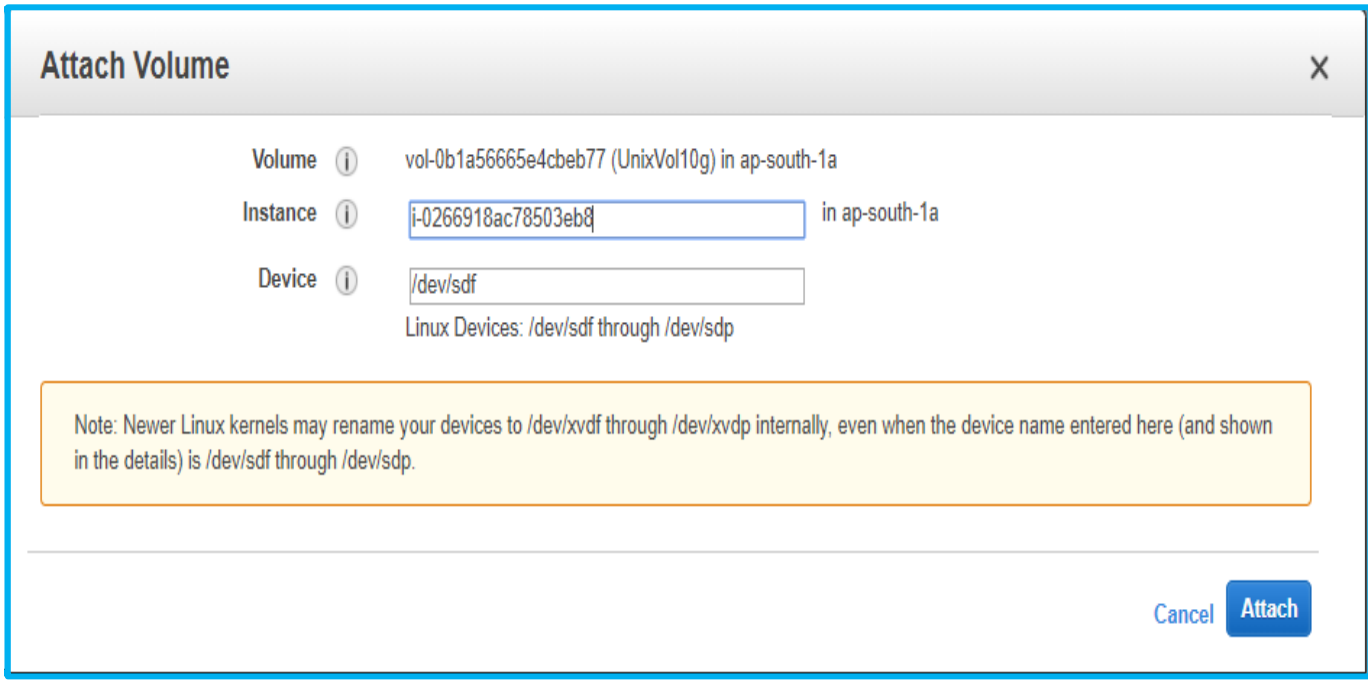


Attach the volume to a instance, select Attach volume

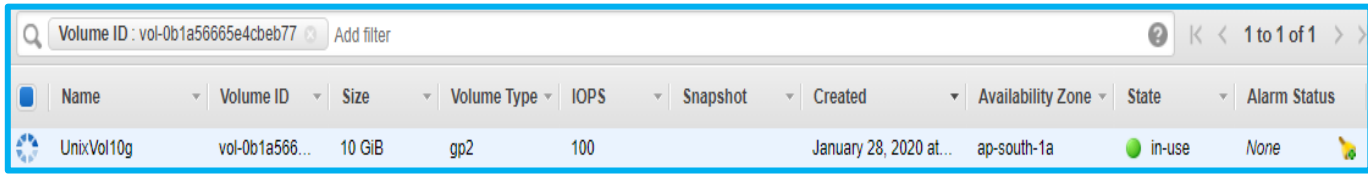


Instances into same AZ are shown where Volume has been created
Select Instance name



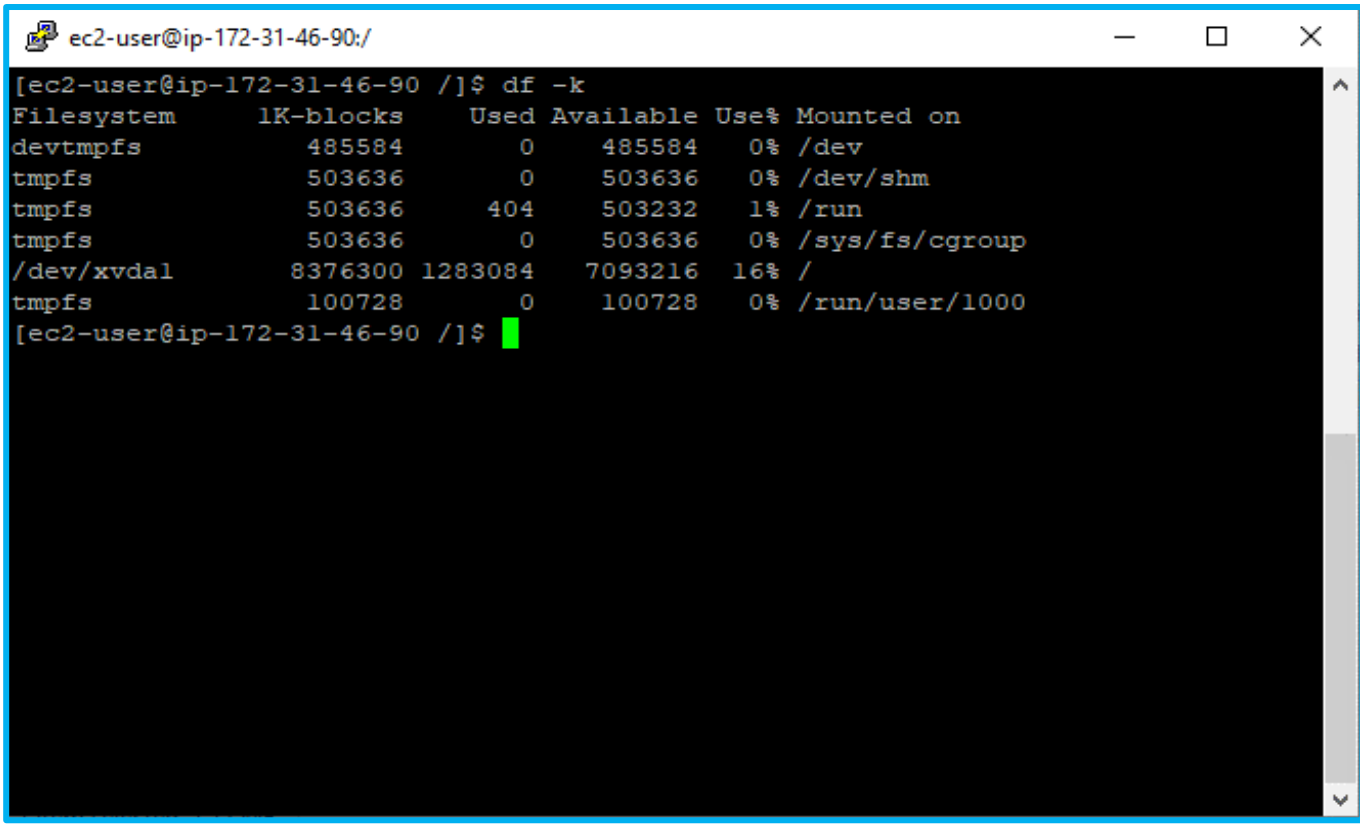


Volume attached to the selected instance



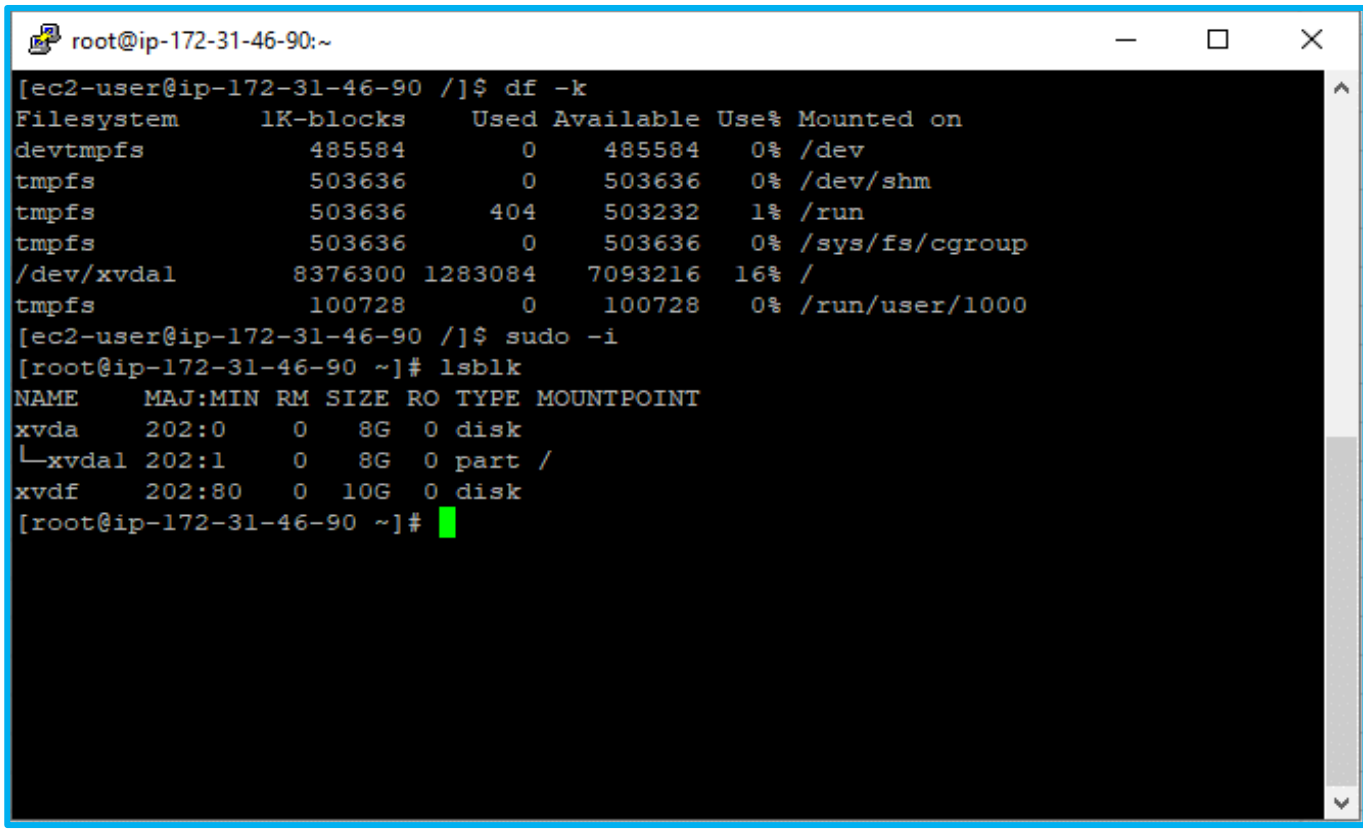
Setup volume in the instance

Login to UixServer, to which Volume was attached



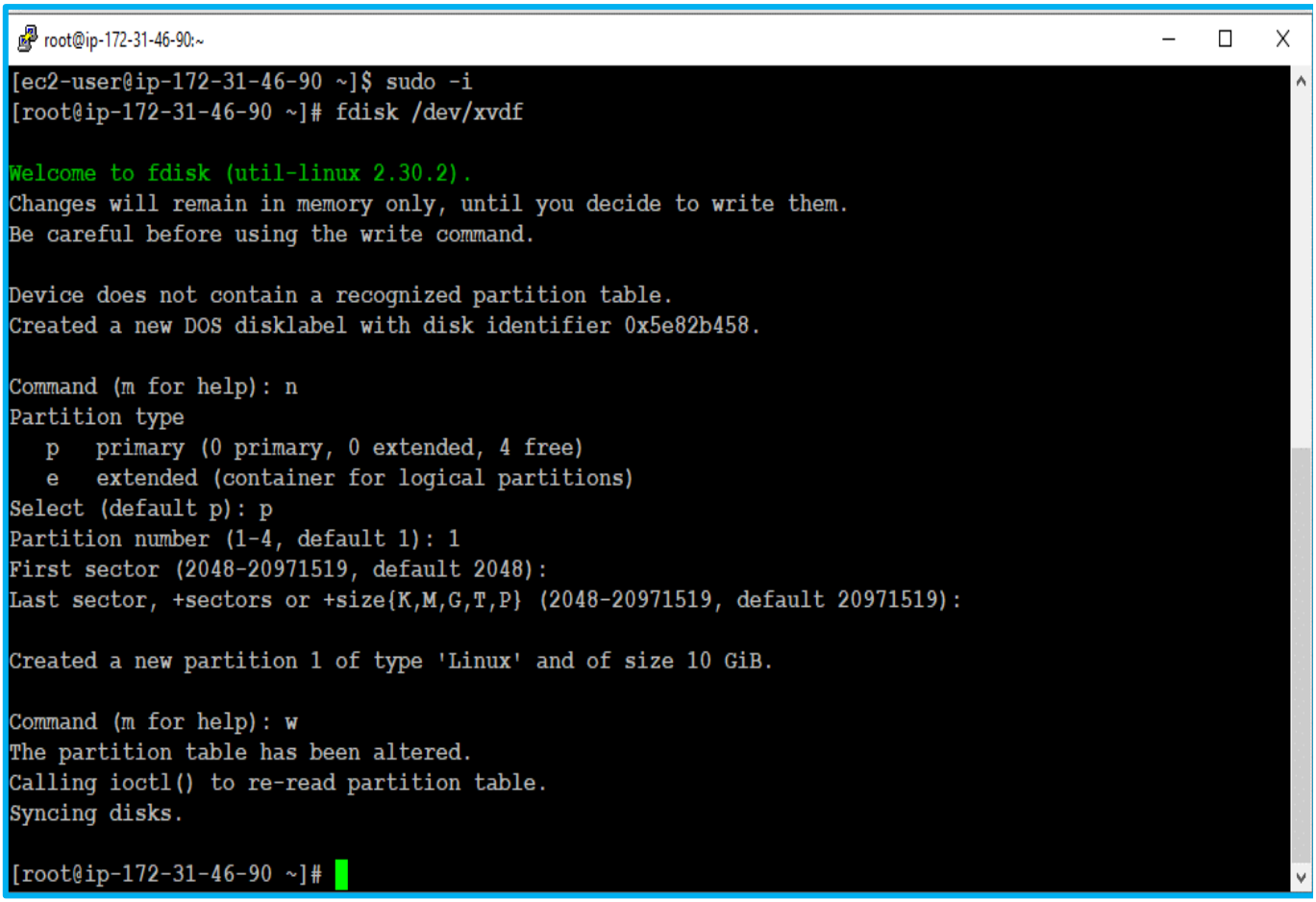
Enter following commands to see the unmounted volume

sudo -i
lsblk



Enter following commands to create space in the volume

fdisk /dev/xvdf
n
p
1
2048
w
#



Check with following command

lsblk

```
[root@ip-172-31-46-90 ~]# lsblk
NAME    MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda    202:0    0   8G  0 disk
└─xvda1 202:1    0   8G  0 part /
xvdf    202:80   0  10G  0 disk
└─xvdf1 202:81   0  10G  0 part
[root@ip-172-31-46-90 ~]#
```

Enter following command

mkfs.ext4 /dev/xvdf1

```
[root@ip-172-31-46-90 ~]# mkfs.ext4 /dev/xvdf1
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, 2621184 blocks
131059 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-172-31-46-90 ~]#
```

Mount the disk on /mnt directory

mount /dev/xvdf1 /mnt/

```
[root@ip-172-31-46-90 /]# lsblk
NAME    MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda    202:0    0   8G  0 disk
└─xvda1 202:1    0   8G  0 part /
xvdf    202:80   0  10G  0 disk
└─xvdf1 202:81   0  10G  0 part
[root@ip-172-31-46-90 /]# mount /dev/xvdf1 /mnt/
[root@ip-172-31-46-90 /]# df -k
Filesystem     1K-blocks    Used Available Use% Mounted on
devtmpfs          485584       0    485584   0% /dev
tmpfs             503636       0    503636   0% /dev/shm
tmpfs             503636     472    503164   1% /run
tmpfs             503636       0    503636   0% /sys/fs/cgroup
/dev/xvda1       8376300 1283180   7093120  16% /
tmpfs             100728       0    100728   0% /run/user/1000
/dev/xvdf1      10189076   36888   9611568   1% /mnt
[root@ip-172-31-46-90 /]#
```

Change the newly mounted disk and create a test.txt file
cd /mnt
touch test.txt
ls -ltr

```
[root@ip-172-31-46-90 /]# cd /mnt
[root@ip-172-31-46-90 mnt]# touch test.txt
[root@ip-172-31-46-90 mnt]# ls -ltr
total 16
drwx------ 2 root root 16384 Jan 28 14:32 lost+found
-rw-r--r-- 1 root root     0 Jan 28 14:38 test.txt
```

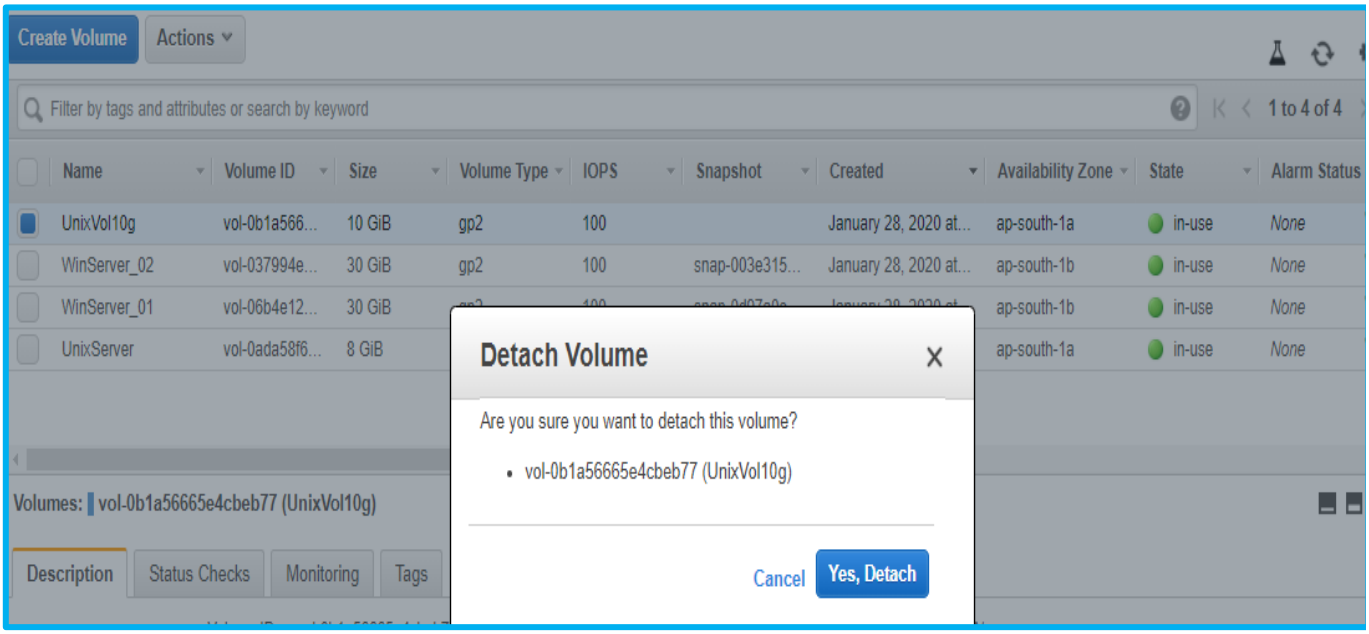
Detaching the volume (unmount) from the Instance

umount /mnt

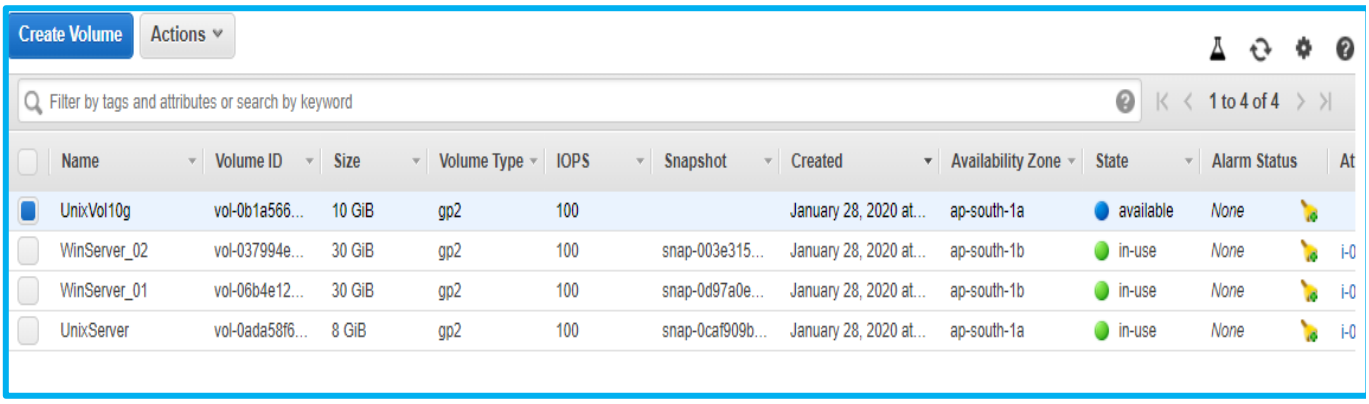
root@ip-172-31-46-90:/

```
total 0
[root@ip-172-31-46-90 mnt]# cd /mnt
[root@ip-172-31-46-90 mnt]# pwd
/mnt
[root@ip-172-31-46-90 mnt]# cd /
[root@ip-172-31-46-90 /]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        475M     0  475M   0% /dev
tmpfs           492M     0  492M   0% /dev/shm
tmpfs           492M  408K  492M   1% /run
tmpfs           492M     0  492M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.3G  6.8G  16% /
tmpfs            99M     0   99M   0% /run/user/1000
/dev/xvdf1      9.8G   37M  9.2G   1% /mnt
[root@ip-172-31-46-90 /]# umount /mnt
[root@ip-172-31-46-90 /]# df -k
Filesystem     1K-blocks    Used Available Use% Mounted on
devtmpfs          485584       0    485584   0% /dev
tmpfs             503636       0    503636   0% /dev/shm
tmpfs             503636     408    503228   1% /run
tmpfs             503636       0    503636   0% /sys/fs/cgroup
/dev/xvda1       8376300 1281844   7094456  16% /
tmpfs             100728       0    100728   0% /run/user/1000
[root@ip-172-31-46-90 /]#
```

EBS->Volume->Action->Detach Volume



Now the storage is available to be resused or to be deleted



Deletion of volume