Steps to add a new volume and create new partition in EC2 instance

Step 1: Collected the existing file system details and block details

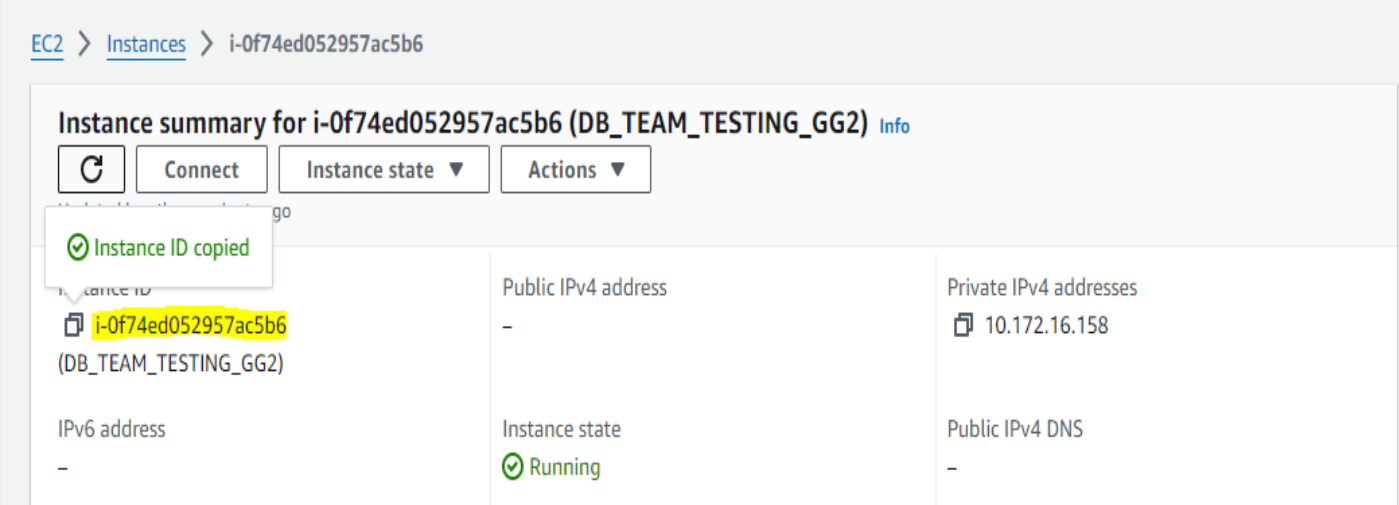
```
[ec2-user@ip-10-172-16-158 ~]$ lsblk
NAME      MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda      202:0    0   8G  0 disk
├─xvda1   202:1    0   8G  0 part /
├─xvda127 259:0    0   1M  0 part
└─xvda128 259:1    0  10M  0 part /boot/efi
[ec2-user@ip-10-172-16-158 ~]$ df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        4.0M     0  4.0M   0% /dev
tmpfs           2.0G     0  2.0G   0% /dev/shm
tmpfs           781M  8.5M  773M   2% /run
/dev/xvda1      8.0G  1.6G  6.5G  20% /
tmpfs           2.0G     0  2.0G   0% /tmp
/dev/xvda128     10M  1.3M  8.7M  13% /boot/efi
tmpfs           391M     0  391M   0% /run/user/1000
[ec2-user@ip-10-172-16-158 ~]$
```

Step 2: Login to the **AWS console** --->**Elastic Block Storage** --->**Create volume**----> Choose the required volume type, size, IOPS, availability zone

Note: Choose the availability zone the same as the zone where EC2 must be created.

Step 3: Once the volume is created, it will be available state, choose the newly created volume --->Actions-->Attach volume --- attach it to the EC2 instance which must be added.

NOTE: It will ask to provide ec2 instance ID which you can take from the below mentioned screenshot.



Step 4: The volume attached will be reflected only on disk level from there we have to mount the disk by using the below methods

```
[ec2-user@ip-10-172-16-158 ~]$ 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
xvdf      202:80   0  50G  0 disk
```

Step 5:

Commands used

[root@ip-10-172-16-158 ~]# file -s /dev/xvdf

[root@ip-10-172-16-158 ~]# mkfs -t xfs /dev/xvdf

[root@ip-10-172-16-158 ~]# file -s /dev/xvdf

```
[root@ip-10-172-16-158 ~]# file -s /dev/xvdf
/dev/xvdf: data
[root@ip-10-172-16-158 ~]# mkfs -t xfs /dev/xvdf
meta-data=/dev/xvdf              isize=512    agcount=4, agsize=3276800 blks
         =                       sectsz=512   attr=2, projid32bit=1
         =                       crc=1        finobt=1, sparse=1, rmapbt=0
         =                       reflink=1    bigtime=1 inobtcount=1
data     =                       bsize=4096   blocks=13107200, imaxpct=25
         =                       sunit=0      swidth=0 blks
naming   =version 2              bsize=4096   ascii-ci=0, ftype=1
log      =internal log           bsize=4096   blocks=16384, version=2
         =                       sectsz=512   sunit=0 blks, lazy-count=1
realtime =none                   extsz=4096   blocks=0, rtextents=0
[root@ip-10-172-16-158 ~]# file -s /dev/xvdf
/dev/xvdf: SGI XFS filesystem data (blksz 4096, inosz 512, v2 dirs)
```

Step 6: Create directory and mount to that disk by using below steps:

[root@ip-10-172-16-158 ~]# mkdir -p /oradb

[root@ip-10-172-16-158 ~]# mount /dev/xvdf /oradb

```
[root@ip-10-172-16-158 ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        4.0M     0  4.0M   0% /dev
tmpfs           2.0G     0  2.0G   0% /dev/shm
tmpfs           781M  8.5M  773M   2% /run
/dev/xvda1      8.0G  1.6G  6.5G  20% /
tmpfs           2.0G     0  2.0G   0% /tmp
/dev/xvda128     10M  1.3M  8.7M  13% /boot/efi
tmpfs           391M     0  391M   0% /run/user/1000
/dev/xvdf        50G  389M   50G   1% /oradb
[root@ip-10-172-16-158 ~]#
```

Now the newly created disk(/dev/xvdf) got mounted with /oradb directory