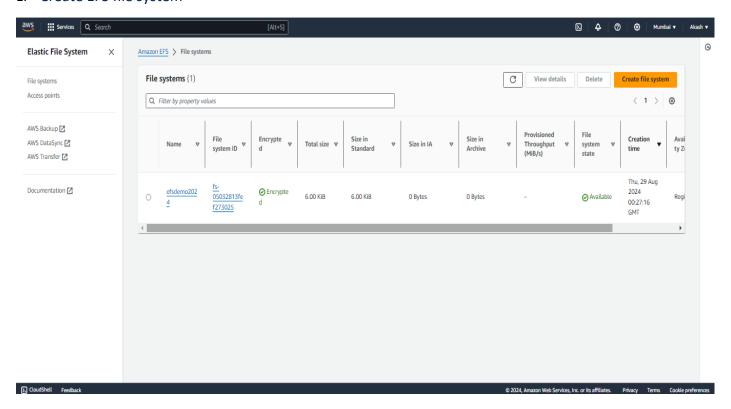
AWS - EFS (Elastic File System)

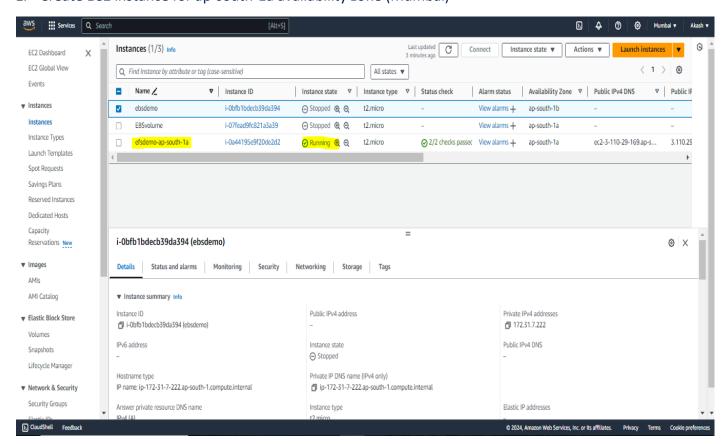
Name: Akash Ghuge | Date: 27/08/2024

Practical:1

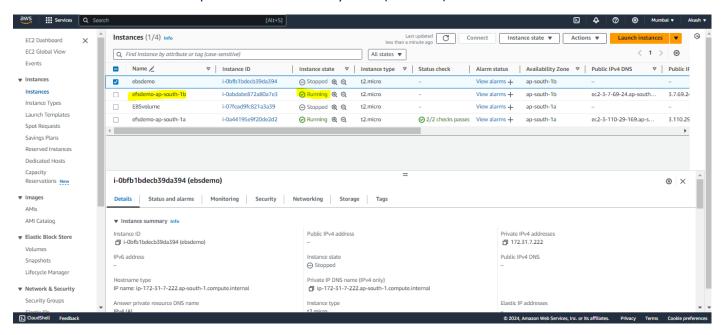
1. Create EFS file system



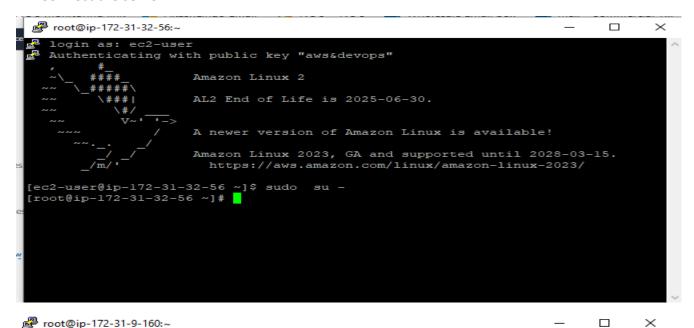
2. Create EC2 instance for ap-south-1a availability zone (Mumbai)



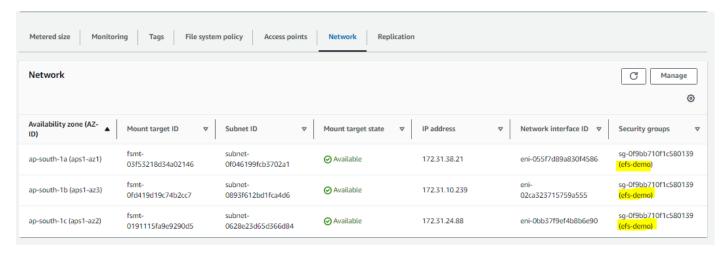
3. Create EC2 instance for ap-south-1b availability zone (Mumbai)



Connect the server



5. Mount Security Group on Created EFS files



6. Mount EFS file system for both the EC2 instances

```
🧬 root@ip-172-31-32-56:∼
                                                                                                                                                                            Authenticating with public key "aws&devops"
                           AL2 End of Life is 2025-06-30.
                           A newer version of Amazon Linux is available!
                           Amazon Linux 2023, GA and supported until 2028-03-15. https://aws.amazon.com/linux/amazon-linux-2023/
 c2-user@ip-172-31-32-56 ~]$ sudo su -
 coot@ip-172-31-32-56 ~| # mkdir akash-efs
coot@ip-172-31-32-56 ~| # sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=
048576,hard,timeo=600,retrans=2,noresvport fs-05032813fef273025.efs.ap-south-1.
  unt.nfs4: mount point efs does not exist
pot@ip-172-31-32-56 ~]‡ sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-050
467M
477M
476M
477M
                                                                                                   0% /dev
0% /dev/shm
1% /run
0% /sys/fs/cgroup
dev/xvdal
mpfs
                                                                                                  23% /
                                                                                                       /run/user/1000
                                                                                            96M
                                                                                                    0% /run/user/0
0% /root/akash-efs
  -05032813fef273025.efs.ap-south-1.amazonaws.com:/
-oot@ip-172-31-32-56 ~]#
```

Check devops.txt which is created on ap-south-1a availability zone

7. Check devops.txt which is created on ap-south-1a availability zone

```
proot@ip-172-31-32-56: ~/akash-efs

graph
                                                                                                    П
                                                                                                         ×
                  ]# mkdir akash-efs
  .048576,hard,timeo=600,retrans=2,noresvport fs-05032813fef273025.efs.ap-south-1.
amazonaws.com:/ efs
ount.nfs4: mount point efs does not exist
2813fef273025.efs.ap-south-1.amazonaws.com:/ akash-efs
[root@ip-172-31-32-56 ~]# df
Filesystem
                                           Size Used Avail Use% Mounted on
devtmpfs
                                           467M
                                                          0% /dev
                                                          0% /dev/shm
tmpfs
mpfs
                                                          1% /run
mpfs
                                                          0% /sys/fs/cgroup
                                                1.8G 6.3G 23% /
0 96M 0% /
dev/xvdal
                                           8.0G
                                            96M
                                                          0% /run/user/1000
mpfs
                                            96M
                                                     96M
                                                          0% /run/user/0
tmpfs
s-05032813fef273025.efs.ap-south-1.amazonaws.com:/
                                           8.0E
                                                     8.0E
                                                          0% /root/akash-efs
[root@ip-172-31-32-56 ~]# cd /ro
bash: cd: /roo/akash-efs: No such file or directory
[root@ip-172-31-32-56 akash-efs]# cat > devops.txt
[root@ip-172-31-32-56 akash-efs]# ls -ltr
-rw-r--r-- 1 root root 10 Aug 29 01:31 devops.txt
[root@ip-172-31-32-56 akash-efs]# pwd
[root@ip-172-31-32-56 akash-efs]# cat devops.txt
[root@ip-172-31-32-56 akash-efs]#
```

8. Check devops.txt file on different availability zone (ap-south-1b)

[root@ip-172-31-9-160 akash-efs]#

```
root@ip-172-31-9-160:~/akash-efs
Last login: Thu Aug 29 00:54:16 UTC 2024 on pts/0
1048576, hard, timeo=600, retrans=2, noresvport fs-05032813fef273025.efs.ap-south-1.
amazonaws.com:/ efs
mount.nfs4: mount point efs does not exist
[root@ip-172-31-9-160 ~] # sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=
1048576, hard, timeo=600, retrans=2, noresvport fs-05032813fef273025.efs.ap-south-1.
amazonaws.com:/ akash-efs
[root@ip-172-31-9-160 ~] # df -h
                                                    Size Used Avail Use% Mount
Filesystem
ed on
devtmpfs
                                                     467M
                                                             0
                                                                467M
                                                                       0% /dev
                                                                       0% /dev/
tmpfs
                                                     477M
                                                                477M
shm
tmpfs
                                                     477M
                                                          464K
                                                                476M
                                                                       1% /run
tmpfs
                                                     477M
                                                                477M
                                                                       0% /sys/
fs/cgroup
                                                                      23% /
/dev/xvdal
                                                    8.0G
                                                          1.8G
                                                                 6.3G
tmpfs
                                                     9.6M
                                                                 96M
                                                                       0% /run/
user/1000
                                                                 96M
                                                                       0% /run/
tmpfs
                                                     96M
user/0
fs-05032813fef273025.efs.ap-south-1.amazonaws.com:/
                                                    8.0E
                                                                8.0E
                                                                       0% /root
/akash-efs
[root@ip-172-31-9-160 ~]# df -h
Filesystem
                                                    Size
                                                          Used Avail Use% Mounted on
                                                                       0% /dev
devtmpfs
                                                    467M
                                                                467M
tmpfs
                                                     477M
                                                                477M
                                                                       0% /dev/shm
tmpfs
                                                     477M
                                                           464K
                                                                476M
                                                                       1% /run
                                                     477M
                                                                477M
                                                                       0% /sys/fs/cgroup
tmpfs
/dev/xvdal
                                                    8.0G
                                                           1.8G
                                                                6.3G
                                                                      23% /
tmpfs
                                                     96M
                                                                 96M
                                                                       0% /run/user/1000
                                                                       0% /run/user/0
                                                     96M
                                                                 96M
tmpfs
fs-05032813fef273025.efs.ap-south-1.amazonaws.com:/
                                                                8.0E
                                                                       0% /root/akash-efs
                                                    8.0E
[root@ip-172-31-9-160 ~]#
[root@ip-172-31-9-160 ~]#
[root@ip-172-31-9-160 ~] # cd /root/akash-efs
[root@ip-172-31-9-160 akash-efs]# ls -ltr
total 4
-rw-r--r-- 1 root root 10 Aug 29 01:31 devops.txt
[root@ip-172-31-9-160 akash-efs]# cat devops.txt
terraform
```

9. Create another file aws.txt on ap-south-1b zone and check which is available on ap-south-1a zone.

```
[root@ip-172-31-9-160 ~]#
[root@ip-172-31-9-160 ~]# cd /root/akash-efs
[root@ip-172-31-9-160 akash-efs]# ls -ltr
total 4
-rw-r--r-- 1 root root 10 Aug 29 01:31 devops.txt
[root@ip-172-31-9-160 akash-efs]# cat devops.txt
terraform
[root@ip-172-31-9-160 akash-efs]# cat > aws.txt
hello
[root@ip-172-31-9-160 akash-efs]# ls -ltr
total 8
-rw-r--r-- 1 root root 10 Aug 29 01:31 devops.txt
-rw-r--r-- 1 root root 6 Aug 29 01:45 aws.txt
[root@ip-172-31-9-160 akash-efs]#
```

```
fs-05032813fef273025.efs.ap-south-1.amazonaws.com:/ 8.0E
[root@ip-172-31-32-56 ~] # cd /roo/akash-efs
-bash: cd: /roo/akash-efs: No such file or directory
[root@ip-172-31-32-56 ~] # cd /root/akash-efs
[root@ip-172-31-32-56 akash-efs]# ls -ltr
total 0
[root@ip-172-31-32-56 akash-efs] # cat > devops.txt
terraform
[root@ip-172-31-32-56 akash-efs]# ls -ltr
total 4
-rw-r--r-- 1 root root 10 Aug 29 01:31 devops.txt
[root@ip-172-31-32-56 akash-efs]# pwd
/root/akash-efs
[root@ip-172-31-32-56 akash-efs]# cat devops.txt
terraform
[root@ip-172-31-32-56 akash-efs] # cat aws.txt
[root@ip-172-31-32-56 akash-efs]#
```