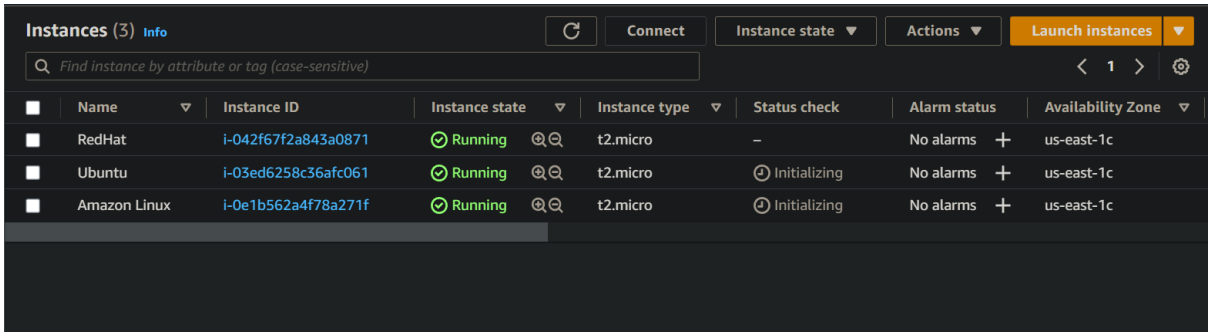
Assignment 1

Tasks to be performed:

Create an EFS and connect it to 3 different EC2 instances. Make sure that all instances have different operating systems. For instance, Ubuntu, Red Hat Linux and Amazon Linux 2.

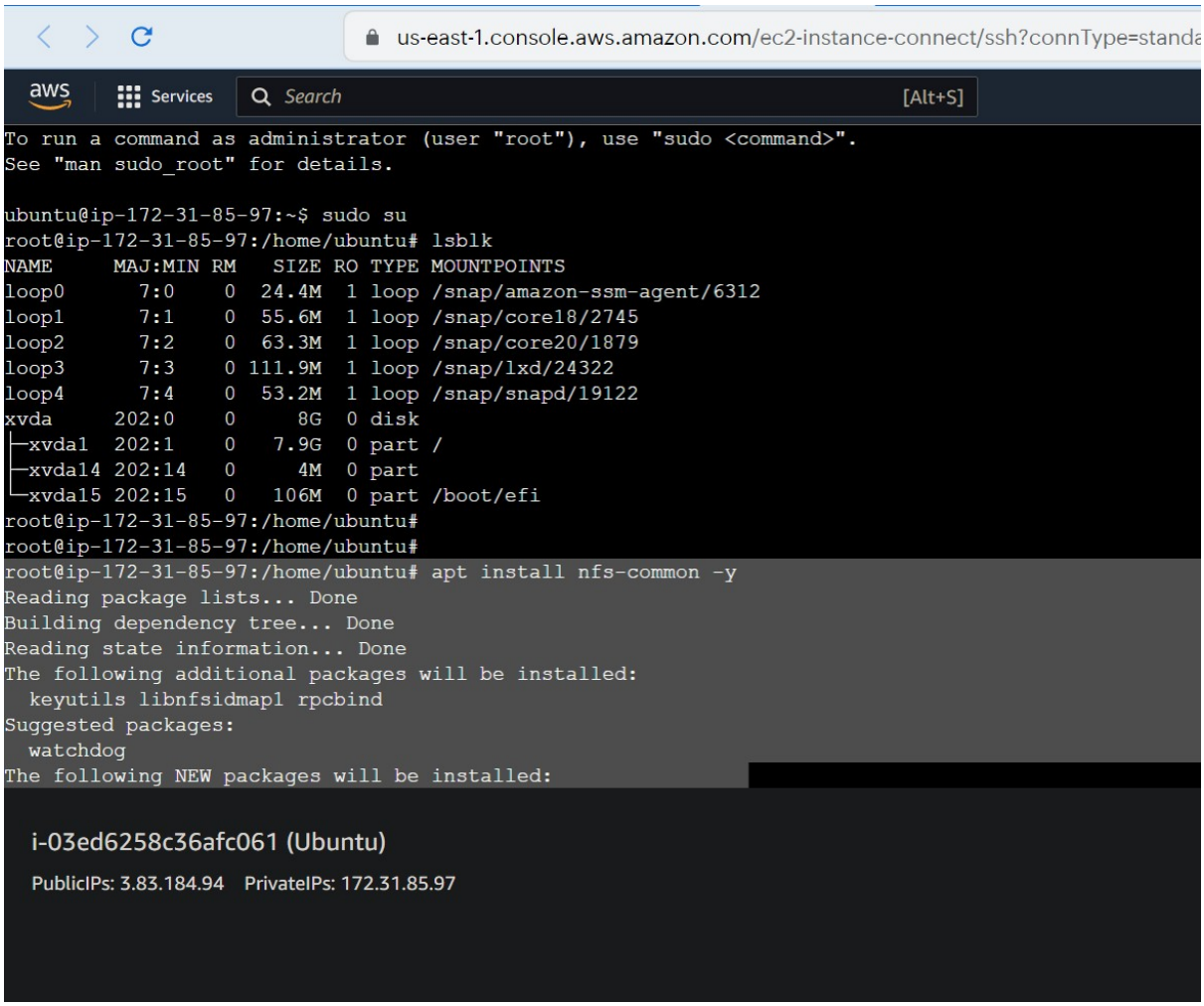
Solution:

Step 1:- Creating 3 EC2 Instances of Ubuntu, RedHat & Amazon Linux. Make sure to enable SSH & NFS port in the Security Groups for the EC2.

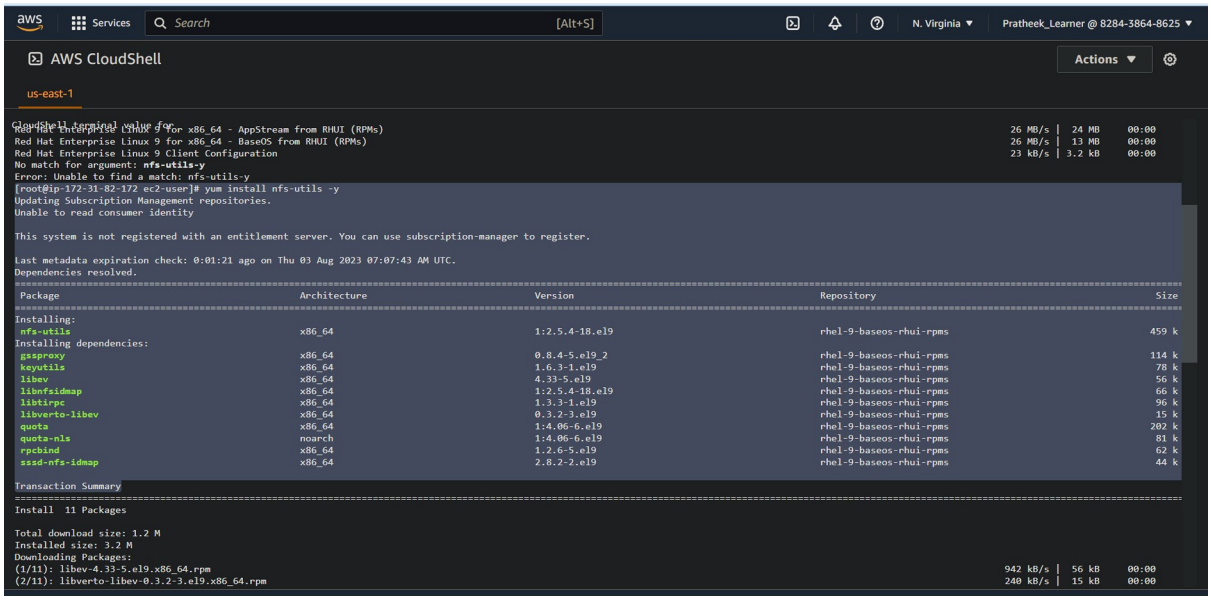


Step 2:- Run apt install nfs-common -y command in Ubuntu EC2 & sudo yum install nfs-utils -y command in RedHat EC2.

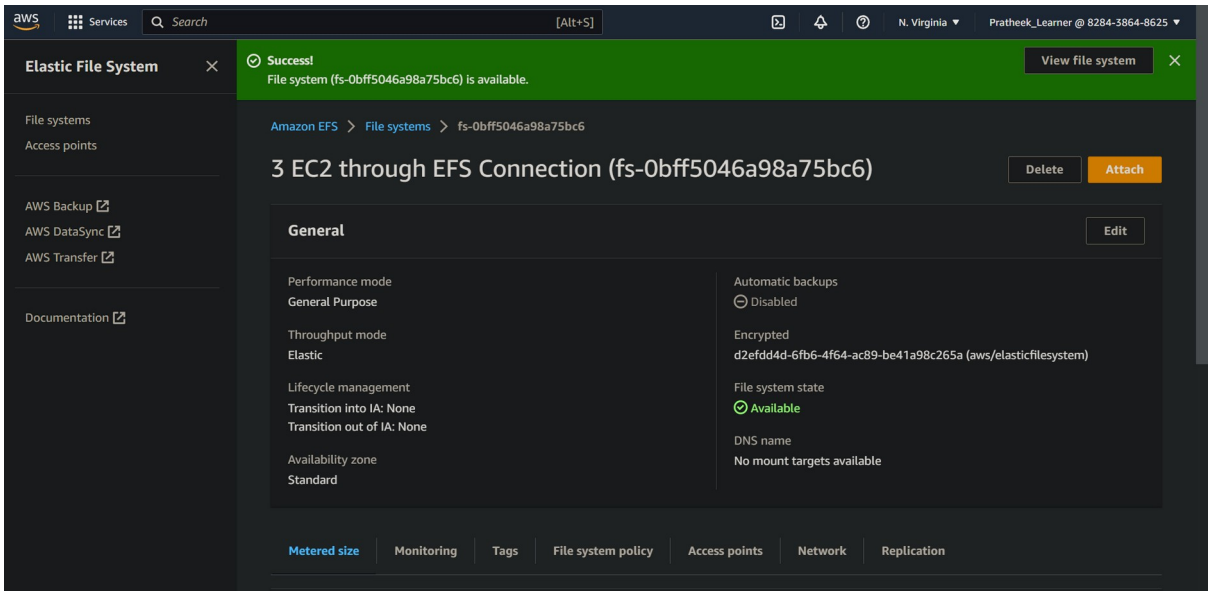
Ubuntu:



RedHat:

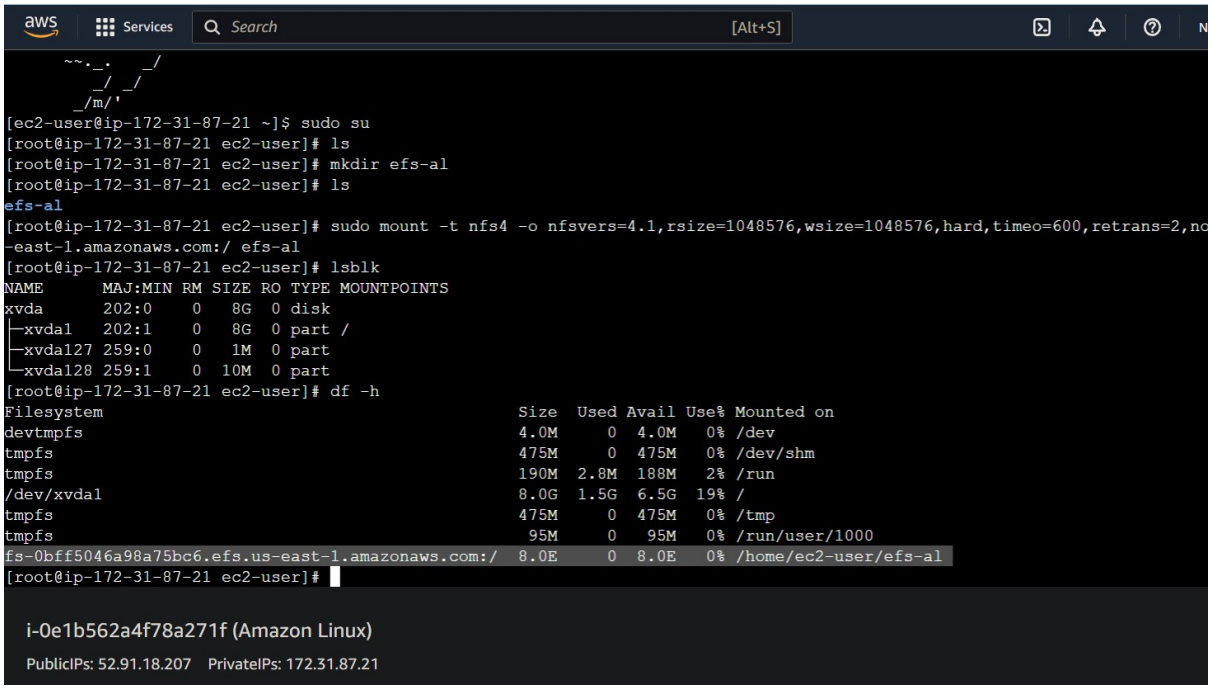


Step 3:- Create an EFS system for the above EC2

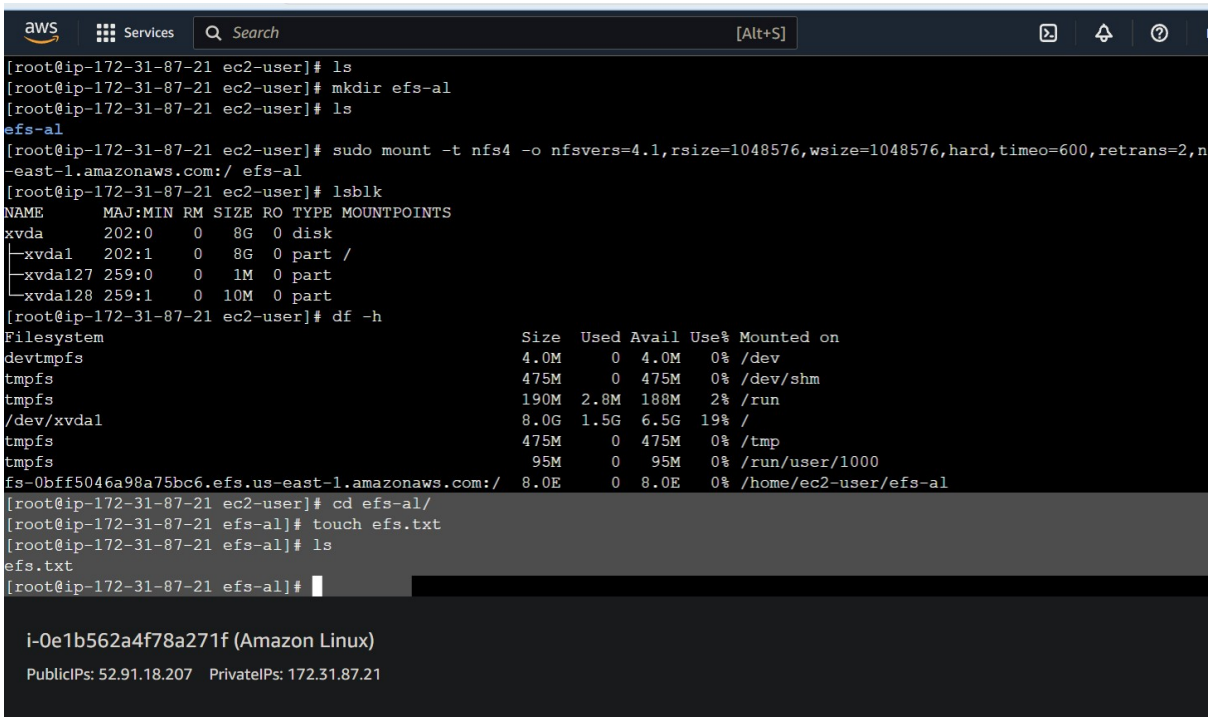


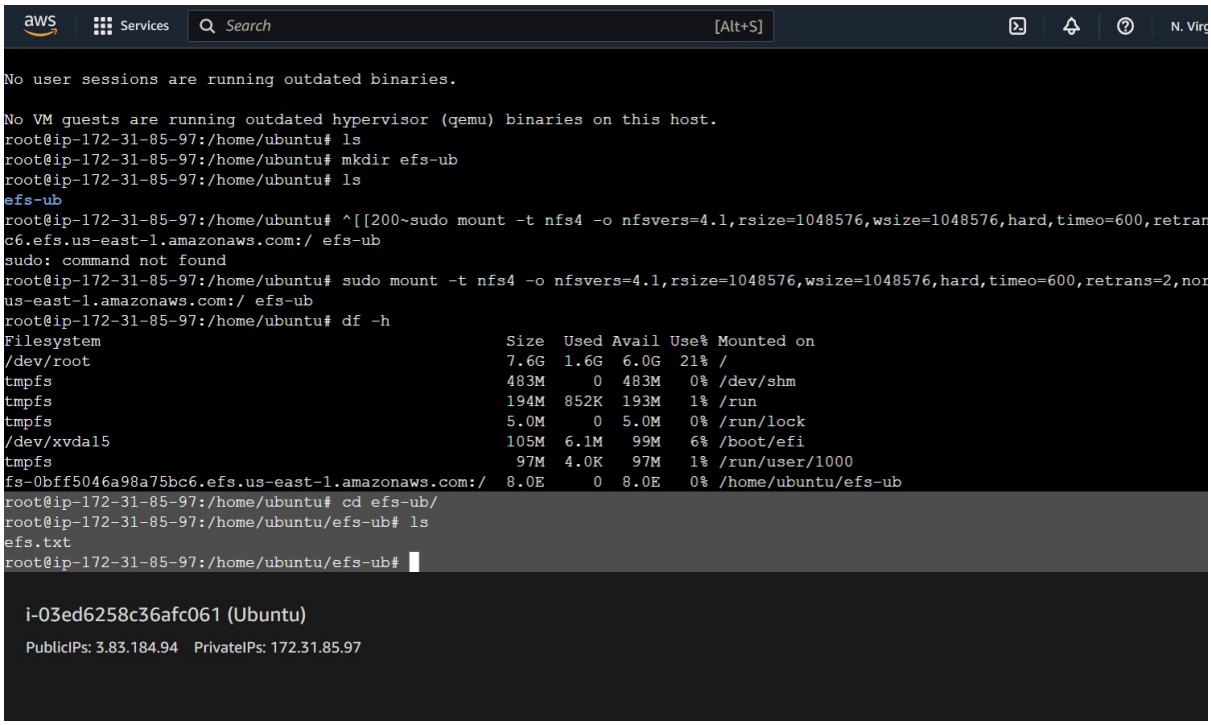
Step 4:- Create a directory in each instances so as to mount the EFS.

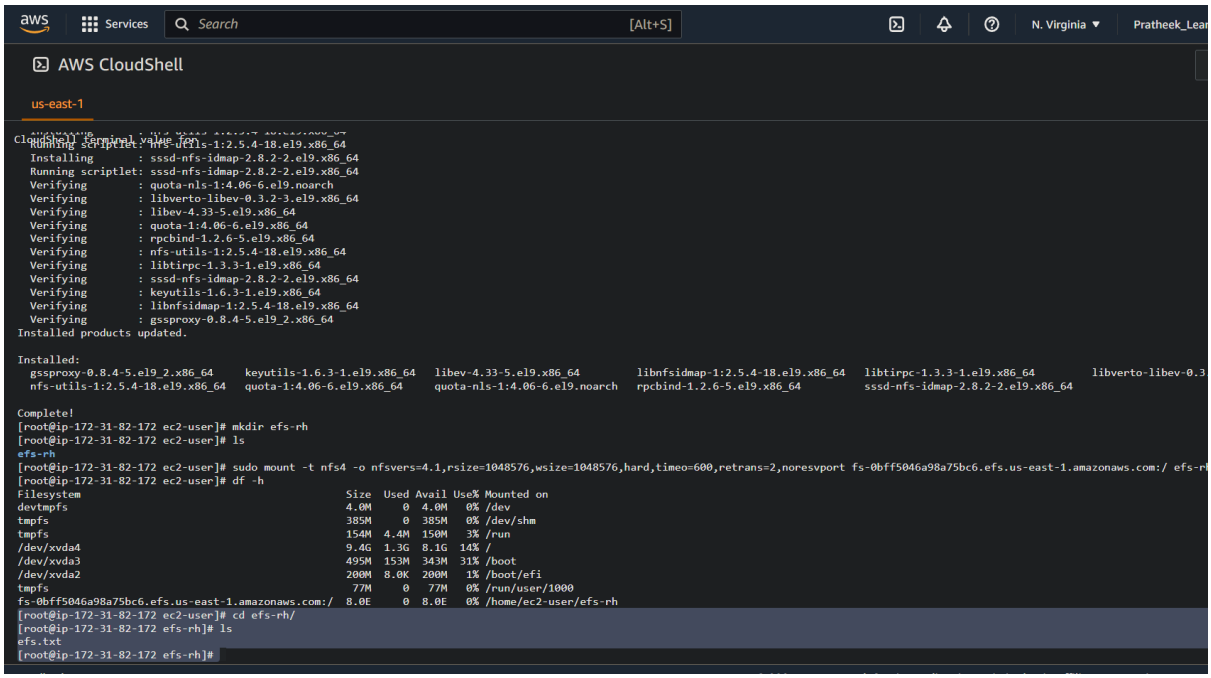
Step 5:- Then attach the EFS using the command provided in the attach section of EFS.



Step 6:- Create a file in one of the EC2 instance inside the EFS mount point folder & the file should appear on all the other EC2 EFS mount file points.


aws
Services
Search
[Alt+S]
[root@ip-172-31-87-21 ec2-user]# ls
[root@ip-172-31-87-21 ec2-user]# mkdir efs-al
[root@ip-172-31-87-21 ec2-user]# ls
efs-al
[root@ip-172-31-87-21 ec2-user]# sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,n
-east-1.amazonaws.com:/ efs-al
[root@ip-172-31-87-21 ec2-user]# 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
[root@ip-172-31-87-21 ec2-user]# df -h
Filesystem Size Used Avail Use% Mounted on
devtmpfs 4.0M 0 4.0M 0% /dev
tmpfs 475M 0 475M 0% /dev/shm
tmpfs 190M 2.8M 188M 2% /run
/dev/xvda1 8.0G 1.5G 6.5G 19% /
tmpfs 475M 0 475M 0% /tmp
tmpfs 95M 0 95M 0% /run/user/1000
fs-0bff5046a98a75bc6.efs.us-east-1.amazonaws.com:/ 8.0E 0 8.0E 0% /home/ec2-user/efs-al
[root@ip-172-31-87-21 ec2-user]# cd efs-al/
[root@ip-172-31-87-21 efs-al]# touch efs.txt
[root@ip-172-31-87-21 efs-al]# ls
efs.txt
[root@ip-172-31-87-21 efs-al]#
i-0e1b562a4f78a271f (Amazon Linux)
PublicIPs: 52.91.18.207 PrivateIPs: 172.31.87.21


aws
Services
Search
[Alt+S]
N. Virg
No user sessions are running outdated binaries.
No VM guests are running outdated hypervisor (qemu) binaries on this host.
root@ip-172-31-85-97:/home/ubuntu# ls
root@ip-172-31-85-97:/home/ubuntu# mkdir efs-ub
root@ip-172-31-85-97:/home/ubuntu# ls
efs-ub
root@ip-172-31-85-97:/home/ubuntu# ^[[200~sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retran
c6.efs.us-east-1.amazonaws.com:/ efs-ub
sudo: command not found
root@ip-172-31-85-97:/home/ubuntu# sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,nor
us-east-1.amazonaws.com:/ efs-ub
root@ip-172-31-85-97:/home/ubuntu# df -h
Filesystem Size Used Avail Use% Mounted on
/dev/root 7.6G 1.6G 6.0G 21% /
tmpfs 483M 0 483M 0% /dev/shm
tmpfs 194M 852K 193M 1% /run
tmpfs 5.0M 0 5.0M 0% /run/lock
/dev/xvda15 105M 6.1M 99M 6% /boot/efi
tmpfs 97M 4.0K 97M 1% /run/user/1000
fs-0bff5046a98a75bc6.efs.us-east-1.amazonaws.com:/ 8.0E 0 8.0E 0% /home/ubuntu/efs-ub
root@ip-172-31-85-97:/home/ubuntu# cd efs-ub/
root@ip-172-31-85-97:/home/ubuntu/efs-ub# ls
efs.txt
root@ip-172-31-85-97:/home/ubuntu/efs-ub#
i-03ed6258c36afc061 (Ubuntu)
PublicIPs: 3.83.184.94 PrivateIPs: 172.31.85.97


aws
Services
Search
[Alt+S]
N. Virginia
Pratheek_Lear
AWS CloudShell
us-east-1
CloudShell Terminal value ten
Running scriptlet: nfs-utils-1:2.5.4-18.el9.x86_64
Installing : sssd-nfs-idmap-2.8.2-2.el9.x86_64
Running scriptlet: sssd-nfs-idmap-2.8.2-2.el9.x86_64
Verifying : quota-nls-1:4.06-6.el9.noarch
Verifying : libverto-libev-0.3.2-3.el9.x86_64
Verifying : libev-4.33-5.el9.x86_64
Verifying : quota-1:4.06-6.el9.x86_64
Verifying : rpcbind-1.2.6-5.el9.x86_64
Verifying : nfs-utils-1:2.5.4-18.el9.x86_64
Verifying : libtirpc-1.3.3-1.el9.x86_64
Verifying : sssd-nfs-idmap-2.8.2-2.el9.x86_64
Verifying : keyutils-1.6.3-1.el9.x86_64
Verifying : libnfsidmap-1:2.5.4-18.el9.x86_64
Verifying : gssproxy-0.8.4-5.el9_2.x86_64
Installed products updated.
Installed:
gssproxy-0.8.4-5.el9_2.x86_64 keyutils-1.6.3-1.el9.x86_64 libev-4.33-5.el9.x86_64 libnfsidmap-1:2.5.4-18.el9.x86_64 libtirpc-1.3.3-1.el9.x86_64 libverto-libev-0.3
nfs-utils-1:2.5.4-18.el9.x86_64 quota-1:4.06-6.el9.x86_64 quota-nls-1:4.06-6.el9.noarch rpcbind-1.2.6-5.el9.x86_64 sssd-nfs-idmap-2.8.2-2.el9.x86_64
Complete!
[root@ip-172-31-82-172 ec2-user]# mkdir efs-rh
[root@ip-172-31-82-172 ec2-user]# ls
efs-rh
[root@ip-172-31-82-172 ec2-user]# sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-0bff5046a98a75bc6.efs.us-east-1.amazonaws.com:/ efs-r
[root@ip-172-31-82-172 ec2-user]# df -h
Filesystem Size Used Avail Use% Mounted on
devtmpfs 4.0M 0 4.0M 0% /dev
tmpfs 385M 0 385M 0% /dev/shm
tmpfs 154M 4.4M 150M 3% /run
/dev/xvda4 9.4G 1.3G 8.1G 14% /
/dev/xvda3 495M 153M 343M 31% /boot
/dev/xvda2 200M 8.0K 200M 1% /boot/efi
tmpfs 77M 0 77M 0% /run/user/1000
fs-0bff5046a98a75bc6.efs.us-east-1.amazonaws.com:/ 8.0E 0 8.0E 0% /home/ec2-user/efs-rh
[root@ip-172-31-82-172 ec2-user]# cd efs-rh/
[root@ip-172-31-82-172 efs-rh]# ls
efs.txt
[root@ip-172-31-82-172 efs-rh]#