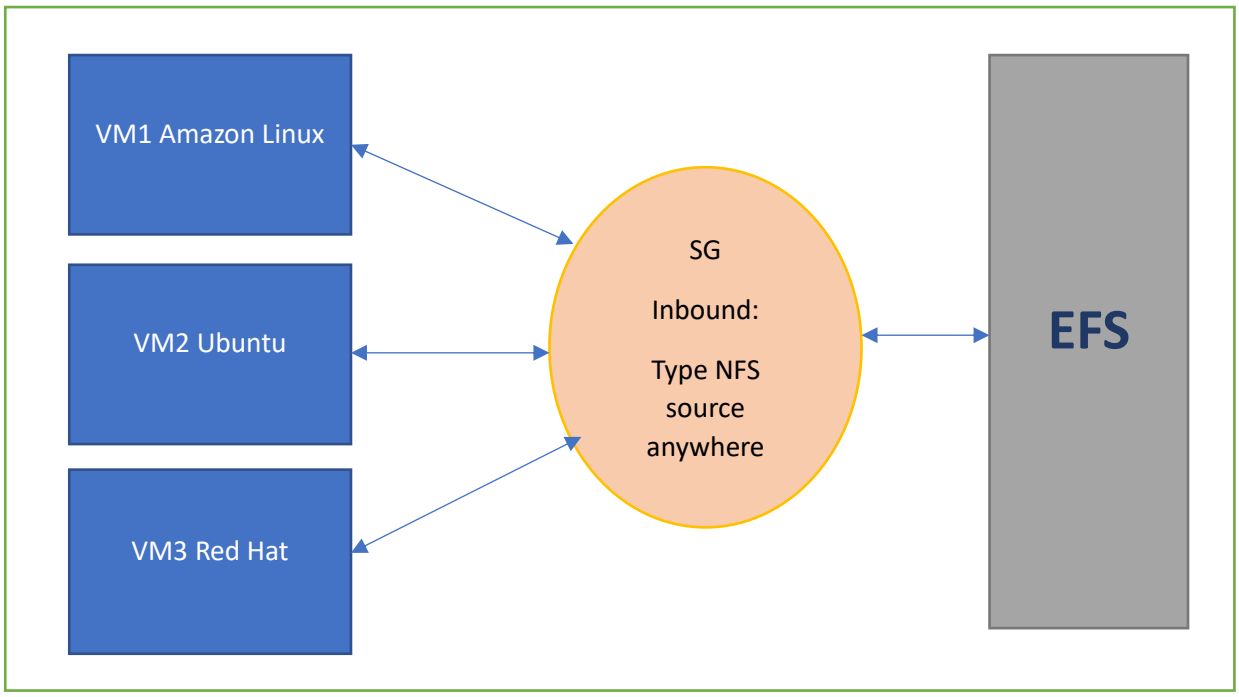
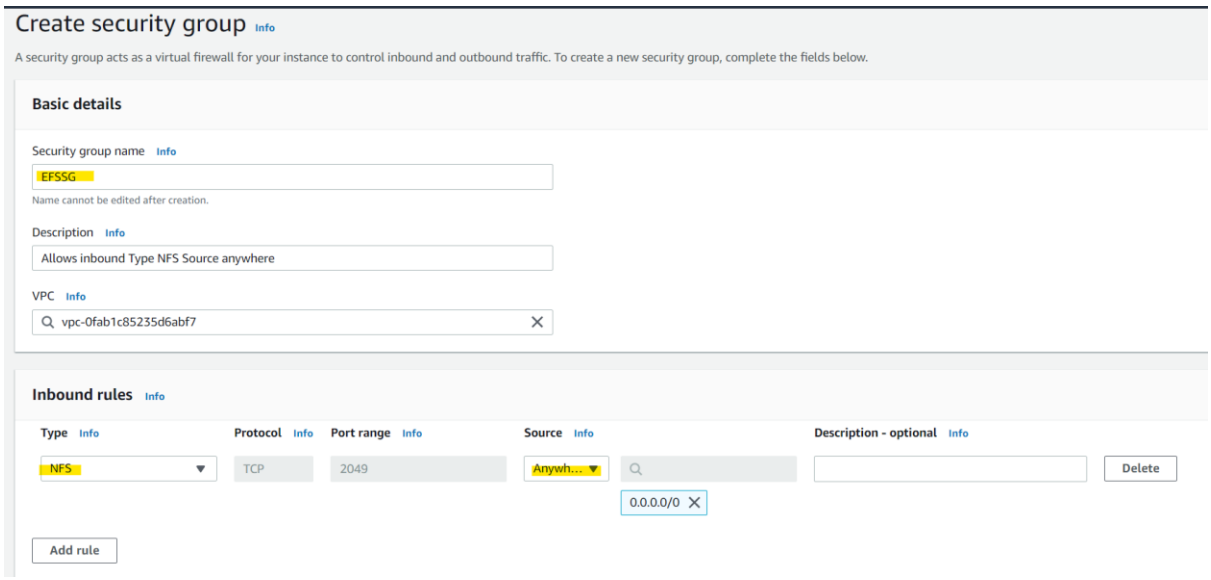
Module2: EC2 and EFS Assignment - 3

1. Create an EFS and connect it to 3 different EC2 instances. Make sure the all instances have different Operating System. For instance, Ubuntu, Red Hat Linux and Amazon Linux 2.

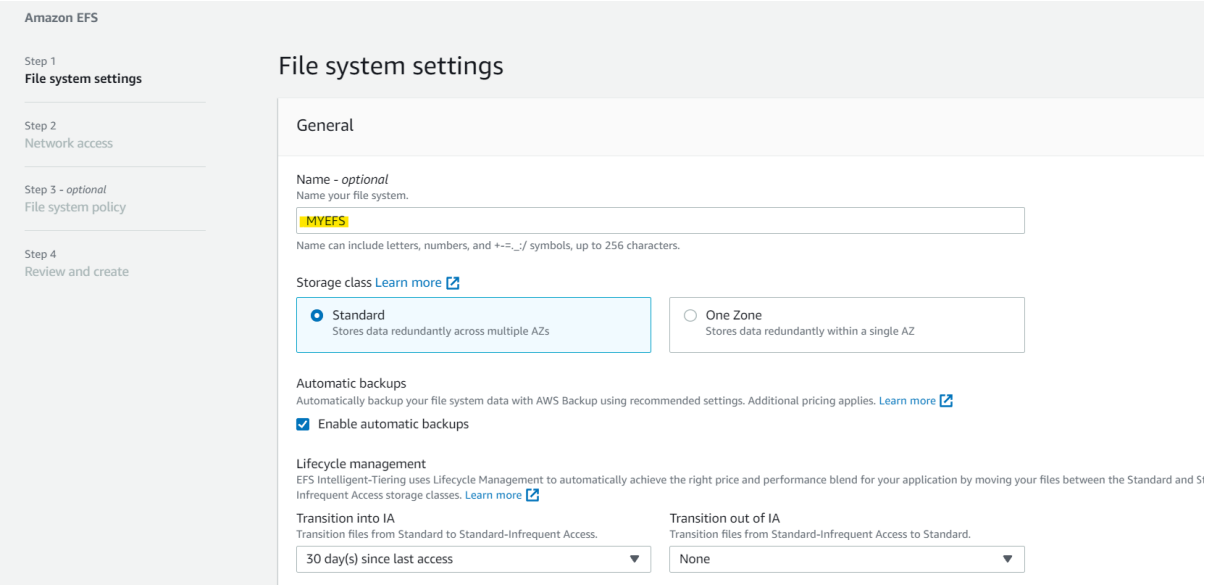


SG Creation:

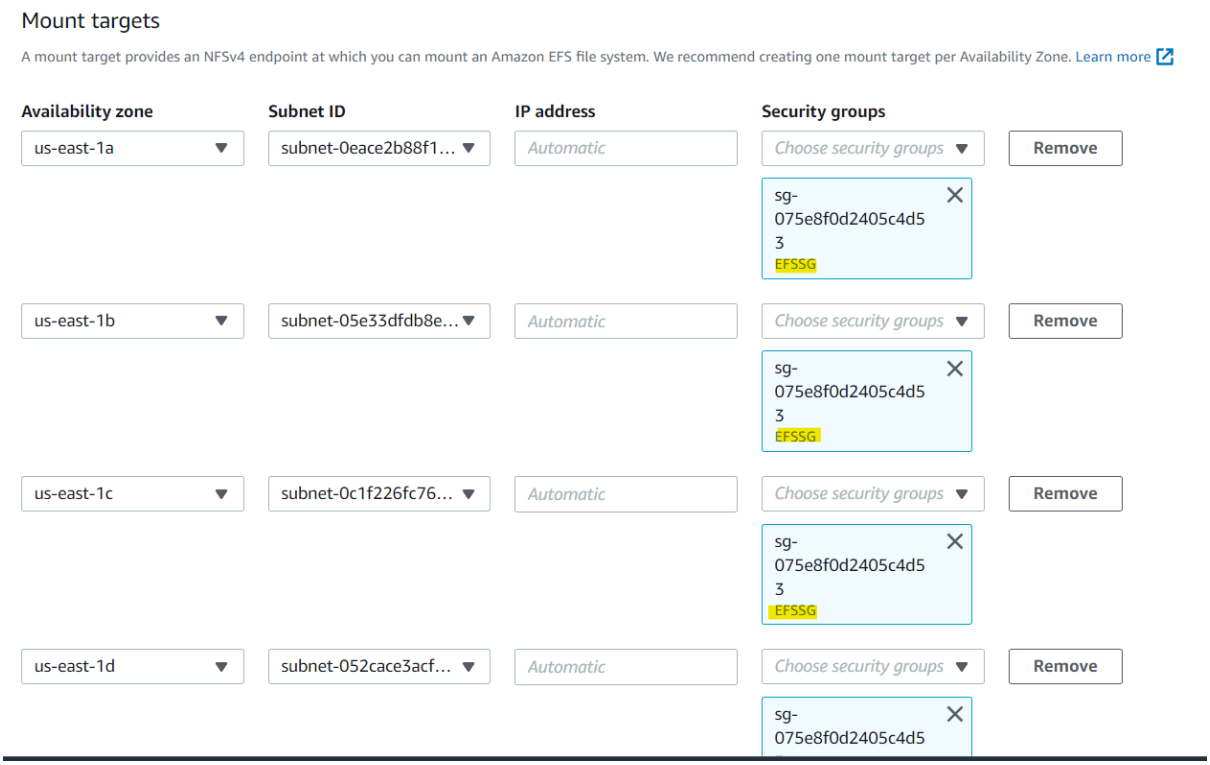


Module2: EC2 and EFS Assignment - 3

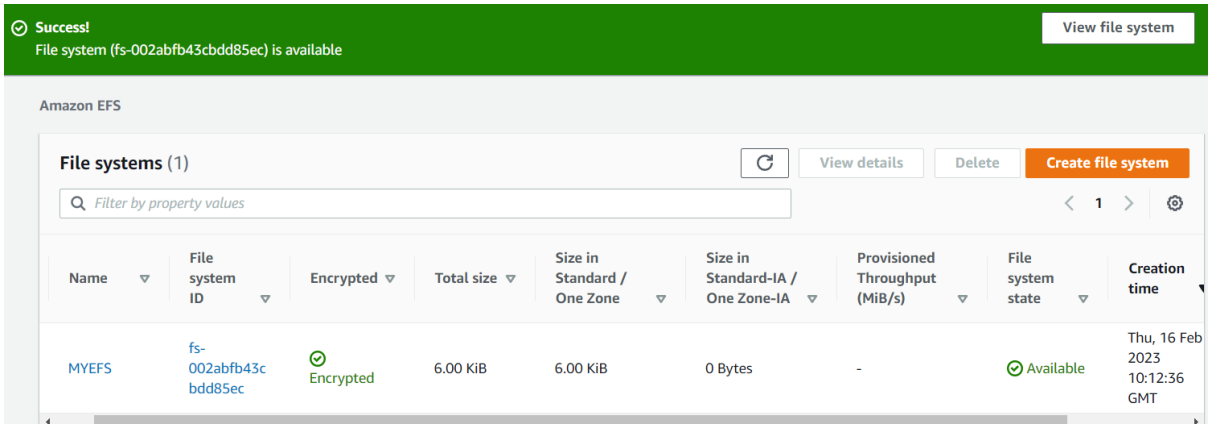
EFS Creation:



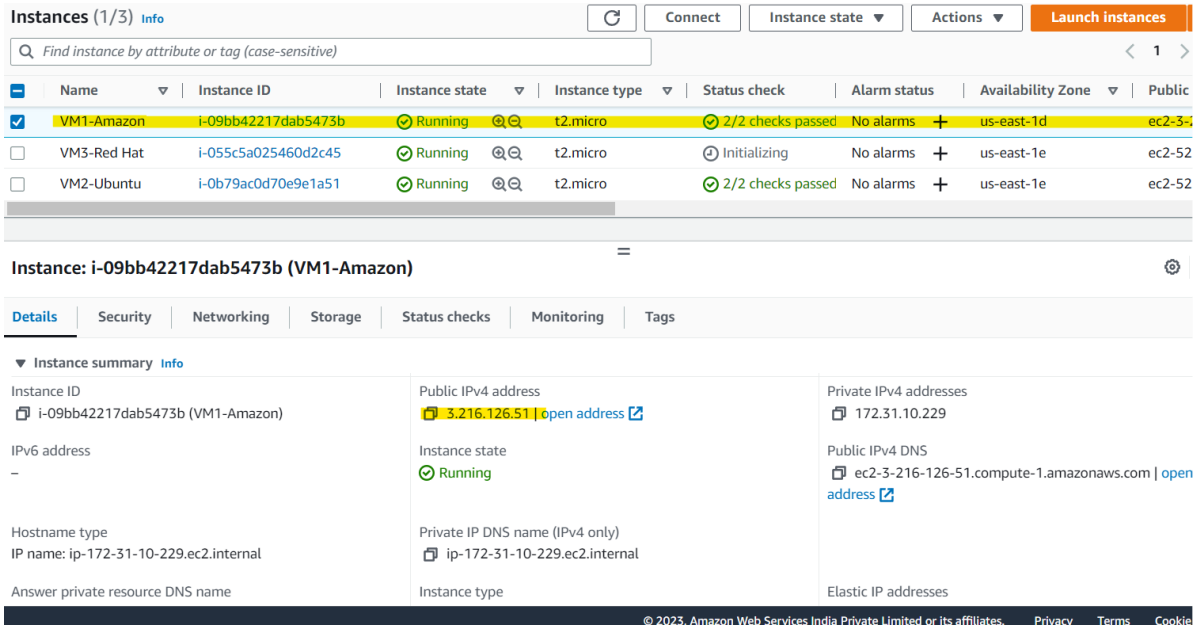
Mount target: adding EFSSG custom SG

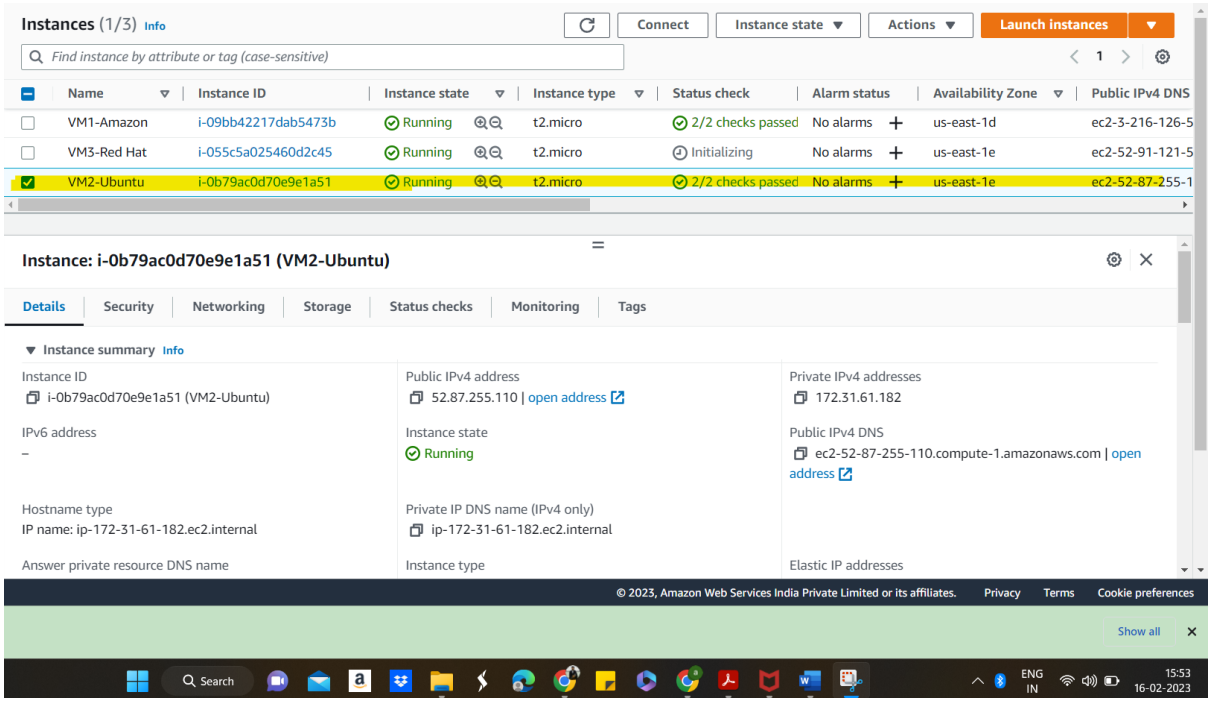


Module2: EC2 and EFS Assignment - 3

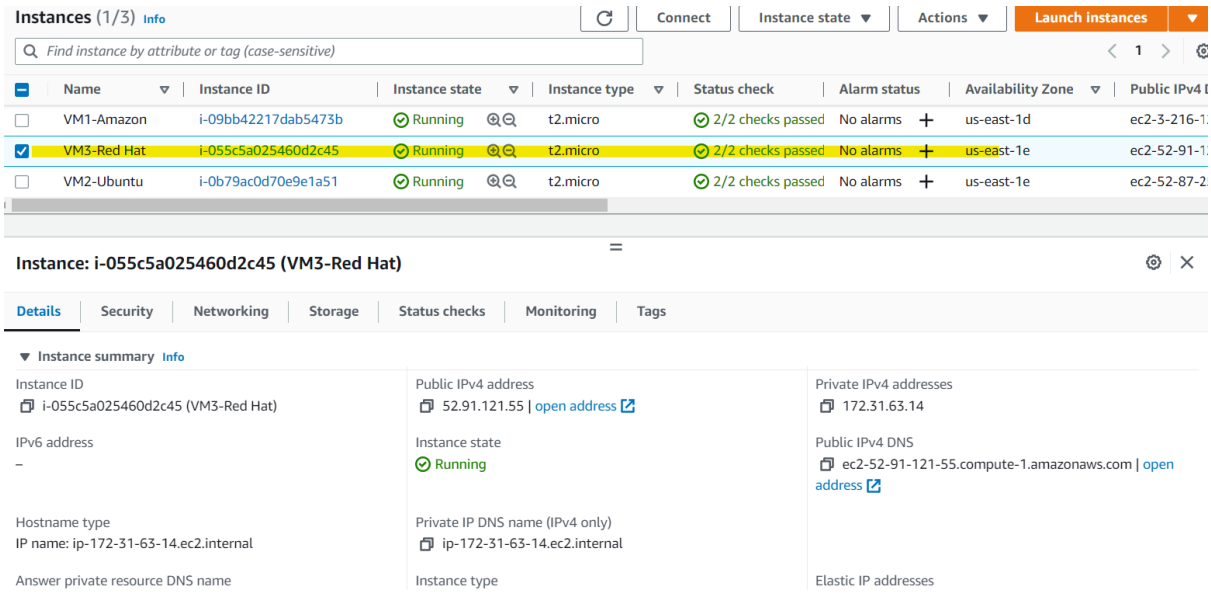


EC2 Instances Creation:

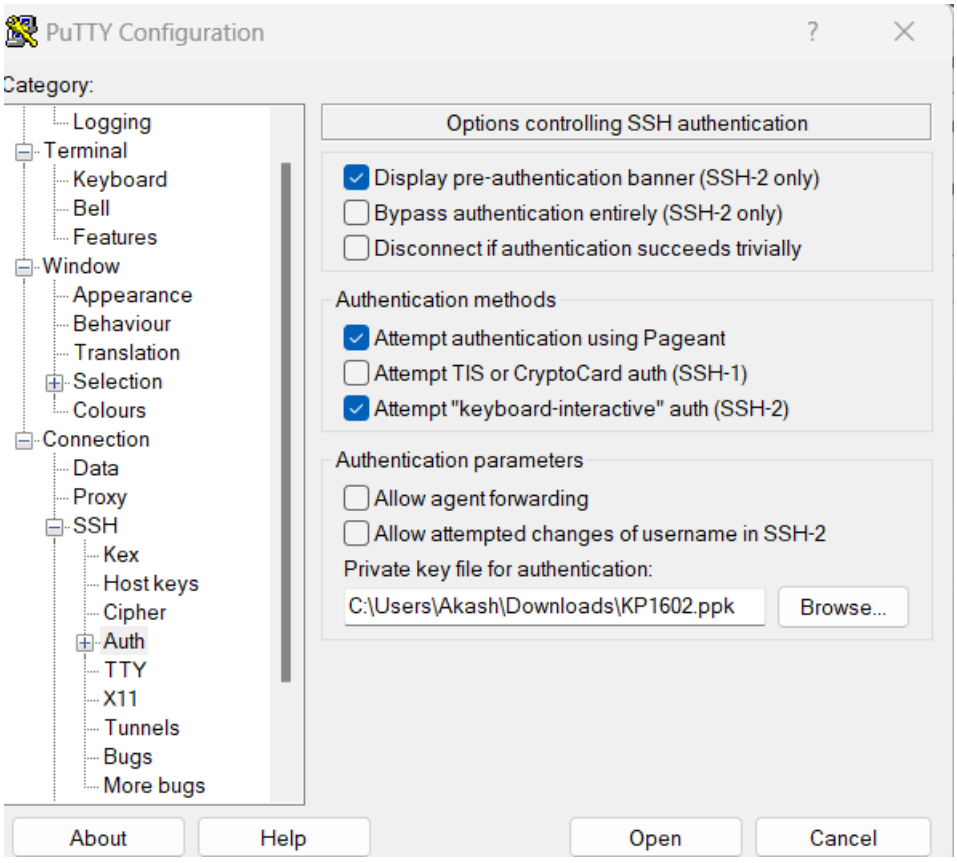




Module2: EC2 and EFS Assignment - 3

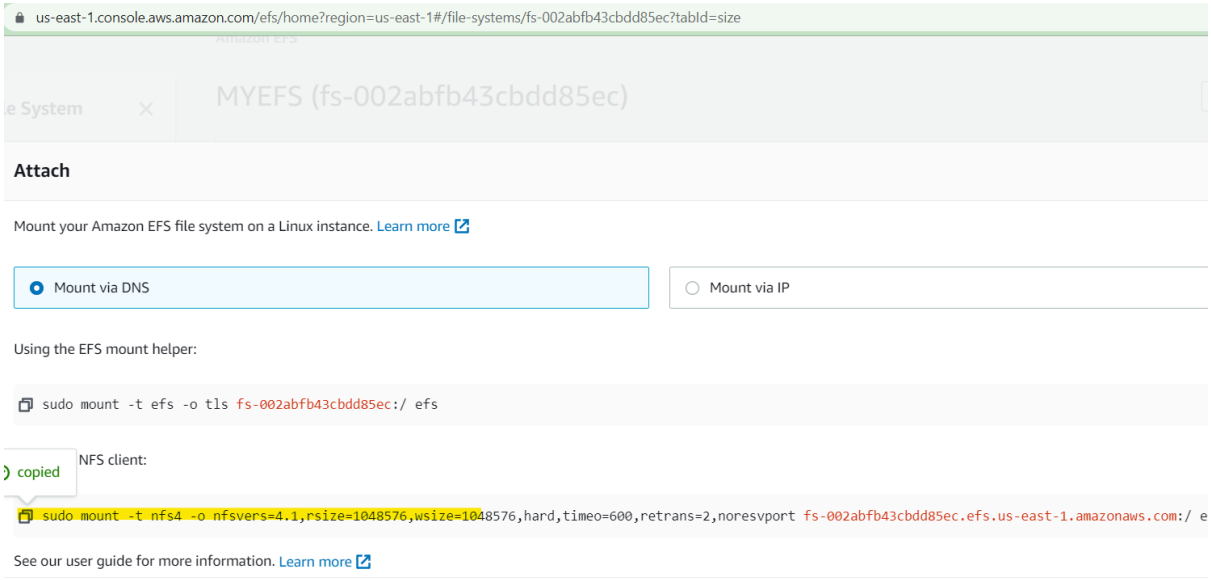


Connecting EC2 Instance:

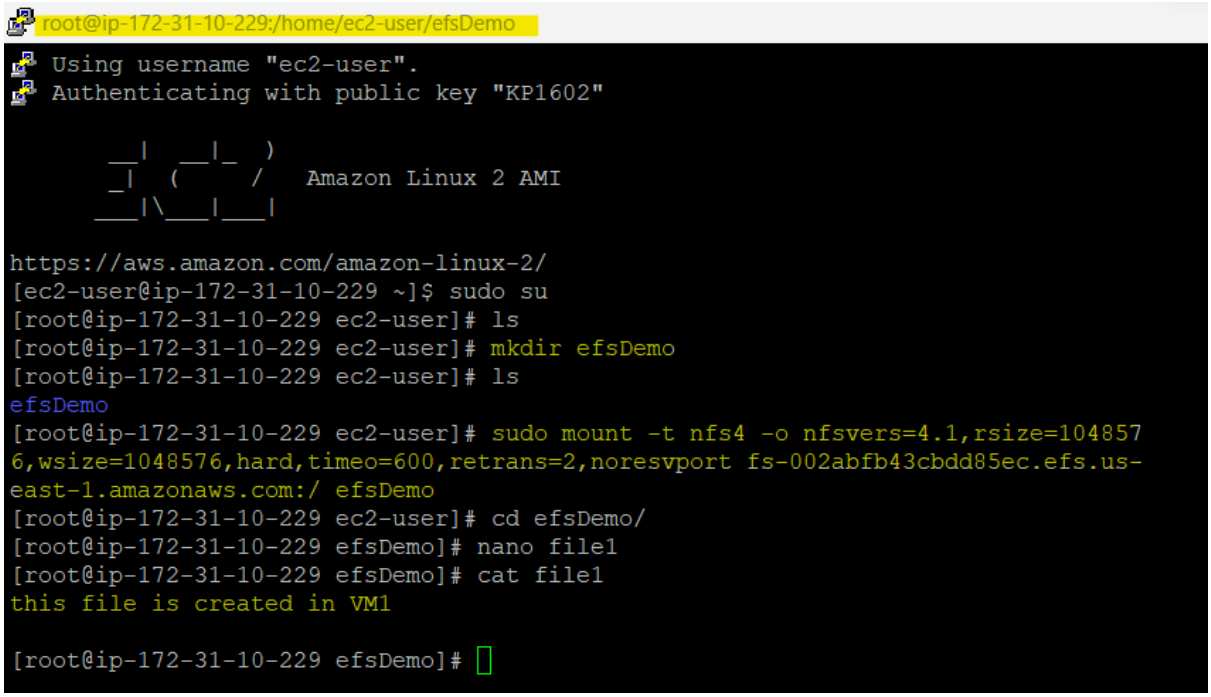


Module2: EC2 and EFS Assignment - 3

Mounting EFS on all EC2 Instances:



1. VM1-Amazon:



Module2: EC2 and EFS Assignment - 3

2. VM2-Ubuntu:
   Installing nfs-common first

```
Fetched 25.8 MB in 5s (5672 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-61-182:~$ sudo su
root@ip-172-31-61-182:/home/ubuntu# mkdir efsDemo
root@ip-172-31-61-182:/home/ubuntu# ls
efsDemo
root@ip-172-31-61-182:/home/ubuntu# sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-002abfb43cbdd85ec.efs.us-east-1.ama
zonaws.com:/ efsDemo
mount: /home/ubuntu/efsDemo: bad option; for several filesystems (e.g. nfs, cifs) you might need a /sbin/mount.<type> helper program.
root@ip-172-31-61-182:/home/ubuntu# sudo apt-get install nfs-common -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  keyutils libnfsidmap1 rpcbind
Suggested packages:
  watchdog
The following NEW packages will be installed:
  keyutils libnfsidmap1 nfs-common rpcbind
0 upgraded, 4 newly installed, 0 to remove and 7 not upgraded.
Need to get 381 kB of archives.
After this operation, 1447 kB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libnfsidmap1 amd64 1:2.6.1-1ubuntu1.2 [42.9 kB]
```

i-0b79ac0d70e9e1a51 (VM2-Ubuntu)
PublicIPs: 52.87.255.110 PrivateIPs: 172.31.61.182

Mounting efs and file1 created in VM1 is visible in VM2-ubuntu

```
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
root@ip-172-31-61-182:/home/ubuntu# sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-002abfb43cbdd85ec.efs.us-east-1.ama
zonaws.com:/ efsDemo
root@ip-172-31-61-182:/home/ubuntu# ls
efsDemo
root@ip-172-31-61-182:/home/ubuntu# cd efsDemo/
root@ip-172-31-61-182:/home/ubuntu/efsDemo# ls
file1
root@ip-172-31-61-182:/home/ubuntu/efsDemo# cat file1
this file is created in VM1

root@ip-172-31-61-182:/home/ubuntu/efsDemo#
```

i-0b79ac0d70e9e1a51 (VM2-Ubuntu)
PublicIPs: 52.87.255.110 PrivateIPs: 172.31.61.182

3. VM3-Red Hat

Update Red Hat machine: sudo yum update -y

ec2-user@ip-172-31-63-14:~/efsDemo

```
Using username "ec2-user".
Authenticating with public key "KP1602"
Register this system with Red Hat Insights: insights-client --register
Create an account or view all your systems at https://red.ht/insights-dashboard
Last login: Thu Feb 16 11:33:14 2023 from 106.193.186.218
[ec2-user@ip-172-31-63-14 ~]$ sudo yum update -y
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use subscription-manager to register.

Red Hat Enterprise Linux 9 for x86_64 - AppStream from RHUI (RPMs)
Red Hat Enterprise Linux 9 for x86_64 - BaseOS from RHUI (RPMs)
Red Hat Enterprise Linux 9 Client Configuration
Dependencies resolved.
================================================================================
 Package                 Architecture        Version                 Repository
================================================================================
Installing:
 kernel                  x86_64              5.14.0-162.12.1.el9_1   rhel-9-baseos-
 kernel-core             x86_64              5.14.0-162.12.1.el9_1   rhel-9-baseos-
 kernel-modules          x86_64              5.14.0-162.12.1.el9_1   rhel-9-baseos-
Upgrading:
 NetworkManager          x86_64              1:1.40.0-1.el9          rhel-9-baseos-
```

Module2: EC2 and EFS Assignment - 3

Install mount helper:

sudo yum install nfs-utils -y

```
Complete!
[ec2-user@ip-172-31-63-14 ~]$ sudo yum install nfs-utils -y
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use subscription-manager to register.

Last metadata expiration check: 0:06:07 ago on Thu 16 Feb 2023 12:13:55 PM UTC.
Dependencies resolved.
================================================================================
 Package                 Architecture            Version
================================================================================
Installing:
 nfs-utils               x86_64                  1:2.5.4-15.el9
Installing dependencies:
 gssproxy                x86_64                  0.8.4-4.el9
 keyutils                x86_64                  1.6.1-4.el9
 libev                   x86_64                  4.33-5.el9
 libnfsidmap             x86_64                  1:2.5.4-15.el9
 libtirpc                x86_64                  1.3.3-0.el9
 libverto-libev          x86_64                  0.3.2-3.el9
 quota                   x86_64                  1:4.06-6.el9
```

EFS mounted on Red Hat instance and able to access file1 created in VM1: