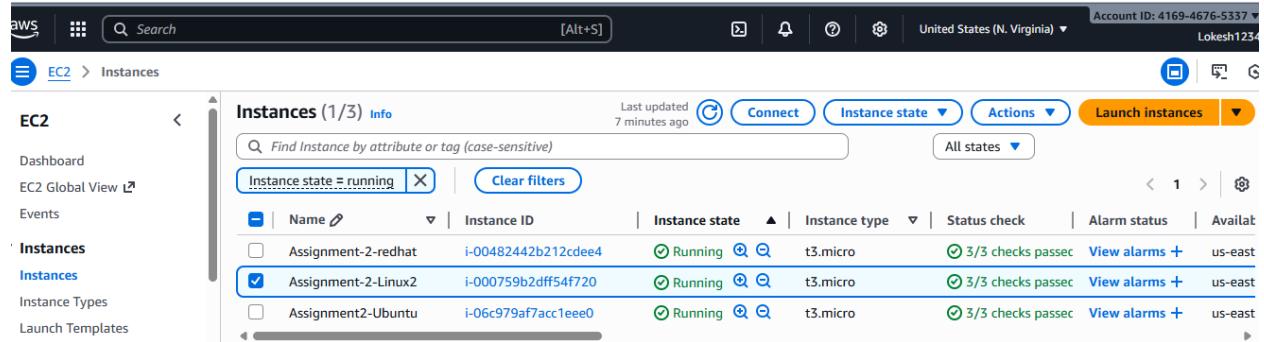


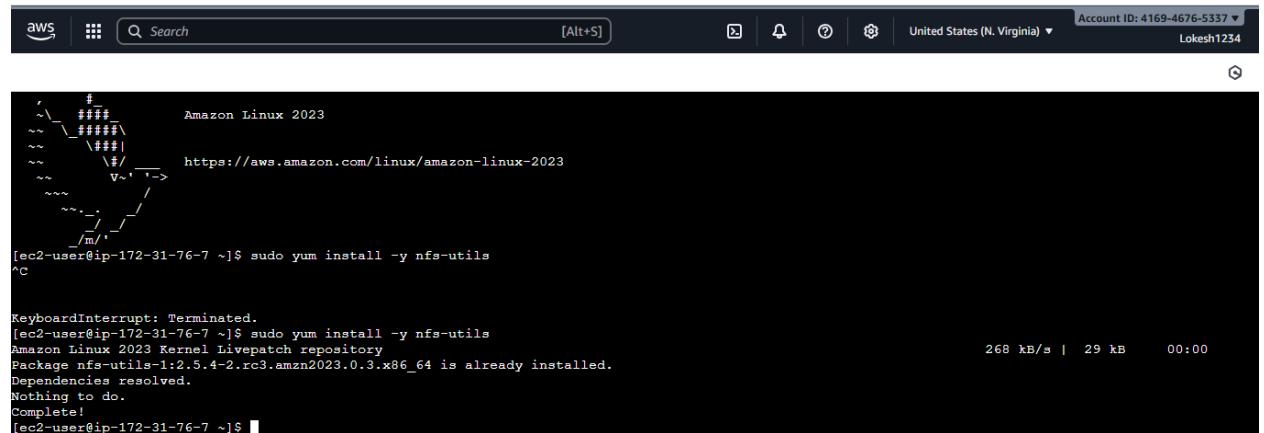
Create an EFS and connect it to 3 different EC2 instances. Make sure that all instances have different operating systems. For instance, Ubuntu, Red Hat Linux and Amazon Linux 2.

## 1. Create 3 EC2 instances from different AMI's and get new updates



The screenshot shows the AWS EC2 Instances page. The left sidebar has 'Instances' selected. The main area displays 'Instances (1/3) Info' with a search bar and filter options. Three instances are listed:

Name	Instance ID	Instance state	Type	Status check	Alarm status	Availability
Assignment-2-redhat	i-00482442b212cddee4	Running	t3.micro	3/3 checks passed	View alarms +	us-east
Assignment-2-Linux2	i-000759b2dff54f720	Running	t3.micro	3/3 checks passed	View alarms +	us-east
Assignment2-Ubuntu	i-06c979af7acc1eee0	Running	t3.micro	3/3 checks passed	View alarms +	us-east



```
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023

[ec2-user@ip-172-31-76-7 ~]$ sudo yum install -y nfs-utils
KeyboardInterrupt: Terminated.

[ec2-user@ip-172-31-76-7 ~]$ sudo yum install -y nfs-utils
Amazon Linux 2023 Kernel Livepatch repository
Package nfs-utils-1:2.5.4-2.rc3.amzn2023.0.3.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-76-7 ~]$
```

```

nfs-idmapd.service is a disabled or a static unit, not starting it.
nfs-utils.service is a disabled or a static unit, not starting it.
proc-fs-nfsd.mount is a disabled or a static unit, not starting it.
rpc-gssd.service is a disabled or a static unit, not starting it.
rpc-statd.notify.service is a disabled or a static unit, not starting it.
rpc-statd.service is a disabled or a static unit, not starting it.
rpc-svcgssd.service is a disabled or a static unit, not starting it.
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.6) ...
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.

ubuntu@ip-172-31-64-254:~$ 

```

i-06c979af7acc1eee0 (Assignment2-Ubuntu)

```

Running transaction
Preparing : libtirpc-1.3.5-1.el10.x86_64
1/10
Installing : libnfsidmap-1:2.8.3-0.el10.x86_64
1/10
Running scriptlet: rpcbind-1.2.7-3.el10.x86_64
2/10
Installing : rpcbind-1.2.7-3.el10.x86_64
3/10
Running scriptlet: rpcbind-1.2.7-3.el10.x86_64
3/10
Installing : quota-nls-1:4.09-9.el10.noarch
4/10
Installing : quota-4.33-14.el10.x86_64
5/10
Installing : libelevator-libev-0.3.2-10.el10.x86_64
6/10
Running scriptlet: gssproxy-0.9.2-10.el10.x86_64
7/10
Installing : gssproxy-0.9.2-10.el10.x86_64
8/10
Running scriptlet: gssproxy-0.9.2-10.el10.x86_64
8/10
Running scriptlet: nfs-utils-1:2.8.3-0.el10.x86_64
9/10
Installing : nfs-utils-1:2.8.3-0.el10.x86_64
9/10
Running scriptlet: nfs-utils-1:2.8.3-0.el10.x86_64
9/10
Created symlink '/etc/systemd/system/multi-user.target.wants/nfs-client.target' → '/usr/lib/systemd/system/nfs-client.target'.
Created symlink '/etc/systemd/system/remote-fs.target.wants/nfs-client.target' → '/usr/lib/systemd/system/nfs-client.target'.

Warning: The unit file, source configuration file or drop-ins of gssproxy.service changed on disk. Run 'systemctl daemon-reload' to reload units.
Warning: The unit file, source configuration file or drop-ins of gssproxy.service changed on disk. Run 'systemctl daemon-reload' to reload units.

Installing : sssd-nfs-idmap-2.10.2-3.el10_0.2.x86_64
10/10
Running scriptlet: sssd-nfs-idmap-2.10.2-3.el10_0.2.x86_64
10/10
Installed products updated.

Installed:
gssproxy-0.9.2-10.el10.x86_64          libelevator-libev-0.3.2-10.el10.x86_64          libnfsidmap-1:2.8.3-0.el10.x86_64        libtirpc-1.3.5-1.el10.x86_64
libelevator-libev-0.3.2-10.el10.x86_64  nfs-utils-1:2.8.3-0.el10.x86_64            quota-1:4.09-9.el10.x86_64                quota-nls-1:4.09-9.el10.noarch

Complete!
[ec2-user@ip-172-31-68-102 ~]$ 

```

## 2. Mount the directory on all these 3 instances

`sudo mkdir -p /mnt/efs`

3. sudo mount -t nfs4 -o

```
nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport  
fs-0473dcbe59c53c944.efs.us-east-1.amazonaws.com:/ /mnt/efs
```

on all the 3 instances now all 3 are mounted / shared

4. Once all the instances are mounted create a file under one instance to check if this file is available on all the instances as this is shared now .

```
devtmpfs          4.0M   0  4.0M  0% /dev
tmpfs            453M   0  453M  0% /dev/shm
tmpfs           181M 432K 181M  1% /run
/dev/nvme0n1p1    8.0G 1.6G 6.4G 20% /
tmpfs            453M   0  453M  0% /tmp
/dev/nvme0n1p128  10M 1.3M 8.7M 13% /boot/efi
tmpfs            91M   0  91M  0% /run/user/1000
fs-0473dcbe59c53c944.efs.us-east-1.amazonaws.com:/ 8.0E   0  8.0E  0% /mnt/efs
[ec2-user@ip-172-31-76-7 ~]$ cd /mnt/efs
[ec2-user@ip-172-31-76-7 efs]$ sudo touch file1.txt
[ec2-user@ip-172-31-76-7 efs]$ ls
file1.txt
[ec2-user@ip-172-31-76-7 efs]$ []
```

i-000759b2dff54f720 (Assignment-2-Linux2)



```
tmpfs          183M 900K 182M  1% /run
tmpfs          5.0M   0  5.0M  0% /run/lock
efivarfs       128K  3.6K 120K  3% /sys/firmware/efi/efivars
/dev/nvme0n1p16 881M 89M 730M 11% /boot
/dev/nvme0n1p15 105M 6.2M 99M  6% /boot/efi
tmpfs          92M 12K 92M  1% /run/user/1000
fs-0473dcbe59c53c944.efs.us-east-1.amazonaws.com:/ 8.0E   0  8.0E  0% /mnt/efs
ubuntu@ip-172-31-64-254:~$ ls
ubuntu@ip-172-31-64-254:~$ cd /mnt/efs
ubuntu@ip-172-31-64-254:/mnt/efs$ ls
file1.txt
ubuntu@ip-172-31-64-254:/mnt/efs$ []
```

i-06c979af7acc1eee0 (Assignment2-Ubuntu)



PublicIPs: 3.226.97.185 PrivateIPs: 172.31.64.254

```
rpcbind-1.2.7-3.el10.x86_64      sssd-nts-idmap-2.10.2-3.el10_0.2.x86_64
Complete!
[ec2-user@ip-172-31-68-102 ~]$ sudo mkdir -p /mnt/efs
[ec2-user@ip-172-31-68-102 ~]$ sudo mkdir -p /mnt/efs
[ec2-user@ip-172-31-68-102 ~]$ sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-0473dcbe59c53c944.efs.us-east-1.amazonaws.com:/ /mnt/efs
mount.nfs: Connection timed out for fs-0473dcbe59c53c944.efs.us-east-1.amazonaws.com:/ on /mnt/efs
[ec2-user@ip-172-31-68-102 ~]$ sudo mount -t nfs4 -o nfsvers=4.1,rsize=1048576,wsize=1048576,hard,timeo=600,retrans=2,noresvport fs-0473dcbe59c53c944.efs.us-east-1.amazonaws.com:/ /mnt/efs
[ec2-user@ip-172-31-68-102 ~]$ cd /mnt/efs
[ec2-user@ip-172-31-68-102 efs]$ ls
file1.txt
[ec2-user@ip-172-31-68-102 efs]$ []
```