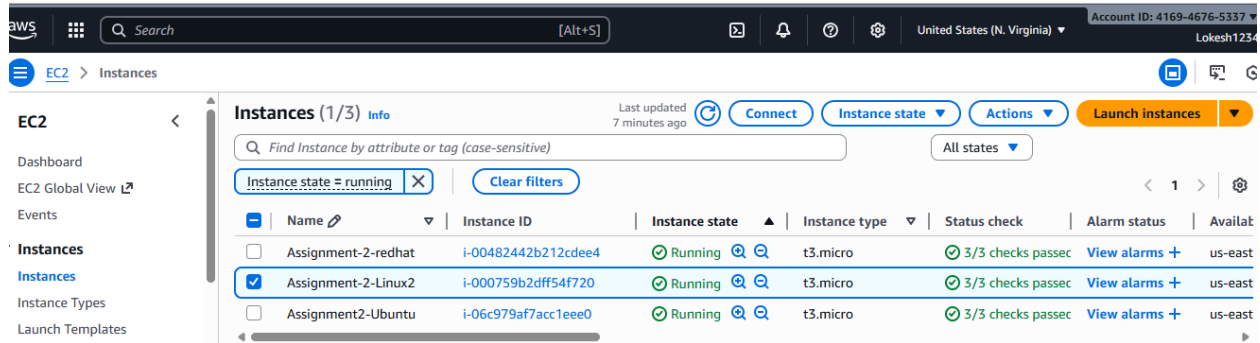


Create an EFS and connect it to 3 different EC2 instances. Make sure that all instances have different operating systems. For instance, Ubuntu, Red Hat Linux and Amazon Linux 2.

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



The screenshot shows the AWS Management Console 'Instances' page. Three EC2 instances are listed, all in the 'Running' state. The instance 'Assignment-2-Linux2' is selected.

| Name | Instance ID | Instance state | Instance type | Status check | Alarm status | Availability Zone |
|---------------------|---------------------|----------------|---------------|-------------------|---------------|-------------------|
| Assignment-2-redhat | i-00482442b212cdee4 | 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
^C
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 ~]$
```

```
← → ↻ 🔍 us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=us-east-1&connType=standard&instanceId=i-06c979af7acc1eee0&osUser=ubuntu&ss... ☆ 📌 ⓘ
📌 Home | XORNET 🌐 Chat-Gpt 🔄 First Workflow - Loki... 📊 Full Stack Monitorin... 🌱 Xoriant SPRP 🌐 Kubernetes for the... 🎓 Student Dashboard... 🌐 Coin by Zerodha - B... 📖 All Bookmarks
aws 🔍 Search [Alt+S] 📧 🔔 ⓘ ⚙️ United States (N. Virginia) Account ID: 4169-4676-5337 Lokesh1234
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 :
Installing : libtirpc-1.3.5-1.el10.x86_64 1/10
Installing : libnfsidmap-1:2.8.3-0.el10.x86_64 2/10
Running scriptlet: rpcbind-1.2.7-3.el10.x86_64 3/10
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-1:4.09-9.el10.x86_64 5/10
Installing : libev-4.33-14.el10.x86_64 6/10
Installing : libverto-libev-0.3.2-10.el10.x86_64 7/10
Running scriptlet: gssproxy-0.9.2-10.el10.x86_64 8/10
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 libev-4.33-14.el10.x86_64 libnfsidmap-1:2.8.3-0.el10.x86_64 libtirpc-1.3.5-1.el10.x86_64
libverto-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
rpcbind-1.2.7-3.el10.x86_64 sssd-nfs-idmap-2.10.2-3.el10_0.2.x86_64

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,wsiz=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:/
[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:/
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-06c979af7acc1ee0 (Assignment2-Ubuntu)



PublicIPs: 3.226.97.185 PrivateIPs: 172.31.64.254

```
ipcbind-1.2.1/-3.e110.x86_64          sssd-nfs-idmap-2.10.2-3.e110.0.2.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,wsiz=1048576,hard,timeo=600,retrans=2,noresvport fs-0473dcbe59c53c944.efs.us-east-1.amazonaws.com:/ /mnt/efs
mount.nfs4: 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,wsiz=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]$
```