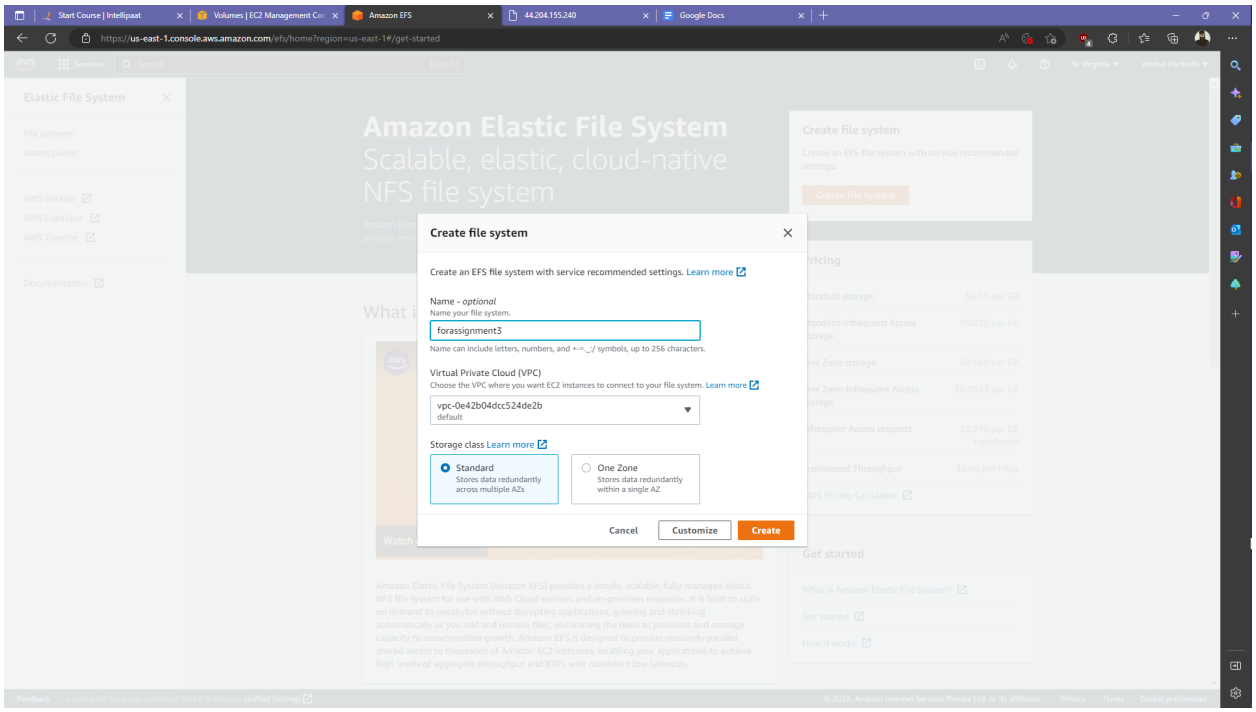
Module-2: EC2 and EFS Assignment - 3

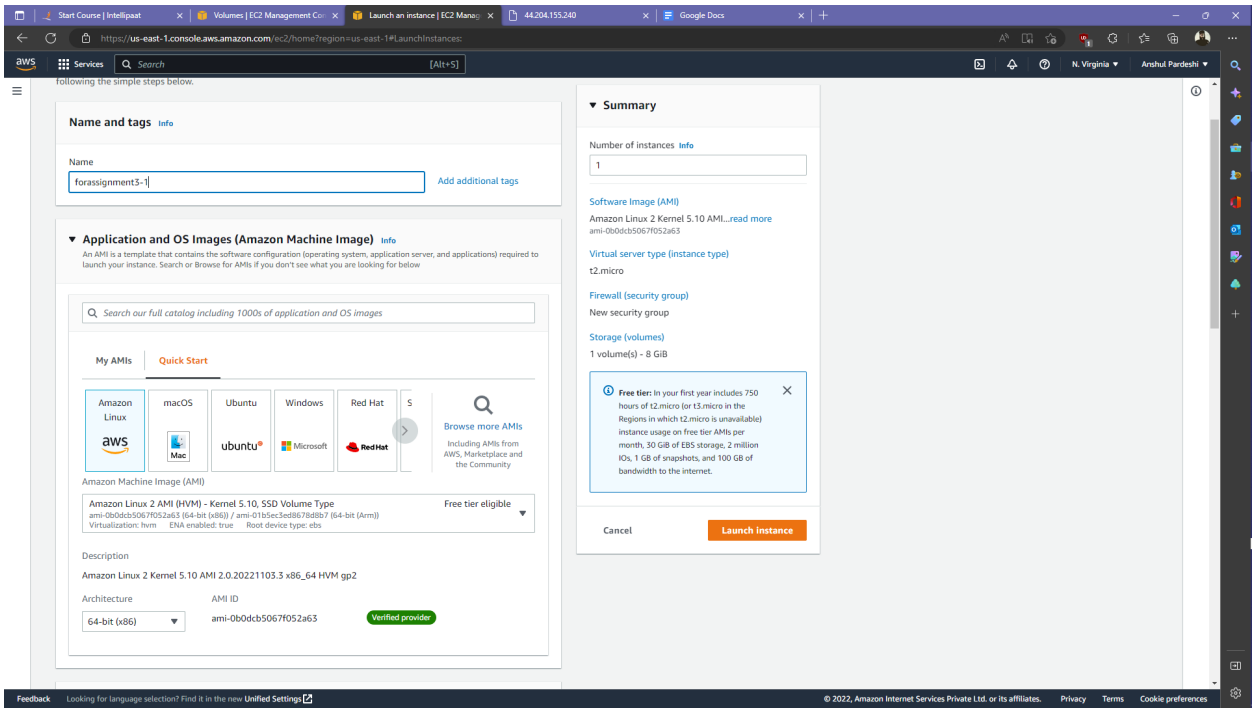
You have been asked to:
1. Create an EFS and connect it to 3 different EC2 instances. Make sure all instances have different Operating Systems. For instance, Ubuntu, Red Hat Linux and Amazon Linux 2.

Create a File System

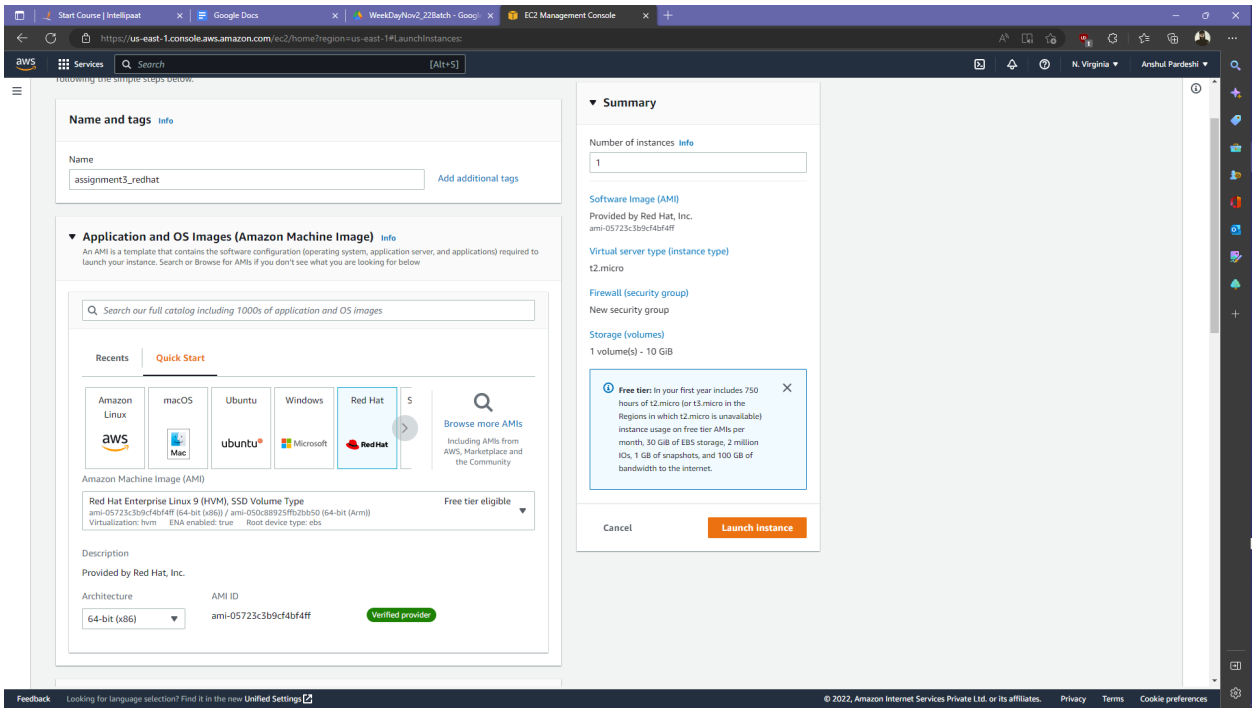


Launch ec2 instances with three different AMI:

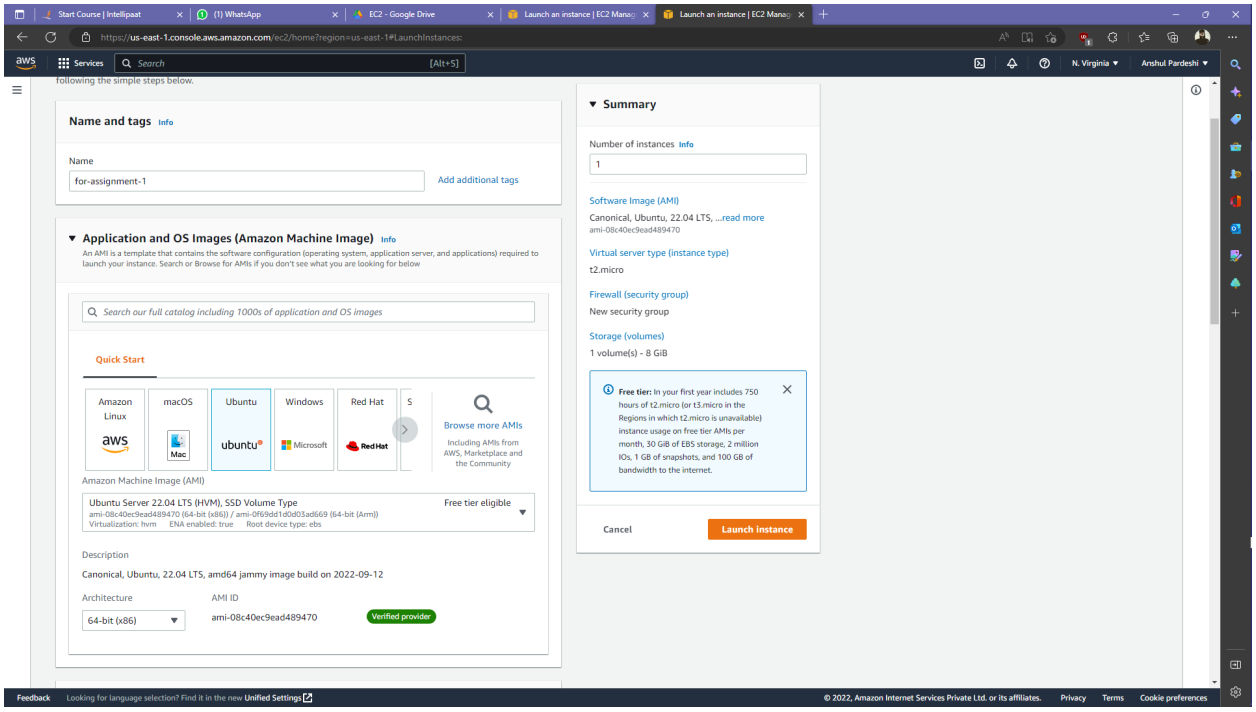
1.With Amazon Linux



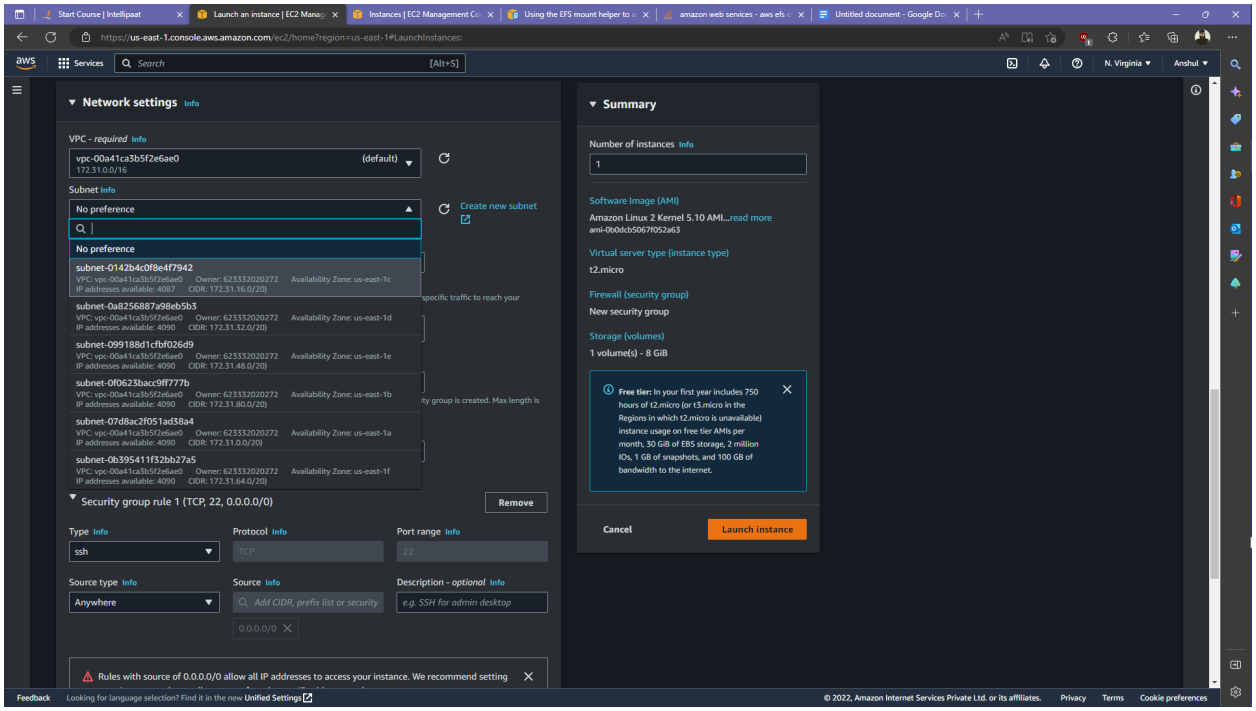
2.Red Hat



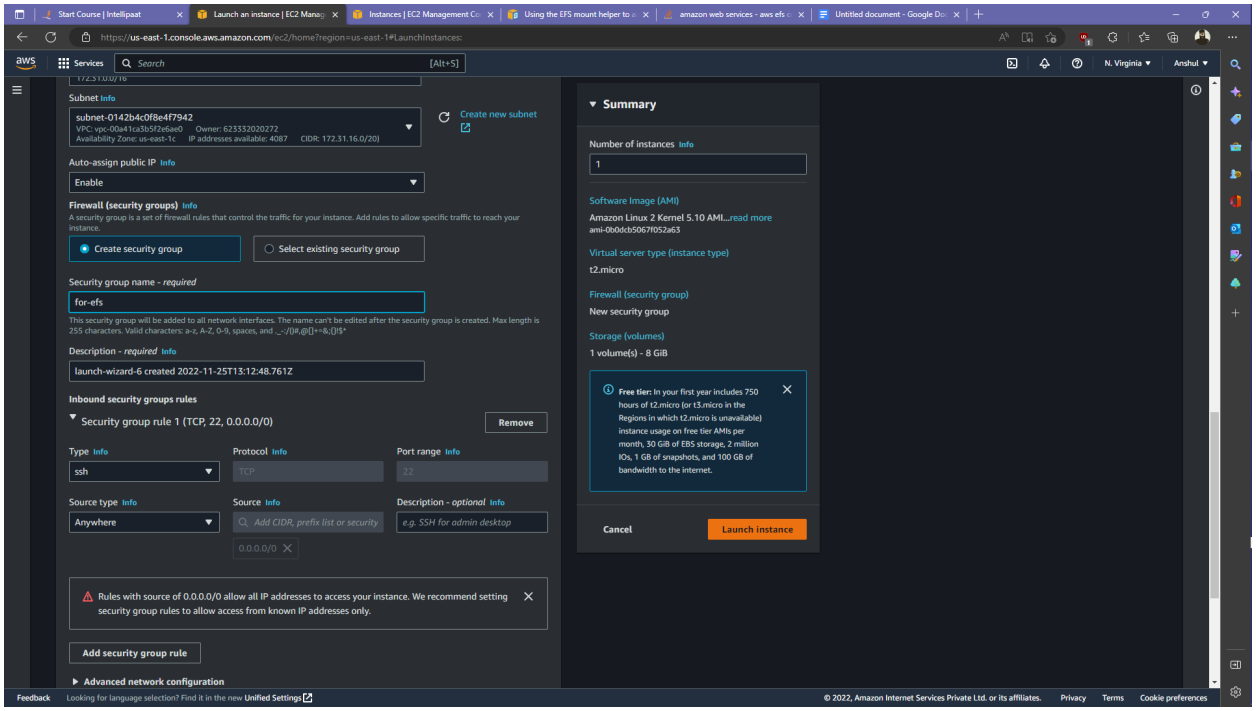
3. Ubuntu



Choose any one subnet by clicking on edit in network settings while making all the three instances

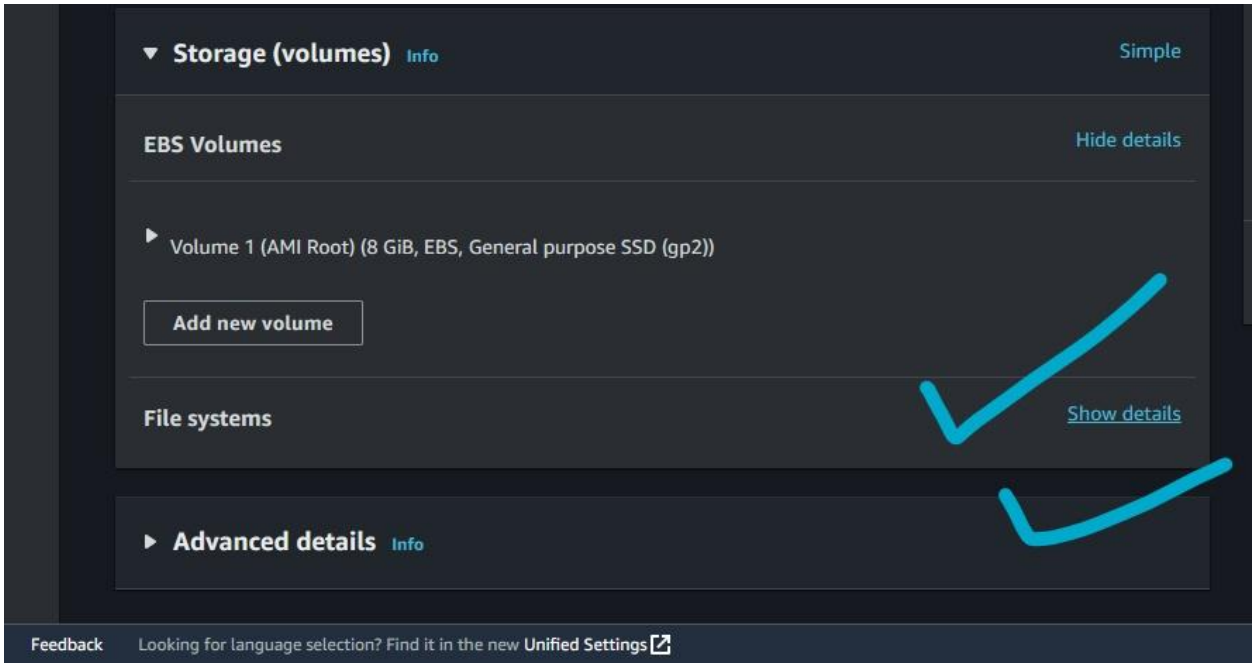


Create a security group to be chosen while creating all 3 instances

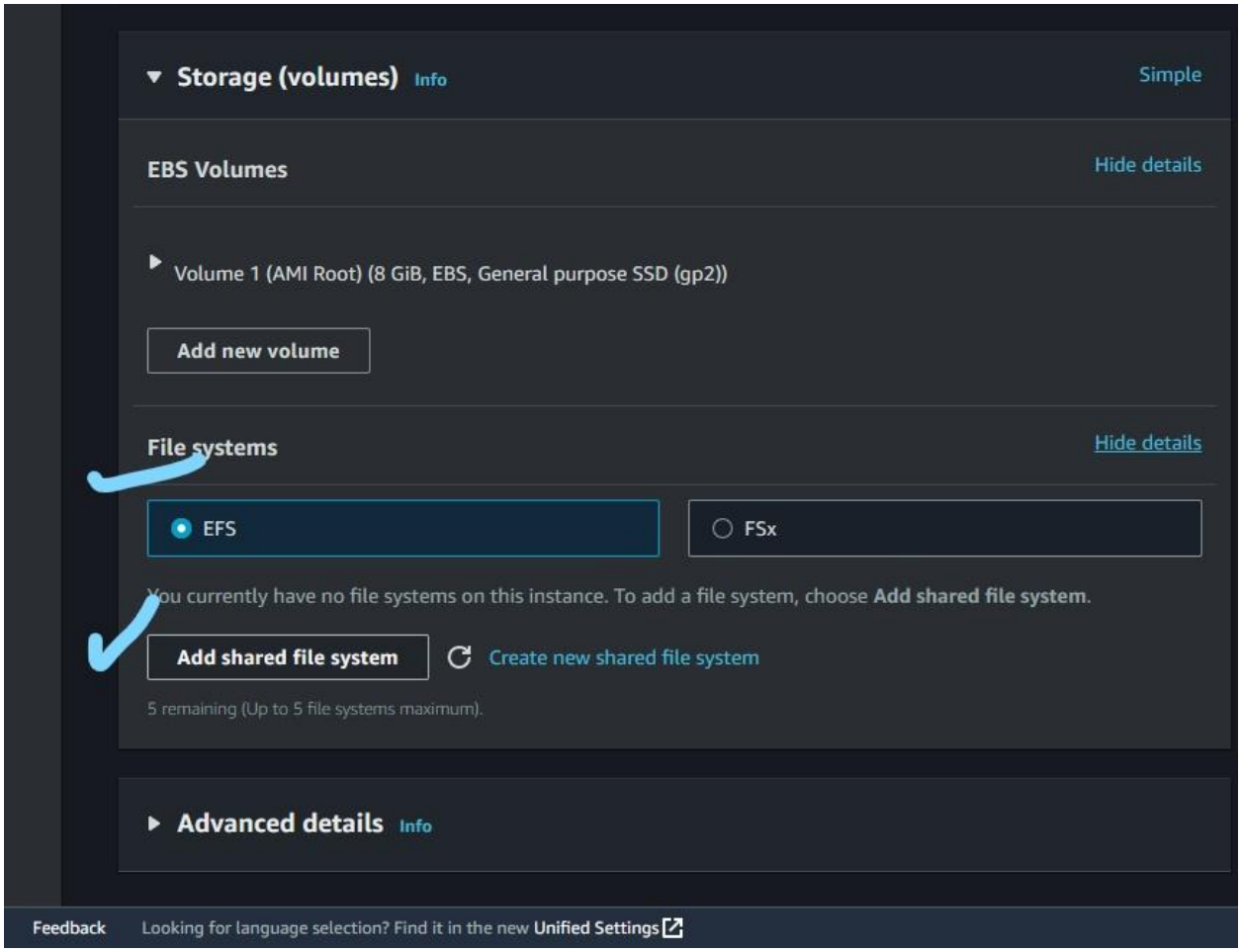


Now to attach EFS in the instance, follow following procedure in all three instances:

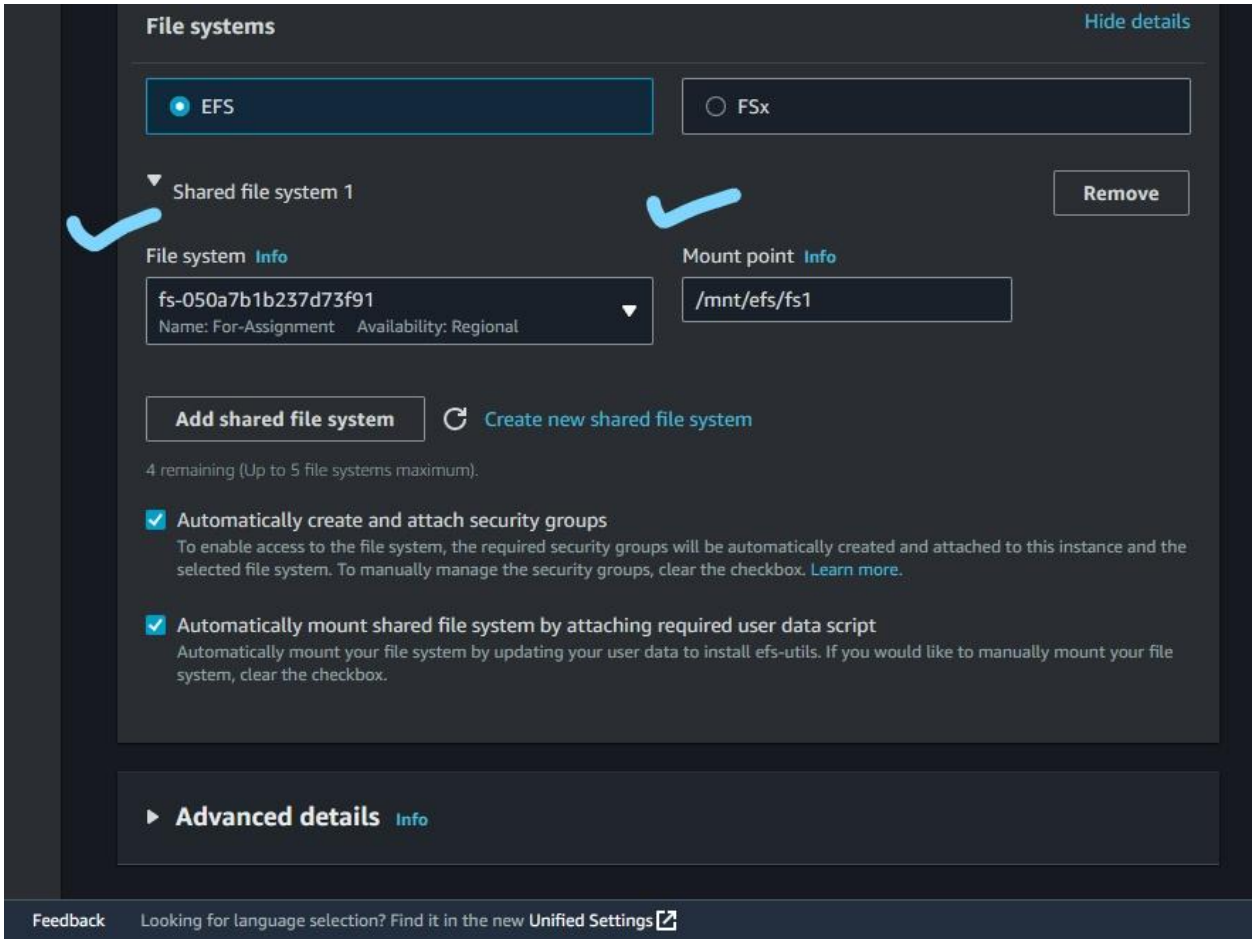
In Storage, in front of ‘File Systems’, click on ‘Show Details’.



Now, select ‘EFS’ and ‘add shared file system’.
Here if you’ve only one EFS in that VPC it will be mounted automatically.
If not, select the created EFS for this assignment in all three cases.



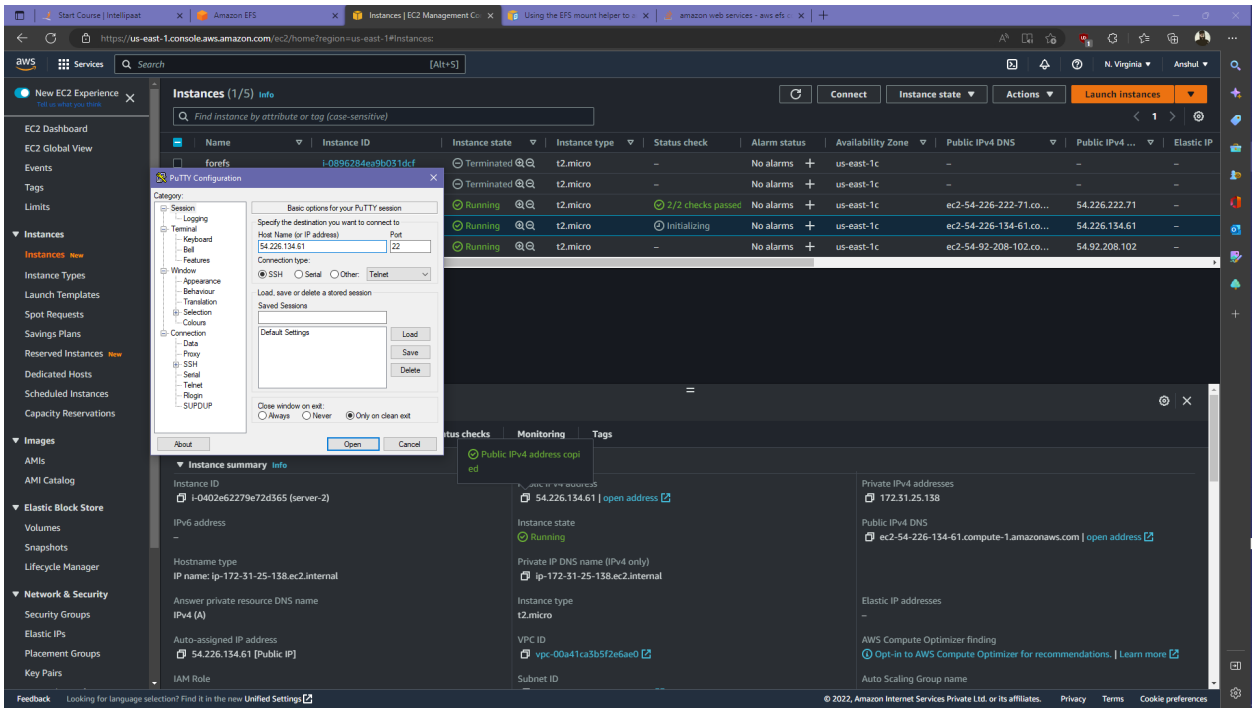
EFS mounted.


File systems
Hide details
EFS
FSx
Shared file system 1
Remove
File system Info
fs-050a7b1b237d73f91
Name: For-Assignment Availability: Regional
Mount point Info
/mnt/efs/fs1
Add shared file system
Create new shared file system
4 remaining (Up to 5 file systems maximum).
Automatically create and attach security groups
To enable access to the file system, the required security groups will be automatically created and attached to this instance and the selected file system. To manually manage the security groups, clear the checkbox. Learn more.
Automatically mount shared file system by attaching required user data script
Automatically mount your file system by updating your user data to install efs-utils. If you would like to manually mount your file system, clear the checkbox.
Advanced details Info
Feedback
Looking for language selection? Find it in the new Unified Settings

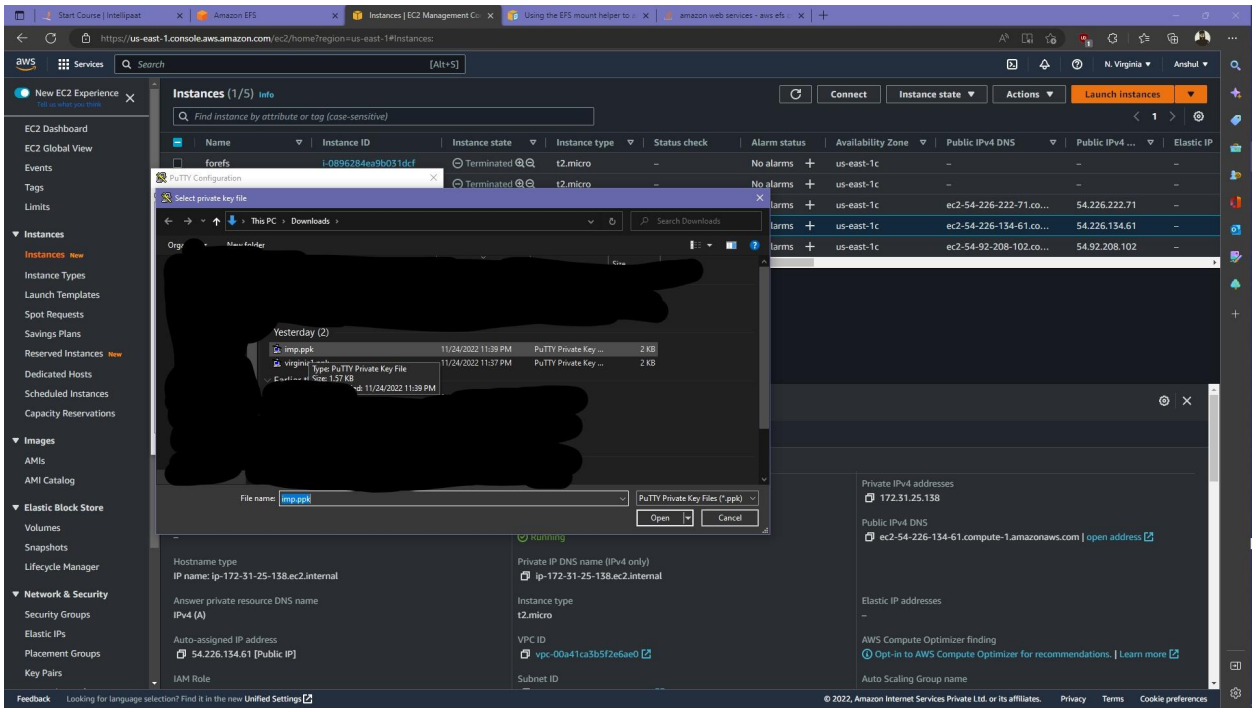
Optional, not in the Task:

<u>To connect instances use PuTTY config:</u>

Copy IP of instance which you would like to connect



Using PuTTYgen generate key using .pem used while choosing keypair while making an instance and upload it in SSH>>Auth>>Credentials



After getting in to connected instance,
Update using: sudo apt-get update or yum update or any other subsequent update command.

RedHat:
sudo yum -y install git
sudo yum -y install rpm-build
git clone https://github.com/aws/efs-utils
cd efs-utils
sudo yum -y install make
sudo yum -y install rpm-build
sudo make rpm
sudo yum -y install ./build/amazon-efs-utils*rpm

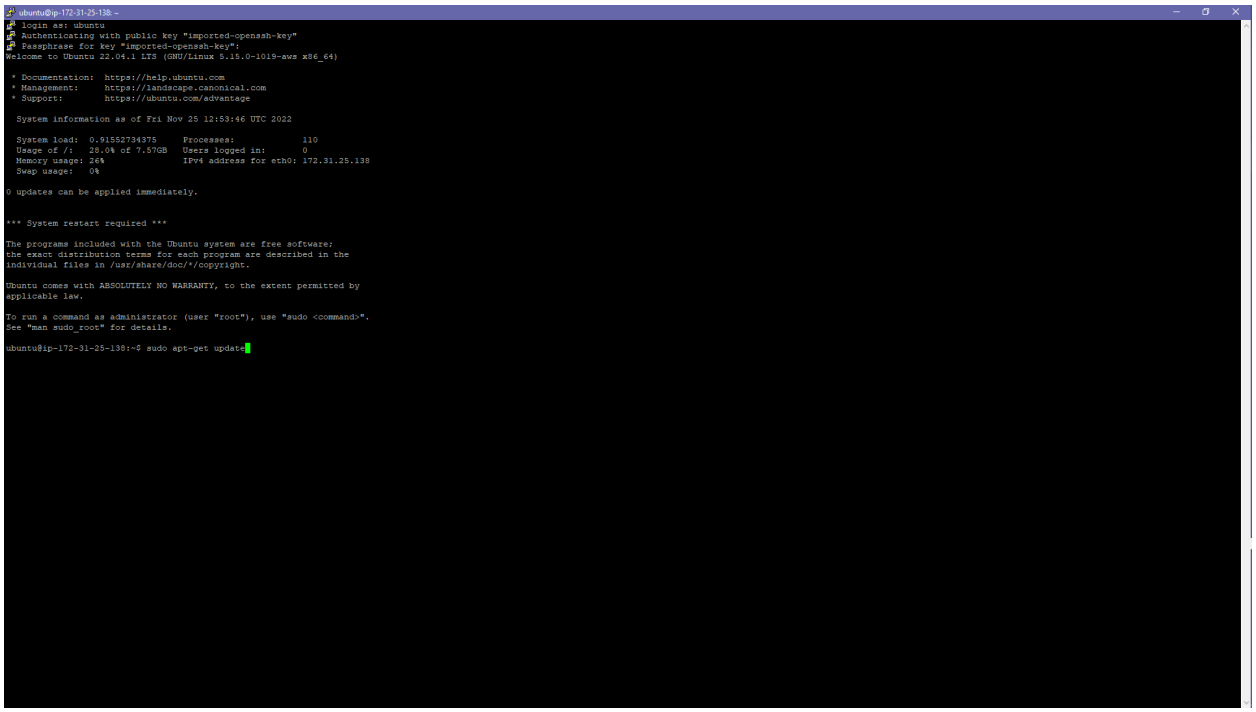
Ubuntu: sudo apt-get install nfs-common -y

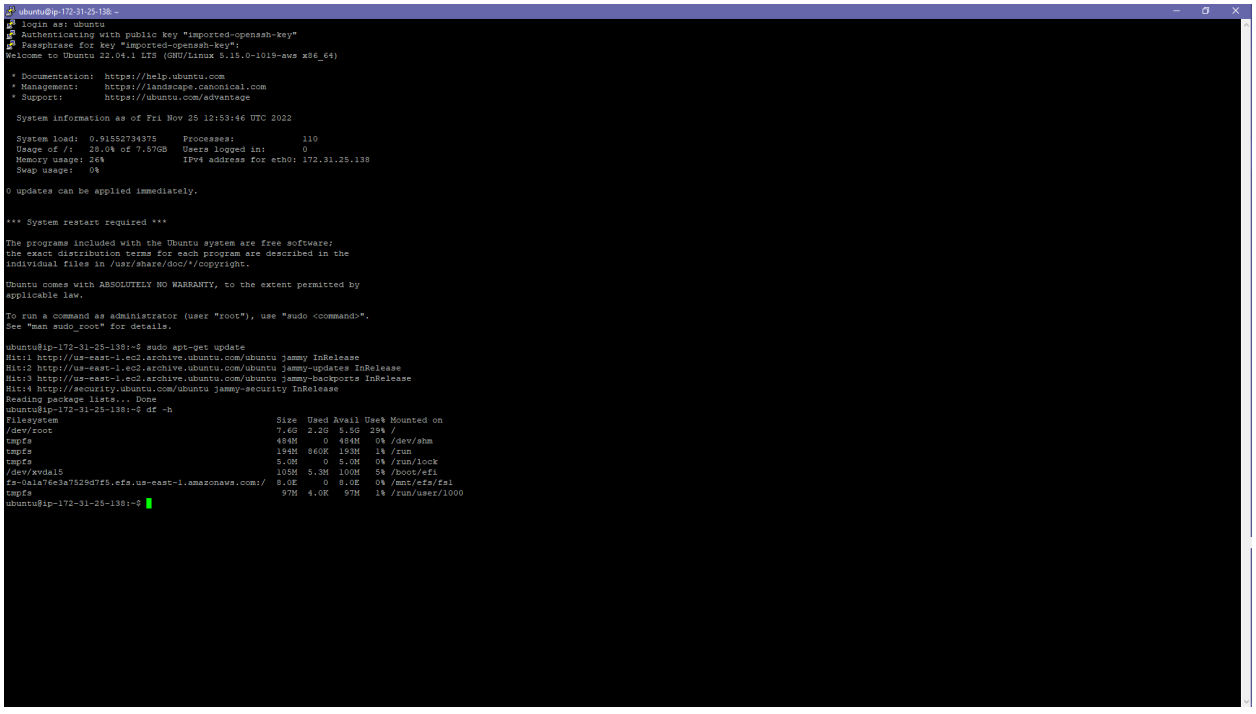
Amazon Linux : sudo yum install amazon-efs-utils -y

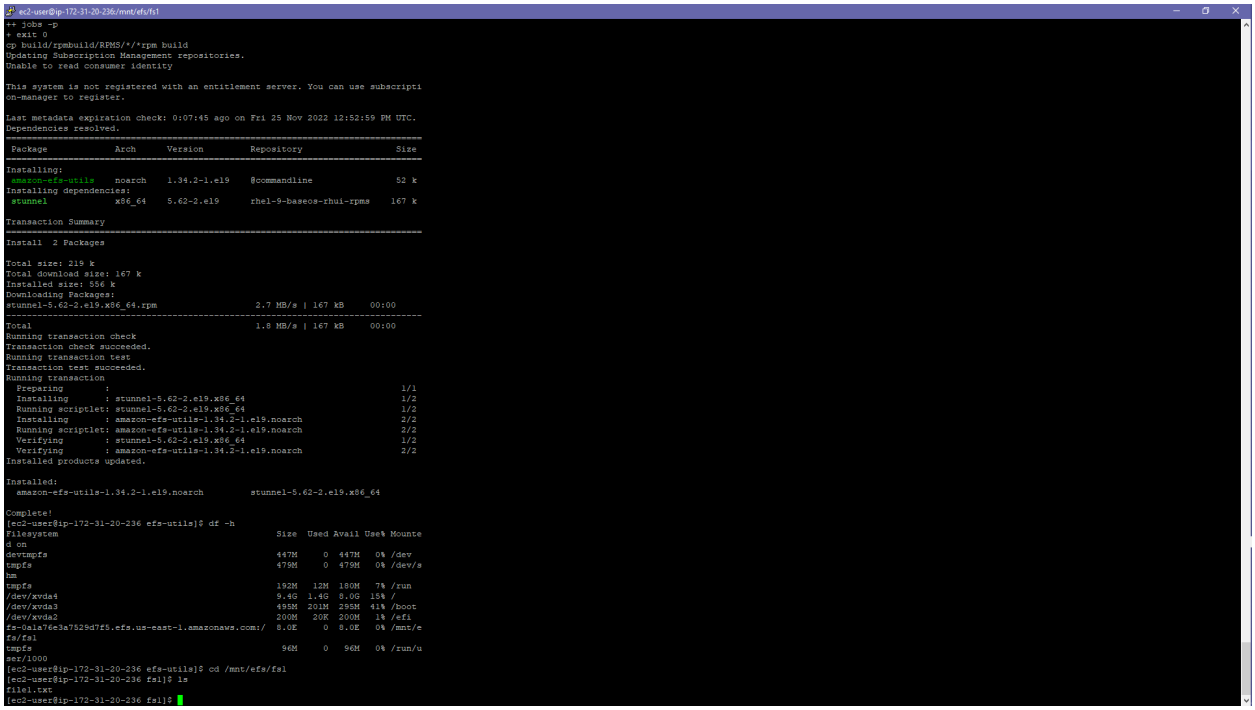
Then search for connected efs mount location using: df -h , df -t
Here mount location was /mnt/efs/fs1

For instance 1 say Amazon Linux upload a file at this mount location:
Cd /mnt/efs/fs1
Touch file1.txt

Then check whether the above file is reflected in other instances by connecting them using the same putty config procedure to mount location and list. You'll observe that files have been reflected.






ec2-user@ip-172-31-20-236:/mnt/efs/fs1
++ jobs -p
+ exit 0
cp build/rpmbuild/RPMS/*/*rpm build
Updating Subscription Management repositories.
Unable to read consumer identity
This system is not registered with an entitlement server. You can use subscripti
on-manager to register.
Last metadata expiration check: 0:07:45 ago on Fri 25 Nov 2022 12:52:59 PM UTC.
Dependencies resolved.
Package Arch Version Repository Size
Installing:
amazon-efs-utils noarch 1.34.2-1.el9 @commandline 52 k
Installing dependencies:
stunnel x86_64 5.62-2.el9 rhel-9-baseos-rhui-rpms 167 k
Transaction Summary
Install 2 Packages
Total size: 219 k
Total download size: 167 k
Installed size: 556 k
Downloading Packages:
stunnel-5.62-2.el9.x86_64.rpm 2.7 MB/s | 167 kB 00:00
Total 1.8 MB/s | 167 kB 00:00
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
Preparing :
Installing : stunnel-5.62-2.el9.x86_64
Running scriptlet: stunnel-5.62-2.el9.x86_64
Installing : amazon-efs-utils-1.34.2-1.el9.noarch
Running scriptlet: amazon-efs-utils-1.34.2-1.el9.noarch
Verifying : stunnel-5.62-2.el9.x86_64
Verifying : amazon-efs-utils-1.34.2-1.el9.noarch
Installed products updated.
Installed:
amazon-efs-utils-1.34.2-1.el9.noarch stunnel-5.62-2.el9.x86_64
Complete!
[ec2-user@ip-172-31-20-236 efs-utils]$ df -h
Filesystem Size Used Avail Use% Mounte
d on
devtmpfs 447M 0 447M 0% /dev
tmpfs 479M 0 479M 0% /dev/s
hm
tmpfs 192M 12M 180M 7% /run
/dev/xvda4 9.4G 1.4G 8.0G 15% /
/dev/xvda3 495M 201M 295M 41% /boot
/dev/xvda2 200M 20K 200M 1% /efi
fs-0a1a76e3a7529d7f5.efs.us-east-1.amazonaws.com:/ 8.0E 0 8.0E 0% /mnt/e
fs/fs1
tmpfs 96M 0 96M 0% /run/u
ser/1000
[ec2-user@ip-172-31-20-236 efs-utils]$ cd /mnt/efs/fs1
[ec2-user@ip-172-31-20-236 fs1]$ ls
file1.txt
[ec2-user@ip-172-31-20-236 fs1]$