SYSTEM ADMINISTRATION
LAB ASSIGNMENT : NFS

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NFS Server

Install NFS Package on your Ubuntu Server

```
sudo apt-get install nfs-kernel-server
```

```
anupam@anupam-Inspiron-7548:~$ sudo apt-get install nfs-kernel-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  nfs-kernel-server
0 upgraded, 1 newly installed, 0 to remove and 22 not upgraded.
Need to get 88.0 kB of archives.
After this operation, 487 kB of additional disk space will be used.
Get:1 http://in.archive.ubuntu.com/ubuntu xenial-updates/main amd64 nfs-kernel-server amd64 1:1.2.8-9ubuntu12.1 [88.0 kB]
Fetched 88.0 kB in 3s (27.3 kB/s)
Selecting previously unselected package nfs-kernel-server.
(Reading database ... 228054 files and directories currently installed.)
Preparing to unpack .../nfs-kernel-server_1%3a1.2.8-9ubuntu12.1_amd64.deb ...
Unpacking nfs-kernel-server (1:1.2.8-9ubuntu12.1) ...
Processing triggers for systemd (229-4ubuntu21.2) ...
Processing triggers for ureadahead (0.100.0-19) ...
ureadahead will be reprofiled on next reboot
Processing triggers for man-db (2.7.5-1) ...
Setting up nfs-kernel-server (1:1.2.8-9ubuntu12.1) ...

Creating config file /etc/exports with new version

Creating config file /etc/default/nfs-kernel-server with new version
Processing triggers for systemd (229-4ubuntu21.2) ...
Processing triggers for ureadahead (0.100.0-19) ...
```

Create Folder List to Share

This example I will be sharing my whole RAID folder with any user (except root) in my LAN.

```
sudo nano /etc/exports
```

Add the following line to the end of the exports file.
The spacing is very important, e.g. there is no space between the IP address and Options list.

```
/mnt/raiddisk    192.168.1.0/255.255.255.0(rw,sync,root_squash,subtree_check)
```

```
anupam@anupam-Inspiron-7548:~$ cat /etc/exports
# /etc/exports: the access control list for filesystems which may be exported
#               to NFS clients.  See exports(5).
#
# Example for NFSv2 and NFSv3:
# /srv/homes       hostname1(rw,sync,no_subtree_check) hostname2(ro,sync,no_subtree_check)
#
# Example for NFSv4:
# /srv/nfs4        gss/krb5i(rw,sync,fsid=0,crossmnt,no_subtree_check)
# /srv/nfs4/homes  gss/krb5i(rw,sync,no_subtree_check)
#

/home/anupam/xyz        192.168.43.241/255.255.255.0(rw,sync,root_squash,subtree_check)
anupam@anupam-Inspiron-7548:~$
```

```
anupam@anupam-Inspiron-7548:~$ touch xyz/abcd.text
```

Start NFS Service

```
sudo service nfs-kernel-server start
```

```
anupam@anupam-Inspiron-7548:~$ sudo service nfs-kernel-server start
```

If all is well you will see the message:

```
* Exporting directories for NFS kernel daemon...      [ OK ]
* Starting NFS kernel daemon                          [ OK ]
```

Otherwise if there is an error you can stop the NFS service, and then go back and edit the Export list.

```
sudo service nfs-kernel-server stop
```

NFS Clients

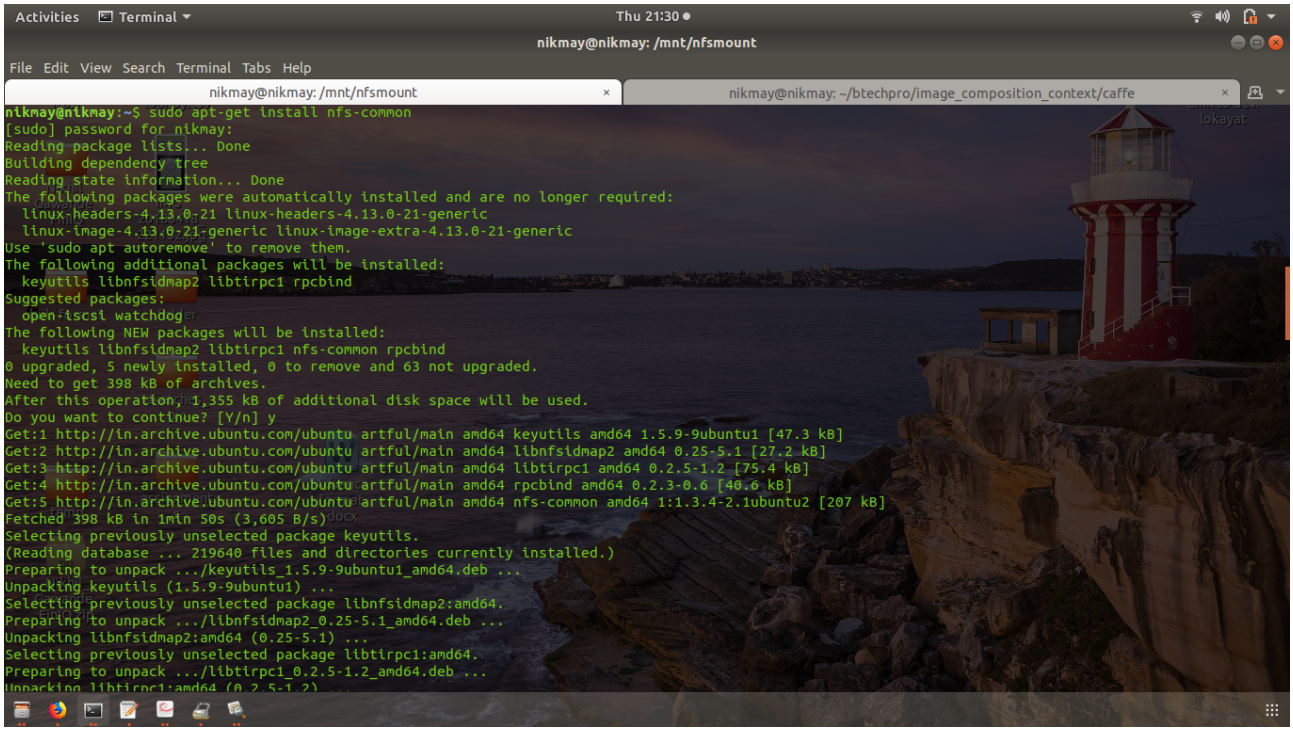
Install NFS Client Package

```
sudo apt-get install nfs-common
```

Create Mount Point

You could either create a mount point under the /mnt folder, or use your home folder.
Here is how to create a folder under /mnt:

```
sudo mkdir /mnt/nfsmount
```



Edit fstab

(Substitute nano for your favorite text editor)

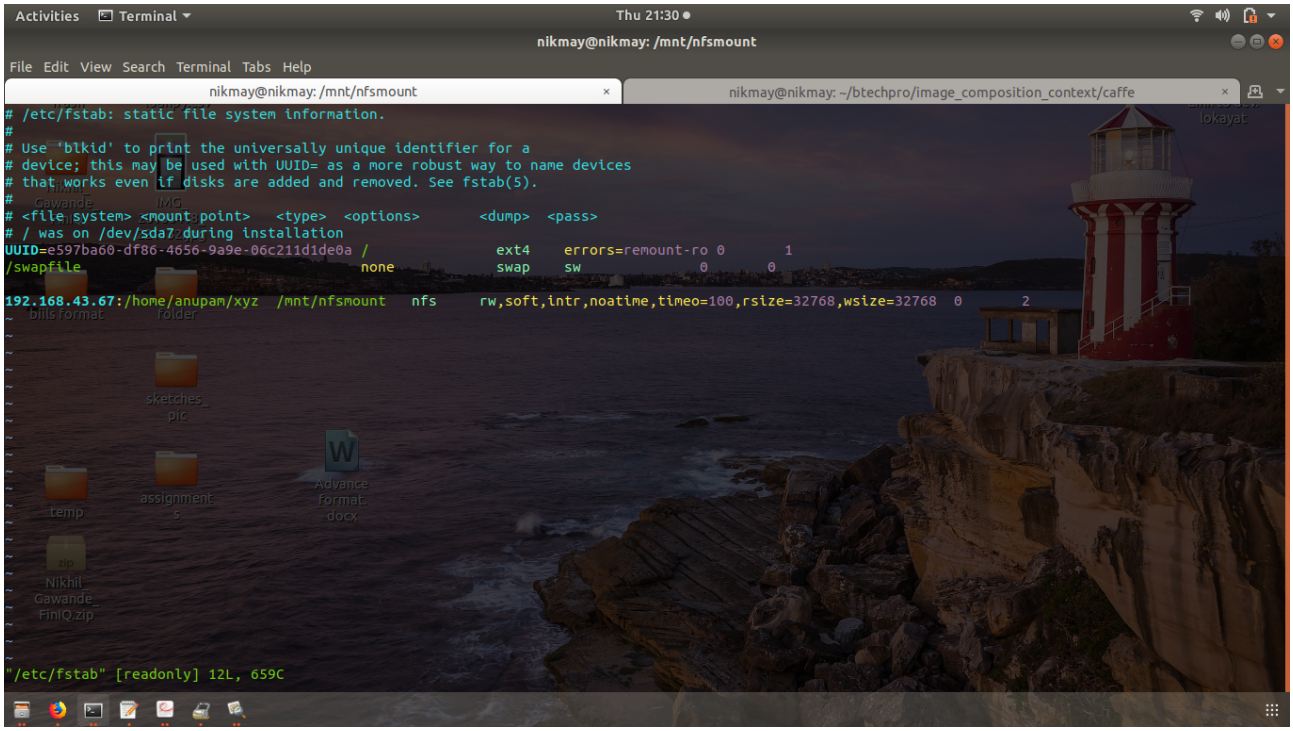
```
sudo nano /etc/fstab
```

Add the following line to the end of the fstab file:

```
ServerIP:/ServerFolder  ClientFolder    nfs     Options dump    pass
```

For Example:

```
192.168.1.100:/mnt/raiddisk     /mnt/nfsmount   nfs
rw,soft,intr,noatime,timeo=100,rsize=32768,wsize=32768  0       2
```



Accessing the file: