

Task: Sharing Files Between Two Computers Using LAN Cable

Saad Ahmad

20P-0051

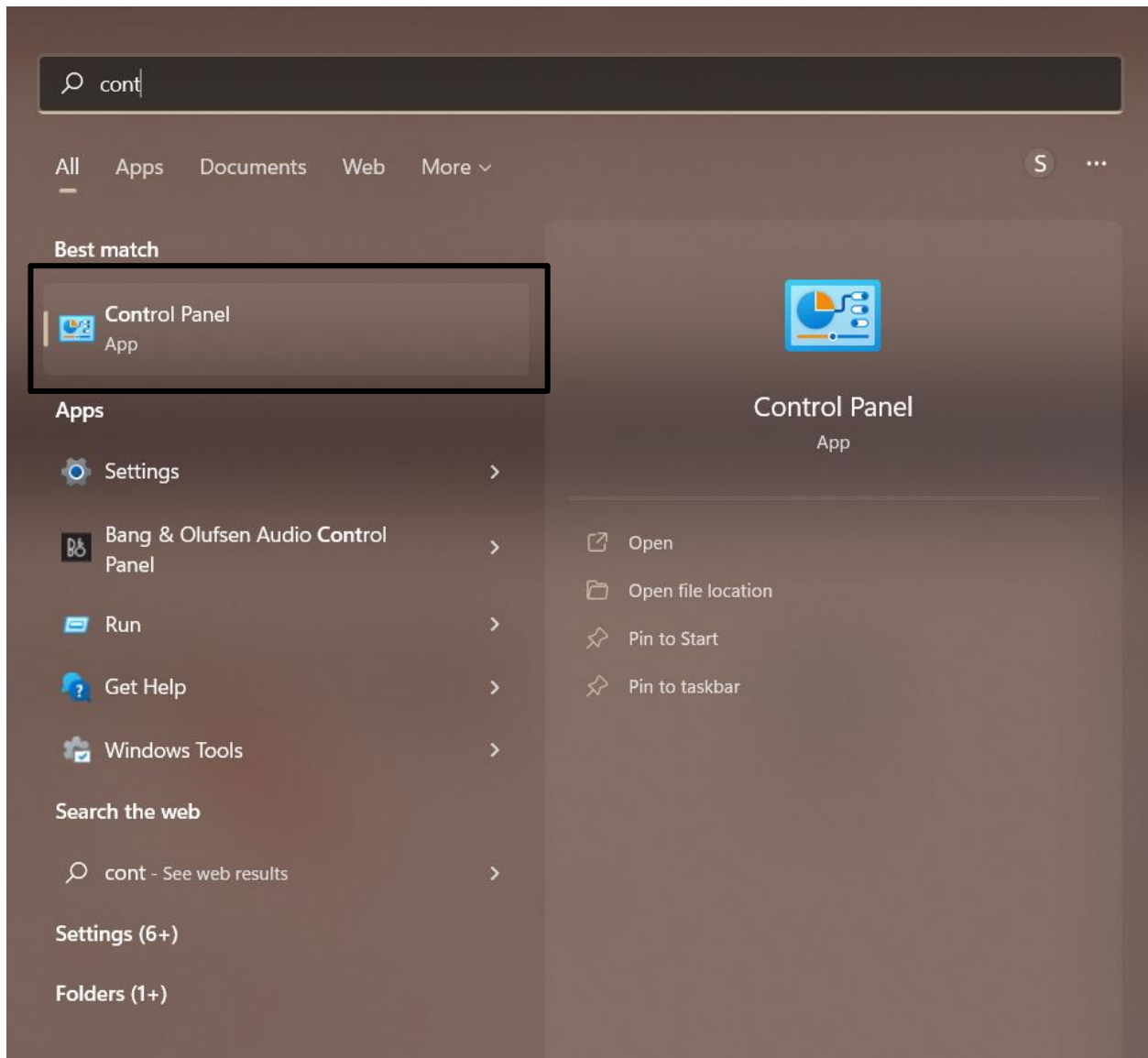
Sharing file in windows

Note: Turn off your Wi-Fi

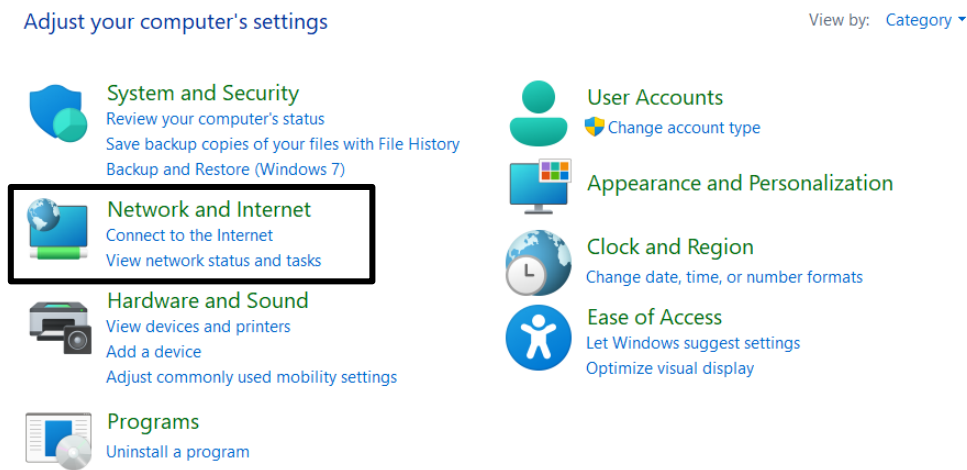
Connect the two PCs with the Ethernet cable.

Configuring PC2:

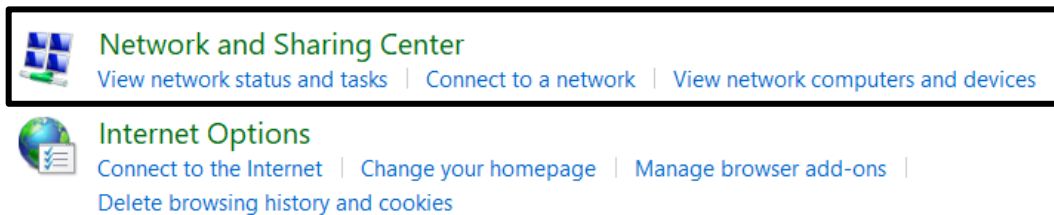
Open Control Panel from the start menu.



Now select the “Network and Internet”



Now select the “Network and Sharing Center”



Now select the “Change advanced sharing settings” from the left menu.

[Control Panel Home](#)

[Change adapter settings](#)

[Change advanced sharing settings](#)

[Media streaming options](#)


View your basic network information and set up connections

View your active networks

Unidentified network

Public network

Access type: No network access

Connections:  Ethernet

Change your networking settings



[Set up a new connection or network](#)

Set up a broadband, dial-up, or VPN connection; or set up a router or access point.



[Troubleshoot problems](#)

Diagnose and repair network problems, or get troubleshooting information.

Now expand All Networks by clicking on the drop-down icon. Here, we need to enable Public Sharing so that the PCs can access files from each other over the LAN cable. To avoid more configuration, just Turn off password protected sharing. By doing so, you enable the other computer to access shared data without providing any credentials.

Change sharing options for different network profiles

Windows creates a separate network profile for each network you use. You can choose specific options for each profile.

Private _____ ▾

Guest or Public (current profile) _____ ▾

All Networks _____ ^

Public folder sharing

When Public folder sharing is on, people on the network, including homegroup members, can access files in the Public folders.

- ☒ Turn on sharing so anyone with network access can read and write files in the Public folders
- ☐ Turn off Public folder sharing (people logged on to this computer can still access these folders)

Media streaming

When media streaming is on, people and devices on the network can access pictures, music, and videos on this computer. This computer can also find media on the network.

[Choose media streaming options...](#)

File sharing connections


Windows uses 128-bit encryption to help protect file sharing connections. Some devices don't support 128-bit encryption and must use 40- or 56-bit encryption.

- ☒ Use 128-bit encryption to help protect file sharing connections (recommended)
- ☐ Enable file sharing for devices that use 40- or 56-bit encryption

Password protected sharing

When password protected sharing is on, only people who have a user account and password on this computer can access shared files, printers attached to this computer, and the Public folders. To give other people access, you must turn off password protected sharing.

- ☐ Turn on password protected sharing
- ☒ Turn off password protected sharing

 Save changes

Cancel

Now we will step up the static IP:

So, for that click on the Network and Sharing Center



Network and Sharing Center

[View network status and tasks](#)

[Connect to a network](#)

[View network computers and devices](#)



Internet Options

[Connect to the Internet](#)

[Change your homepage](#)

[Manage browser add-ons](#)

[Delete browsing history and cookies](#)

Click on the Ethernet

[View your basic network information and set up connections](#)

View your active networks

Unidentified network
Public network

Access type: No network access
Connections: Ethernet

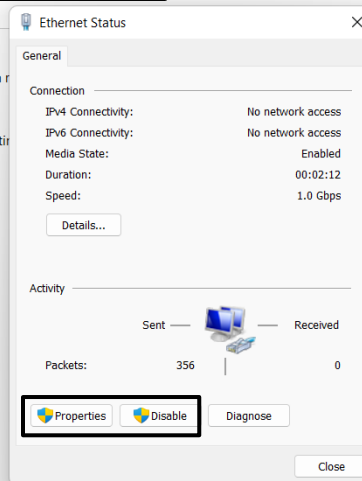
Change your networking settings

[Set up a new connection or network](#)

Set up a broadband, dial-up, or VPN connection; or set up a

[Troubleshoot problems](#)

Diagnose and repair network problems, or get troubleshooting



And now click on the properties

[View your basic network information and set up connections](#)

View your active networks

Unidentified network
Public network

Access type: No network access
Connections: Ethernet

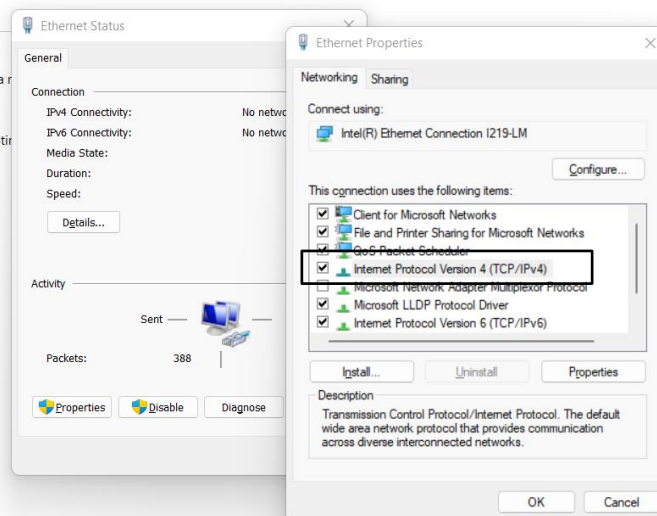
Change your networking settings

[Set up a new connection or network](#)

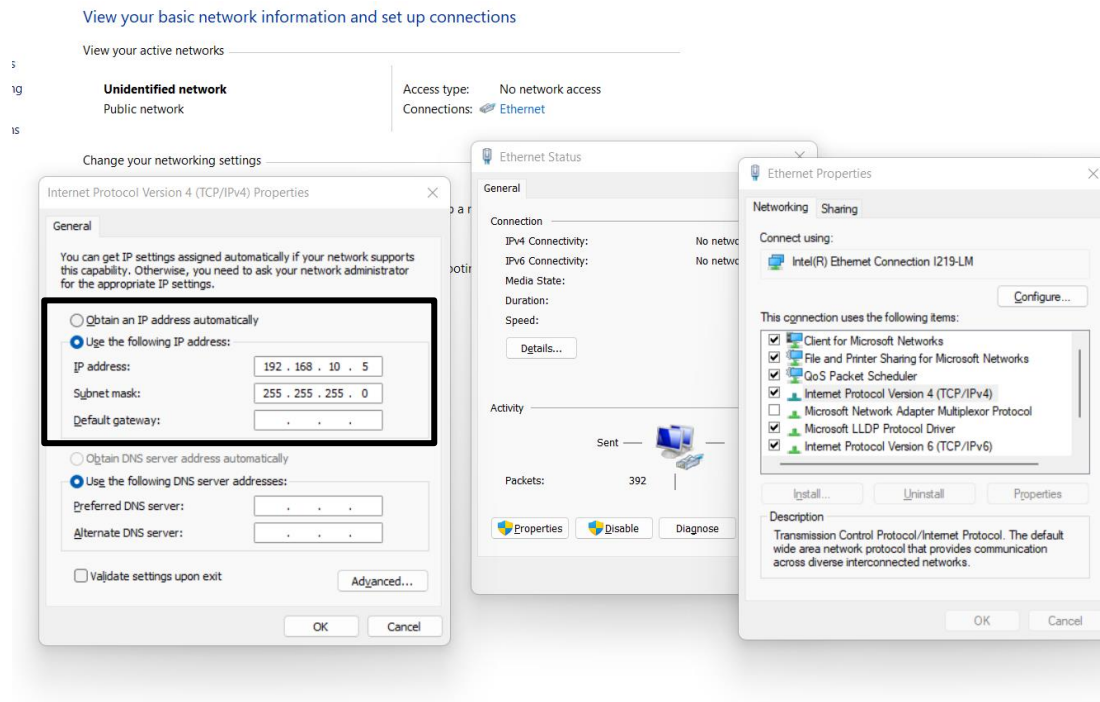
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[Troubleshoot problems](#)

Diagnose and repair network problems, or get troubleshooting

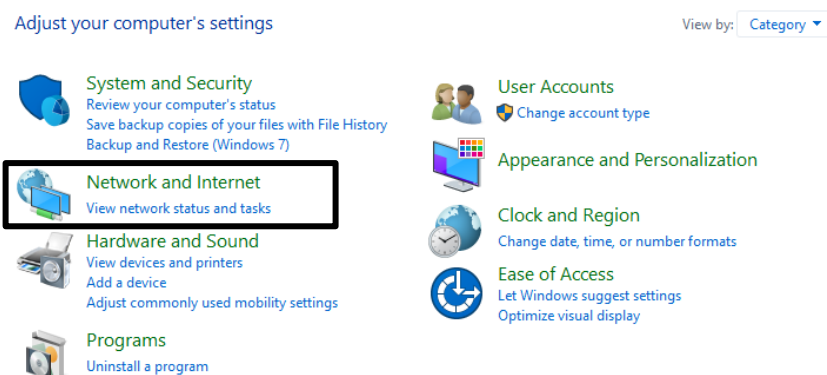


Now select the “Internet Protocol Version 4 (TCP/IPv4)” and open its properties assign the static IP to the PC.

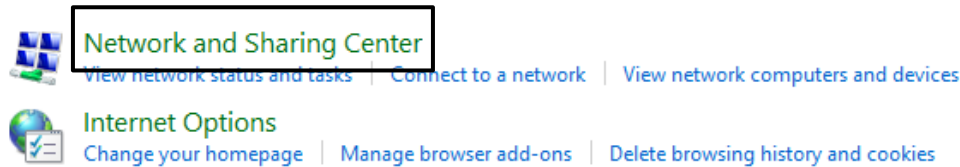


Configuring PC1:

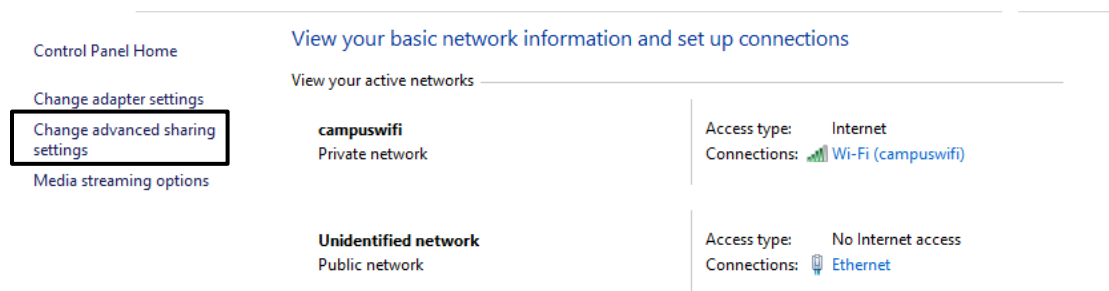
Open Control Panel and select “Network and Internet”.



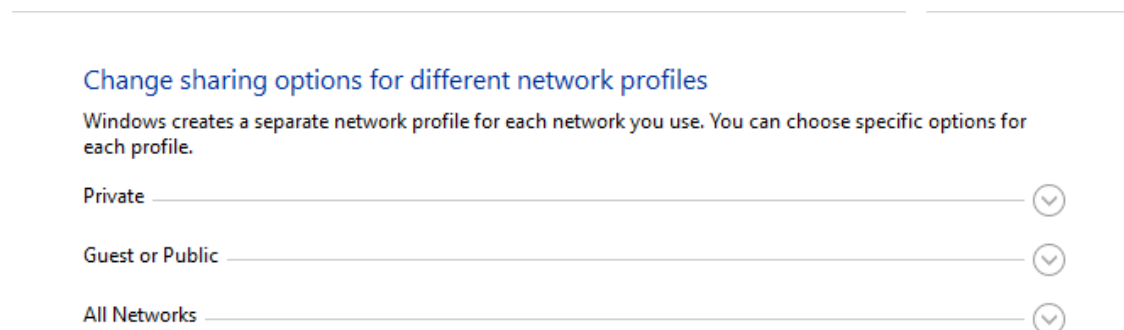
Now select the “Network and Sharing Center”




Now select the “Change advanced sharing settings” from the left menu.



Now expand All Networks by clicking on the drop-down icon. Here, we need to enable Public Sharing so that the PCs can access files from each other over the LAN cable. To avoid more configuration, just Turn off password protected sharing. By doing so, you enable the other computer to access shared data without providing any credentials.



All Networks 

Public folder sharing

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[Choose media streaming options...](#)

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Windows uses 128-bit encryption to help protect file sharing connections. Some devices don't support 128-bit encryption and must use 40- or 56-bit encryption.

☒ Use 128-bit encryption to help protect file sharing connections (recommended)

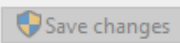
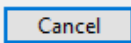
☐ Enable file sharing for devices that use 40- or 56-bit encryption

Password protected sharing

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☐ Turn on password protected sharing

☒ Turn off password protected sharing

Now we will step up the static IP:

So, for that click on the Network and Sharing Center



Network and Sharing Center

[View network status and tasks](#) | [Connect to a network](#) | [View network computers and devices](#)



Internet Options

[Change your homepage](#) | [Manage browser add-ons](#) | [Delete browsing history and cookies](#)

Click on the Ethernet

[Control Panel Home](#)

[Change adapter settings](#)

[Change advanced sharing settings](#)

[Media streaming options](#)

View your basic network information and set up connections

View your active networks

campuswifi
Private network

Access type: Internet
Connections: [Wi-Fi \(campuswifi\)](#)


Unidentified network
Public network

Access type: No Internet access
Connections: [Ethernet](#)


And now click on the properties


View your active networks

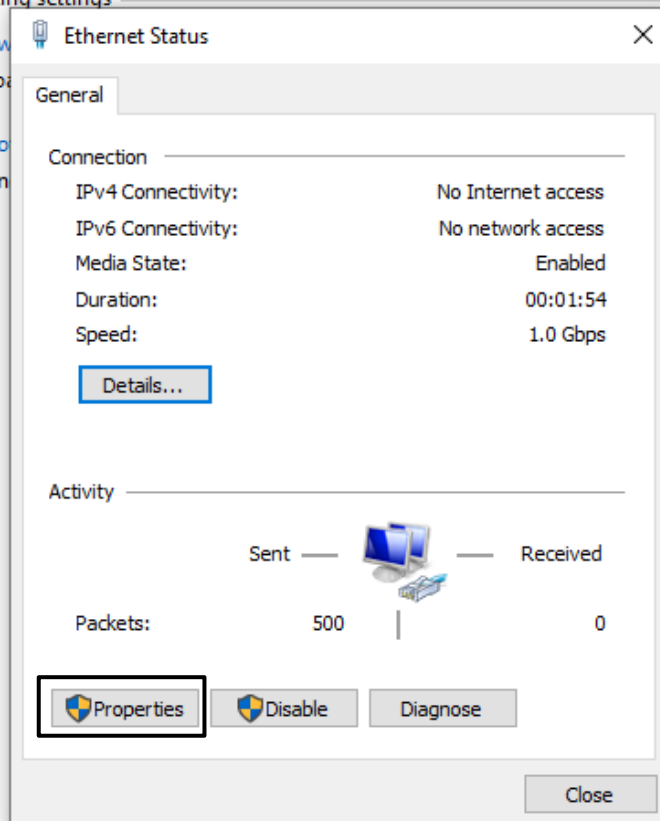
Unidentified network
Public network

Access type: No Internet access
Connections:  Ethernet

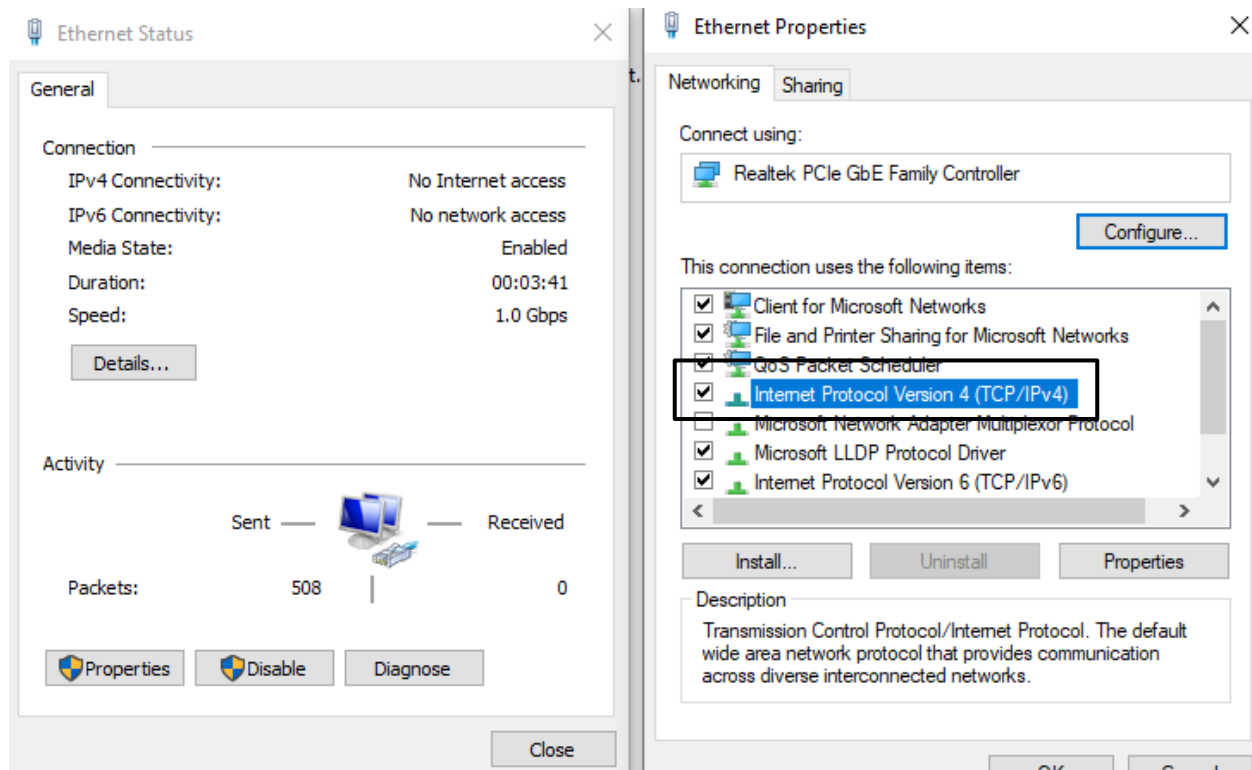
Change your networking settings

 Set up a new network
Set up a broadband connection

 Troubleshooting
Diagnose and fix network problems



Now select the “Internet Protocol Version 4 (TCP/IPv4)” and open its properties.



Now assign the static IP to the PC.

Internet Protocol Version 4 (TCP/IPv4) Properties ✕

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically

☒ Use the following IP address:

IP address:

Subnet mask:

Default gateway:

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server:

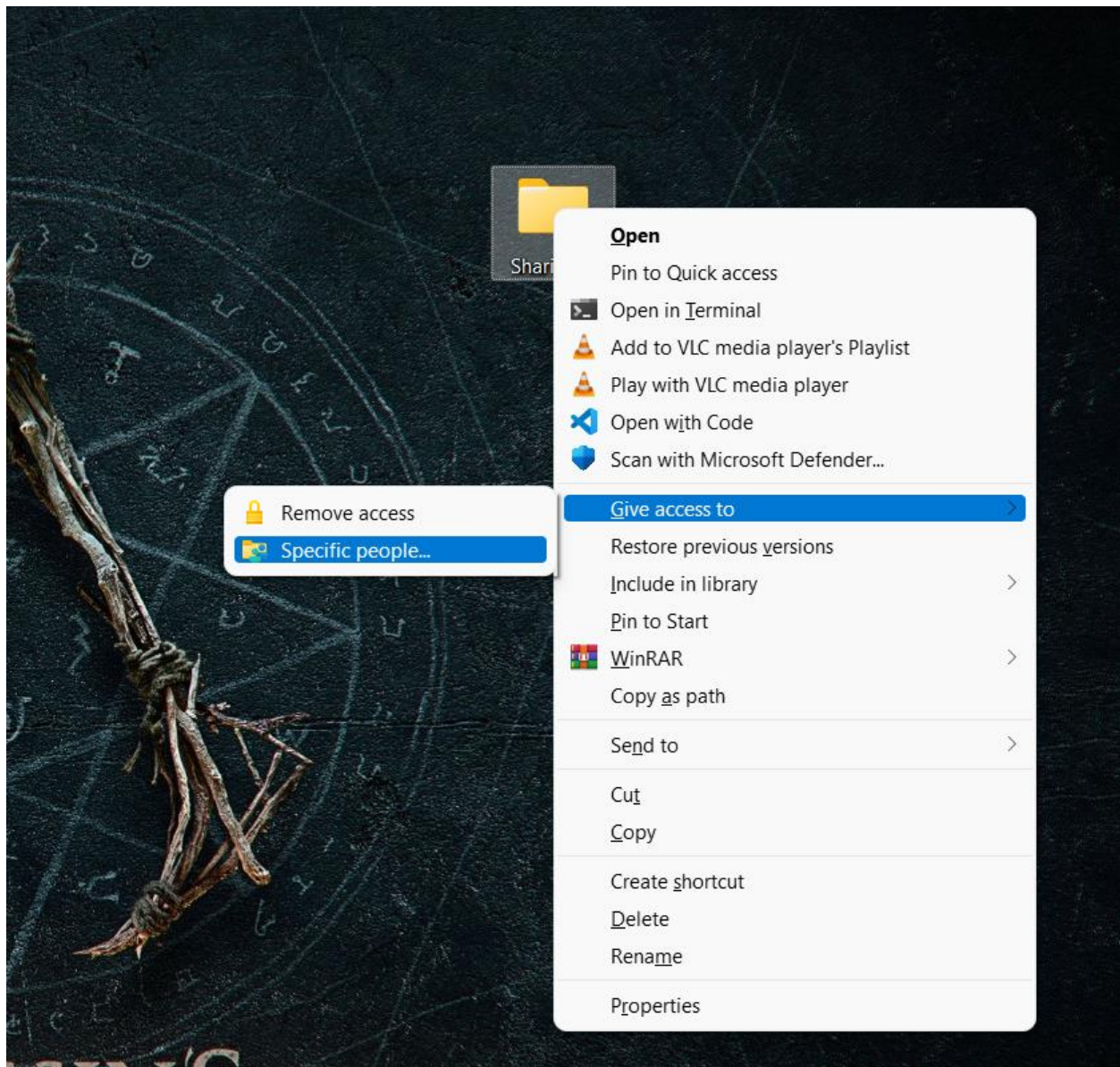
Alternate DNS server:

☐ Validate settings upon exit

Advanced...

Sharing file between two laptops:

Create a folder and give access to it.



Now add the “Everyone” to the network access and click **share**.

← Network access

Choose people to share with

Type a name and then click Add, or click the arrow to find someone.

Add

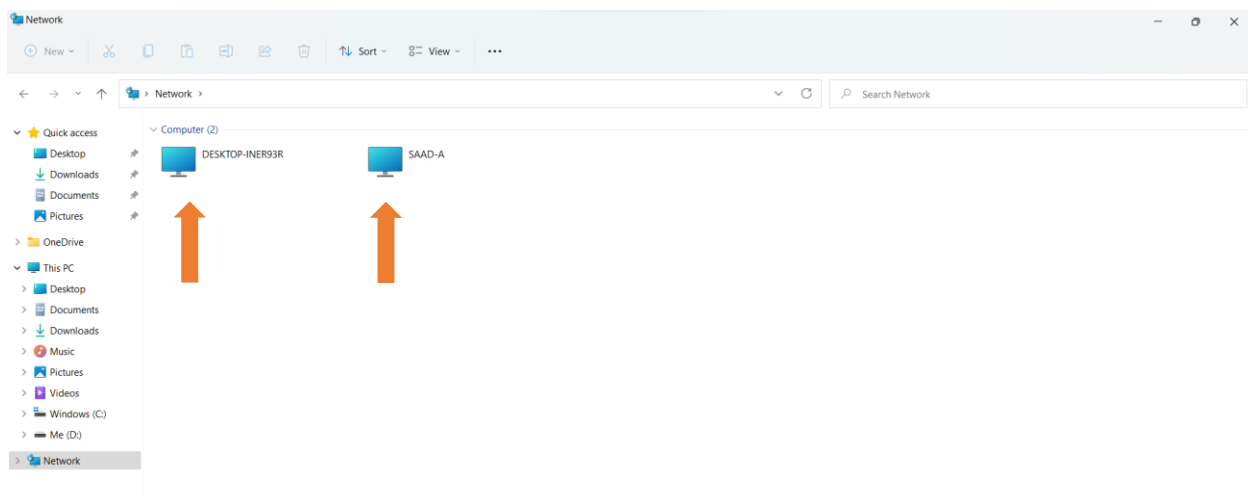
Name	Permission Level
Everyone	Read ▼
Saad Ahmad (saad.ahmad1024@hotmail.com)	Owner

[I'm having trouble sharing](#)

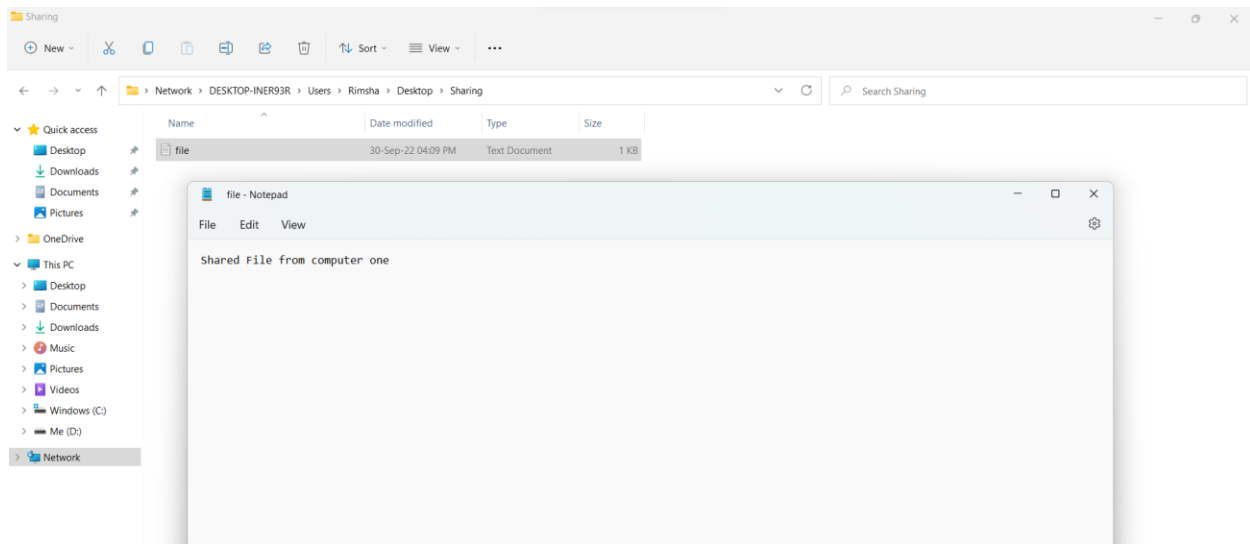
Share

Cancel

Now go to the This PC and select Network and there you will see 2 PCs.



And now open the shared pc and you will see the folder which you had shared.



Sharing files in Linux:

To share the file first install vsftpd so for that run the following command:

```
sudo apt install vsftpd
```

A screenshot of a Linux terminal window. The title bar shows 'Activities', 'Terminal', and the date 'Oct 9 11:07 AM'. The terminal prompt is 'h@h-HP-Notebook: ~'. The user has entered the command 'sudo apt install vsftpd'. The output shows the package being installed, the disk space requirements, and the successful completion of the installation. The terminal text is as follows:

```
h@h-HP-Notebook:~$ sudo apt install vsftpd
[sudo] password for h:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  vsftpd
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 123 kB of archives.
After this operation, 326 kB of additional disk space will be used.
Get:1 http://pk.archive.ubuntu.com/ubuntu jammy/main amd64 vsftpd amd64 3.0.5-0ubuntu1 [123 kB]
Fetched 123 kB in 3s (35.9 kB/s)
Preconfiguring packages ...
Selecting previously unselected package vsftpd.
(Reading database ... 228146 files and directories currently installed.)
Preparing to unpack .../vsftpd_3.0.5-0ubuntu1_amd64.deb ...
Unpacking vsftpd (3.0.5-0ubuntu1) ...
Setting up vsftpd (3.0.5-0ubuntu1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/vsftpd.service → /lib/systemd/system/vsftpd.service.
Processing triggers for man-db (2.10.2-1) ...
h@h-HP-Notebook:~$
```


Now we will configure the vsftpd sever:

So, for that run the following command on the terminal

```
sudo mv /etc/vsftpd.conf /etc/vsftpd.conf_orig
```

```
sudo nano /etc/vsftpd.conf
```

and now copy the following content in the file.

```
listen=NO  
listen_ipv6=YES  
anonymous_enable=NO  
local_enable=YES  
write_enable=YES  
local_umask=022  
dirmessage_enable=YES  
use_localtime=YES  
xferlog_enable=YES  
connect_from_port_20=YES  
chroot_local_user=YES  
secure_chroot_dir=/var/run/vsftpd/empty  
pam_service_name=vsftpd  
rsa_cert_file=/etc/ssl/certs/ssl-cert-snakeoil.pem  
rsa_private_key_file=/etc/ssl/private/ssl-cert-  
snakeoil.key  
ssl_enable=NO  
pasv_enable=Yes  
pasv_min_port=10000  
pasv_max_port=10100  
allow_writeable_chroot=YES
```

```
GNU nano 6.2 /etc/vsftpd.conf
listen=NO
listen_ipv6=YES
anonymous_enable=NO
local_enable=YES
write_enable=YES
local_umask=022
dirmesssage_enable=YES
use_localtime=YES
xferlog_enable=YES
connect_from_port_20=YES
chroot_local_user=YES
secure_chroot_dir=/var/run/vsftpd/empty
pam_service_name=vsftpd
rsa_cert_file=/etc/ssl/certs/ssl-cert-snakeoil.pem
rsa_private_key_file=/etc/ssl/private/ssl-cert-snakeoil.key
ssl_enable=NO
pasv_enable=Yes
pasv_min_port=10000
pasv_max_port=10100
allow_writeable_chroot=YES
```

And save the file.

Now disable the firewall

```
h@h-HP-Notebook:~$ sudo nano /etc/vsftpd.conf
h@h-HP-Notebook:~$ sudo nano /etc/vsftpd.conf
h@h-HP-Notebook:~$ sudo ufw disable
[sudo] password for h:
Firewall stopped and disabled on system startup
h@h-HP-Notebook:~$
```

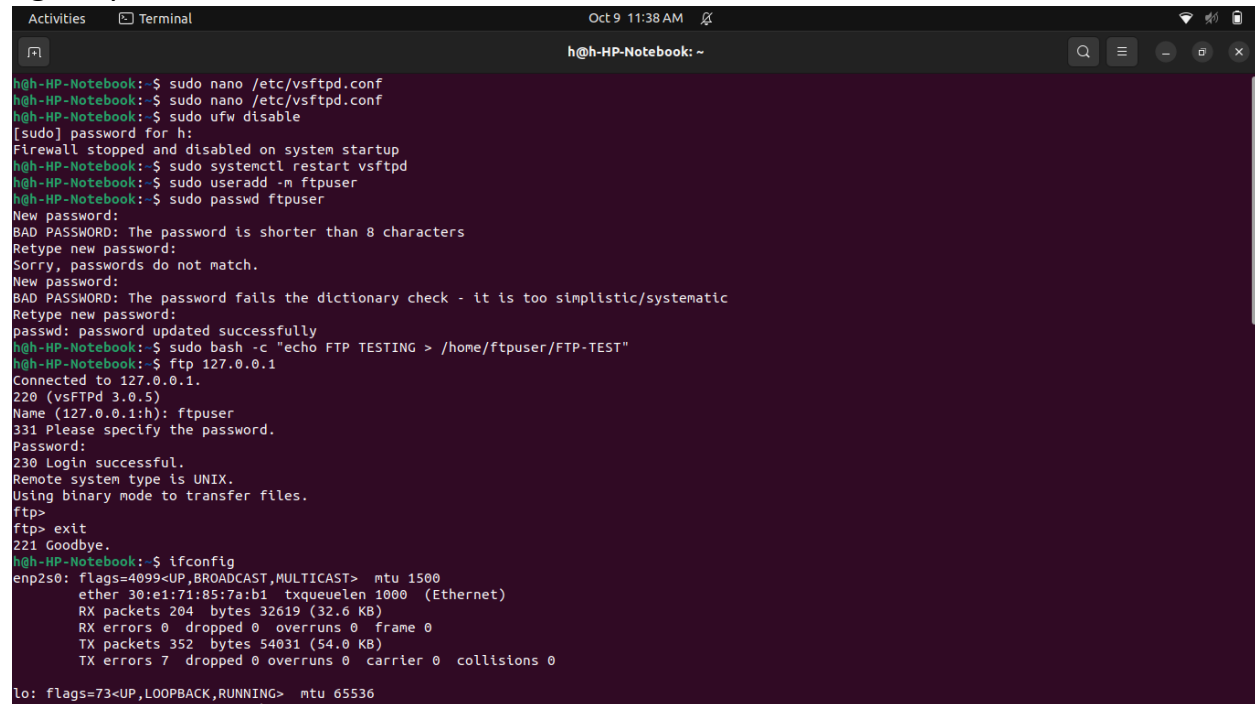
Restart the server

```
h@h-HP-Notebook:~$ sudo nano /etc/vsftpd.conf
h@h-HP-Notebook:~$ sudo nano /etc/vsftpd.conf
h@h-HP-Notebook:~$ sudo ufw disable
[sudo] password for h:
Firewall stopped and disabled on system startup
h@h-HP-Notebook:~$ sudo systemctl restart vsftpd
h@h-HP-Notebook:~$
```

Create ftp user using following commands

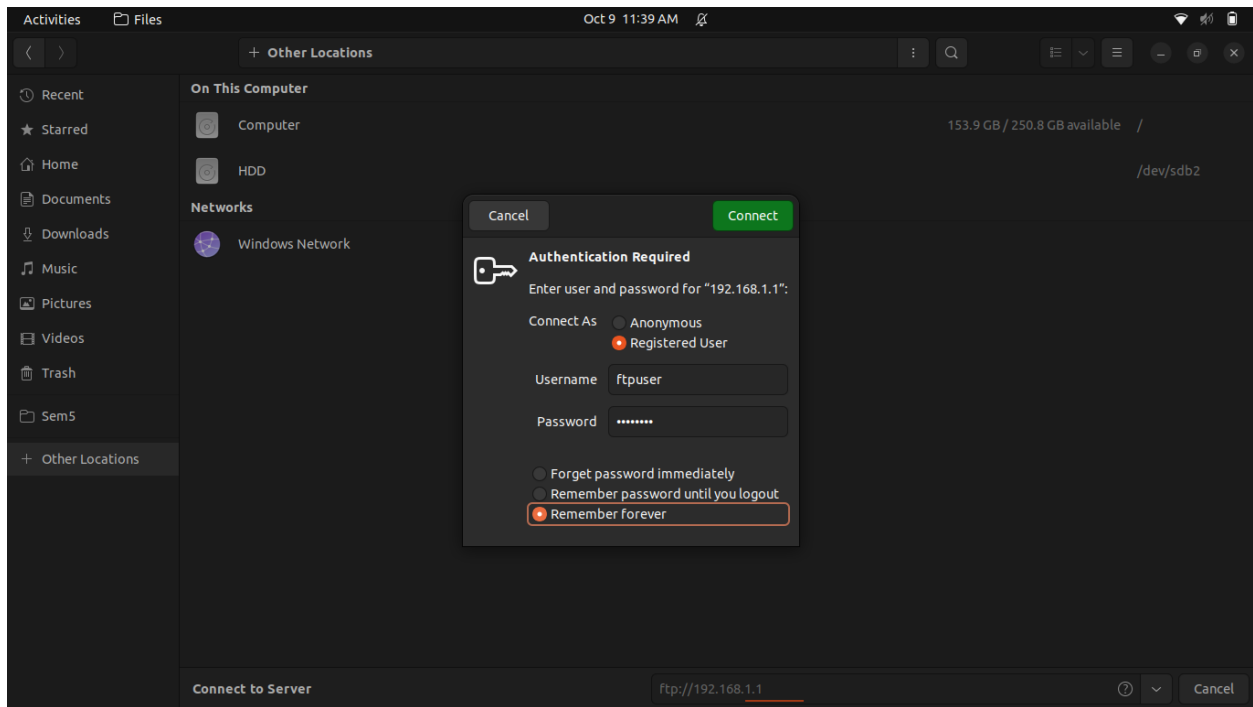
```
sudo useradd -m ftpuser  
sudo passwd ftpuser
```

I gave password 12345678



```
h@h-HP-Notebook:~$ sudo nano /etc/vsftpd.conf  
h@h-HP-Notebook:~$ sudo nano /etc/vsftpd.conf  
h@h-HP-Notebook:~$ sudo ufw disable  
[sudo] password for h:  
Firewall stopped and disabled on system startup  
h@h-HP-Notebook:~$ sudo systemctl restart vsftpd  
h@h-HP-Notebook:~$ sudo useradd -m ftpuser  
h@h-HP-Notebook:~$ sudo passwd ftpuser  
New password:  
BAD PASSWORD: The password is shorter than 8 characters  
Retype new password:  
Sorry, passwords do not match.  
New password:  
BAD PASSWORD: The password fails the dictionary check - it is too simplistic/systematic  
Retype new password:  
passwd: password updated successfully  
h@h-HP-Notebook:~$ sudo bash -c "echo FTP TESTING > /home/ftpuser/FTP-TEST"  
h@h-HP-Notebook:~$ ftp 127.0.0.1  
Connected to 127.0.0.1.  
220 (vsFTPd 3.0.5)  
Name (127.0.0.1:h): ftpuser  
331 Please specify the password.  
Password:  
230 Login successful.  
Remote system type is UNIX.  
Using binary mode to transfer files.  
ftp>  
ftp> exit  
221 Goodbye.  
h@h-HP-Notebook:~$ ifconfig  
enp2s0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500  
ether 30:e1:71:85:7a:b1 txqueuelen 1000 (Ethernet)  
RX packets 204 bytes 32619 (32.6 KB)  
RX errors 0 dropped 0 overruns 0 frame 0  
TX packets 352 bytes 54031 (54.0 KB)  
TX errors 7 dropped 0 overruns 0 carrier 0 collisions 0  
  
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536  
inet 127.0.0.1 netmask 255.0.0.0
```

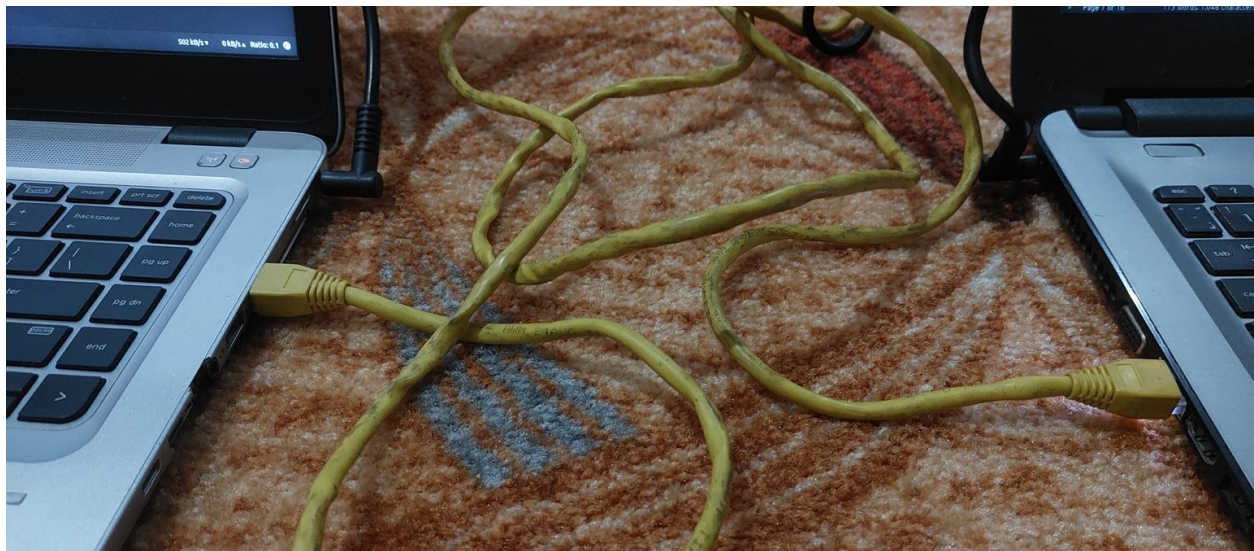
Now you can go to File explorer and Open Windows Network and click on Windows Network



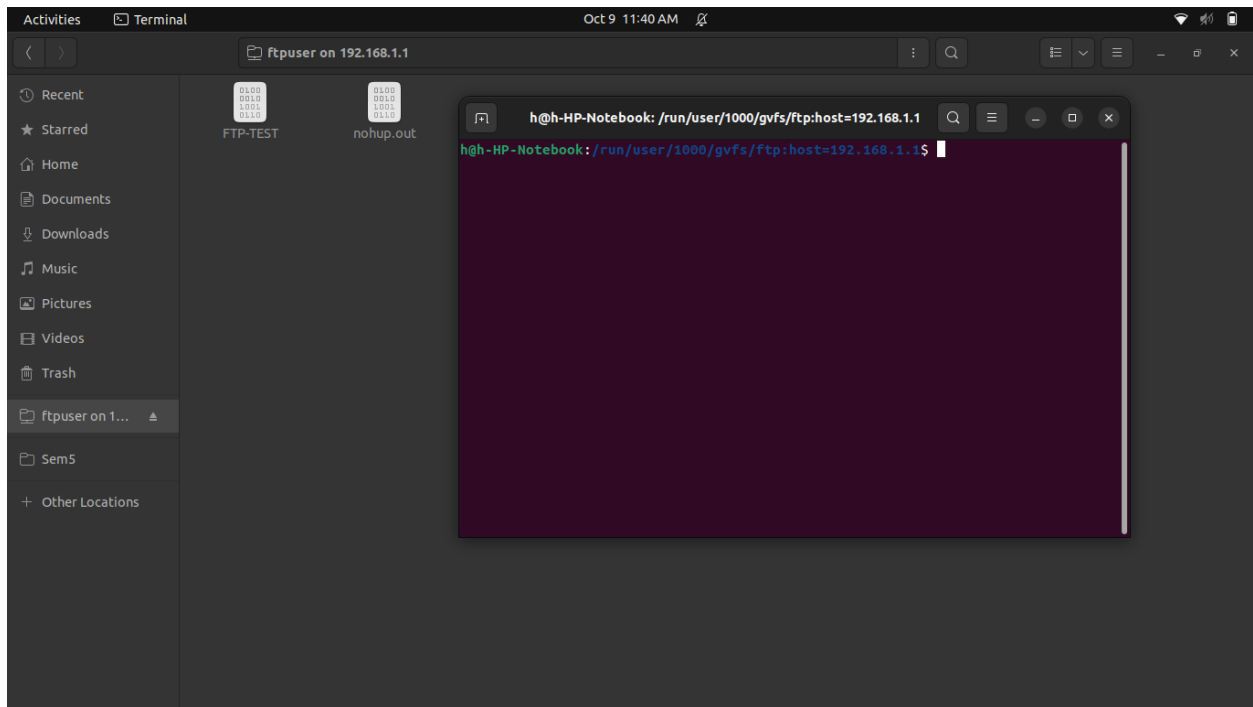
Password: 12345678

You can log in with 2nd system using same method as above.

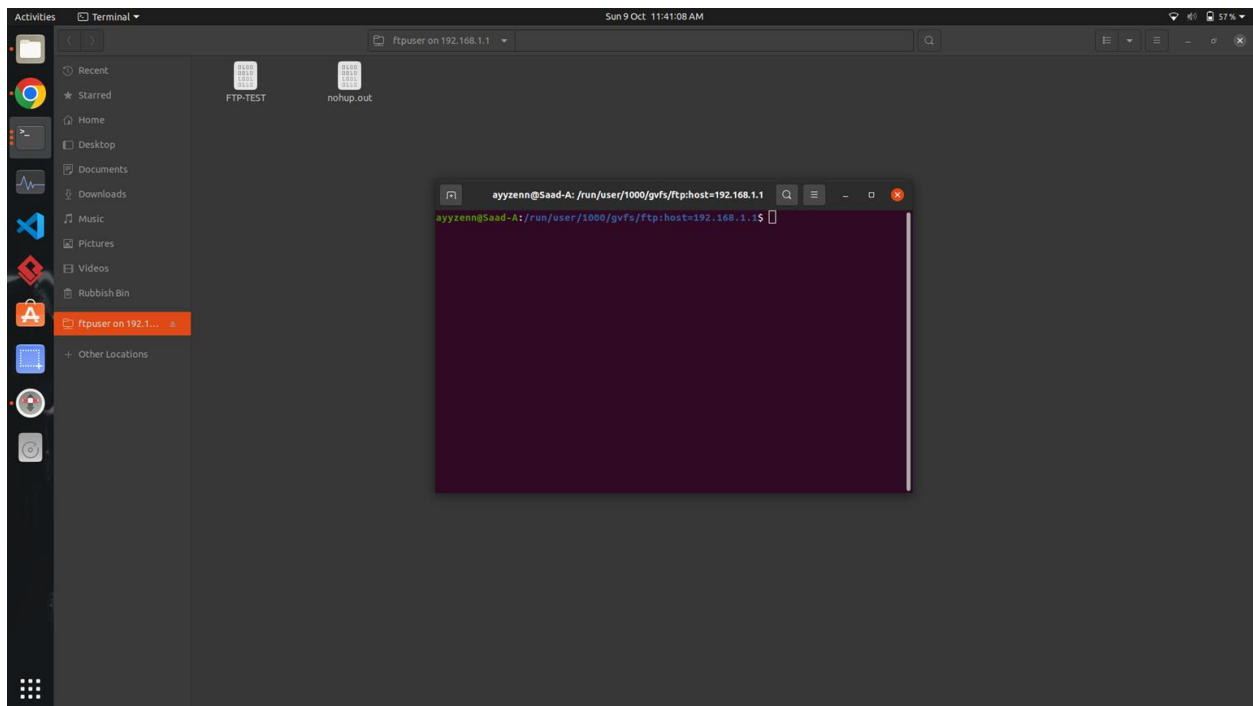
Connect two systems



Accessing the file from PC1

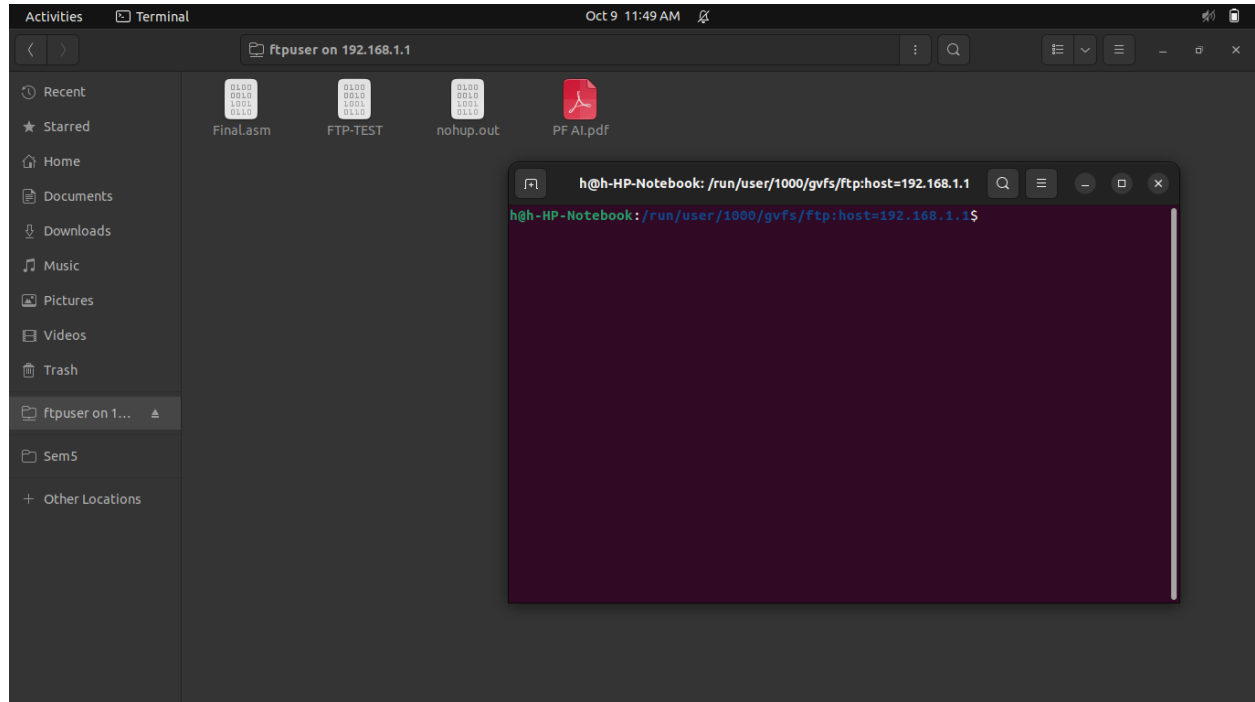


Accessing the file from PC2



After adding some other files

PC 1



PC 2

