[2CEIT503: COMPUTER NETWORK]

Practical: 2

AIM: **Implementation of small network using HUB or SWITCH by which more than 2 PC's can communicate.**

A. Design Peer to peer Network.
B. Design Star Topology.

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Appliances:

1. Two laptops
2. 1 LAN cable

Simplification:
1. 8GB RAM
2. RYZEN 5 CPU (6 Core, 12 Thread) 3.30GHz
3. NVIDIA GTX 4GB GPU
4. PC1: Windows 11 and PC2: Windows 10
5. 512GB SSD

Connecting 2 PC's with LAN Cable:

* Plug one end of the Ethernet cable in the first system and the remaining end in the second system.

Step 1): Here in the below given figure, we have physically connected two PC's using LAN cable.
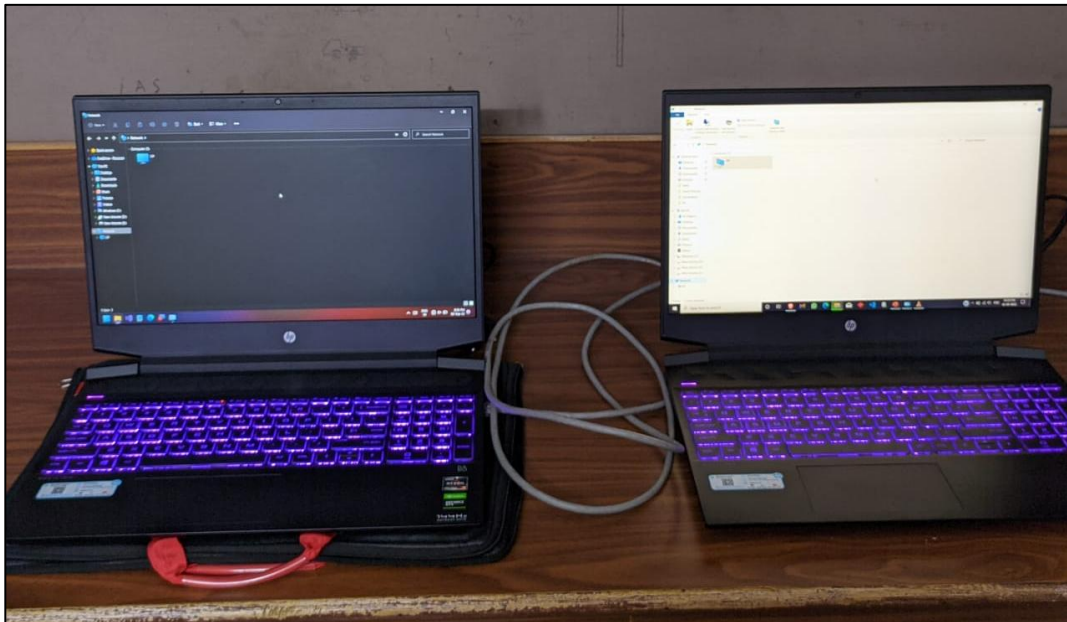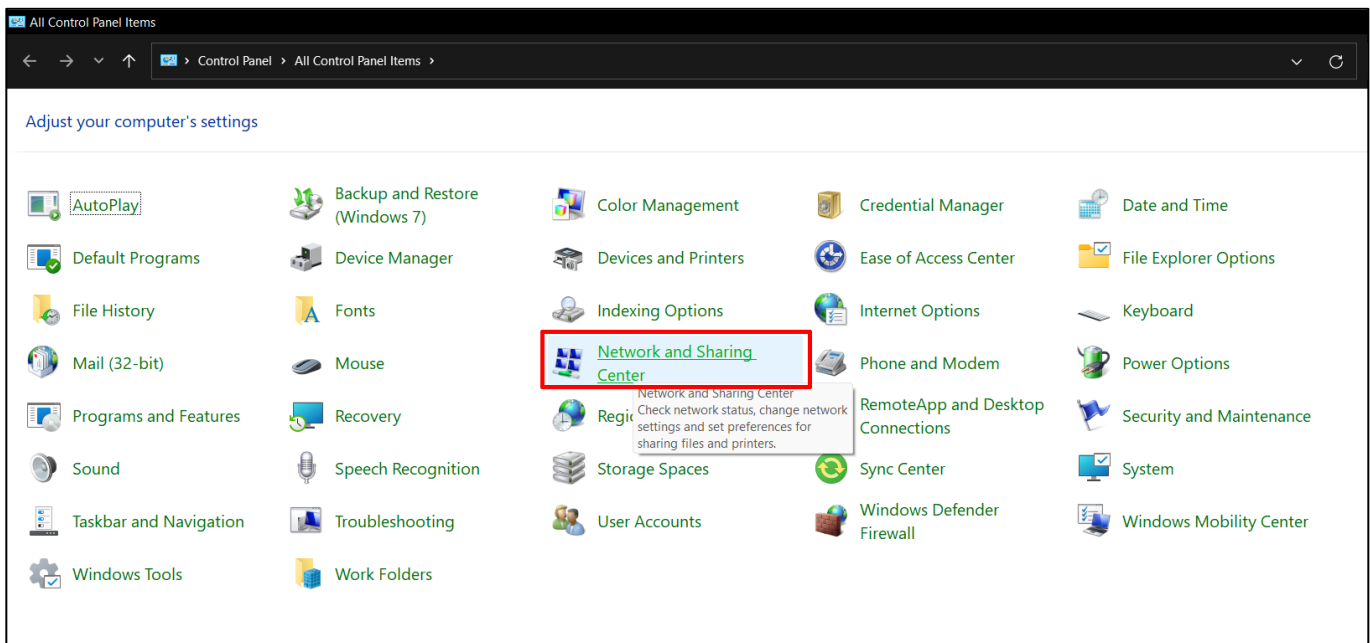
Step 2): Once the Ethernet cables are plugged in both the systems, open Control Panel. Press the start button and type control panel or press "WIN + **R**" and type "control panel" and press enter.
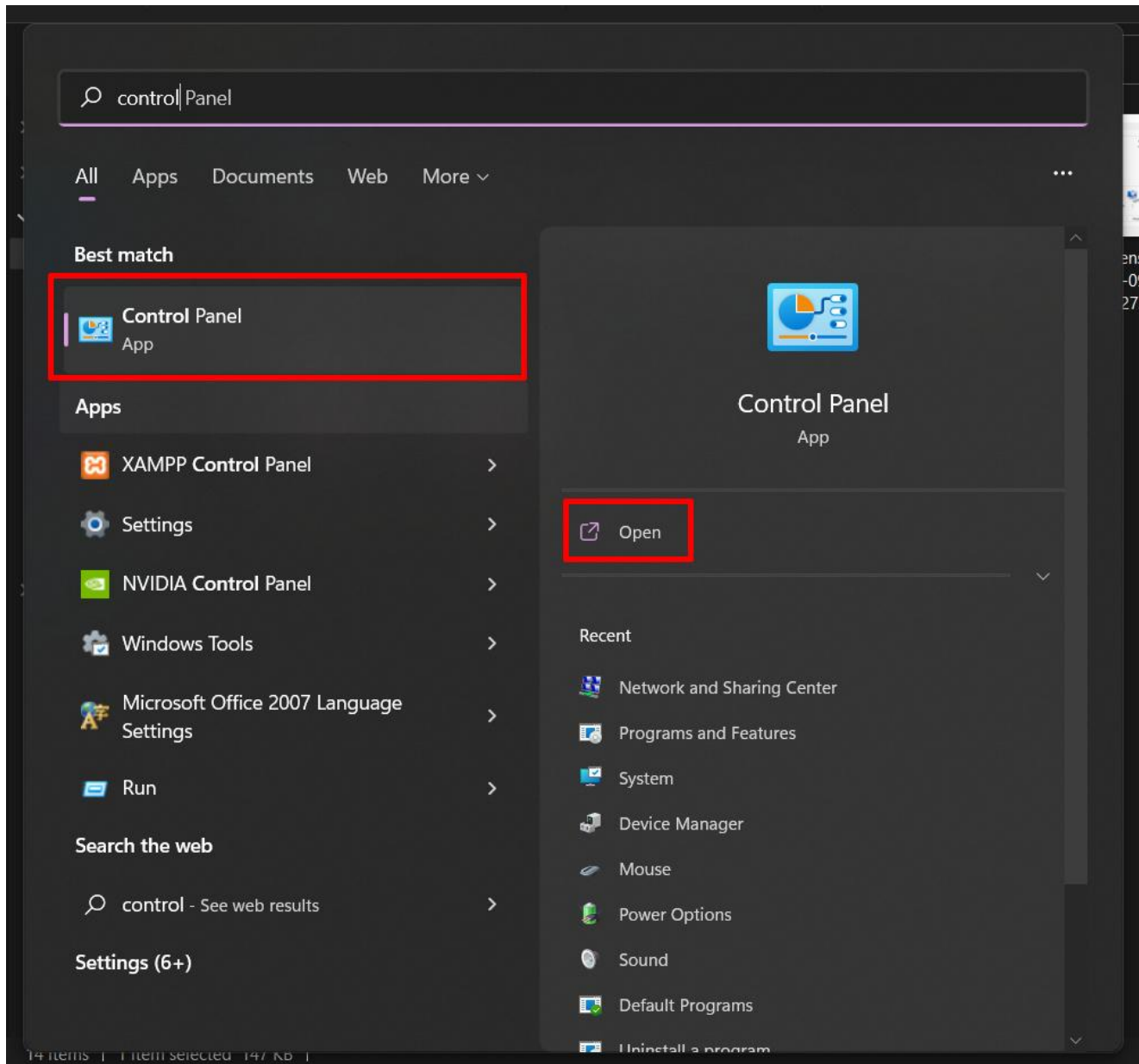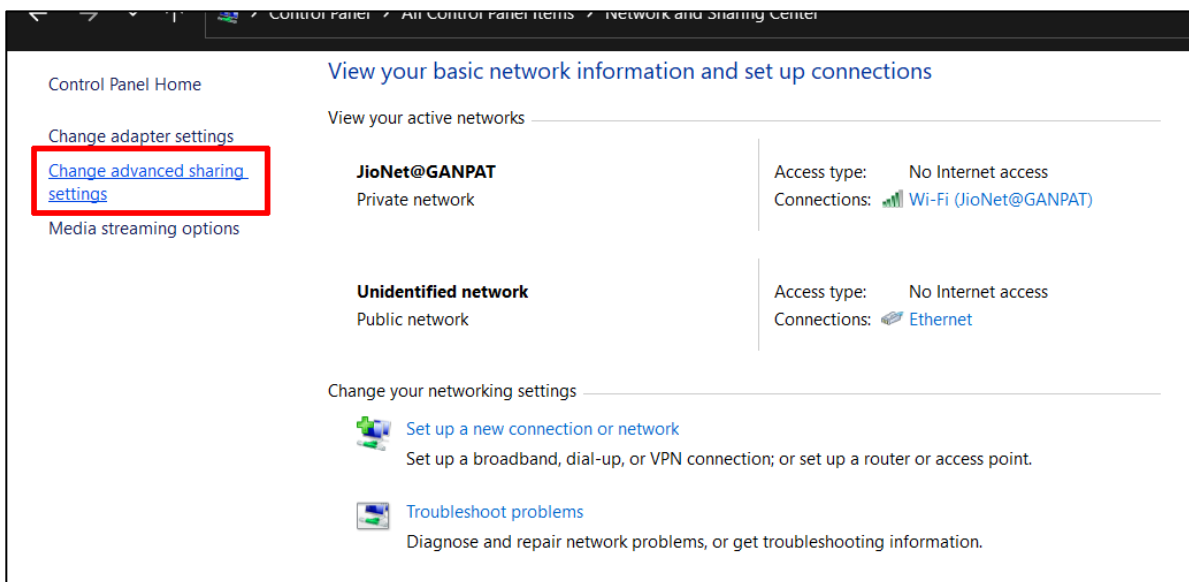
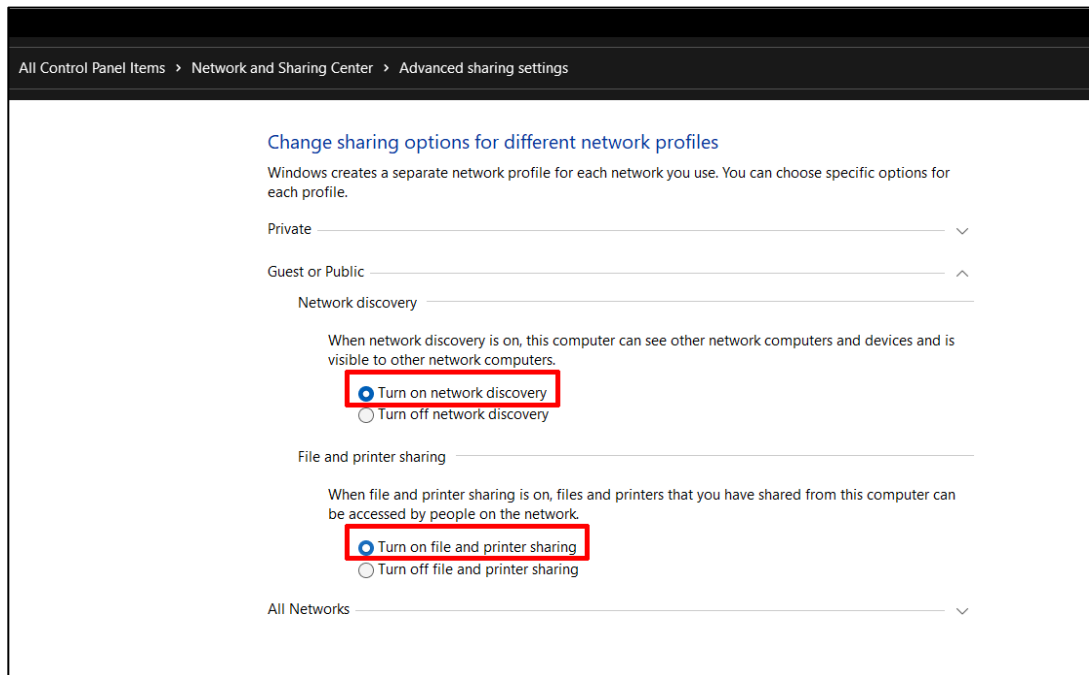**Step 3):** In the control panel select the "**Network and Internet**" option.

Step 4): From upper left portion of screen select "**change advanced sharing settings**".

Step 5): Under "**Network discovery**" select "**Turn on network discovery"** and Under "**File and printer sharing**" select **"Turn on printer sharing**" option.

Step 6): After that under All Networks select "**Turn on sharing to anyone with network access can read and write files in the public folders**".

Step 7): Under Password protected sharing select "**Turn off password protected sharing**".

Step 8): Then click on "**Save Changes**".

Similarly settings apply on PC2.

Step 9): After that, check connections it will show "**Ethernet**" click on it.
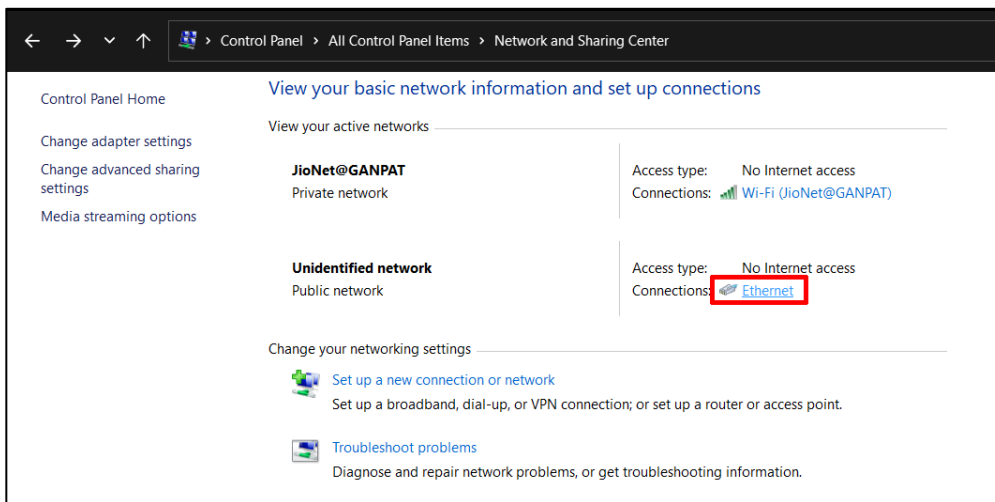
Step 10): Tap on "**Properties**" and Double click on "**Internet Protocol Version 4 (TCP/iPv4)**"
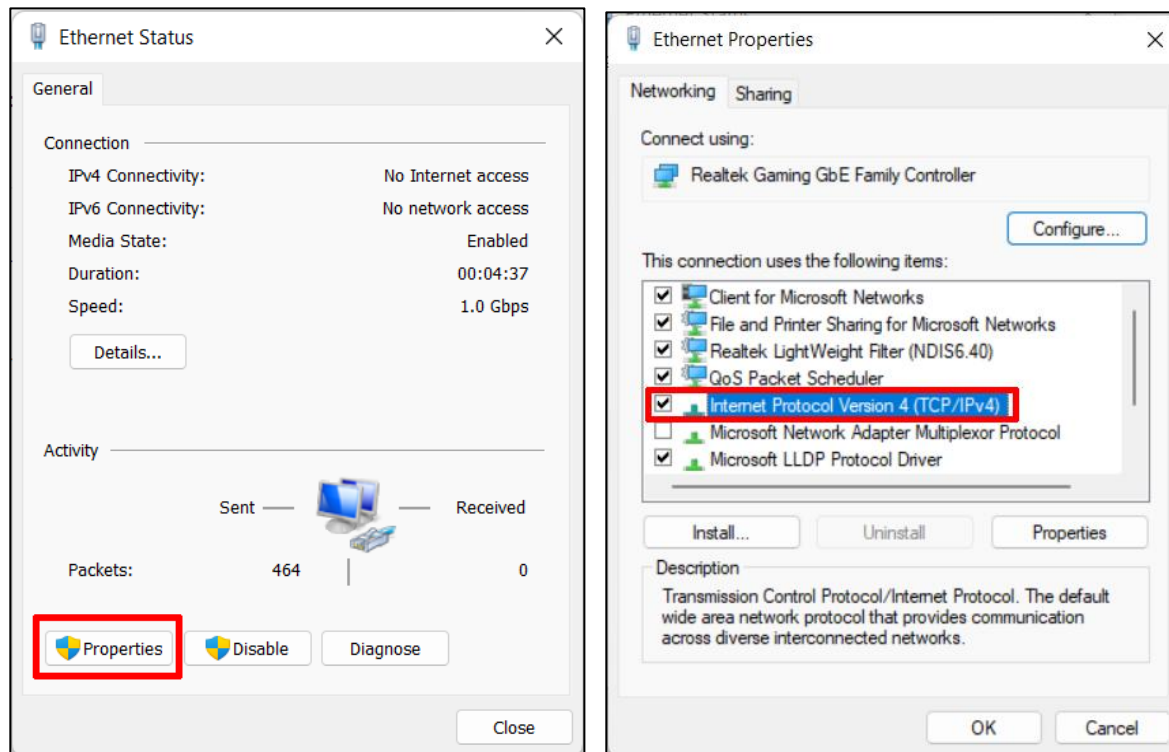
Step 11): After double clicking on that select **"Use the following IP address"** and give the value to the IP address, Subnet Mask and Default Gateway of PC1**.**

- Put "**IP Address**" of PC2 in Default gateway of PC1.

Step 12): Similarly give the value to the **IP address,** Subnet Mask and Default Gateway of PC2.

- Put "**IP Address**" of PC1 in Default gateway of PC2.

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Step 13): Go to This pc and select the "**properties**" of "**New volume (D)**".
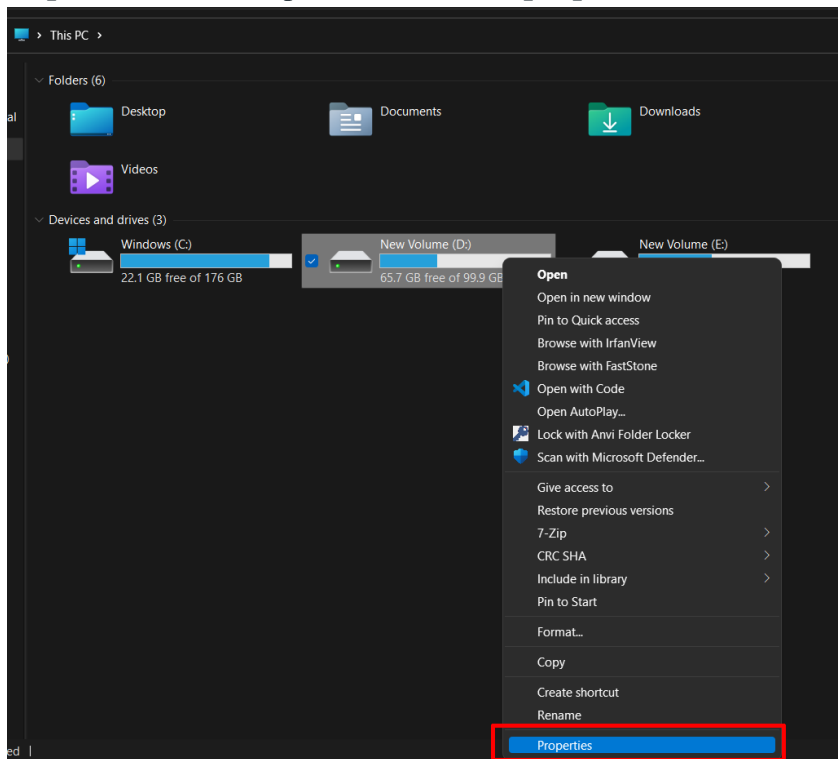
Step 14): Then after select "**Sharing**" tab and tap on "**Advanced Sharing**".
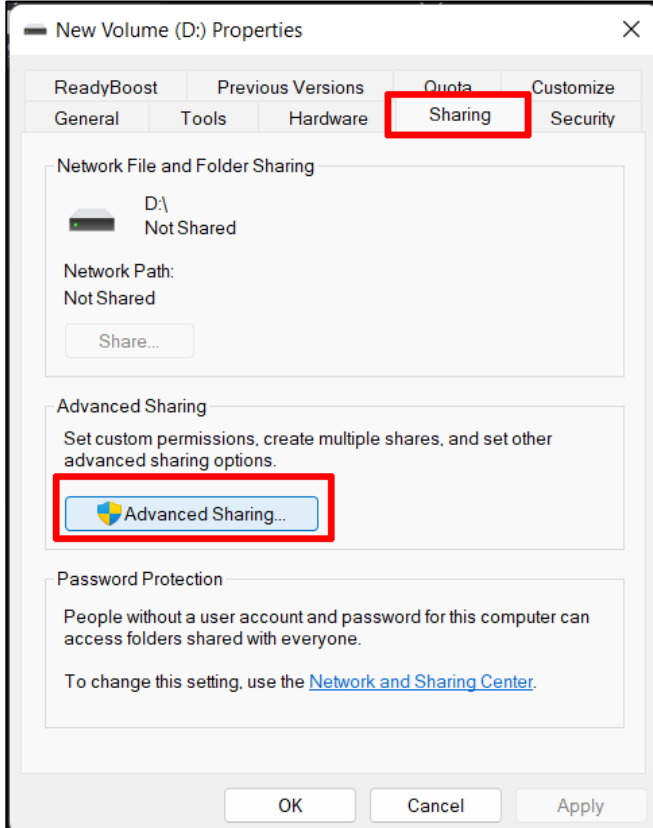
Step 15): In Advanced Sharing select "**Share this folder**" and Click on "**Permissions**".
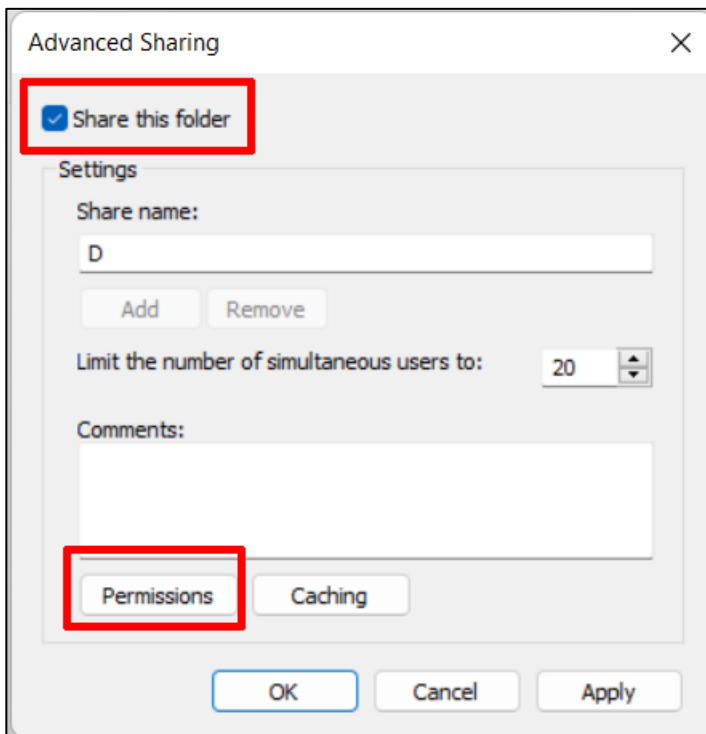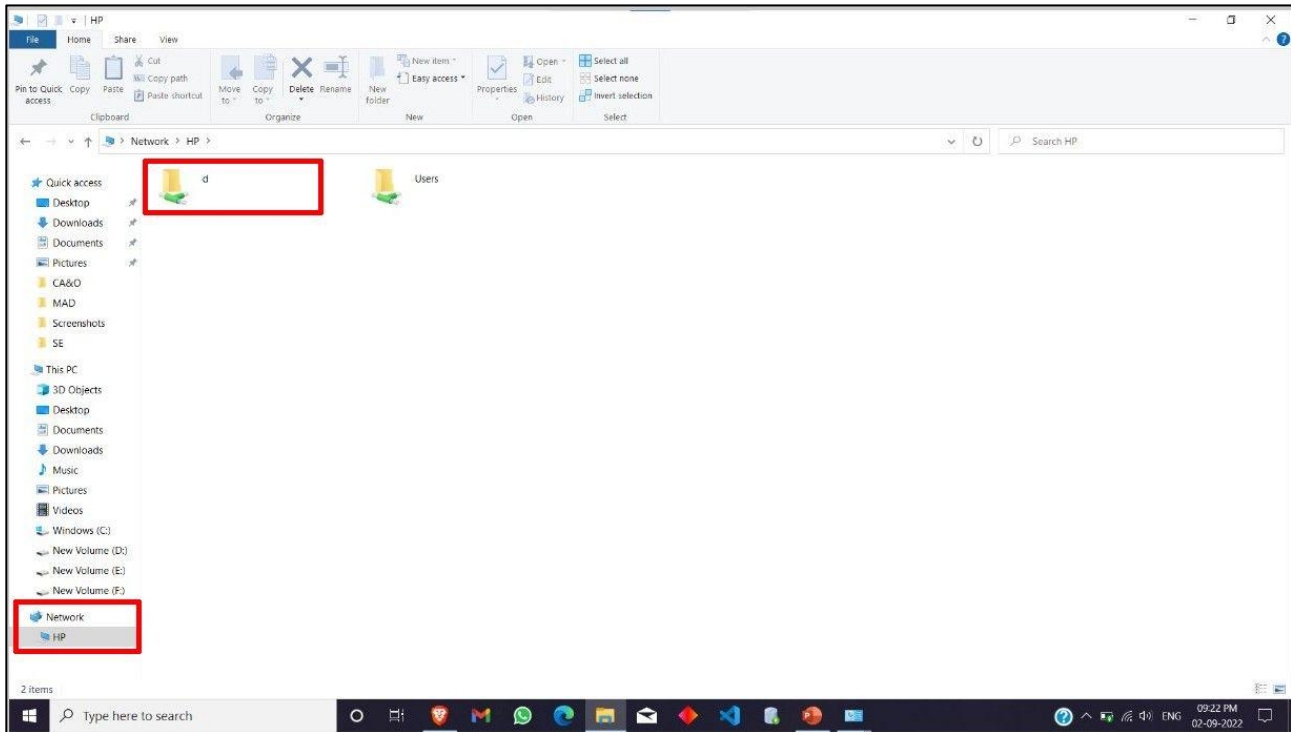

Step 16): In Share permission "**Add**" "**Everyone**" in Group or username. Give permission as you want. I can give "**read**" permission and click on "**Apply**" and "**OK**".
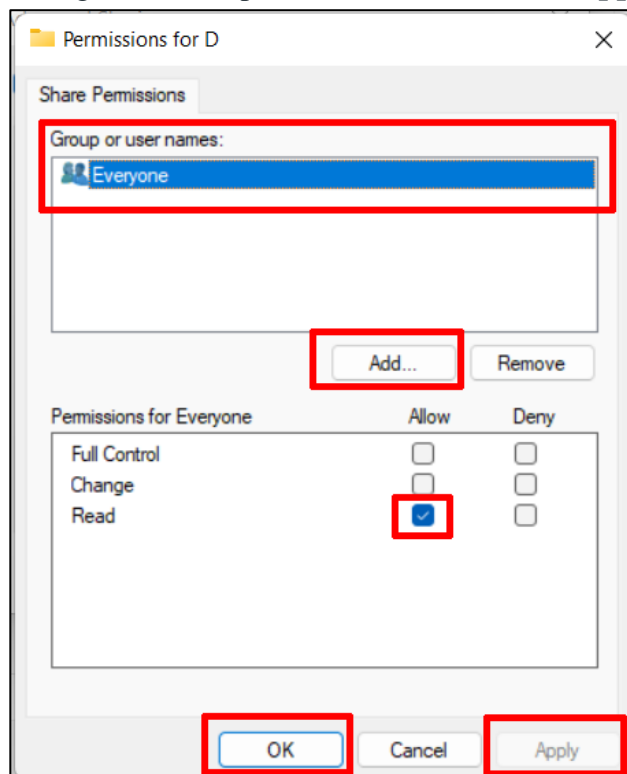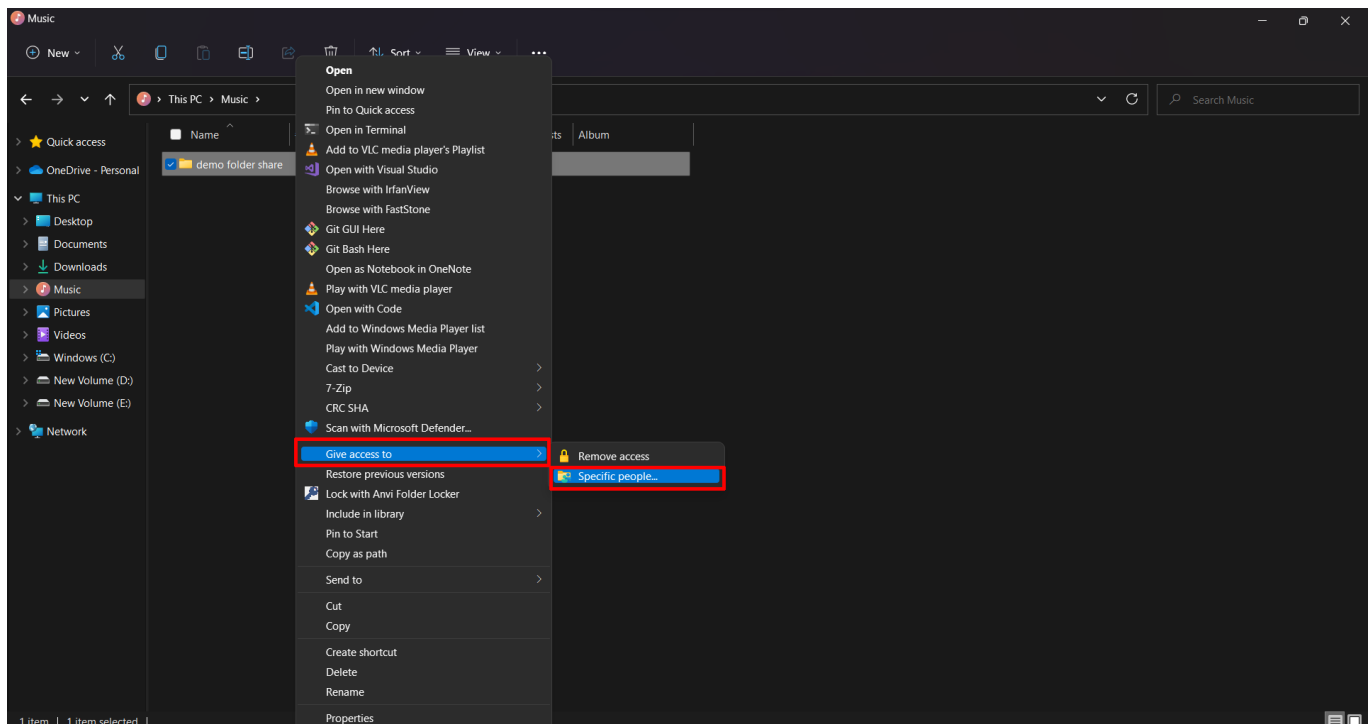
Step 17): After giving permissions to PC1, the "**D drive**" will be available in PC2, so we can access data of PC1's D drive easily in PC2.
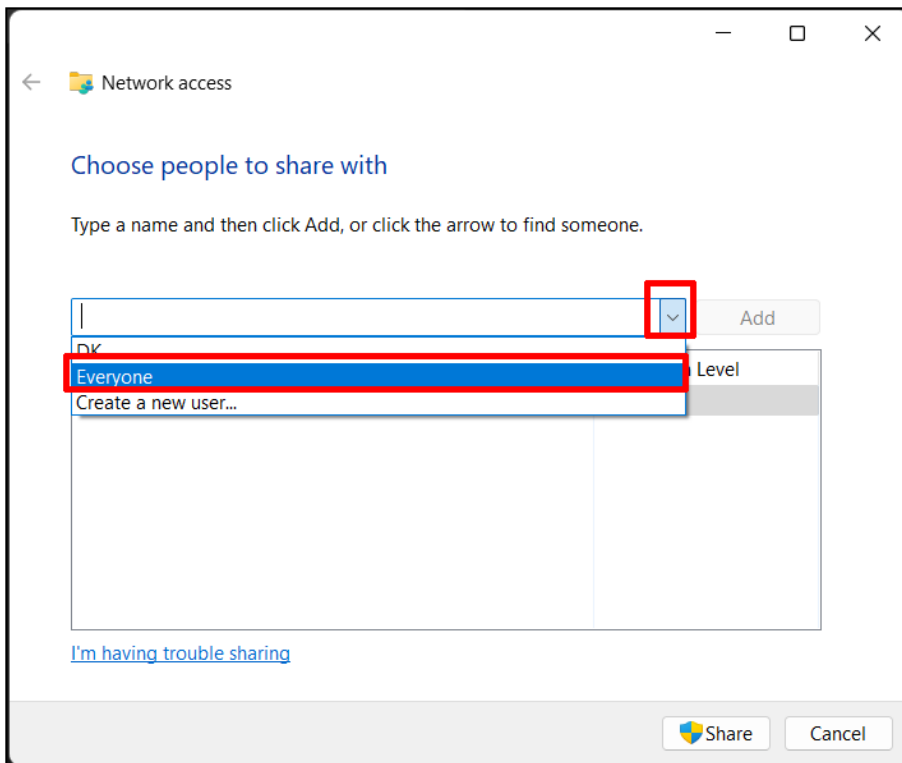

If you need to share only particular folder follow steps.

1). "Right Click" on the Folder you want to share. After that, go to "**Give access to**" and from the two options that appear, go to "**Specific people**".
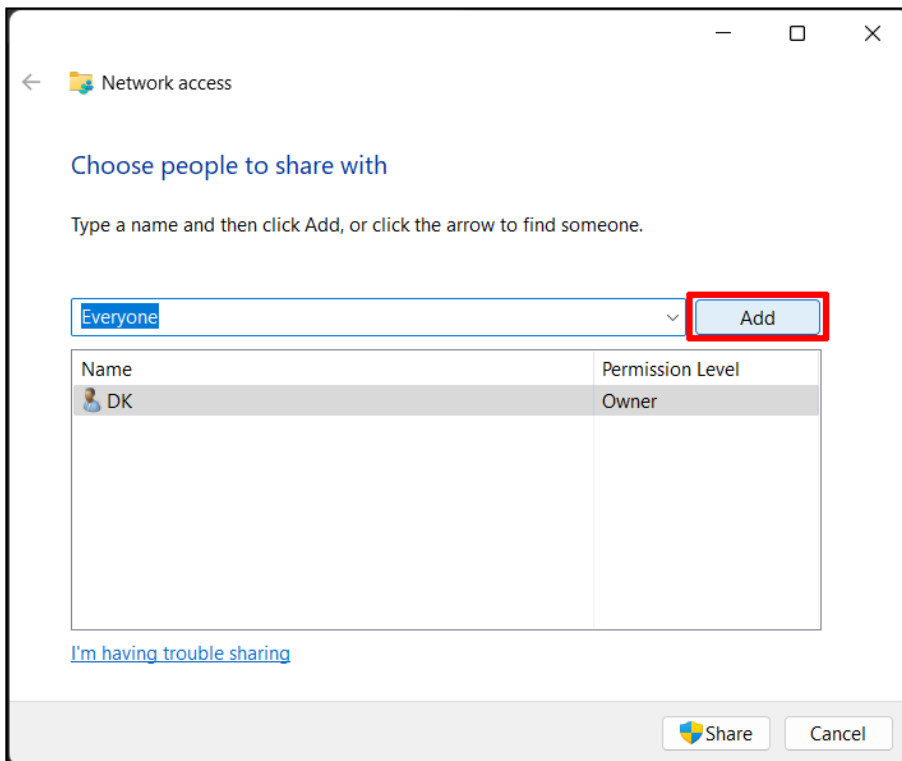
2). After that click on the drop down given in it select "**Everyone**" from it.

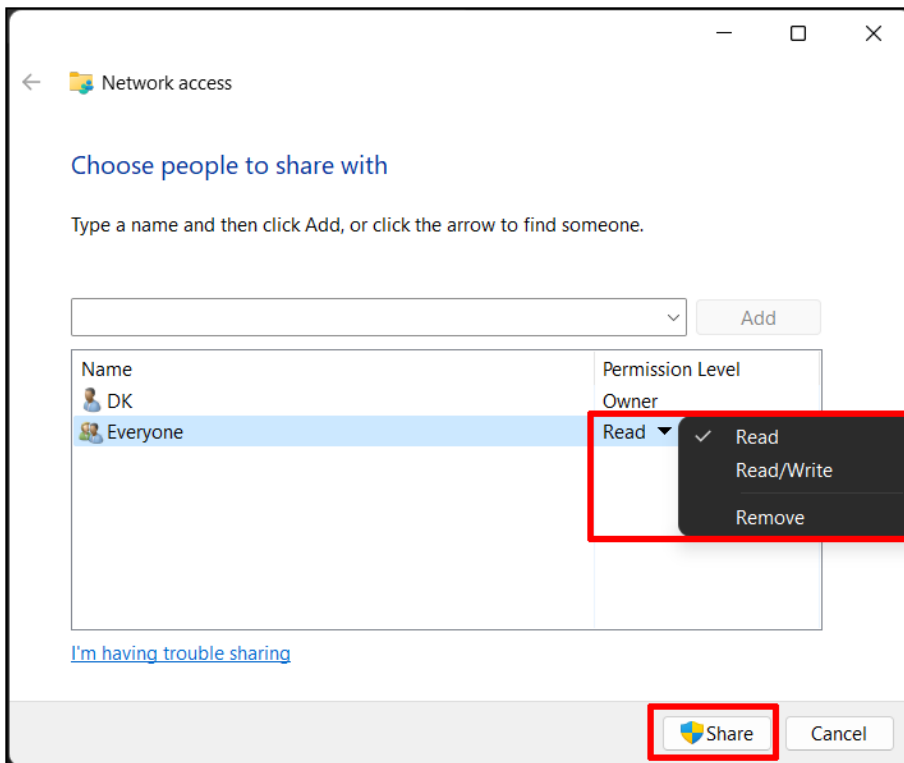**3).** The click on "**Add**" button. Clicking on "**Add**" "**Everyone**" adds it to the user list.
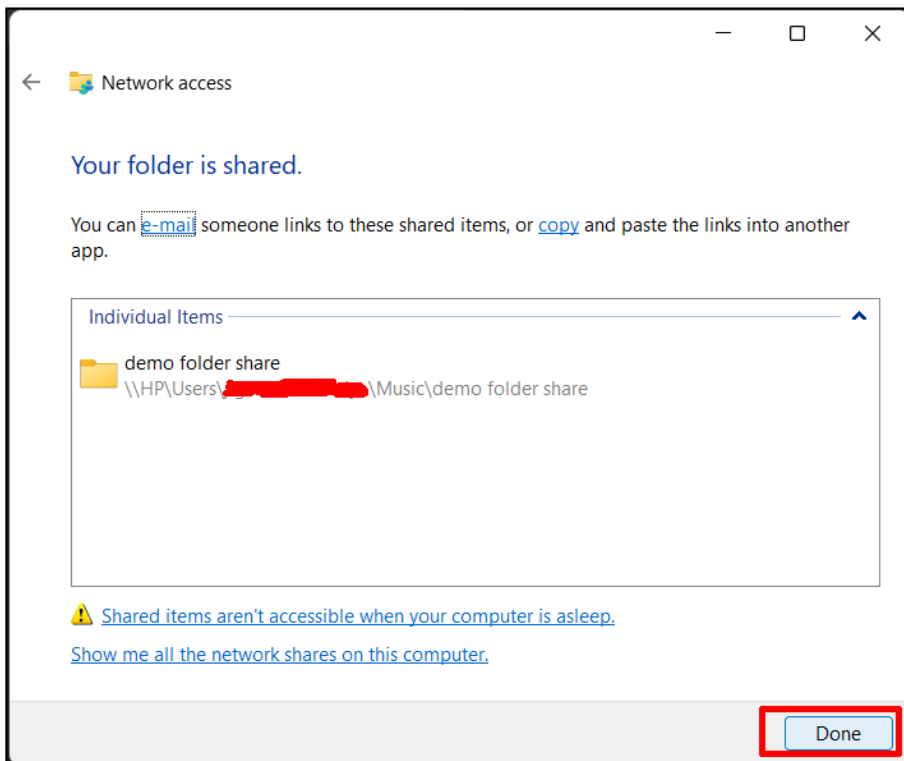
4). Give the permission as you want. I can give only "**read**" permission. After that, click on "**Share**".

5). After that click on "**Share**" we see you folder is shared. After that click "**Done**".

If you need to stop sharing folder follow steps.

1). "**Right Click**" on the Folder you want to stop sharing. After that, go to "**Give access to**" and from the two options that appear, click on "**Remove access**".