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Aim:

Setup & configure a local Area Network using a switch & ethernet cables in your lab.

What is LAN:

A local Area Network refers to a network that connects devices within a limited area, such as an office building, school or home. It enables user to share resources, including data, printers & internet access. LAN connect devices to promote collaboration & transfer information between user such as printers, servers & switches. A local area network (LAN) switch serves as the primary connecting devices, managing and directing communication within the local network.

How to set up a LAN:

Step 1:- Plan and Design an appropriate network topology taking into account network requirement and equipment location.

Step 2: You can take 4 computers, a switch with 8, 16 or 24 ports which is sufficient for network of these sizes.

Step 3:- Connect your computers to network switches via an Ethernet cable, which is as simple as plugging one end of the Ethernet cable into your computer.

Step 4:- Assign IP address to your PC

- 1) Log on to the Client Computer as Administrator or as owner.
- 2) Click network and Internet Connection
- 3) Right click Local Area Connection of Ethernet → Go to properties → select Internet Protocol (TCP/IPv4) → Click on properties.

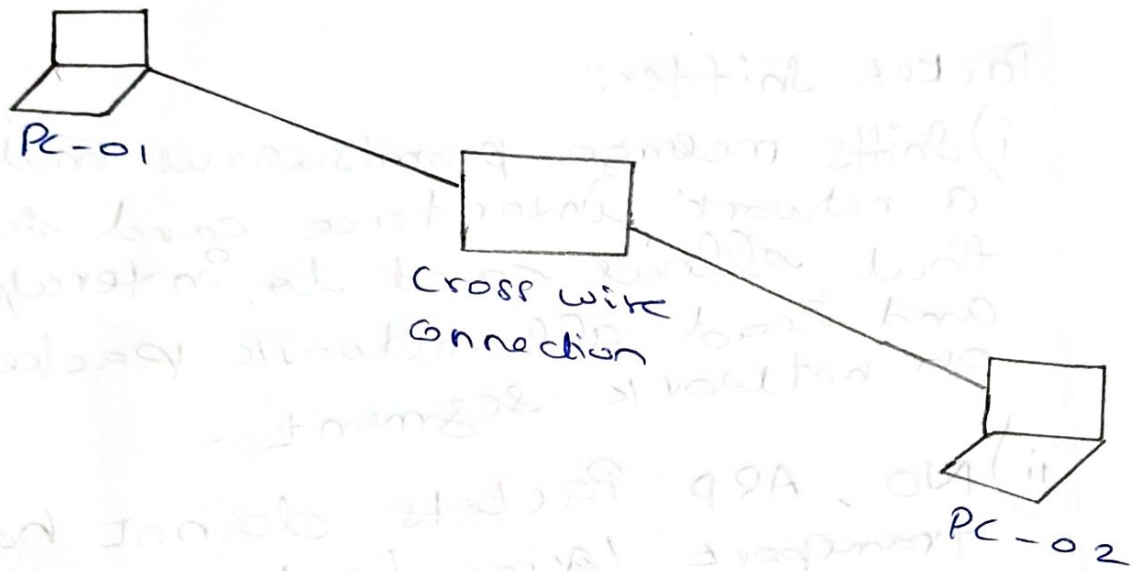
Step 5:- Configure a network switch

- 1) Connect your Computer to the Switch. To access the switch's web interface you will need to connect your Computer to the switch using an Ethernet cable.
- 2) Login in to the web interface, open a web browser and enter the IP address of the switch in the address bar.
- 3) Configure basic setting: Once you are logged in, you will be able to configure basic settings for the switch.
- 4) Assign IP address as: 10.1.1.5, Subnet mask 255.0.0.0

Step 6:- Check the connectivity between switch and other machine by using ping command in the command prompt of the device

Step 7: Select a folder, → go to properties click sharing tab → share it with everyone on the same LAN

Step-8: Try to access the shared folder from other computers of the network.



Result: The equipment was successfully executed & o/p is verified.

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