

31/7/24

practical-4

AIM:

setup and configure a LAN using a switch and ethernet cables in your lab.

What is LAN?

⇒ A LAN refers to a network that connects devices within a limited area, such as an office building, school. It enables users to share resources, including data, printers. LAN connects devices to promote collaboration and transfer info. b/w users, such as computers, printers etc. Each connected device on a LAN switch, can communicate directly with each other.

How to set-up ~~for~~ LAN:

step 1: plan and design an appropriate network topology taking into account network requirement and equipment locations.

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

Step 3: connect your computers to network switch via an ethernet cable, which is as simple as plugging one end of the ethernet cable into your computer and the other end into your network switch.

Step 4:

- 1) Log on to the client computer as Administrator.
- 2) Click Network and Internet conn.
- 3) Right click LAN ethernet → select use the following IP address option and IP address.

⇒ assign IP address to all the PCs

PC1 - IP addr: 10.1.1.1, subnet mask 255.0.0.0

PC2 - IP addr: 10.1.1.2, " " 255.0.0.0

PC3 - IP addr: 10.1.1.3, " " 255.0.0.0

PC4 - IP addr: 10.1.1.4 " " 255.0.0.0

Step 5: config an network switch:

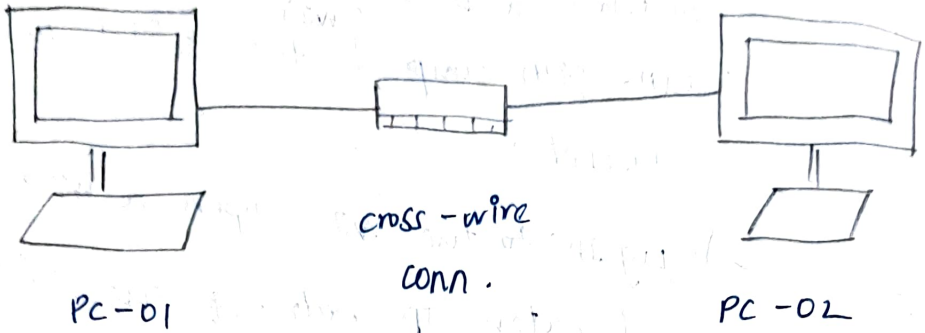
- 1) conn. the comp. to the switch: TO access the switch's web interface, you will need to conn. your comp ^(WI) to the switch using ethernet.
- 2) log in to the WI: open a web browser and enter IP addr. of the switch in the addr. bar.
- 3) configure basic settings: once you're ~~logged in~~ logged in, you will be able to configure basic settings for the switch.
- 4) Assign IP addr. as: 10.1.1.5, subnet mask 255.0.0.0.

Step 6: check the connectivity b/w 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 others computers of the ~~network~~ network.

Student observation:



Result:

The connection have been done successfully.

[Signature]
5/8/24