

ex: 4.
03/8/24

PRACTICAL - 4 .

AIM:-

Setup and configure a small local area network using a switch and Ethernet cables in your lab.

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 users to share resources, including data, printers, and internet access.

How to set up a LAN:-

Step 1:- Plan and design an appropriate network topology taking into account network requirements & equipment location.

Step 2:- You can take 4 computers, a switch with 8, 16, 24 ports which is sufficient for networks of these sizes, and 4 Ethernet cables.

Step 3:- Connect your computers to network switch via an Ethernet cable.

Step 4:- Assign IP address to your PCs.

- 1) Log on to the client computer
- 2) Click network and internet connection.
- 3) Right click local area connection.

Similarly assign IP address to all the PCs connected to switch.

PC1 - IP address : 10.1.1.1 , subnet mask 255.0.0.0

PC2 - IP address : 10.1.1.2 , subnet mask 255.0.0.0

PC3 - IP address : 10.1.1.3 , subnet mask 255.0.0.0

PC4 - IP address : 10.1.1.4 , subnet mask 255.0.0.0.

Step 5 :- Configure a network switch.

1) Configure basic settings : Once you're logged in, you will be able to configure basic settings for the switch.

2) Assign IP address as : 10.1.1.5 , subnet mask 255.0.0.0.

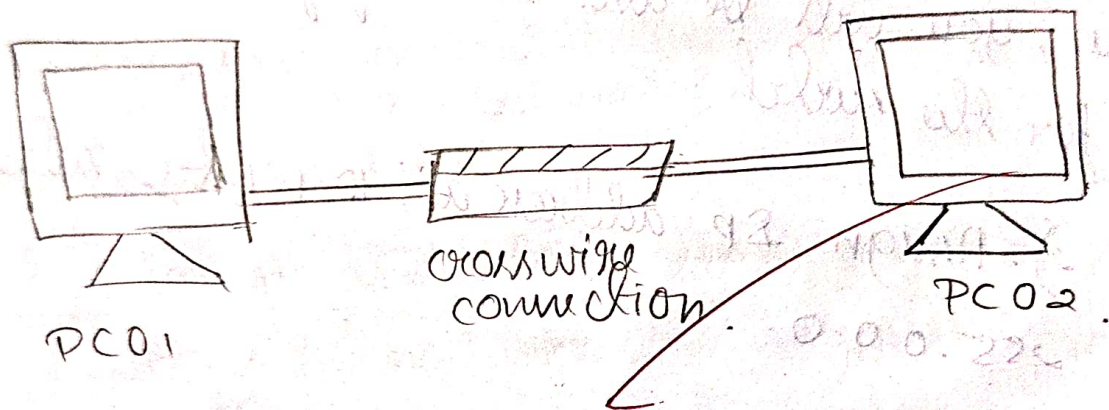
Step 6 :-
Check the connectivity between switch and other machine by using ping command in the command prompt of the device.

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.

STUDENT OBSERVATION:-

Draw a neat diagram of the LAN in the configuration observation book. that you have implemented in your lab. write the ip configuration of each and every device. write the outcome and challenges faced while configuring the LAN.



RESULT:-

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

[Signature]
10/12/24