

6/8/24

Practical - 4

aim:

Setup and configure a LAN (Local area network) using a switch and ethernet cables in your lab.

What is a LAN?

A Local Area Network (LAN) refers to a Network that connects devices within a limited area, such as 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 and equipment location.

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 cables.

Step 4: Assign IP Address to your PCs

1. Log on to the client computer as Administrator or as owner.
2. Click Network and Internet connection.

3. Right click Local media connection /

Ethernet → Go to properties → Select Internet protocol (TCP/IPv4)

Click properties → Select IP address option and assign IP address.

Step 5: Configure a network switch:

1. Connect your computer to the switch
2. Log in to the web interface
3. Configure basic settings
4. Assign IP address as.

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

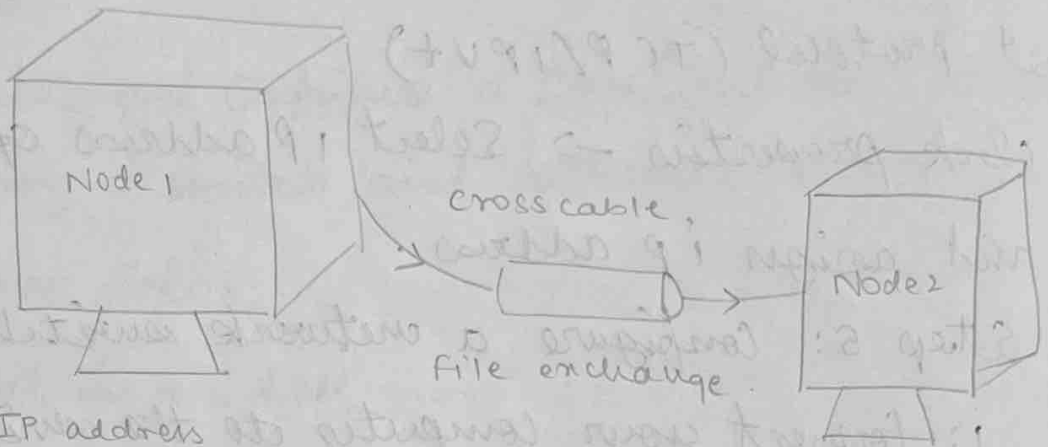
Step 7: Select a folder → Go to properties → Click sharing tab → share it with everyone on the same LAN.

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

Observation:

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

Diagram of the LAN:



IP address

172.16.8.82

IP address

172.16.8.83

IP configuration:

Node-1:

IP V₄ Address : 172.16.8.82

Node-2:

IP V₄ address : 172.16.8.83

The file that sent that through [link Run : C:\172.16.8.82] → (as per IREC Desktop) is sent successfully.

Result:

Thus the setup and configuration of LAN using a switch and ethernet cables.

[Signature]
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