

## Practical - 1

Aim:-

Setup & Configure a LAN (Local area network) using a switch & 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 & internet access.

How to set up a LAN

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

Step 2:-

You can take 4 Computers, a switch with 16, or 24 ports which is sufficient for network of these size, & Ethernet cables.

Step 3:-

Connect your Computers to network switch through an Ethernet cable, which is simple as plugging one end of the Ethernet cable into your computer & other end into your network switch.

Step-4

Assign IP address to your PCs  
1) log on to the client computer as Administrator or as owner.

2) Click Network & Internet Connections.

3) Right click Local Area Connection (Ethernet) → Go to properties → select Internet Protocol (TCP/IPv4) → click properties → select ip address option & assign ip address.

Step-5:- Configure a network switch.

1. Connect your computer to the switch

2) log into the web interface.

3) Configure basic settings

4) Assign IP Address as.

Step 6:-

Check the connectivity between switch & other machine by using ping command in the command prompt of the device.

Step-7:-

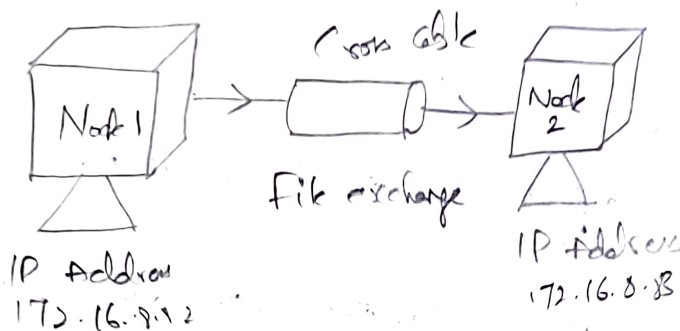
select a folder → go to properties → click sharing tab → share it with everyone on the

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

Observation:-

Draw a diagram of LAN  
observation book that you have  
you lab write the IP configuration  
& every device. Write the outcome  
challenge faced while configuring the LAN.

Diagram of the LAN:-



IP Configuration:-

Node -1:-

IPv4 Address 172.16.8.82

Node -2:-

IPv4 Address 172.16.8.83

Outcome:-

The file shot sent shot through [Click

~~Fun: [172.16.8.8] → 1 user // REC // Desktop] is  
sent successfully~~

Result:-

Thus, the set up LAN is using switch  
& Ethernet cables is successfully connected &  
sent files.