PRACTICAL - 4

AIM :

setup and configure a LAN (Local Area Network) using switch ande ethernet cables in your Lab.

◆ What is LAN ?

A Local Area Network (LAN) 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 data access. LAN connects devices to promote collaboration and transfer information between users, such as computers, printers, servers and switches. A Local Area Network (LAN) switch serves as the primary device, managing and directing communication within the Local network.

HOW TO SET UP LAN

1) Plan and Design an appropriate network topology taking into account network requirements and equipment Location

2) You can take 4 computers, a switch with 8, 16, or 24 ports which is sufficient for networks of those sizes and 4 ethernet cables.

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 other end into your network switch

4) Assign IP address to your PC's
   (i) Log on to client computer as Administrator or owner.

   (ii) click network and Internet connections

   (iii) Right click Local Area connection/ ethernet → go to properties → select internet protocol (TCP/IPv4) → click on properties → select use the following ip address option and assign ip address.

   similarly assign IP address to all PC's connected to switch.

5) configure a network switch:
   (i) 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.

   (ii) Log into web interface: open a web browser and enter the IP address of the switch in the address bar. This should bring up the login page for the switch's web interface.
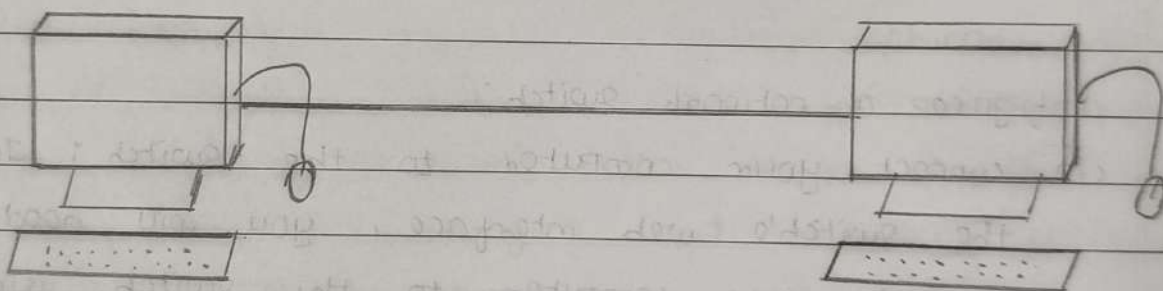
   (iii) configure basic settings: once your logged in, you will be able to configure basic settings for the switch

   (iv) Assign IP address as: 10.1.1.5, subnet mask 255.0.0.0

6) check the connectivity between switch and other machine by using ping command in the command prompt. of the device.

7) select a folder → go to properties → click sharing tab & share it with everyone on the same LAN.

8) Try to access the shared folder from others computers of the network.

STUDENT OBSERVATION :

RESULT

Thus the setup of LAN & using switch and ethernet is executed.