

23/5/25 Ex no: 4 Experiment on setting up of LAN using switches.

Aim:-

Setup and configure a LAN (Local area network) using a switch and 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 internet access. LAN connect devices to promote collaboration and transfer information between users such as computers, printers, servers and switch. A local-area network (LAN) switch serves as the primary connection device managing and directing communication.

How to set up a LAN?

Step 1:- plan and design an appropriate networking topology, taking into account network requirements and equipment location.



Step 2: you can use a switch with 8, 16 or 24 ports which is sufficient for networks of these sizes & Ethernet cables.

Step 3: connect your computer 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 network switch.

Step 4: Assign IP addresses to your PCs.

1. Log on to the client computer as Administrator or as owner.

2. Click Network and Internet.

Connection &

2. Right click Local Area Connection / Ethernet.

PC 1 - IP address 1.10.1.1 subnet mask 255.0.0.0.

PC 2 - IP address 1.10.1.2 subnet mask 255.0.0.0.

PC 3 - IP address 1.10.1.3 subnet mask 255.0.0.0.

PC 4 - IP address 1.10.1.4 subnet mask 255.0.0.0.



step 5:

1. Connect your computer to the switch! - To access the switch's web interface, you will need to connect your computer to switch using an ethernet cable.

2. Login in to the interface.

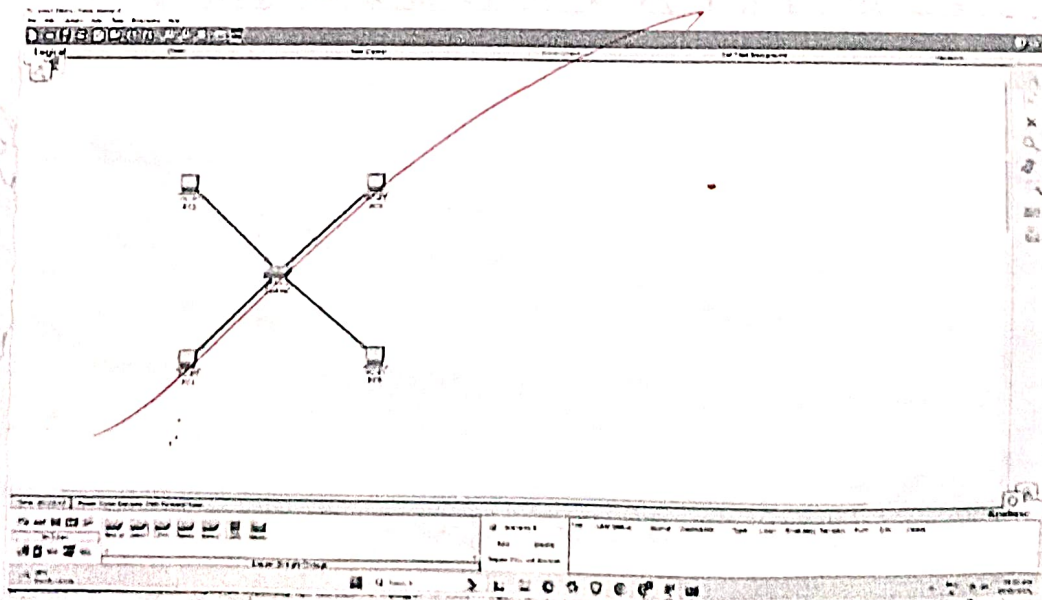
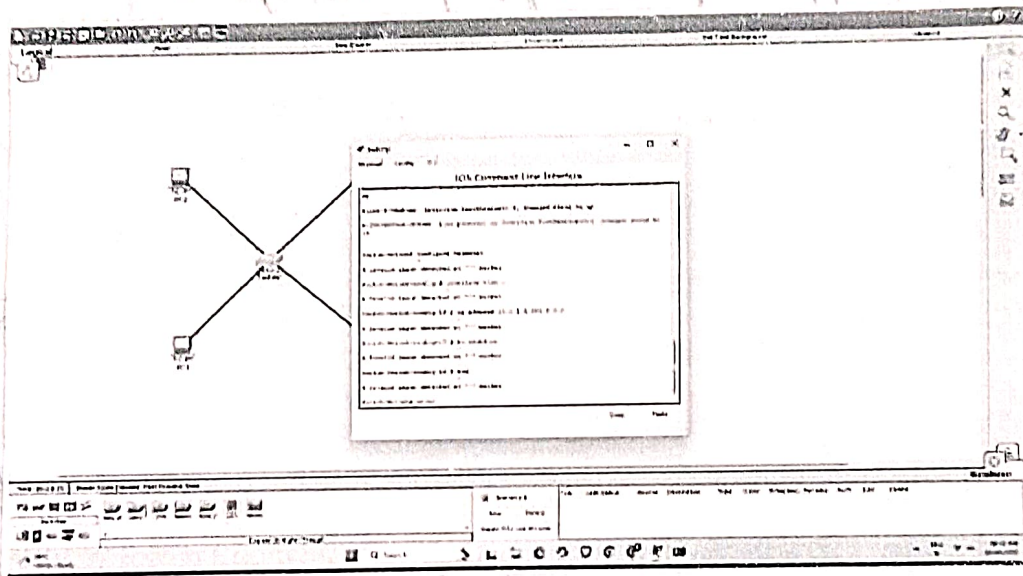
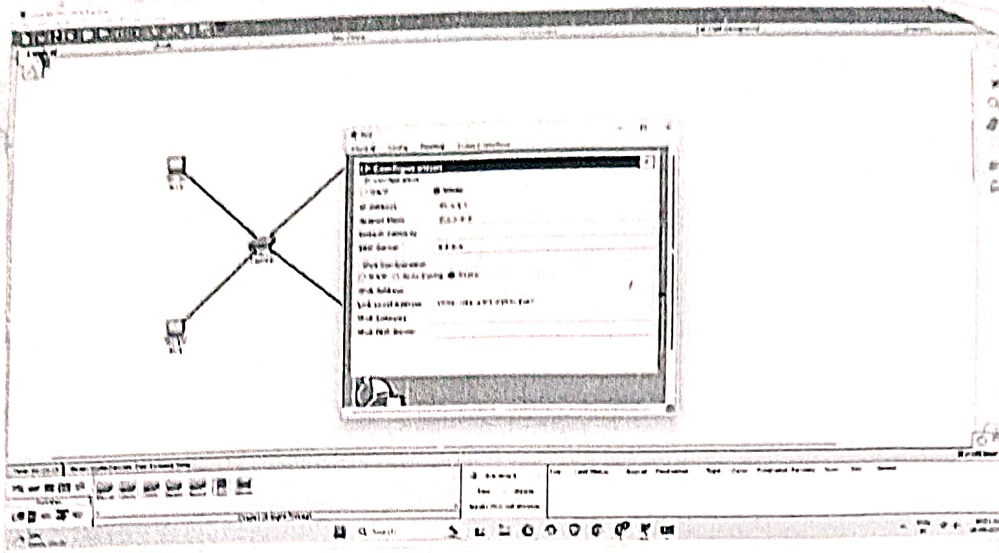
3. Configure basic setting.

4. Assign IP address as: 10.1.1.5  
subnet mask 255.0.0.0.

~~Sub~~

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 computer of the network.



Result: Thus the above experiment successfully completed and executed