

28/8/25

## PRACTICAL - 4

### AIM:

Setup and configure a LAN using a switch and Ethernet cable in your lab.

### What is LAN?

A LAN refers to a network that connects devices to a limited area such as office building, school or home. It enables users to share resources, including data, printers and internet access. LAN connects devices to promote collaboration and transfer information between users, such as computers, printers, servers and switches.

### How to setup LAN?

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

Step 2: You can take 4 computer, a switch with 8, 16, 24 ports which is sufficient for these sizes and 1st cable

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.

Step 4: Assign IP address to your PCs

- 1) Log on to the client comp as Admin
- 2) click Network and Internet connection
- 3) Right click Local Area Connection  
→ go to properties

Select Internet protocol → click on properties  
Select use the following IP address option  
and assign IP address.

Similarly assign IP address to all the PCs connected to switch

~~PC<sub>1</sub> = IP address: 10.1.1.1, subnet mask: 255.0.0.0.~~

PC<sub>2</sub> - IP address: 10.1.1.2 subnet mask  
255.0.0.0

PC<sub>3</sub> - IP address 10.1.1.3, subnet mask  
255.0.0.0

PC<sub>4</sub> - IP address 10.1.1.4, subnet mask  
255.0.0.0

Step 5: Configure a network switch

1. Connect your computer to the switch

To access the switch's web interface, you will need to connect your computer

2. Log in to the 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.

3. Configure basic settings. Once you logged in, you will be able to configure basic settings for the switch.

4. 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 1 : 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.

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## RESULT

thus LAN network was set up successfully in the LAB.