

EX. NO. 4.

## 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.

### 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 size and 4 Ethernet cables.

Step-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 the other end into your Network Switch.

## Step-4 Assign IP address to your pc

1. Log on to the client computer as Administrator or a owner
2. click Network and Internet connection
3. 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

### General

☐ obtain an IP address automatically

☒ use the following IP address:

IP address:

Subnet mask:

Default gateway:

☒ use the following DNS server addresses

Preferred DNS server:

Alternate DNS server:

☐ relid setting upon wait



similarly assign IP address to all the PCs connected to switch

PC1 - IP address: 10.1.1.1, Subnet mask 255.0.0.0

PC2 - IP address: 10.1.1.2, Subnet mask 25.0.0.0

PC3 - IP address: 10.1.1.3, Subnet mask 25.0.0.0

PC4 - IP address: 10.1.1.4, Subnet mask 25.0.0.0

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 to the switch using an Ethernet cable.
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. Enter the username and password to log in.
3. Configure basic settings: once you're logged in, you will be able to configure basic settings for the switch.
4. Assign IP address 10.1.1.5, subnet mask 25.0.0.0.

Step-6. Check the connectivity between Switch and other machine by using ping command in the command prompt of the device.

Step-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.

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Result:-

We can give IP configuration of each and every device and we can able to face the outcome and challenges faced while configuring the LAN.