

PP NO 4

DATE : 11-08-2025

Experiment on Setting up & Configuring a LAN using a Switch & hub

AIM:

To setup a local network connection and connect using ethernet cables and switches.

A LAN refers to a network that connects devices within a limited area and enables them to share resources and promote collaboration. A LAN switch serves as a primary connectivity device, managing and directing communication within a local network such that connected devices can communicate directly with each other, allowing faster and secure data transfer.

How to setup a LAN:-

Step 1: Plan and design an appropriate network topology taking into account the 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 if there is 1 user and 4 ethernet cables.

Step 3: Connect your computers to a network switch via an ethernet cable, which is done by simply 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's
1. Login on to your client computer as administrator or as owner

Setting up & Configuring
a Switch & Ethernet Cable

connection and
routers and switches.
network that connects
areas and enables
and promotes collaboration.

as a primary connection
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faster and secure

appropriate plan
account the network
equipment location.

computer, a switch
which has sufficient
2 ports and 4 Ethernet

ports to a network
cable, which is
being one end
into your
end into your

your PC's
other computer as
Master or as Owner.

2. Click on network and internet connections
3. Right click local area connection & Ethernet
→ go to properties → select the internet protocol
(TCP/IPv4) → click on properties → select the
following IP address option and assign IP
address.

Step 5. Configure a network switch

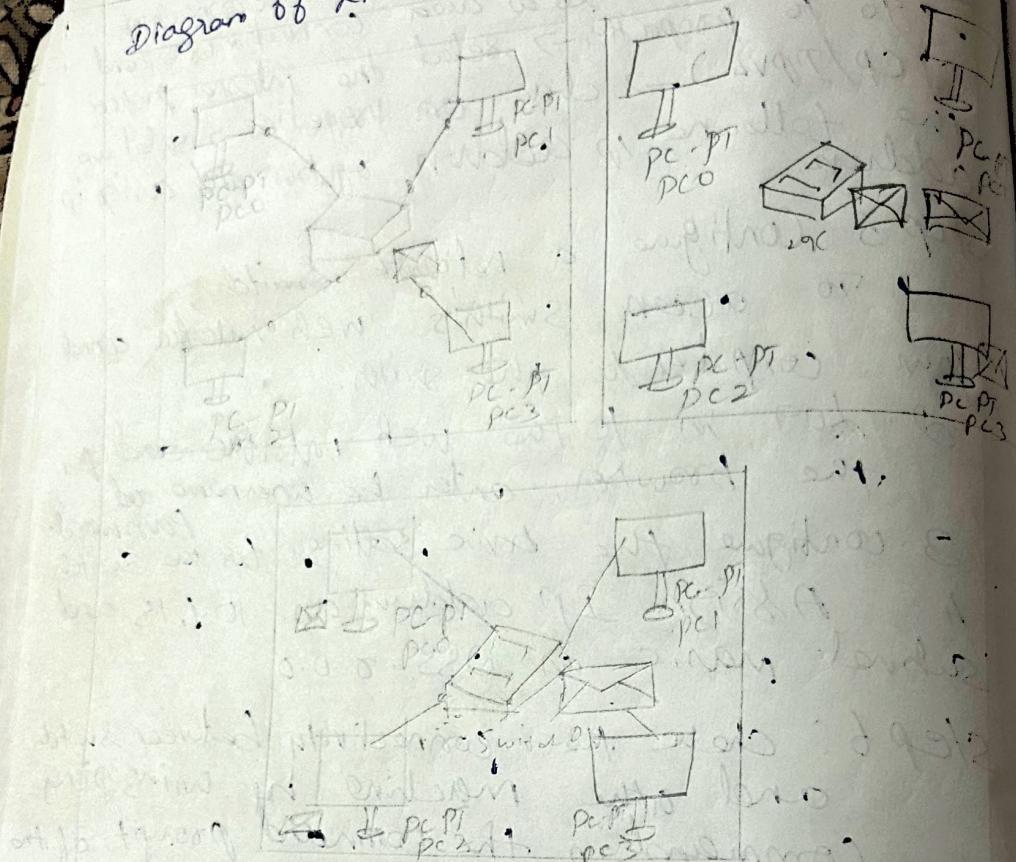
1. To access switch's web interface, connect
your computer to the switch.
2. Log in to the web interface and open
the browser. Enter the username and
password.
3. Configure the basic settings for the switch.
4. Assign IP address as 10.1.1.15 and
subnet mask as 255.0.0.0

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

Step 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

Diagram of LAN in Configuration observations:



Result:

Wiring switches Ethernet cables, a LAN has been setup and configured.

Exp NO: 6
DATE 28.08.25

AIM:

Written a code and maybe a test error correct

Error

Hanning codes that the error data is the developed correction. Create

1. Input to any len to bin

2) Apply h data. a

3. Save Create.

1. Receiver channel

2. Apply & check

3 If the error

4. Else correct