

## AIM:

To setup a LAN network connection and configure using ethernet cables and switches.

A LAN refers to a network that connects device within a limited area and enables users to share resources and promotes collaboration and transfer of information.

A LAN switch serves as a primary connecting service, managing and directing communications within a local network each connected device on a LAN switch can communicate directly with each other allowing faster and secure data transfer.

## How to set up 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 of these sizes and 4 ethernet cable.



step 3: connect your computers to a network switch via a 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 PCs

1. login on to your client computer as administrator or as owner

2. click network and internet connection

3. Right click local area connection or ethernet.

→ go to properties → select the internet protocol (TCP/IPv4) → click on properties → select use 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 into the web interface and open the browser, enter the username and password.



3. configure the basic setting for the switch.

4. Assign ip address as 10.1.15 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.

Result:  
using switch + Ethernet cables a  
LAN has been setup and configured.

15/10/16