# Practical-4

**Aim:**

Setup and configure a LAN using a switch and ethernet cables in your lab.

## how to setup lan:

### Step 1:

Plan and design an approppriate network topology taking into account network requirement and equipment location.

### Step 2:

You can take 4 computers, a switch with 8, 16 on 24 ports which is sufficient for networks of these sizes and 4 ethernet cables.

### step 3:

connect your computers to network swich via a ethernet cable, which is as simple as plugging one end of the ethernet of the into your compouter and other end into your network switch.

### Step 4: Assign IP addrers to your Pcs.

1) Log on to the client computer as administrator on as owner.

2) click network and internet connections.

3) Right click local area connection → go to properties → select Internet Protocol → click on properties → select use the following ip addres option and

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 the web interface: open a web
browser and enter the IP address of the
switch in the address bar.

3) configure basic settings: once you're logged in
you will be able to configure basic
settings for the switch.

4) assign IP address as: 16.1.1.5 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 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 the
others computer of the network.

observation:

PC1: 10.1.1.1 subnet mask :225.0.0.0
PC2: 10.1.1.2 subnet mask : 225:0.0.0.
PC4: 10.1.1.4 subnet mask : 225.0.0.0
PC3: 10.1.1.3 subnet mask :. 225.0.0.0.

outcome :

all PCs are successfully connected.
to the network and they can
communicate with each other via switch

• shared folder is accessible. from other PCs:
confirming network resource sharing.

challenge:

ensure no duplicates ips are assigned to
devices which can cause connectivity issues.

Result:

Thus setting up and configure a LAN
using switch and ethernet cable is
established.

3/6/24