

## exp 5: Setup & configure a LAN using a switch & Ethernet cables

Aims:

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

What is LAN?

A LAN refers to a network that connects devices within a limited area, such as office building, school or home. It enables users to share resources, including data, printers & switches.

How to set up LAN?

1) Plan & design appropriate network topology taking into account network requirements & equipment location.

2) you can take 4 computers, a switch with 8, 16 or 24 ports which is sufficient for networks at these sizes & 4 Ethernet cables.

3) Connect your computers to network switch via an Ethernet cable which is as simple as plugging one end of Ethernet cable into your comp & other end into your network switch

4) Assign IP address to your PC

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

2) click network & Internet connection

3) Right click local area connections

Ethernet → Go to properties → select IP

PC1 : 10.1.1.1 / 255.0.0.0

PC2 : 10.1.1.2 / 255.0.0.0

PC3 : 10.1.1.3 / 255.0.0.0

PC4 : 10.1.1.4 / 255.0.0.0

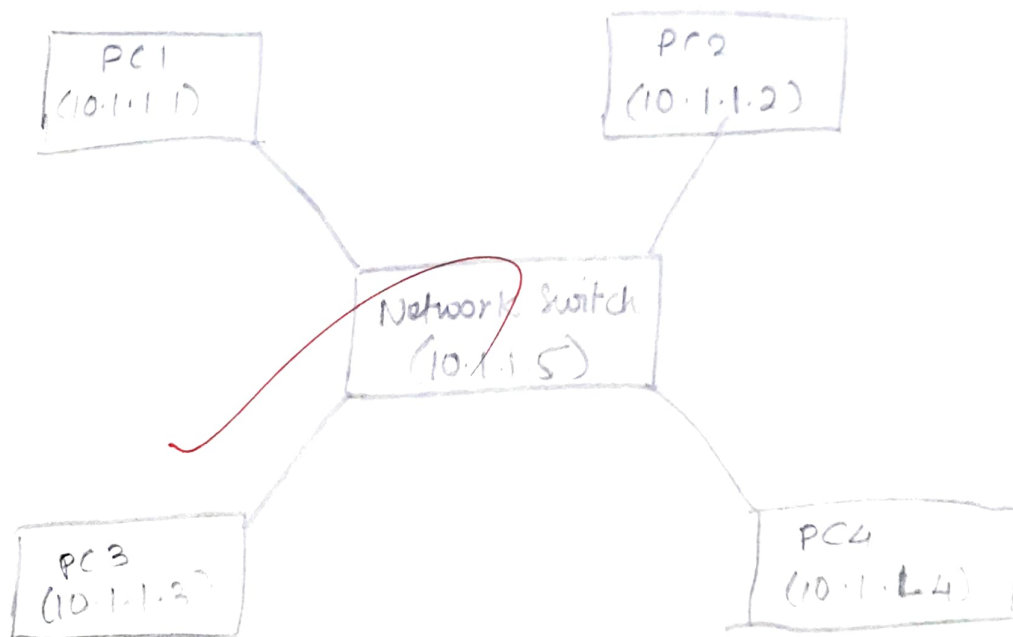
Configure switch - log in via web interface  
assign IP: 10.1.1.5 / 255.0.0.0

Test connectivity - use ping command bt PC's  
switch.

File sharing - share a folder.

Access shared files - other PC's on the LAN can  
open the shared folder.

Lan configuration Diagram.



Result:

Thus the set up & config of LAN using  
switch & ethernet is done