Practical - 4

Aim:

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

Procedure :

Step - 1 : Plan and Design an ~~appropriate~~ appropriate network topology taking into account network requirements and equiment location.

Step - 2 : You can take 4 Computers, a Switch with 8, 16 or 24 ports which is sufficient for network of these sizes and 4 Ethernet cables.

Step - 3 : Connect your computers to network switch via on Ethernet Cable, which is as simple as plugging one end of the Ethernet cable into your computer and other end into your network Switch

Step - 4 : Assign IP address to your PCs

1) Log on to the client computer as Administrator or as Owner

2) Click Network and Internet Connection

3) Right Click Local Area Connection / Ethernet →
Go to Properties → Select Internet Protocol (TCP/IP_v4)
→ Click on Properties → Select use the following
ip address option and assign ip address

Step Similarly assign IP address to all PCs
connected to switch.

PC1 - IP address: 10.1.1.1, subnet 255.0.0.0
PC2 - IP address: 10.1.1.2, subnet 255.0.0.0
PC3 - IP address: 10.1.1.3, subnet 255.0.0.0

Step - 5: Configure a network switch.

1) Connect your computer to the switch.

2) Log in to the web interface

3) Configure basic setting:

4) Assign IP address as: 10.1.1.5, 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.
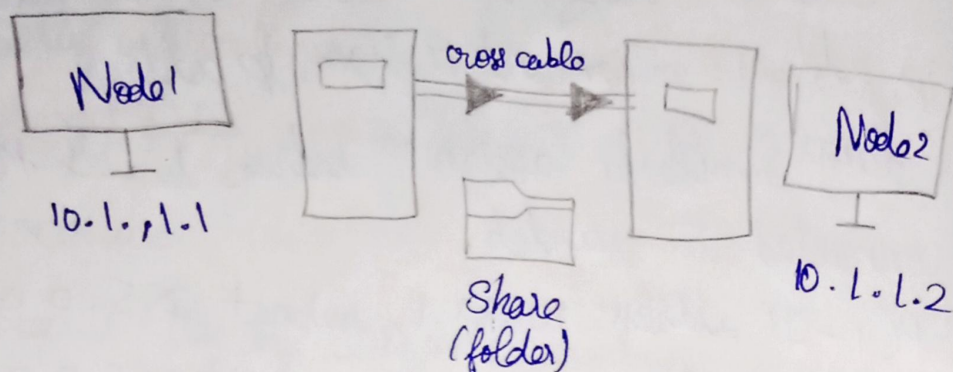
Step - 7: Select a folder → go to properties →
Sharing tab → Share it with everyone in the same
LAN

Step - 8: Try to access the shared folder from
other computer of the network.

Student observation

Diagram of LAN

Node1

10.1.,1.1

cross cable

Share
(folder)

Node2

10.1.1.2

IP Configuration

Node1   IPv4 Address   10.1.1.1

Node2   IPv4 Address   10.1.1.2

Outcome

The file sent through

click Run: [1/10.1.1.2] /user //REC] is sent

successfully

6/8/24

Result:

LAN setup in our lab is successfully done
and completed.