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NAME : Gopinath . R STD : III - CSE SEC. : 'B' ROLL NO. : 220701076

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Palaniappa

Ex.No: 04
Date: 5.8.24

Aim: Setup and configure a LAN (Local area network) using a switch and ethernet cables in your lab.

What is LAN?

A Local area Network (LAN) refers to a network that connects device within a limited area, such as an office building, school or home. It enables users to share resources, including data, Printers and internet access. LAN connects devices to promote collaboration and transfer information between users such as computers, printers, servers and switches. Each directed connected device on a LAN switch can communicate directly with each other, allowing for fast and secure data transfer.

How to setup a LAN.

Step 1: plan and design an appropriate network topology taking into account 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 cables.

Step 3: Connect your computers to network switch via an ethernet cable, which is 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. Log on to the client computer as Administrator or as owner.
2. Click Network and internet connections
3. Right click local Area connection / Ethernet → Go to Properties → Select 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. Connect your Computer to the Switch: To acces the Switch's web interface, you will need to conne your computer to the Switch using an Ethernet cable.

2. Long into the web interface: Open a web brows and enter the ip address of the Switch in the address bar. This should bring up the login page for the Switch's web interface. Enter Username and Password to login.

3. Configure basic settings: once you're logged in, you will be able to configure basic settings for the Switch

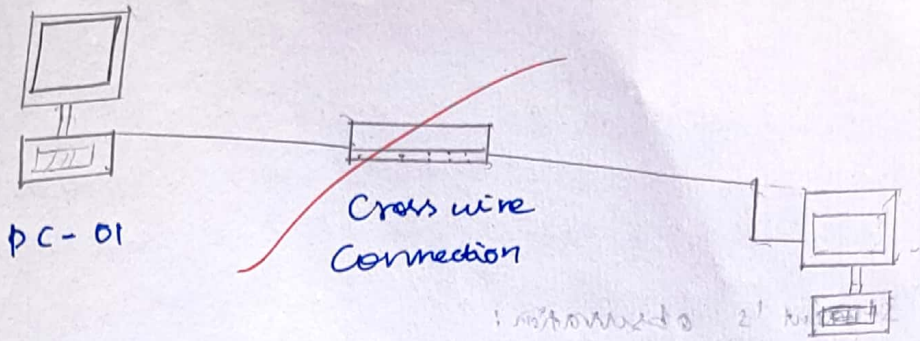
4. Assign Ip address As: 10.1.1.5, Subnet mas 255.0.0.0,

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 Sam LAN.

Step 8: Try to access the Shared folder from others computers of the network.

Student Observation:



RESULT:

Thus the setup and configure of LAN is studied and observed.

5/8/24