Exercise No:4
31/07/24

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 refers to a network that connects devices within a limited area, such as an office building, school or home. It enables users to share resources, including data, printers, & internet access. Each connected device on a LAN switch can communicate directly with each other, allowing for fast and secure data transfer.

How to set up a LAN

Step1: Plan and design an appropiate network topology taking into account network requirements & equipment locations.

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 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) Log on to the client computers as Administrator, Owner.

2) Click Network & Internet Connections.

3) Right click Local Area Connection / Ethernet → Go to Properties → Select Internet Protocol

Step 5: Configure a network switch:

1) Connect your computer to switch:

1) connect your computer to a 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 to the web interface: open a web browser and enter the IP address of the switch in the address bar enter username & log in.

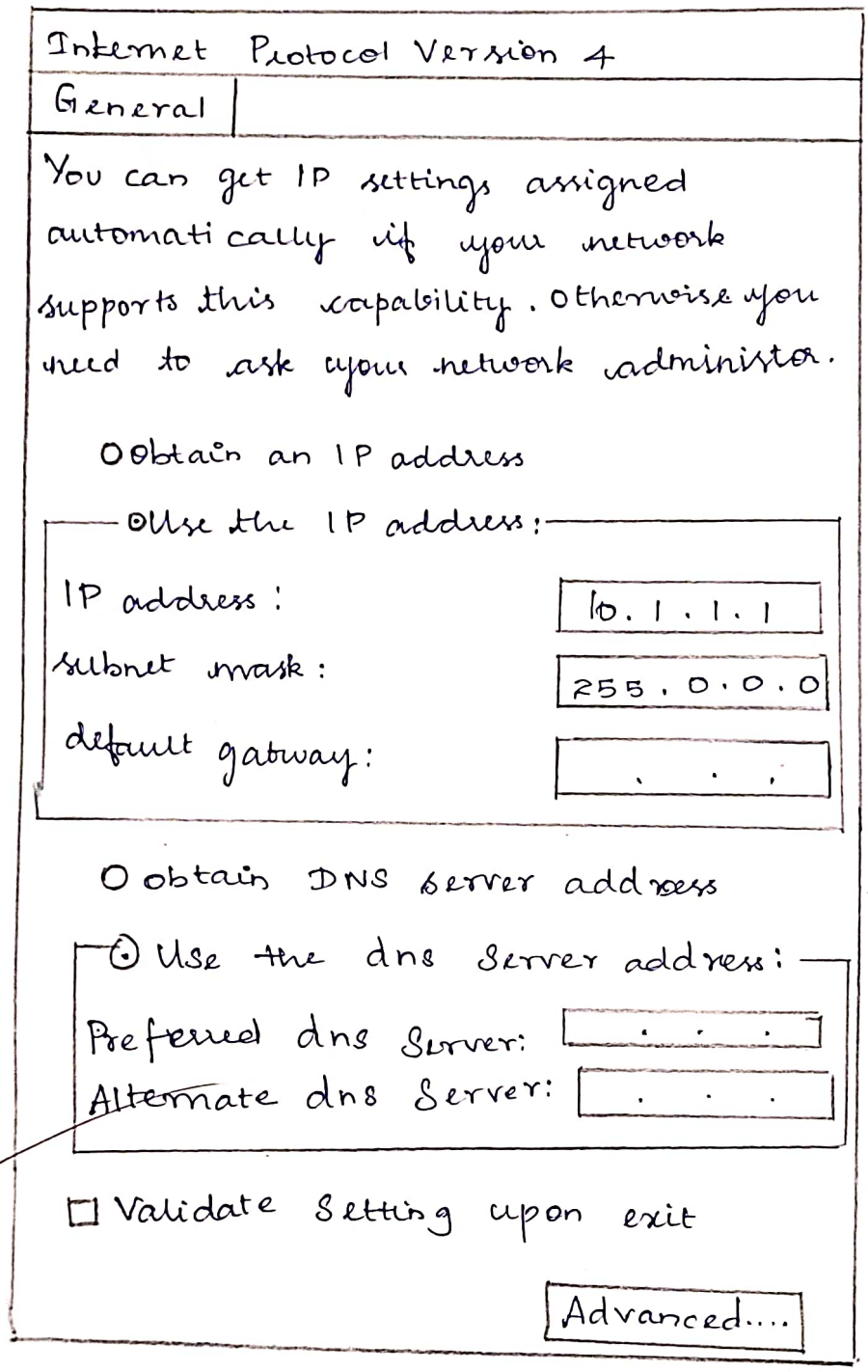
3) Configure basic settings.

4) Assign IP address as 10.11.5 subnet mask 255.0.0.0

Step 6: Check the connecting between switch & other machine by using ping comment prompt.

Step 7: Select a poller → go to properties → click → sharing tab → share it with everyone on the same LAN.

Step 8: Try to access the shared folder from other computers of Network.



Result:

Thus the setup and configure of LAN has been studied.

10/8/24