14/8/25 Experiment 4

AIM : Setup and configure a LAN using a switch and Ethernet cables in your lab

What is a LAN ?

A LAN refers to network that connects devices within a limited area - office, school or home. It enables users to share resources - data, printers and internet access.

A LAN switch serves as the primary connecting device, managing and directing communications within the local network.

How to set up a LAN

step 1 :

Plan and design an appropriate network topology taking into account network requirement.

step 2 :

Take 4 computers, a switch with 8, 16 or 24 ports and 4 ethernet cables.

Step 3 :

Connect the computers to network switch via an Ethernet cable.

Step 4 :

Assign IP addresses to the PCs.

1. Client computer - Admin / owner
2. Network and Internet connections
3. LAN / Ethernet → Properties → Internet Protocol → Properties → Assign IP.

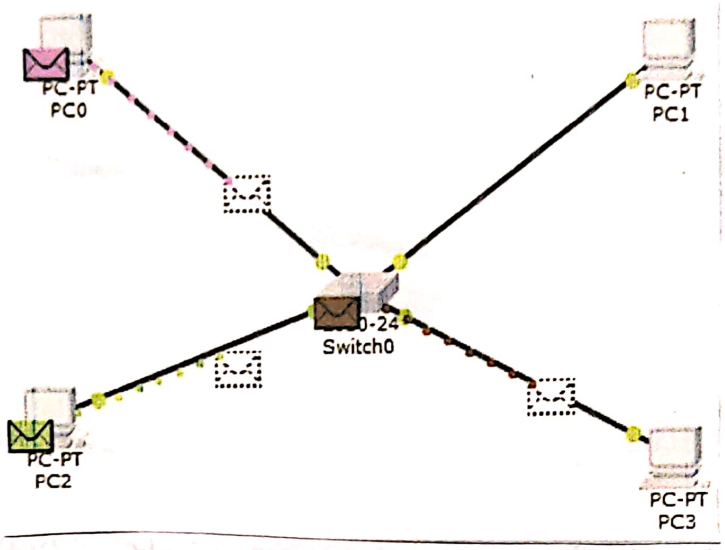
Step 5:

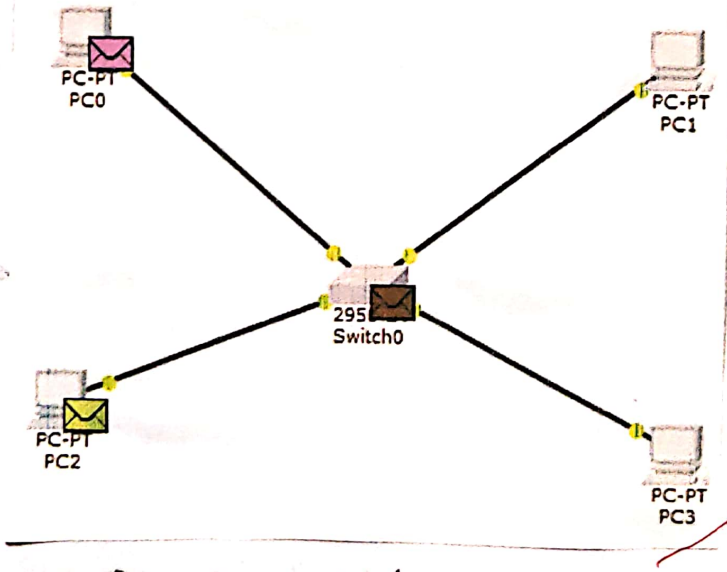
Configure network switch

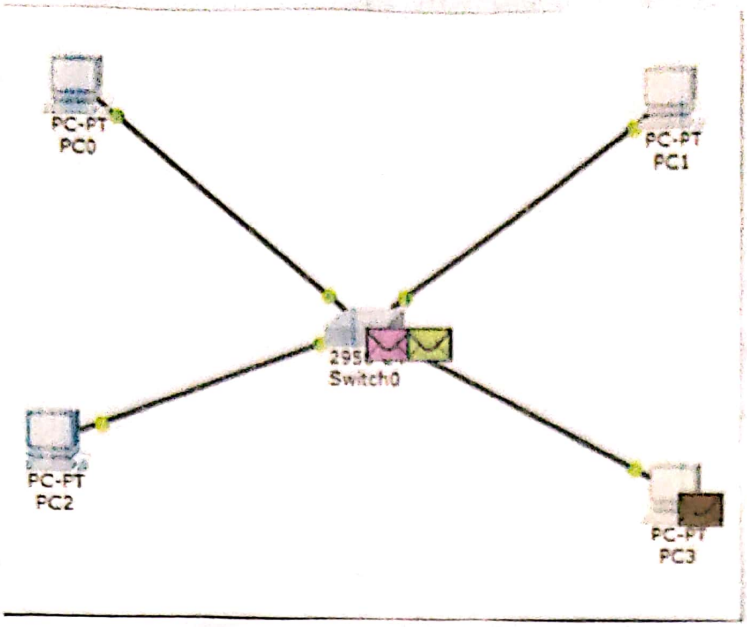
Step 6:

check the connectivity between switch and outer machine by using ping command.

output in cisco Packet Tracer







Result : Thus a LAN has been setup and configured using a switch and ethernet cables.

11/9/16