Practical-3

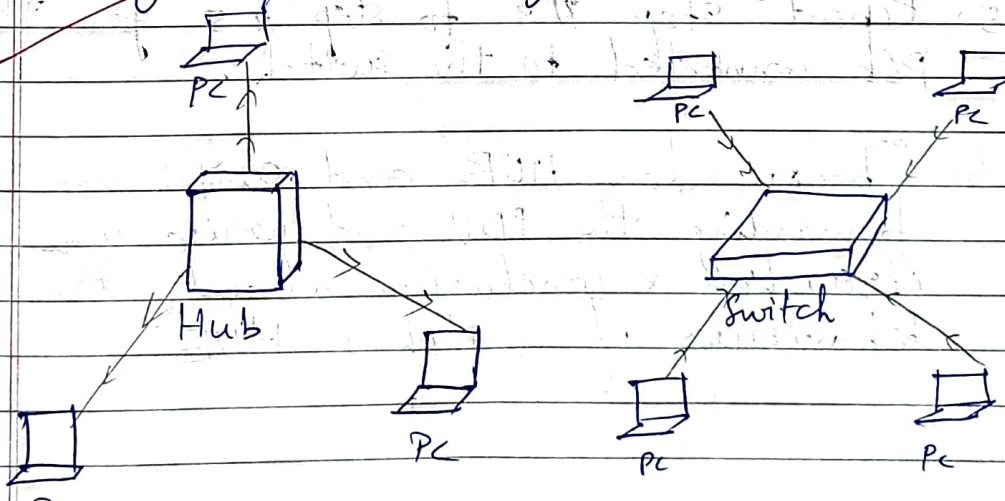
AIM: To study the Packet tracer tool Installation and Uses Interface Overview.

To understand environment of CISCO PACKET TRACER to design simple network.

(d) Analyse the behaviours of network devices using CISCO PACKET TRACER Simulation.

1. From the network component box, click & drag-&-drop the below components:
   (a) 4 Generic PCs & One HUB
   (b) 4 Generic PCs & One Switch

2. Click on Connections:
   (a) Click on Copper Straight-Through cable
   (b) Select one of the PC & connect it to HUB using the cable. The link LED should glow in Green, indicating that the link is up. Similarly connect remaining 3 PCs to the HUB.
   (c) Similarly connect 4 PCs to the switch using copper straight-through cable.



3. Click on the PCs connected to hub, go to Desktop tab, click on IP configuration, and enter an IP address & subnet mark. Here, the default gateway & DNS server information is not needed as there are only 2 end devices in the network.

IP Configuration	IP Configuration
○ DHCP ● Static	○ DHCP ● Static
IP Address 10.1.1.1	IP Address 10.1.1.2
Subnet mask 255.0.0.0	Subnet mask 255.0.0.0
Default Gateway	Default Gateway
DNS Server	DNS Server

Click on the PDU from common tool bar (a) Drag & drop it on one of PC & drop it on another PC connected to the HUB).

4. Observe the flow of PDU from source PC to destination PC by selecting the realtime mode of simulation.

5. Repeat step #3 to step #5 for the PCs connected to the switch.

6. Observe how HUB and switch are forwarding the PDU and write your observation & conclusion about the behaviours of switch & HUB

Student Observation:

(a) From your observation write down the behaviours of Switch & HUB in terms of forwarding packets recieved by them.

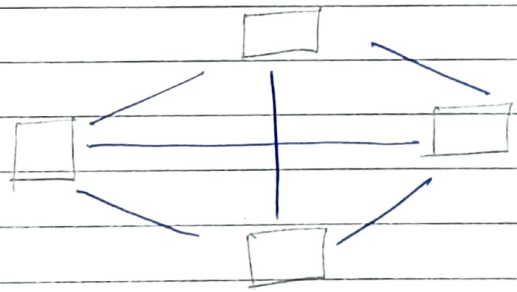
Hub: Broadcasts packets to all connected devices.

Switch: Forwards packets only to intended recipient based on a MAC address table, reduces network collisions.

(b) Find out the network topology implemented in your college & draw & label that topology in your observation book.

The network topology implemented in my college is Mesh Topology.

Mesh topology is a topology where each device is connected or have a dedicated link to every other device.



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