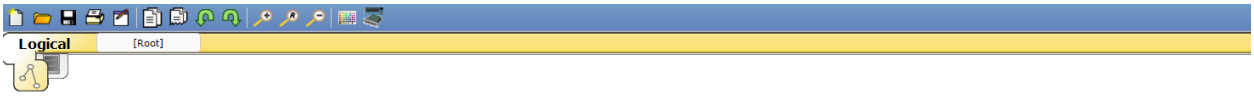
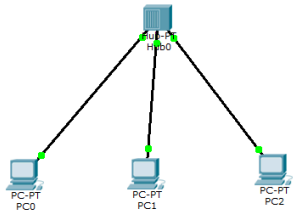
LAB 1

EXPERIMENT 1

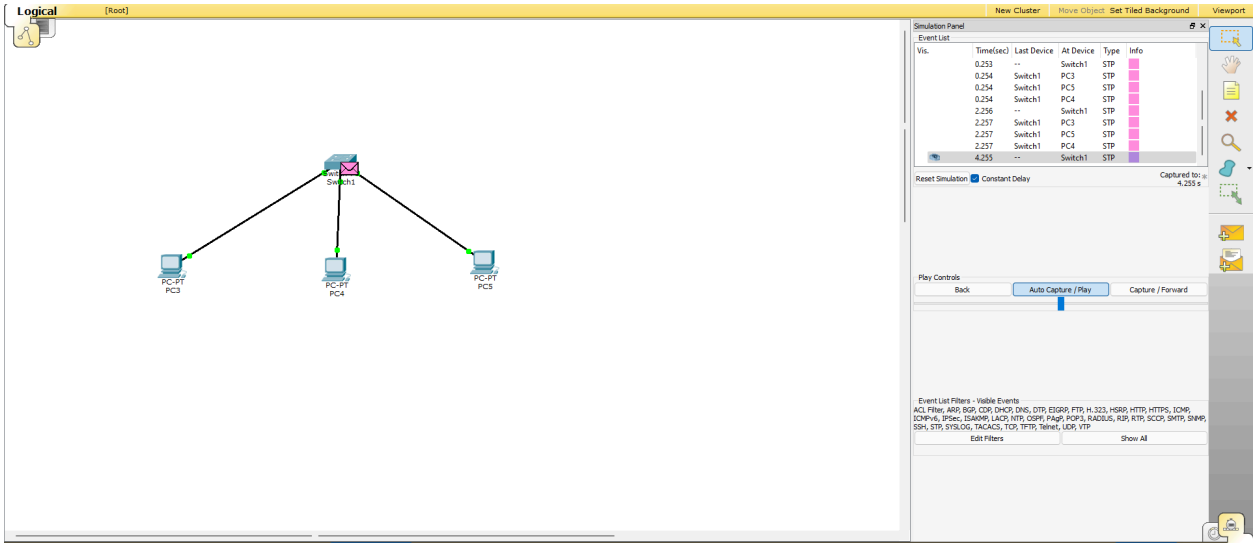
AIM: To demonstrate the transmission of a single PDU between two devices connected using a hub and switch

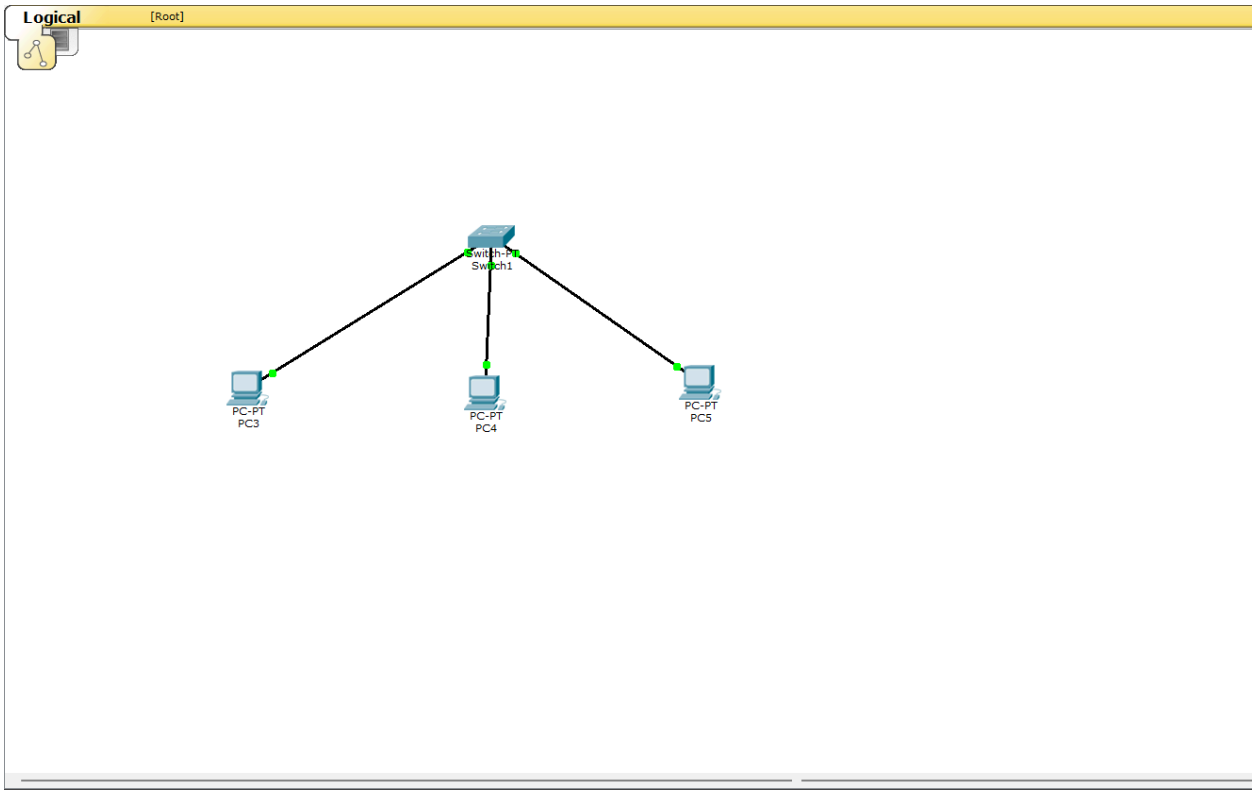
HUB:




SWITCH:


Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
Simulation Panel
Event List
Vis.
Time(sec)
Last Device
At Device
Type
Info
0.253 -- Switch1 STP
0.254 Switch1 PC3 STP
0.254 Switch1 PC5 STP
0.254 Switch1 PC4 STP
2.256 -- Switch1 STP
2.257 Switch1 PC3 STP
2.257 Switch1 PC5 STP
2.257 Switch1 PC4 STP
4.255 -- Switch1 STP
Reset Simulation
Constant Delay
Captured to: 4.255 s
Play Controls
Back
Auto Capture / Play
Capture / Forward
Event List Filters - Visible Events
ACL Filter, ARP, BGP, CDP, DHCP, DNS, DTP, EIGRP, FTP, H.323, HSRP, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, LACP, NTP, OSPF, PAgP, POP3, RADIUS, RIP, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, VTP
Edit Filters
Show All
PC-PT PC3
PC-PT PC4
PC-PT PC5


Logical
[Root]
Switch-PT Switch1
PC-PT PC3
PC-PT PC4
PC-PT PC5

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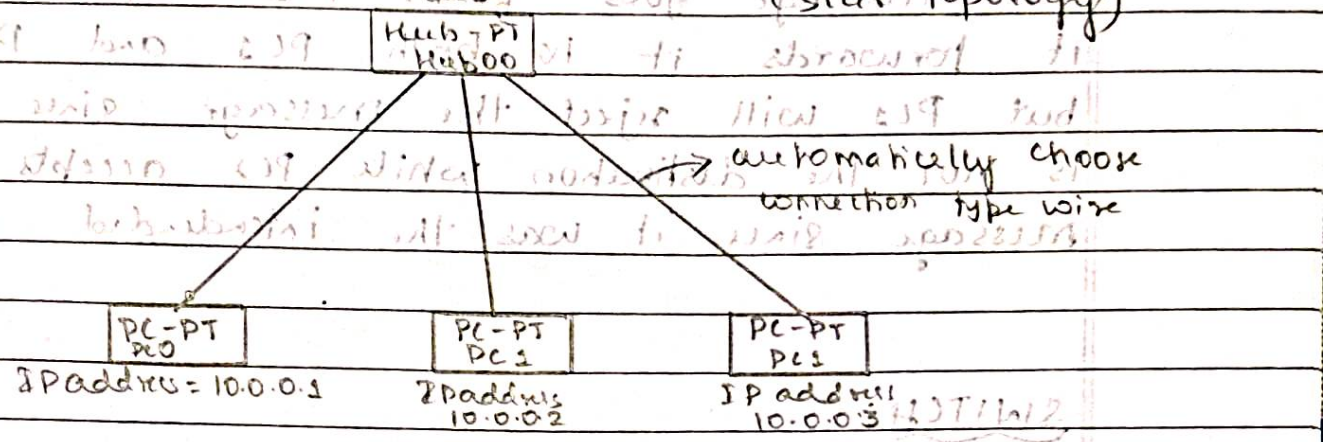
# LAB-1

## Experiment-1.

AIM: To demonstrate the transmission of a single PDU between two devices connected using a hub and switch.

## Hub:

TOPOLOGY: (star topology)




CONFIGURATION:

(i) Select 3 generic Pcend devices and one generic hub

(ii) Connect the end devices and the hub via automatically choose connection type wires

(iii) Assign IP address to the end devices by manually by selecting FastEthernet() under config and entering the IP address as 10.0.0.1 10.0.0.2 10.0.03 in IP address for the respective end device.

(iv) Simple PDU is added to the source and dustination end device

(v) Enter the simulator mode and click on auto capture/play to observe the transmission of single PDU between two devices connected.

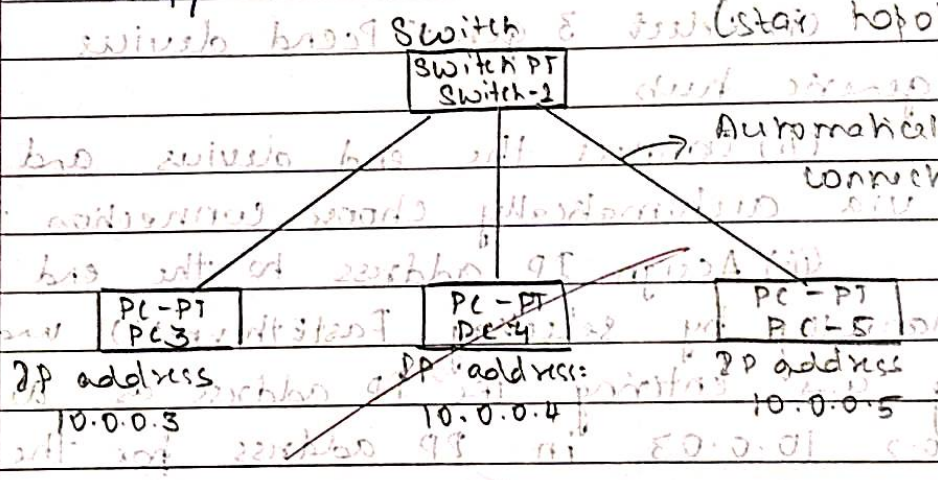
OBSERVATION!

- Hub is a ~~unitl~~ unintelligent device it helps in connecting the multiple end devices with each other
- The message here is sent from PC-0 to PC-1 which is carried out by the hub
- The message goes from PC-0 to hub and it forwards it to both PC-1 and PC-2 (broadcast) but PC-1 will reject the message since it is not the destination while PC-2 accepts the message since it was the intended destination

SWITCH:

TOPOLOGY:

(Star topology)




OBSERVATION!

- Switch is an intelligent device.
- The message is configured to be sent from PC-3 to PC-5 via switch
- The message goes from PC-3 to the switch ~~the~~ unlike hub switch doesn't broadcast the message to all connected end devices but only to the configured end device. Hence here the switch is ~~en~~ sending the message to only to PC-5