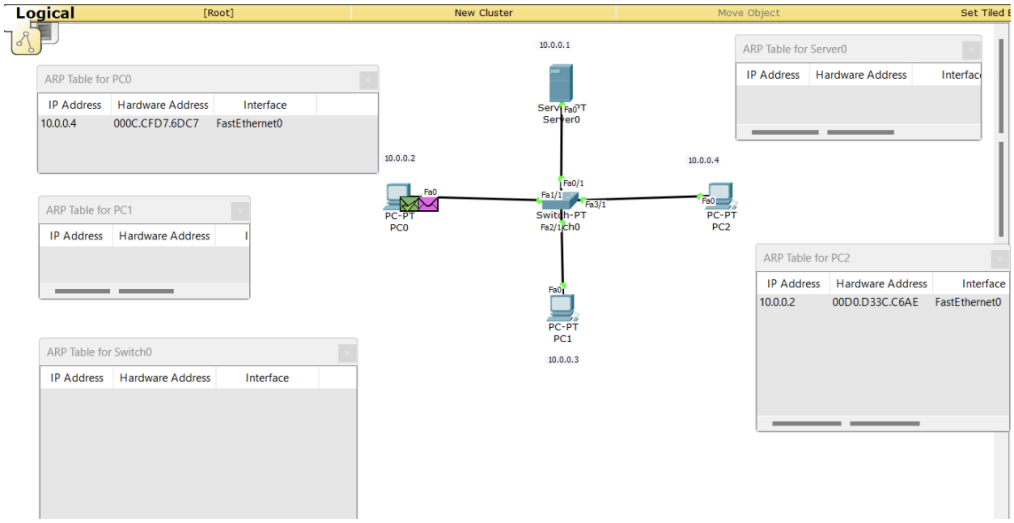
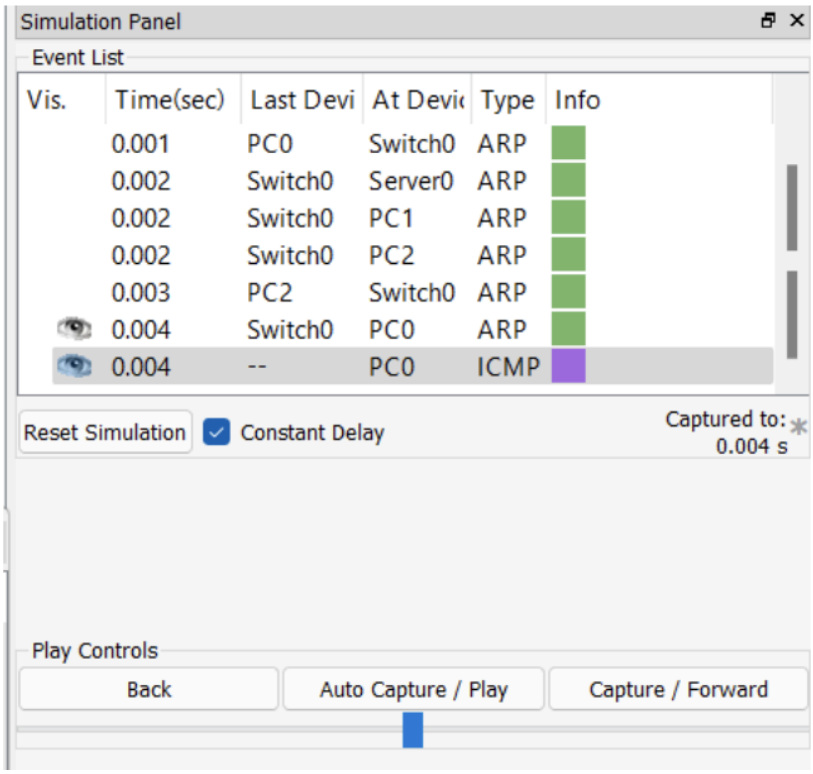
Experiment 8:
Q)CONSTRUCT SIMPLE LAN AND TO UNDERSTAND ARP



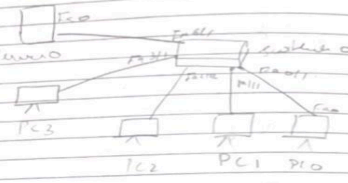


Experiment - 8

Aim: To construct a simple LAN and understand concept and operation of ARP

Aim: Construct a simple LAN simulate operations of Address resolution Protocol

Topology



1. Switch connected to 4 pc's & Server via fast ethernet interfaces & one ethernet interface respectively
2. All connections made via upper straight-through cable

Procedure:

Open cisco packet tracer and draw the following

Switch

PC: place 3 pc's connected to switch 0
Server: place 1 server & connect it to switch 0

- Assign an IP address and subnet mask to all the devices then connect them via switch
- Use the inspect tool to click on a PC to view its ARP table
- Display the ARP table of all the devices
- Initially ARP is empty for all
- Also in CLI of switch the command show mac address-table can be given on every transaction to see how the switch learns from transactions and build the address table
- Use the capture button in the simulation panel to go step by step so that changes in ARP can be clearly noted
- Observe the switch as well as hosts update the ARP table and when new communication starts

Observation:

As the packet travels from one source host to its destination host, the ARP table of all devices get updated

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