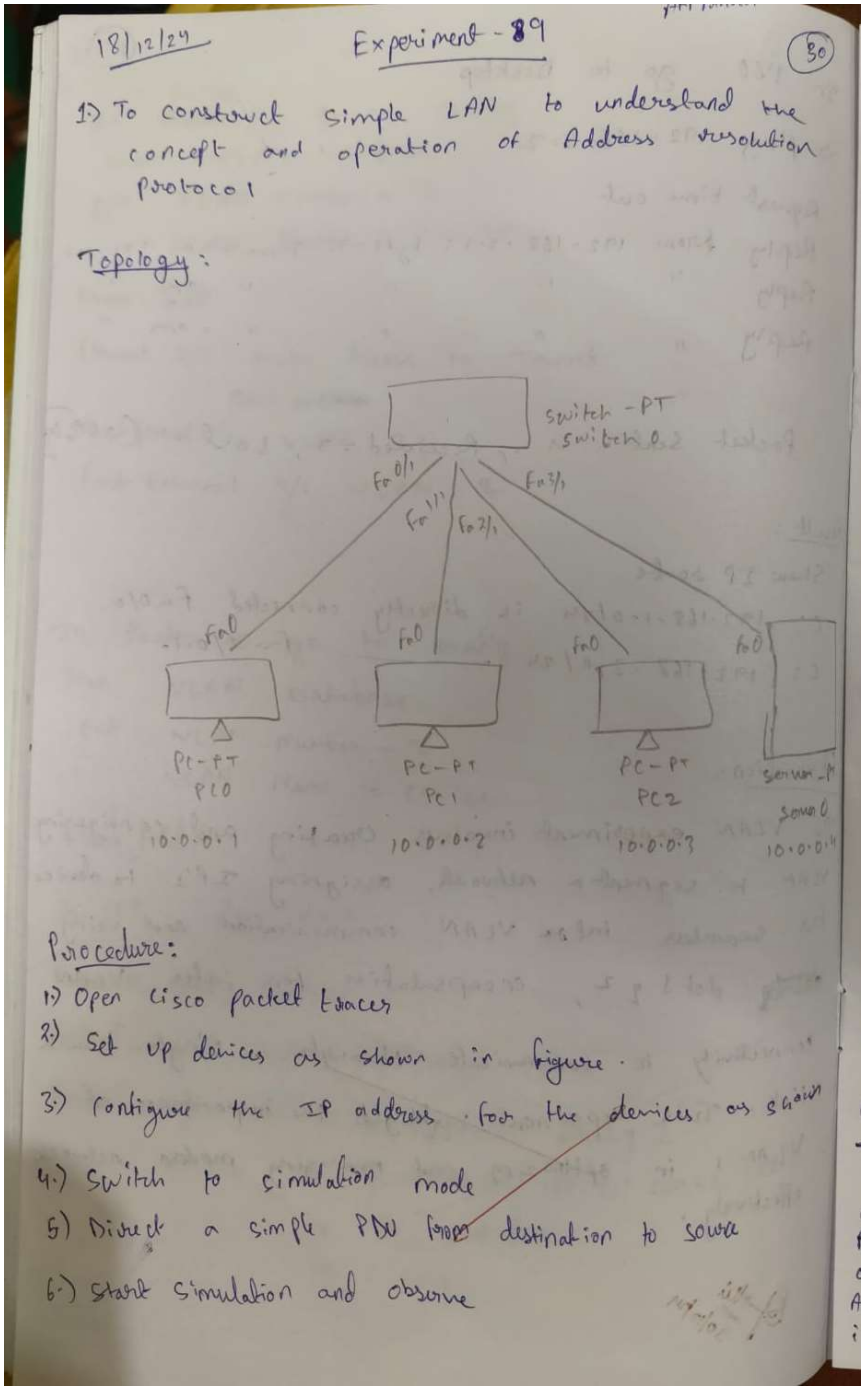
Program 10

Aim: To construct simple LAN and understand the concept and operation of Address Resolution Protocol (ARP)

Topology , Procedure and Observation:



4) Click on search in the right side bar then click on PC0 then click ARP Table.

Now in PC1
Go to Desktop
Then command prompt

PC> arp -a
No ARP Entries found.
PC>

Now Make the ARP Table for all the PCs, Server and switch.

Now in Simulation Add simple PDU (P) in PC0 and PC1 then press capture / Forward to check the movement.

In switch0 CLI

Switch > show mac address-table

VLAN	MAC Address	Type	Ports
1	0001.4245.6e08	Dynamic	Fa3/1
1	0001.43ee.2d83	Dynamic	Fa2/1
1	0002.4a35.d3c2	Dynamic	Fa1/1
1	00d0.d35b.384b	Dynamic	Fa0/1

Initialy ARP tables empty
After simulation begins the ARP Tables of source and destination changes.

Observation:

Initially the ARP tables of all the devices are empty because no communication has occured and no Mac-IP mapping is cached. When one device attempts to communicate with another, it sends an ARP request to determine the MAC address corresponding to the IP addr, of the targeted device. The targeted device responds with ARP reply, Updating ARP tables on both ends. The switch build its MAC address table by Mapping MAC address to ports based on receiving frame.

Screen Shots: