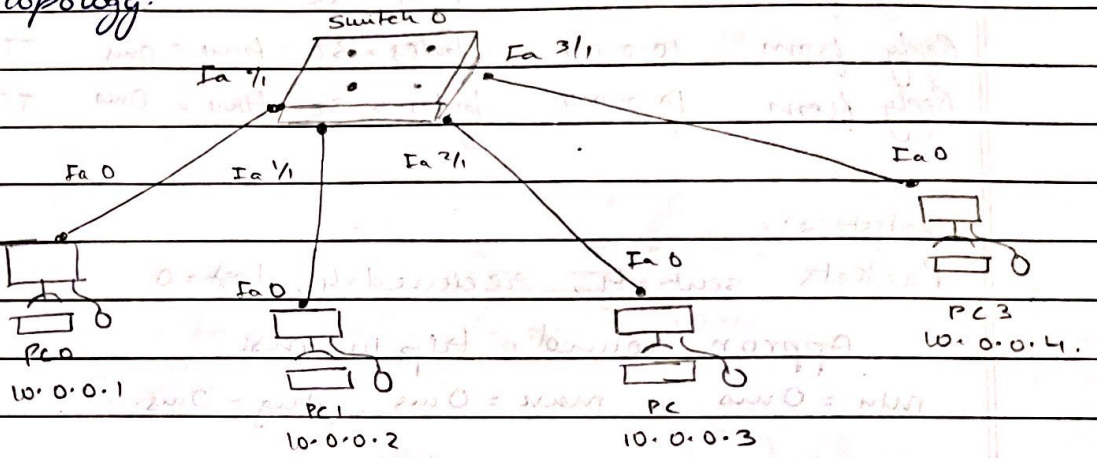
Program - 8

Aim: To construct single LAN and understand the concept and operation of ARP (Address resolution protocol).

Topology:



Procedure:

- Create topology for 3 PC's and a server.
- assign IC address
- connect them through a switch
- use inspect tool to click on a PC to see ARP table
- Command in cmd for the same arp -a
- Initially ARP table is empty
- CLI of switch, the command- show mac address can be given on every transaction to see how the switch from transaction and build address table.
- Use the capture button in simulation panel to go step by step.

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Ping Output:

PC > ping 10.0.0.4

pinging 10.0.0.4

Reply from 10.0.0.4 : bytes = 32 time = 0ms TTL = 128
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Statistics:

Packets sent = 4, received = 4, lost = 0

Approx round trip in ms:

min = 0ms , max = 0ms , Avg = 0ms.

Observation:

- When we ping b/w other 2 PC's, the address of PC's is known.
- Everytime a host request a mac address, a packet is sent to another host in LAN, which checks ARP cache. to see IP address