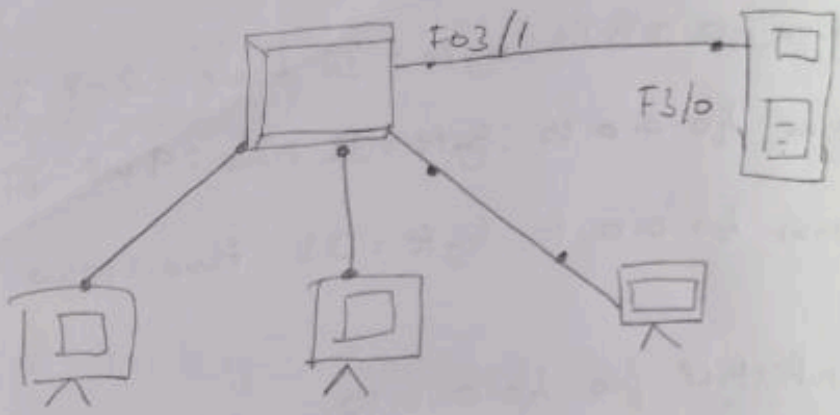
3/8/23 - ARP

Jo Construct simple LAN and understand the concept and operation of Address Resolution Protocol

ARP



Procedure

- Create a topology of 4 PC's & a Server.
- Set IP address to all of them.
- Connect the PC's through a Switch.
- Use the inspect tool to click on a PC to see the ARP protocol.
- Initially ARP table will be empty.
- Use the capture button in the simulation panel to go step by step so that the changes in ARP protocol can be clearly noted.
- Go to the search button in the panel to get ARP tables of all the End devices.
- Observe the Switch as well the nodes update the ARP table as and when a new communication starts.

Ping output.

PC> arp -a

PC > Ping 10.0.0.2

PC > Ping 10.0.0.3

PC > Ping 10.0.0.4.

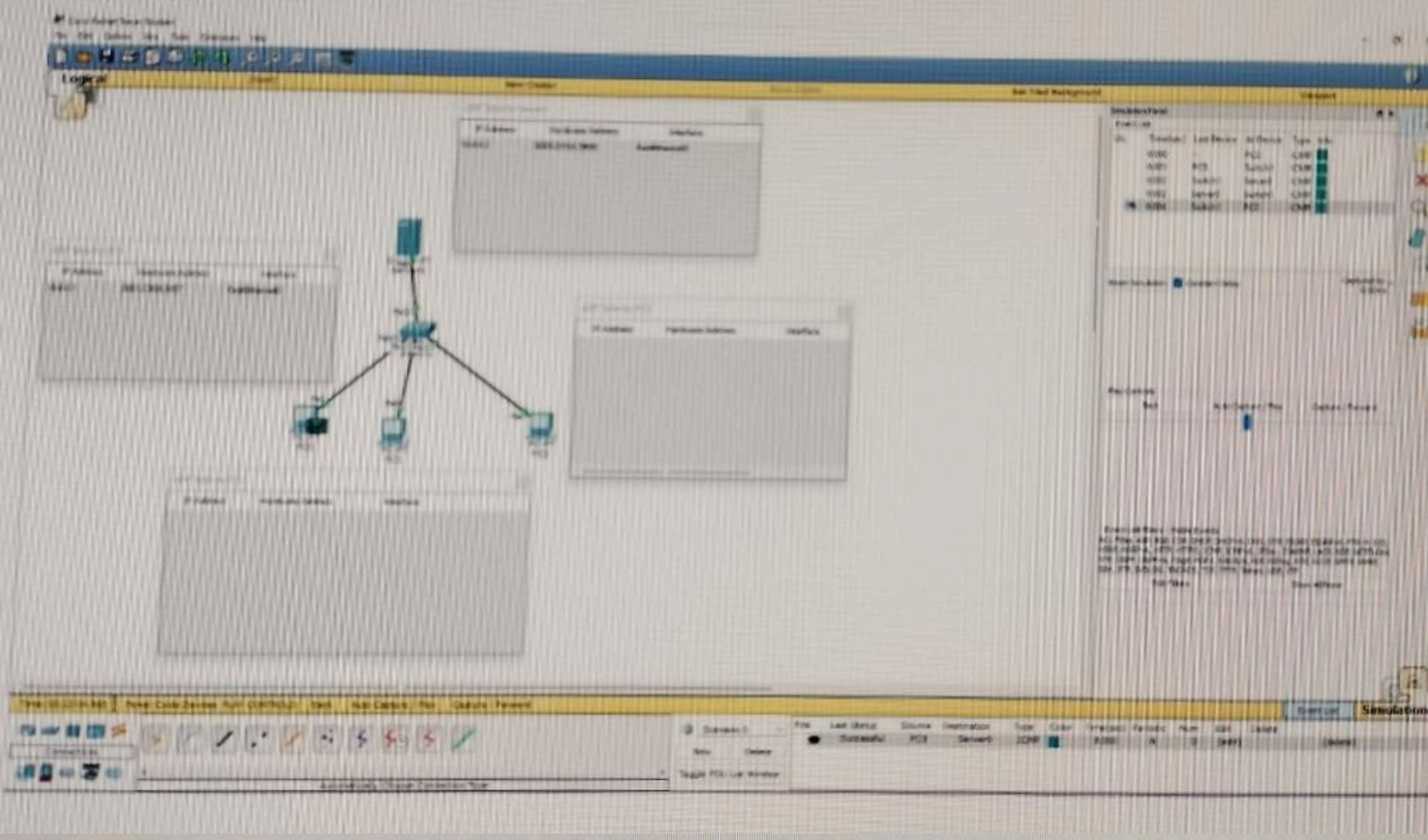
Internet address	Physical address	Type
10.0.0.2	000d.bd15.3c18	dynamic
10.0.0.3	0090.0b57.b488	dynamic
10.0.0.4	00d0.bc57.ca28	dynamic

Observation

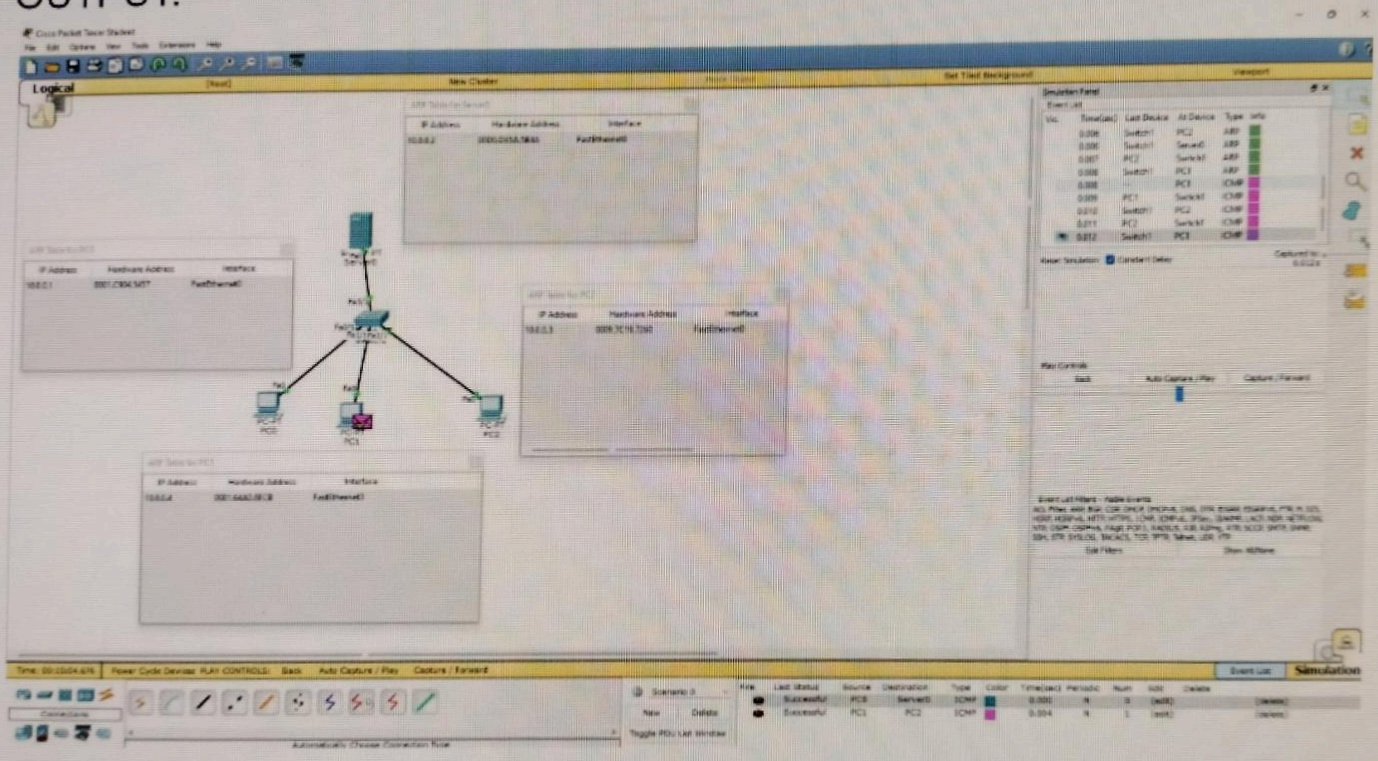
We observe the changes when we capture every time when we do in all the PC's. ARP tables will have values empty at the starting & values will be formed whenever we ping each PC in the ping.

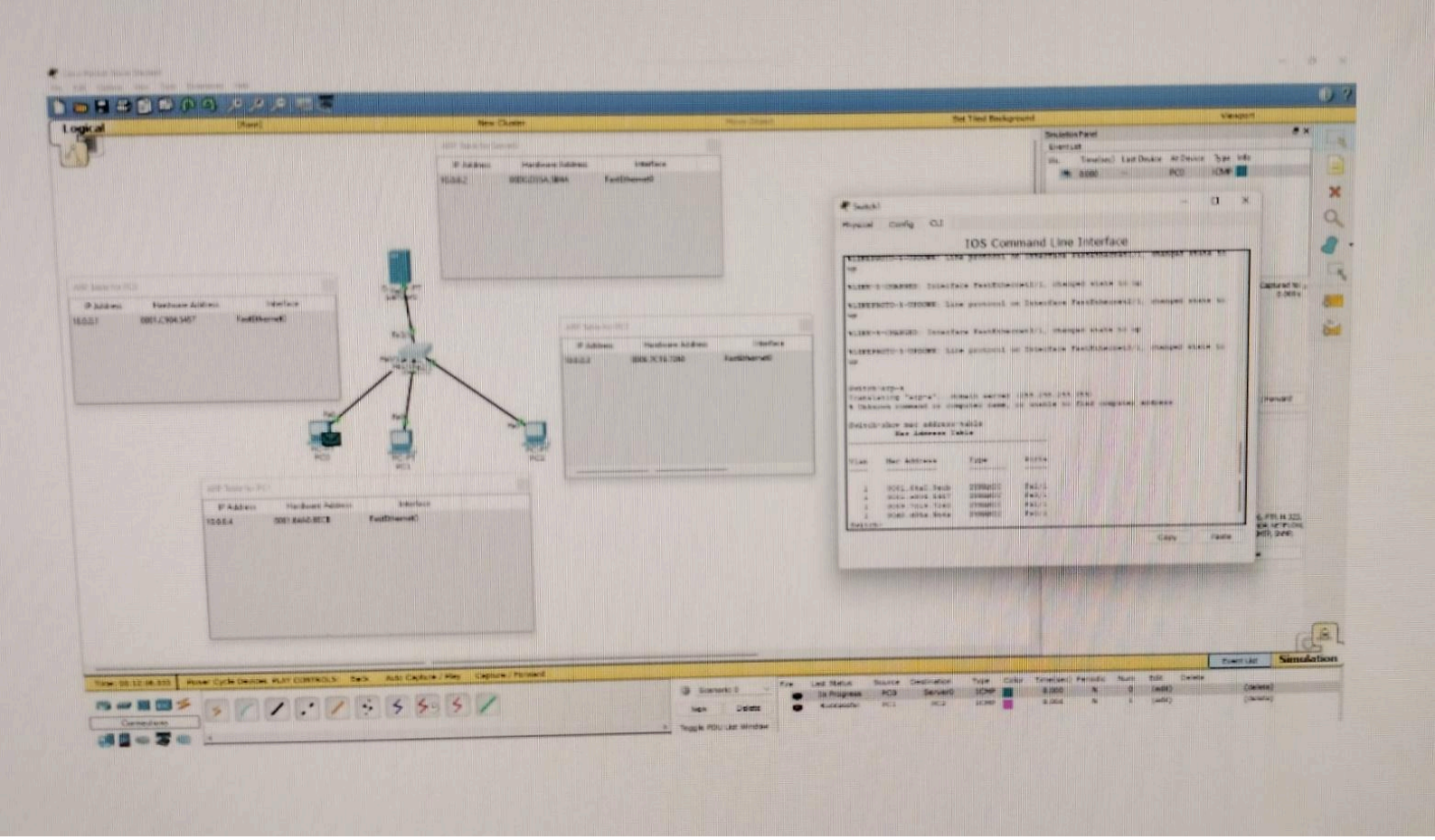
NL
17/8/2023

TOPOLOGY:



OUTPUT:




IOS Command Line Interface