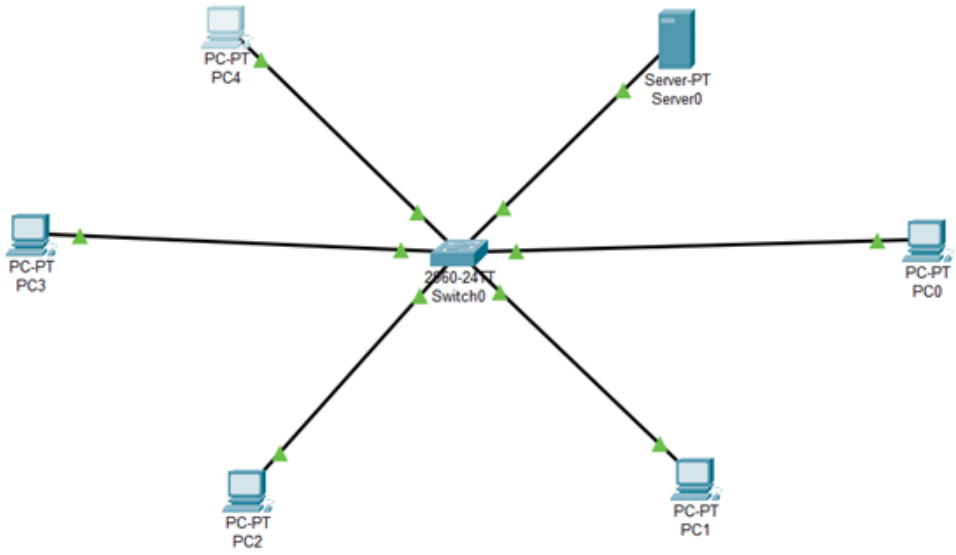
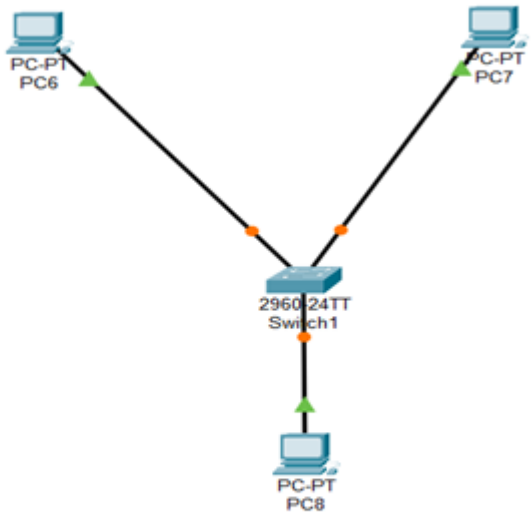
Roll No-22P31A1204 Date: 06-07-2024

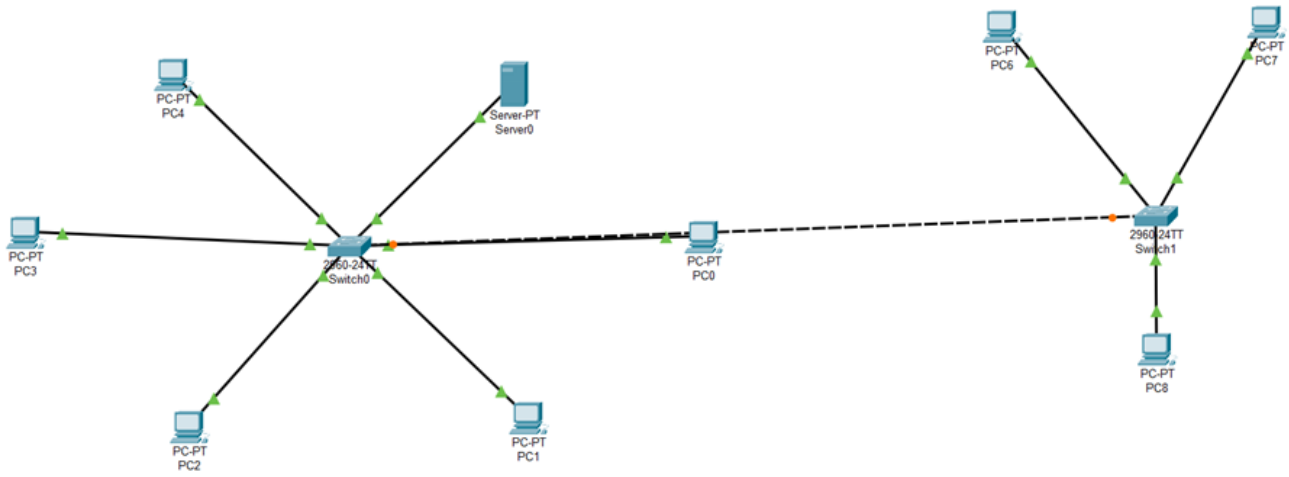
1.Connect switch with minimum 6 devices that should include a DHCP server Ans: we need to create the one server and the 5 pcs and they are all connected



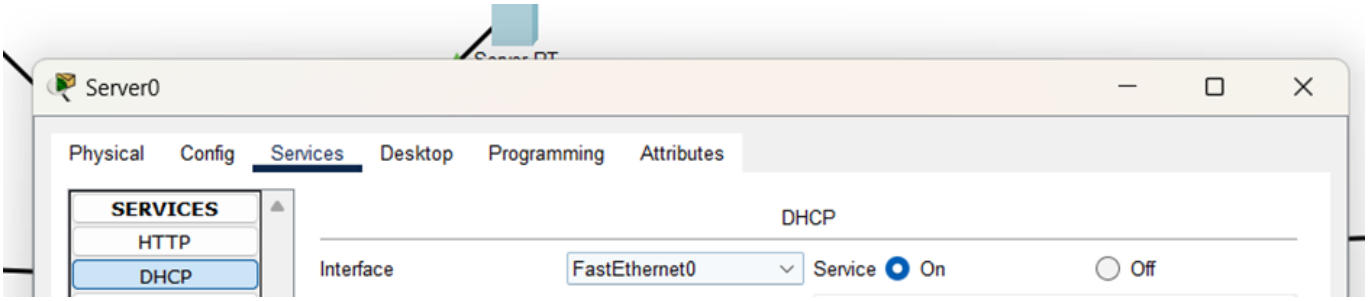
2.Connect another switch with minimum 3 devices Ans:



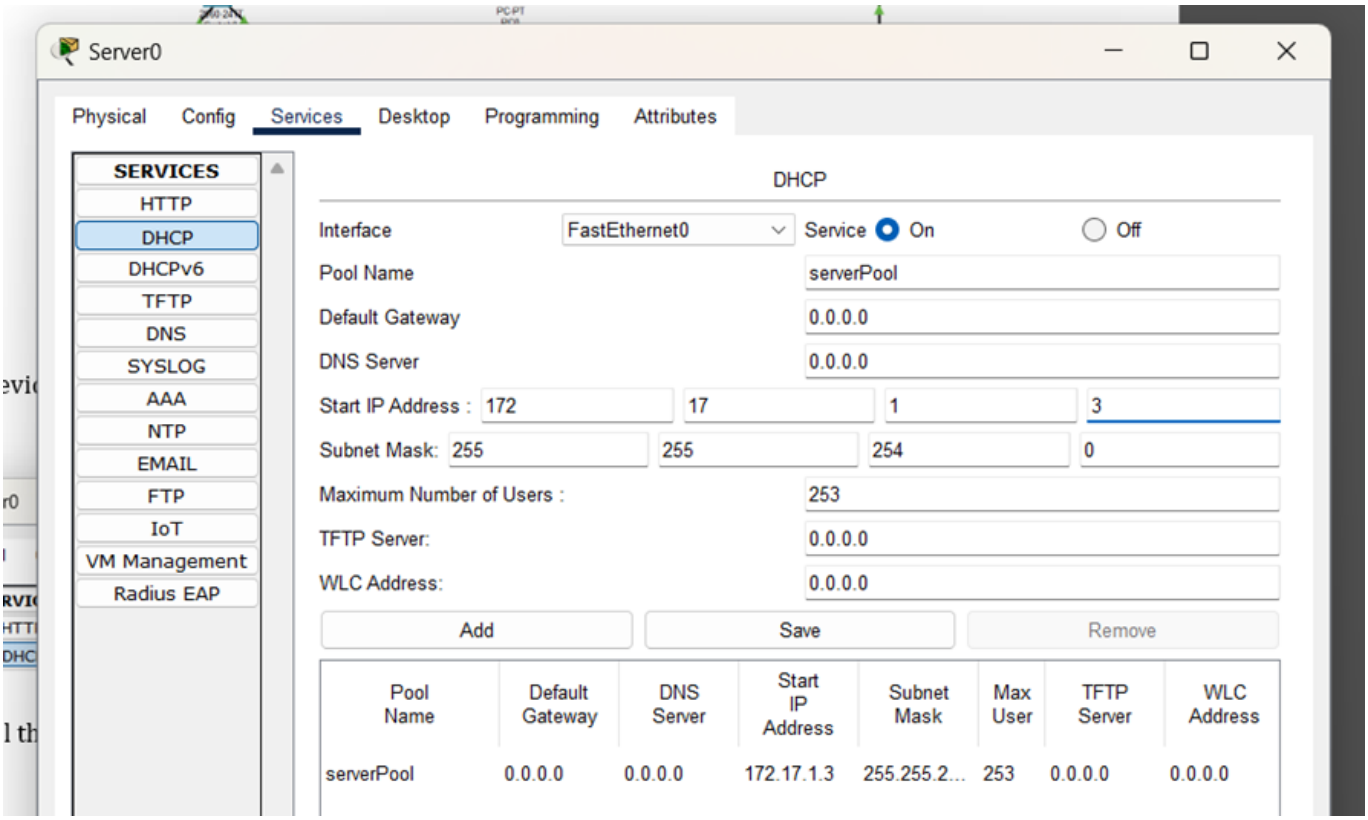
3.Connect 2 switches together Ans:

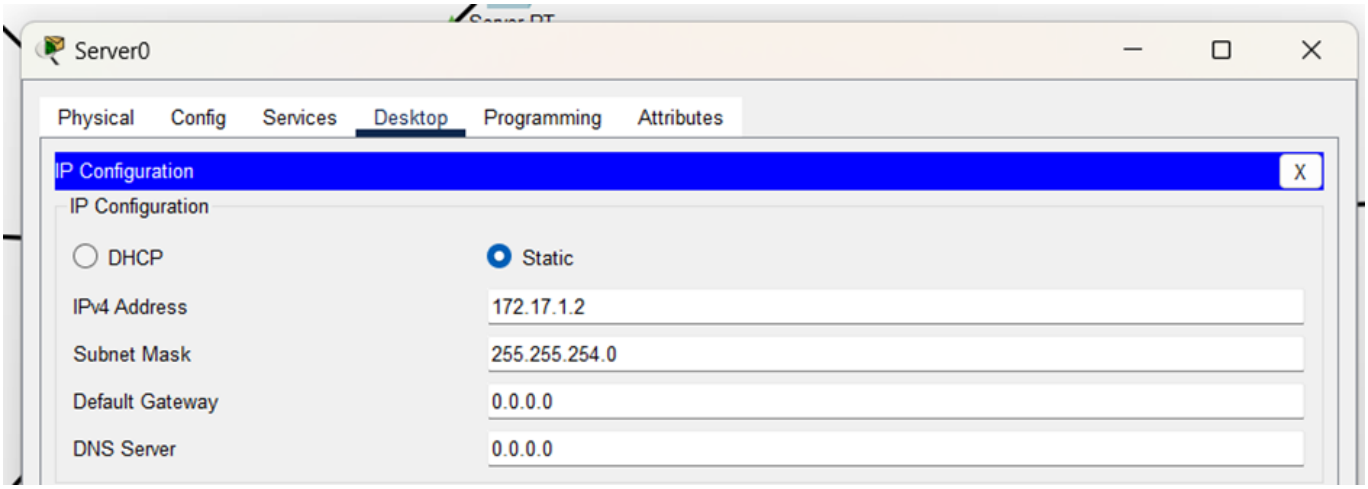


4. Devices in first switch should get IP Addresses from DHCP Server Ans:

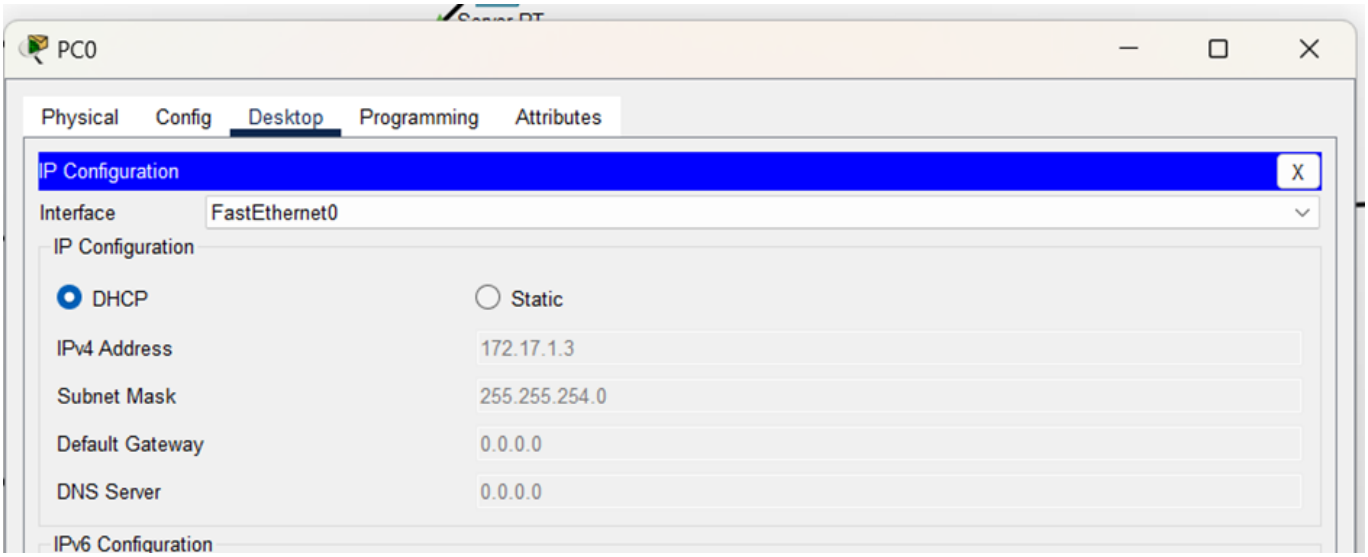


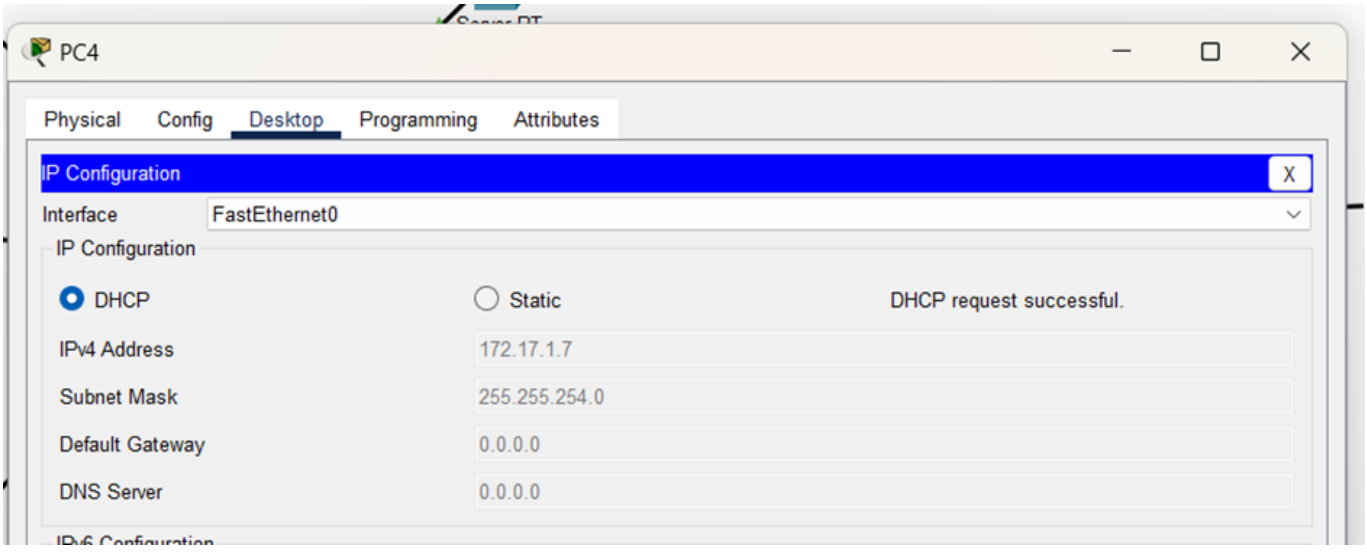
5. All the DHCP IP addresses should start from 259th usable IP of 172.17.0.0/23 network Ans:



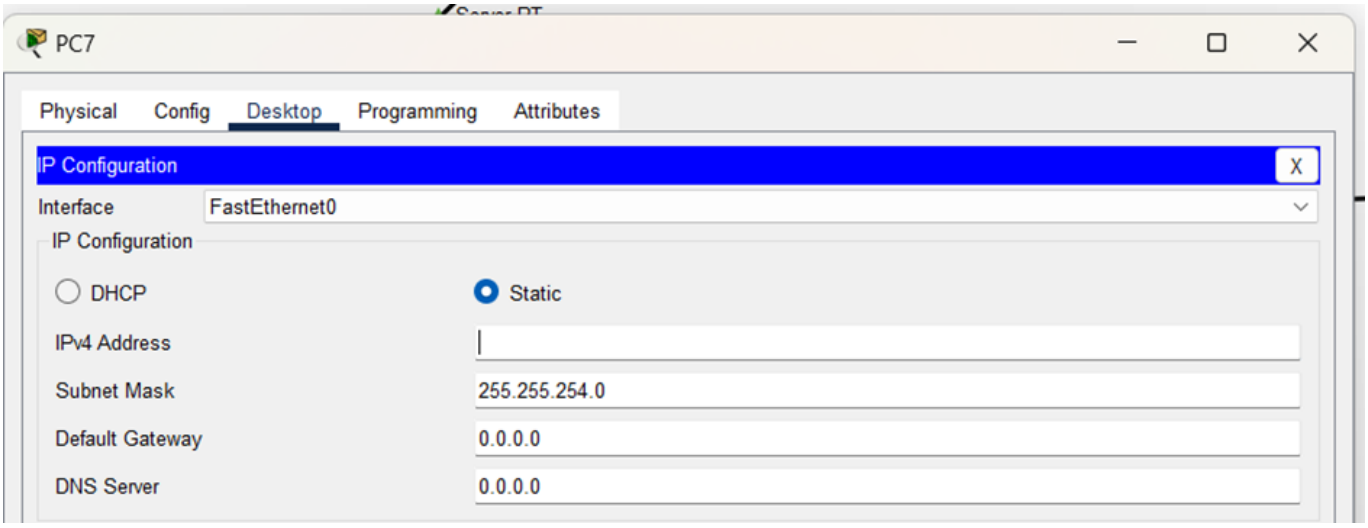


6.Manual IP Address should be assigned to DHCP Server and this should be one IP Address before the start of DHCP IP Addresses Ans:

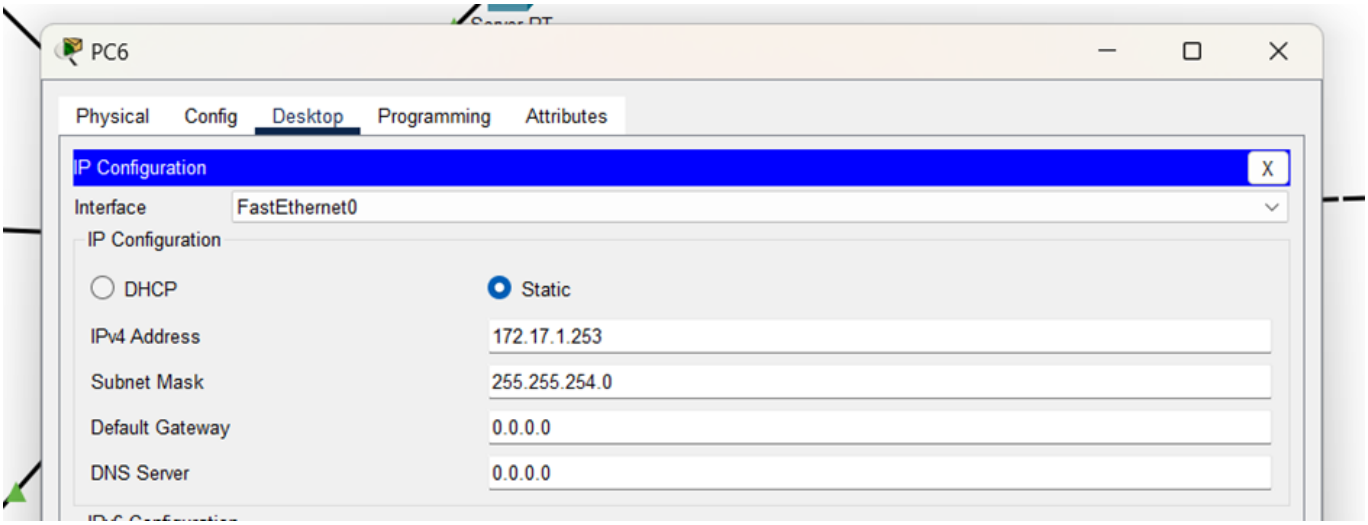


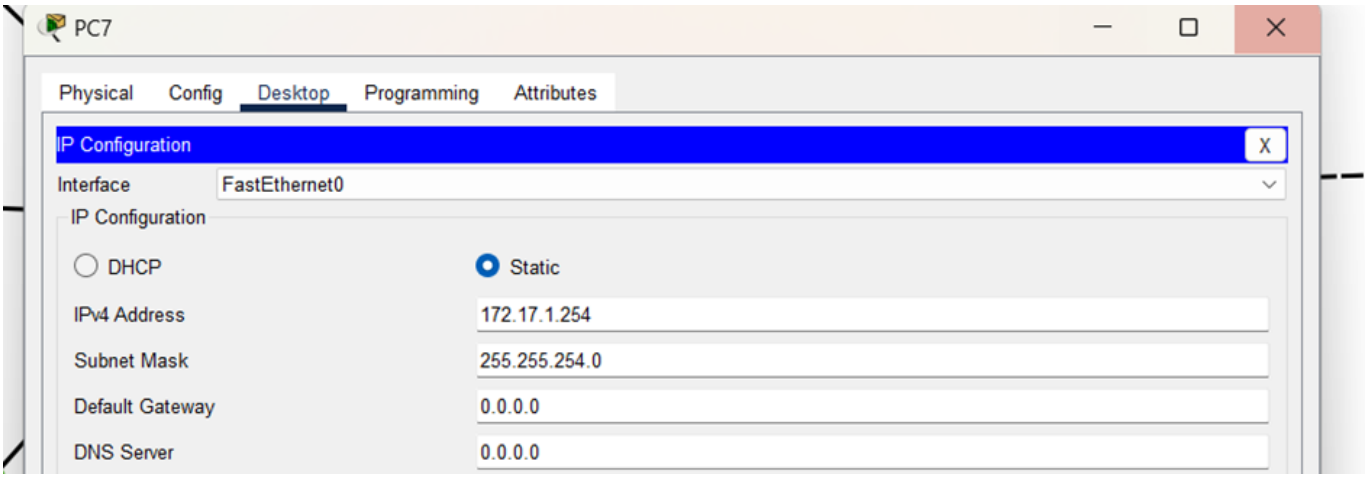


7. Manual IP Addresses should be assigned to devices of second switch Ans:

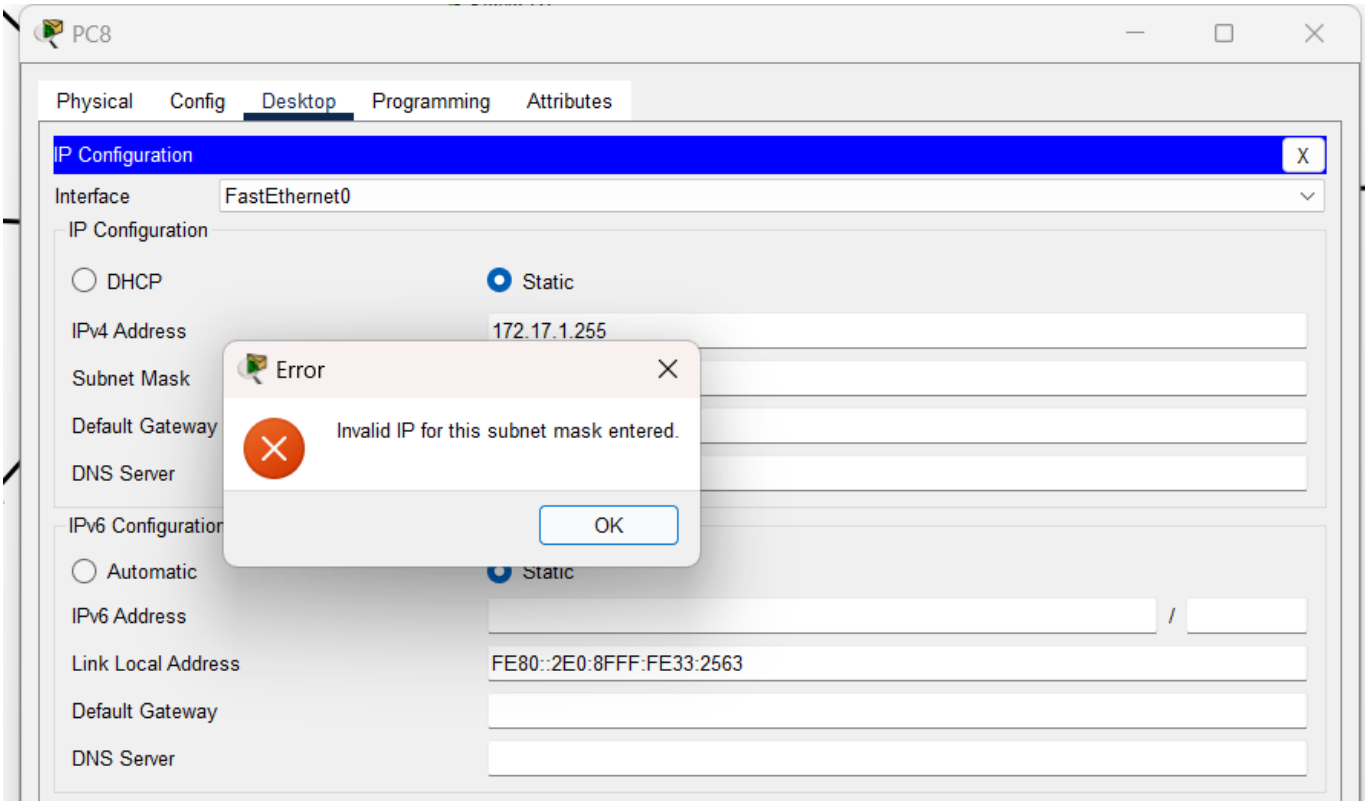


8. These IP Addresses should be from 509th usable IP of 172.17.0.0/23 network ** **Ans:

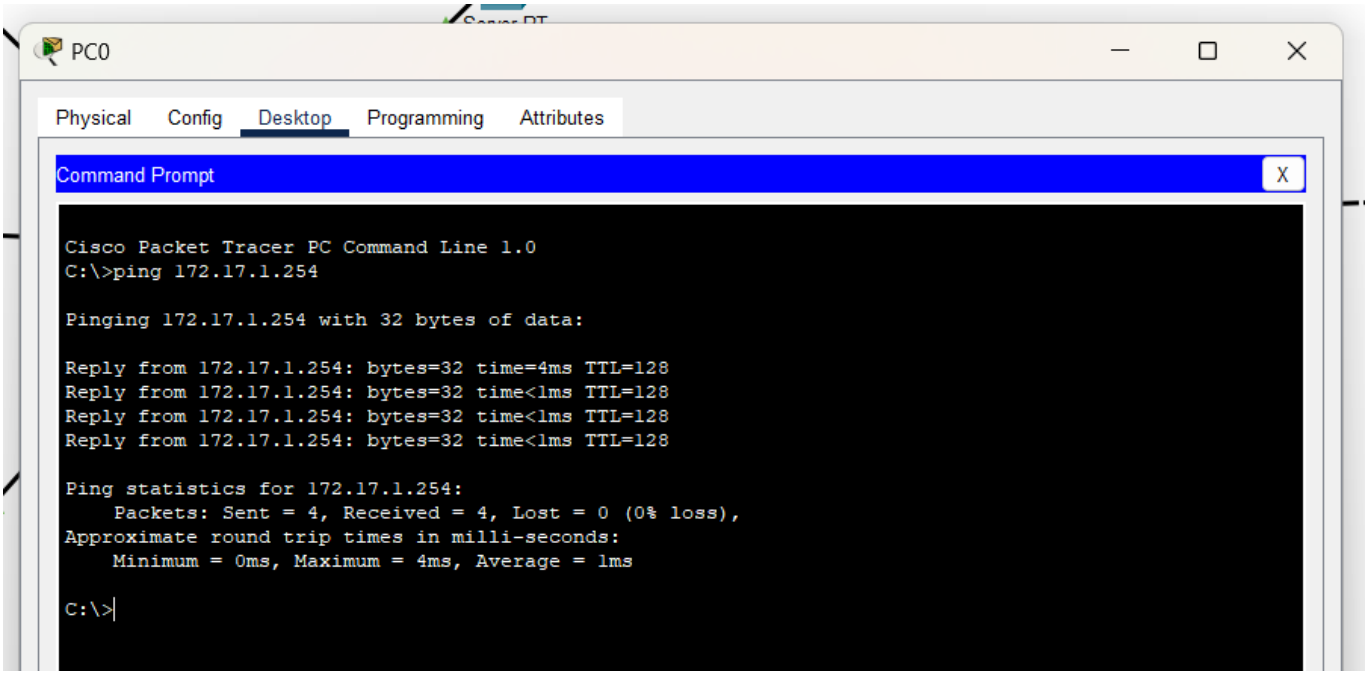




→here for the third pc(pc8) we cant create the IP address because we are having only 512 hosts and in the 512 two are the network id and the last is the broadcast id so we will have only 510 we cant assign the ip for the third system so there is no 511 ip to assign

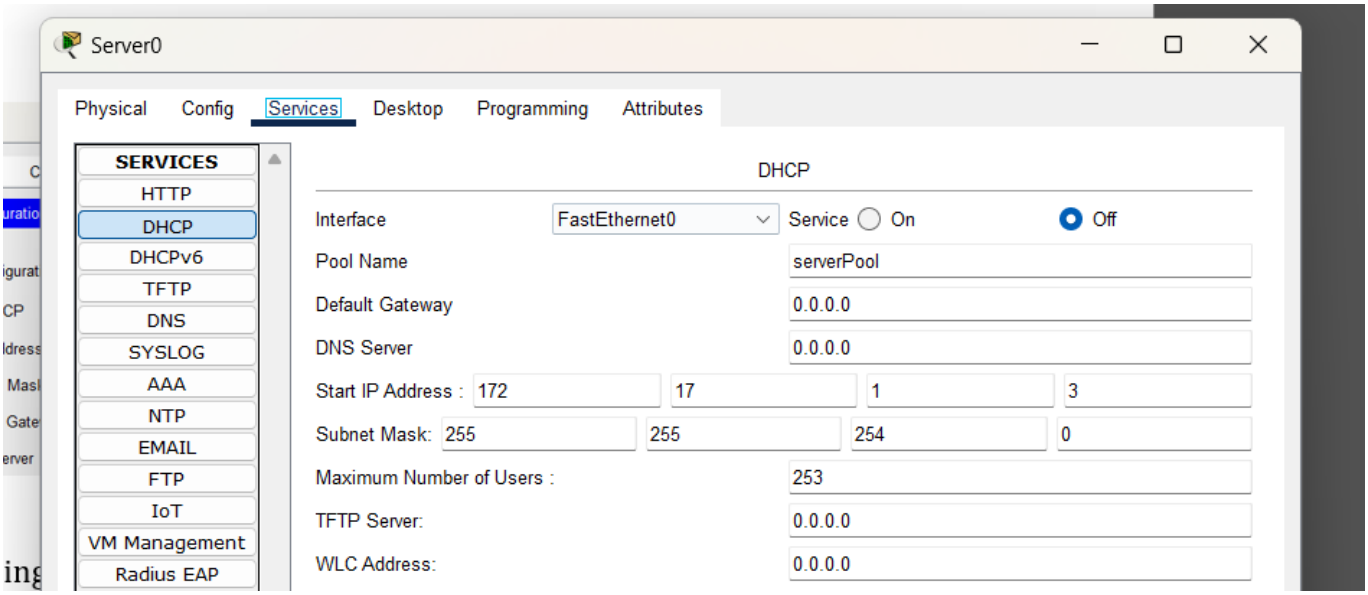


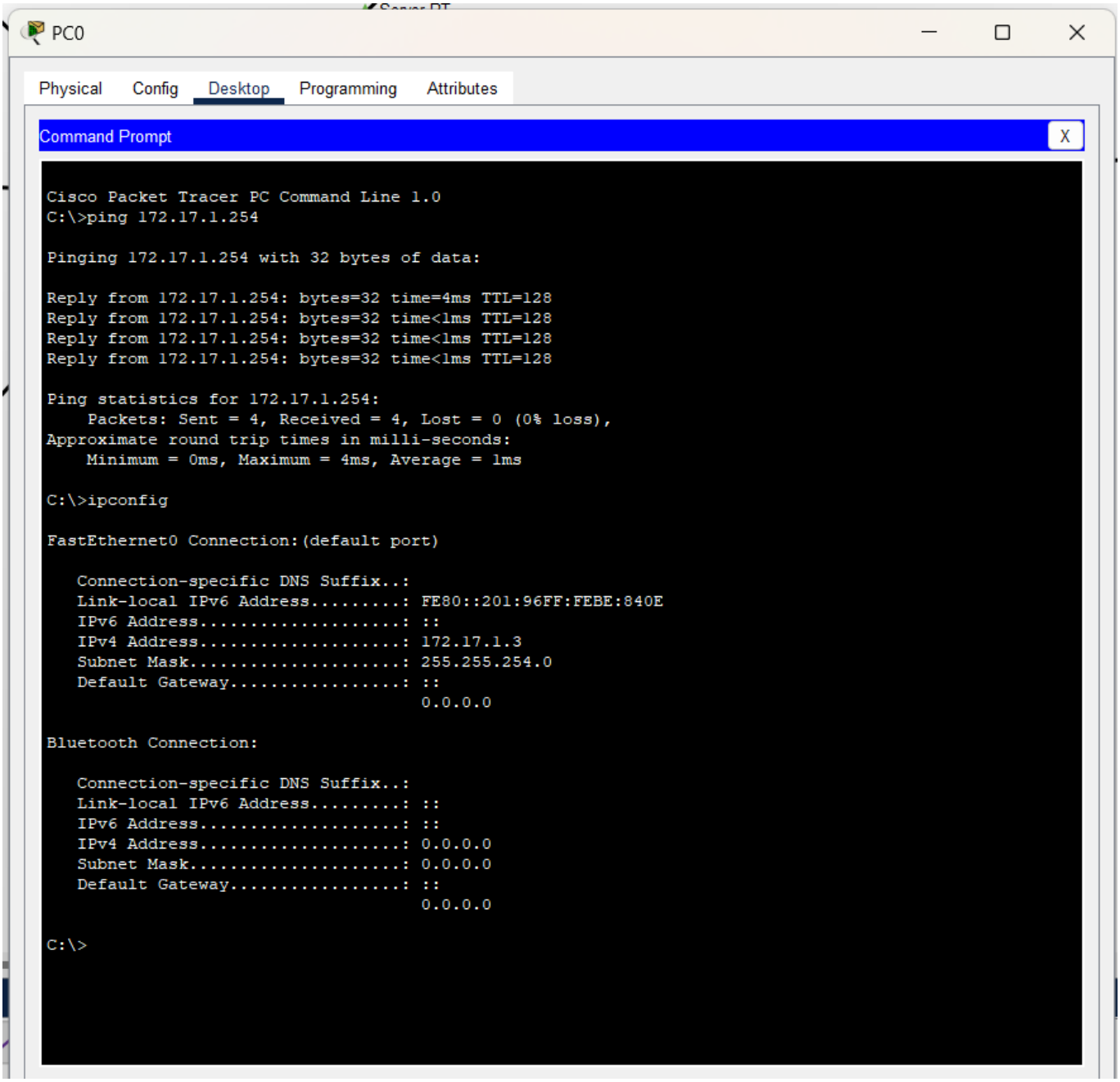
9. Ping from 259th IP Address device to 510th IP Address device, and write your observation below
Ans:



→since they are in same network we can ping them otherwise we cant ping between them if the network changes they will not ping (because of the same subnet mask) **10. Disable the DHCP service and check**

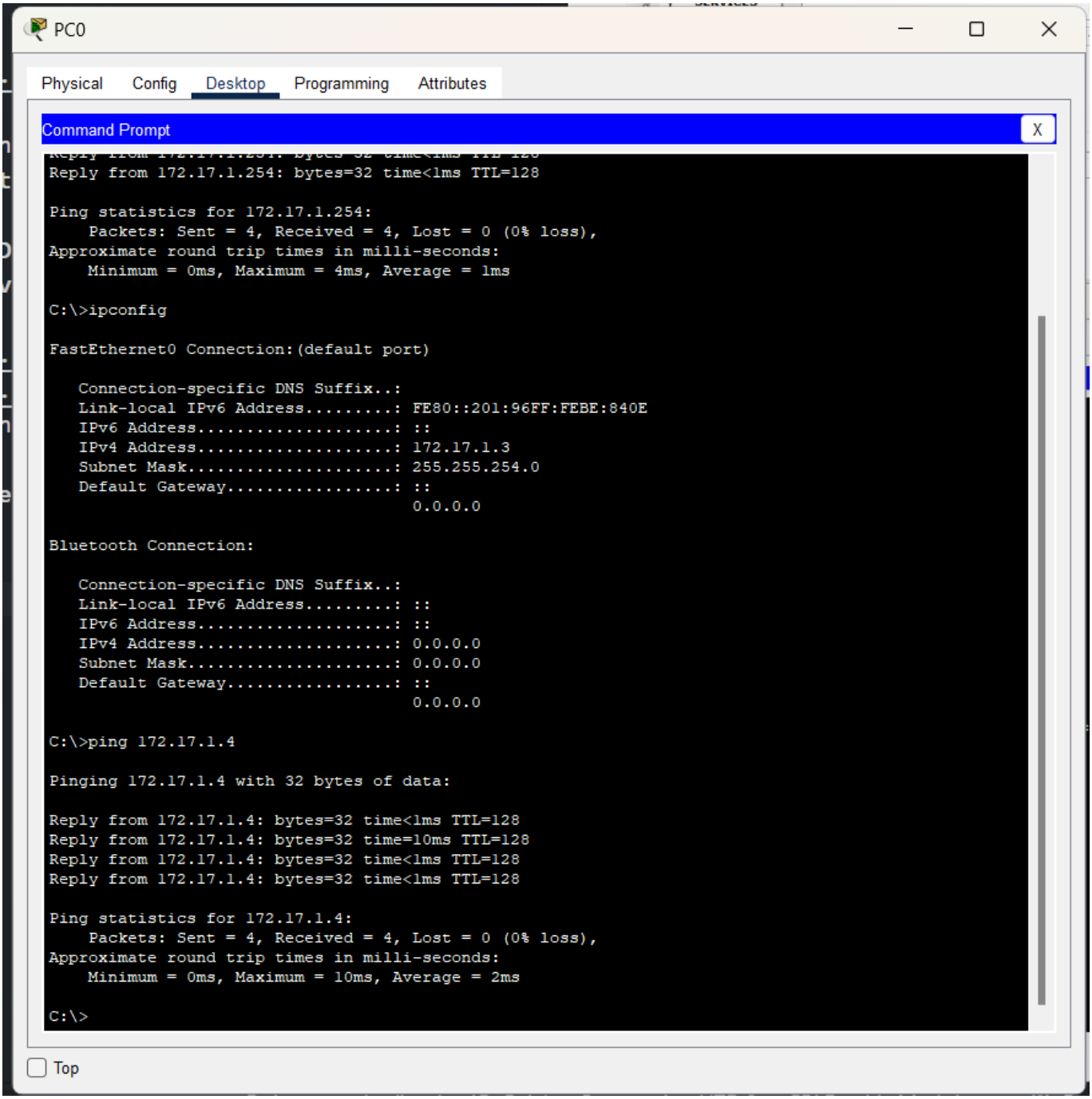
which IPs the client devices receive Ans:



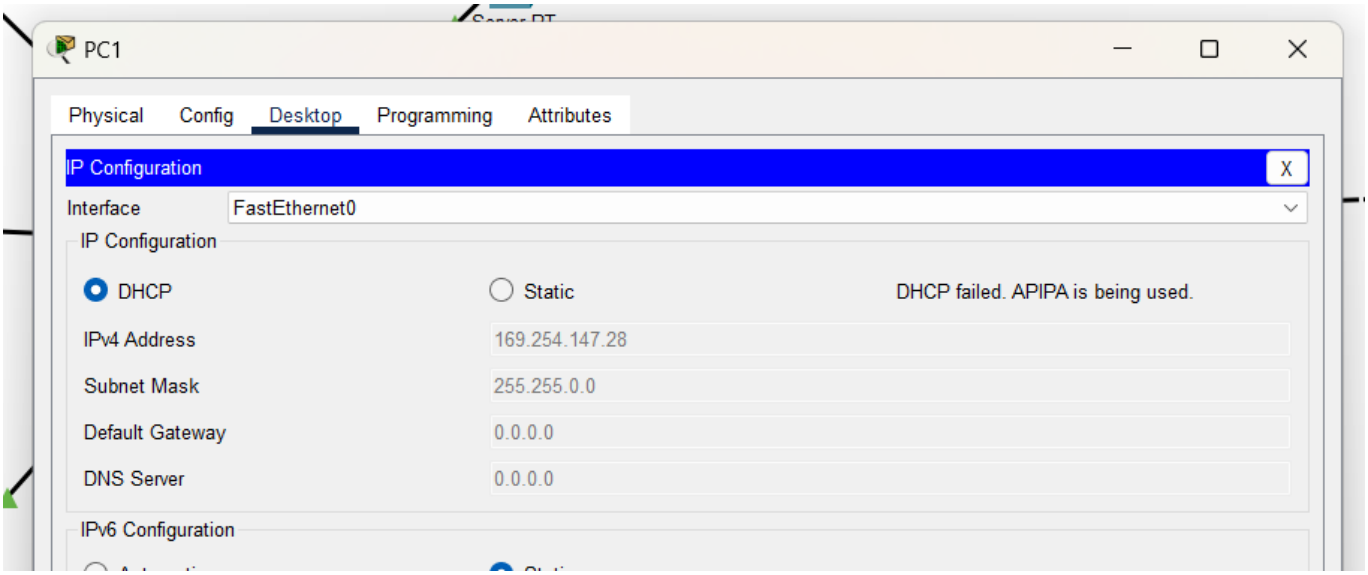


→ after disabling the DHCP services also the ip are not changes **11. Ping the received IP addresses and**

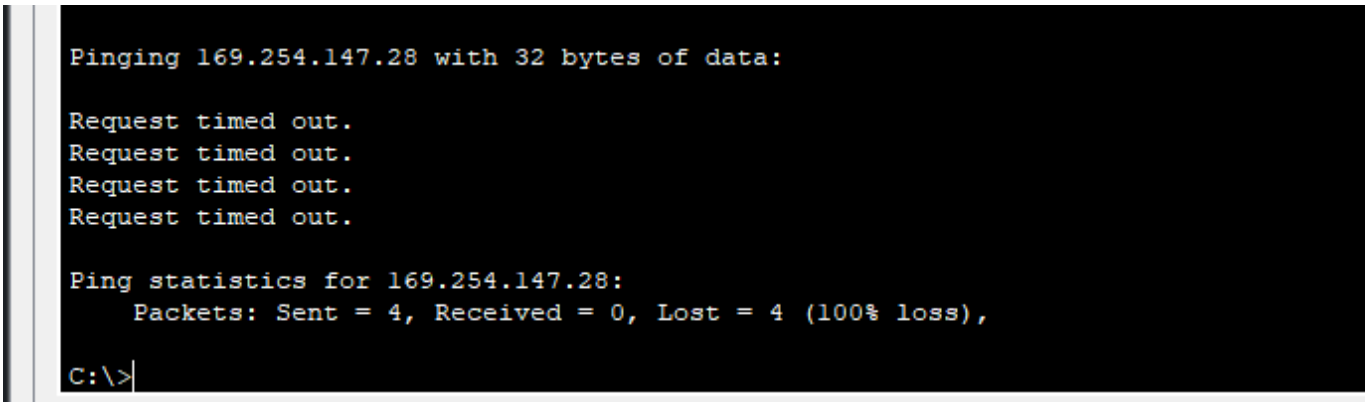
write observation Ans:

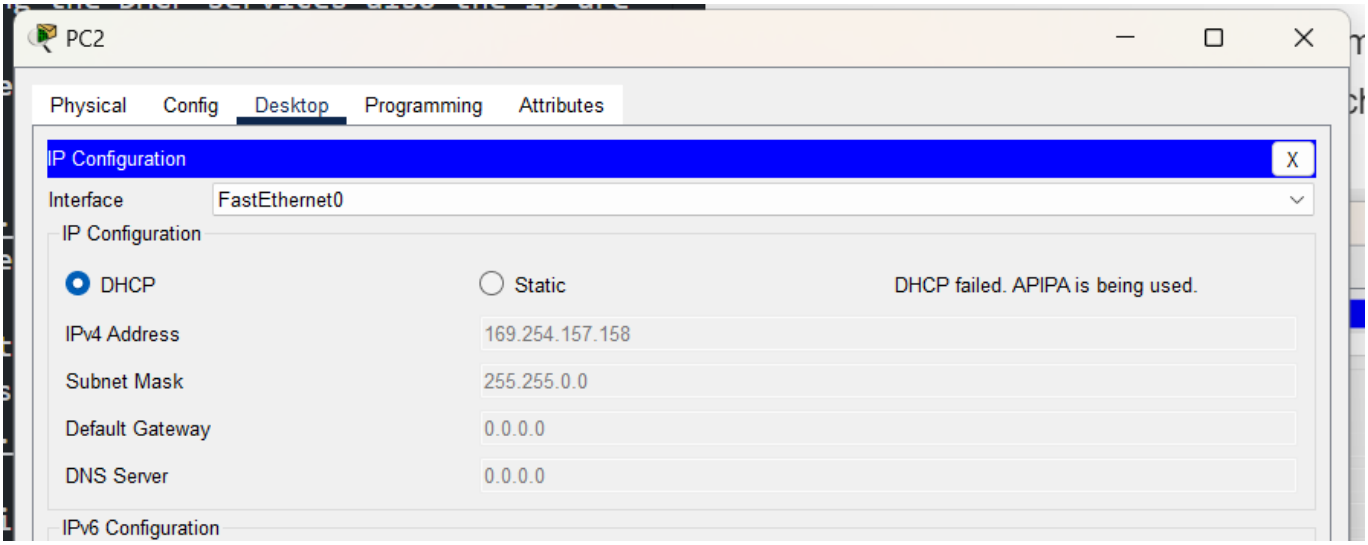


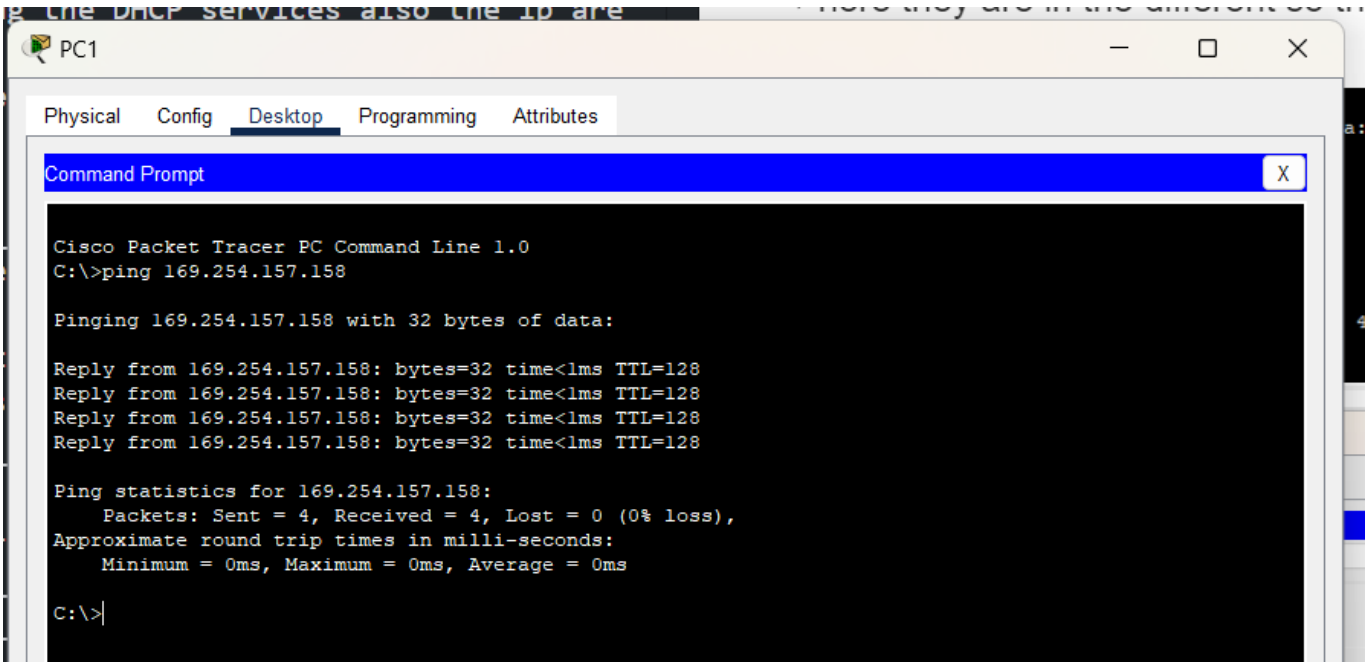
→ even after the diable of the dhcp connection also they can communicate if we not change the mode to static → if we enable the static and then changed to dhcp apipa will be used as the ip



→ here they are in the different so they will be connected and communicated







→ here in the pc1 and pc2 the ips are changed to the apipa so that they can communicate

- The conclusion is that if we not change the mode to static then all will be communicated if we change them they will be gettig the apipa ip so that the network will change so that they cant communicate. here we can see in the pc0 and pc1 they are not communicating and in the pc1 and pc2 they are using apipa so that they can communicate