

**PAK AUSTRIA FACHHOCHSCHULE: INSTITUTE OF APPLIED SCIENCES AND
TECHNOLOGY
DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING**

**Computer Networks
COMP-352L
LAB MANUAL 6**



School of Computing Sciences

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Domain Name Server configuration

Overview:

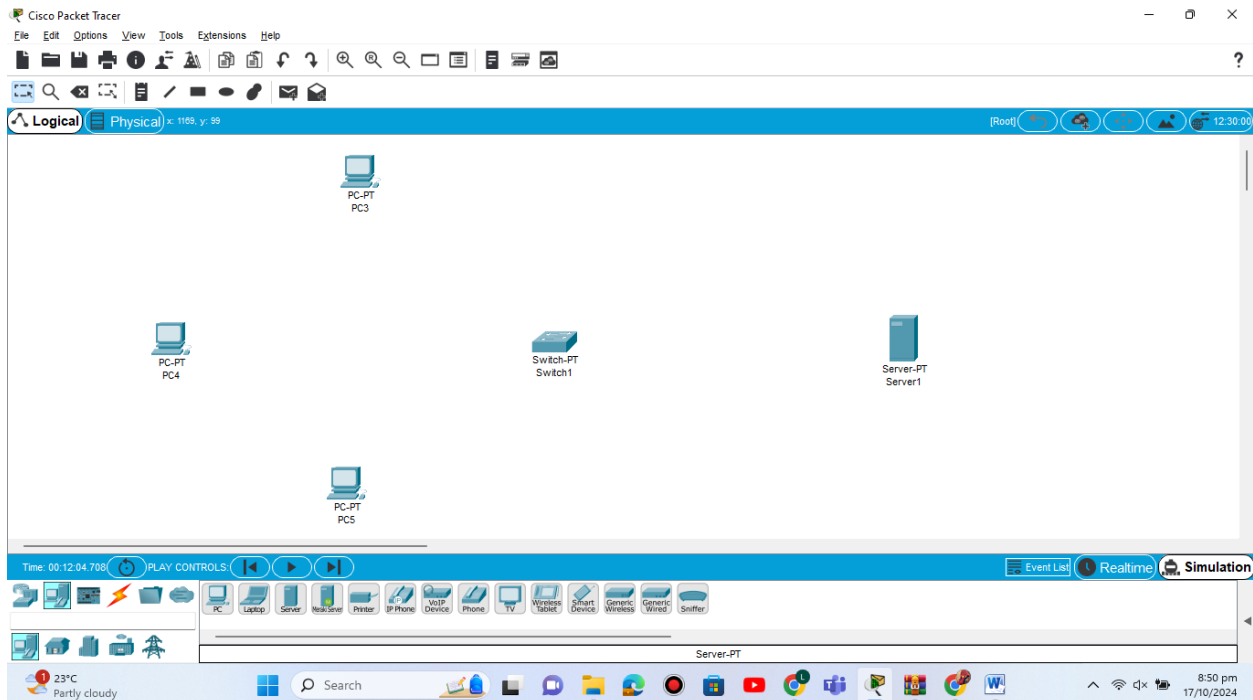
What is DNS?

The Domain Name System (DNS) is a hierarchical and decentralized naming system used to translate human-readable domain names (like `www.example.com`) into machine-readable IP addresses (like `192.0.2.1`). This translation is essential because, while humans prefer to remember names, computers and network devices communicate using numerical IP addresses.

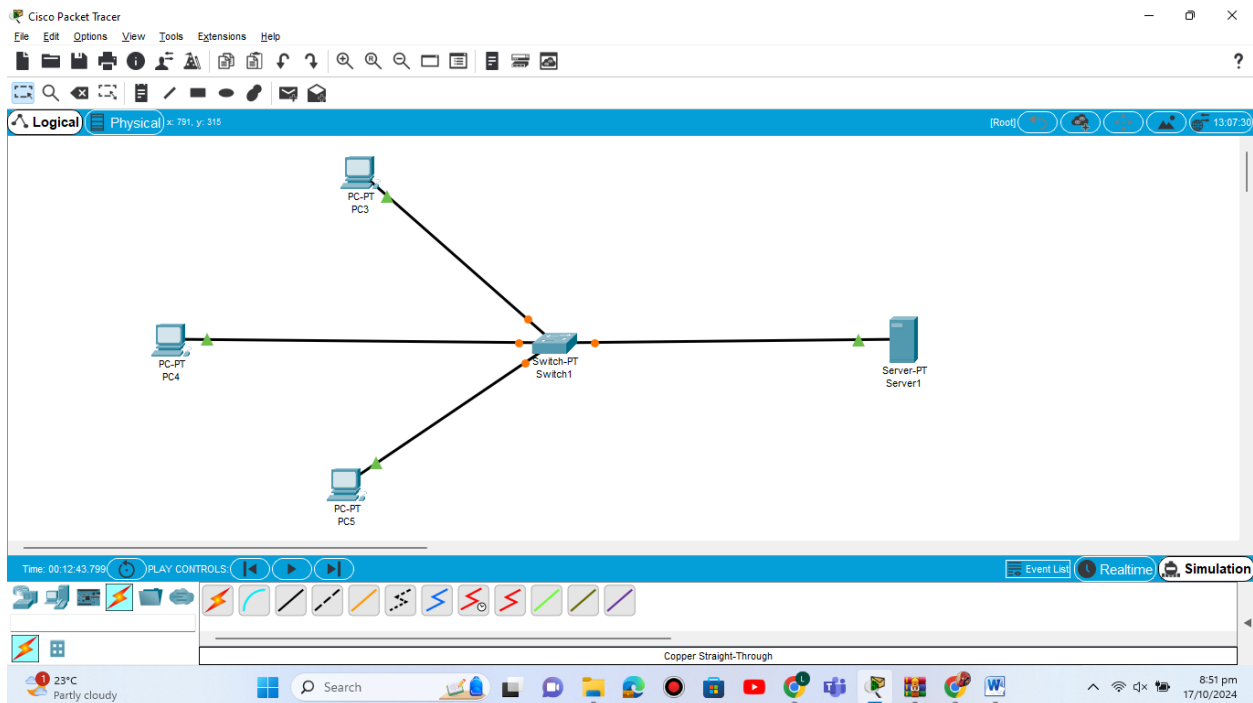
Steps:

Following are the steps to configure email server:

1. Create a topology like given below having following devices:
 - a. 2 PC's
 - b. A switch
 - c. A server

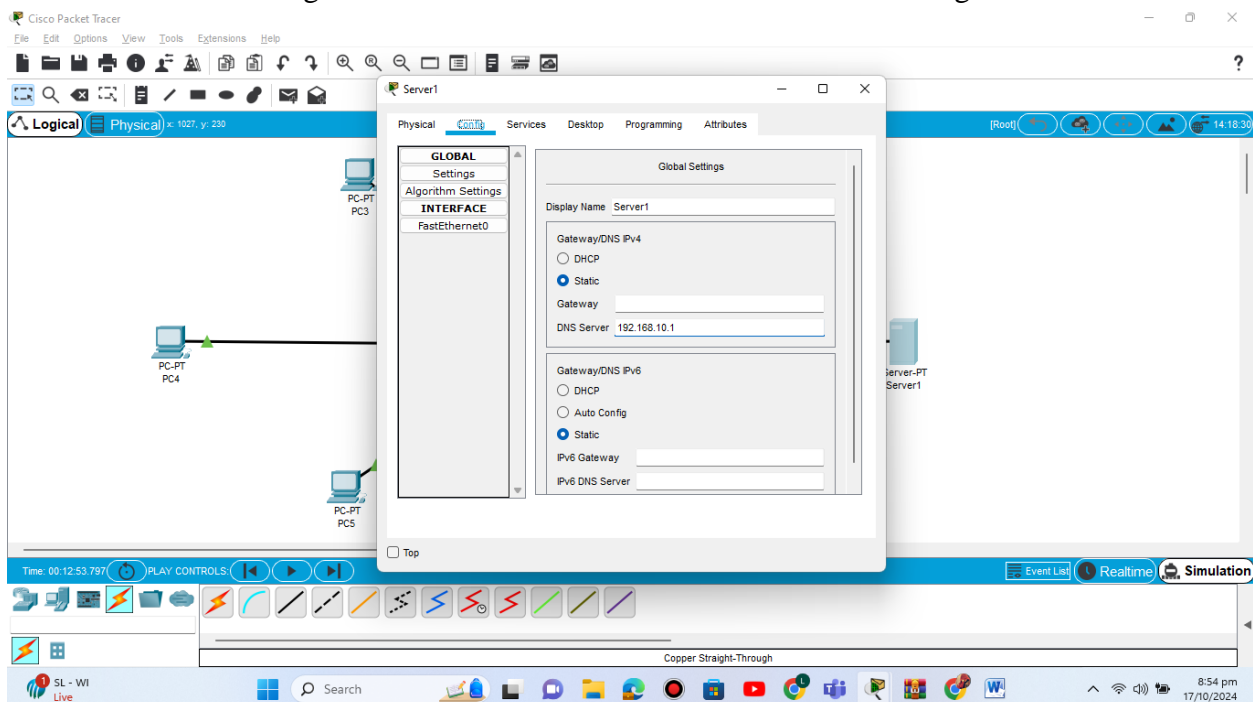


2. Now create connects between the devices as:
 - i. Connect both PC's to the switch using straight through cable.
 - ii. Connect switch to server through straight through cable.

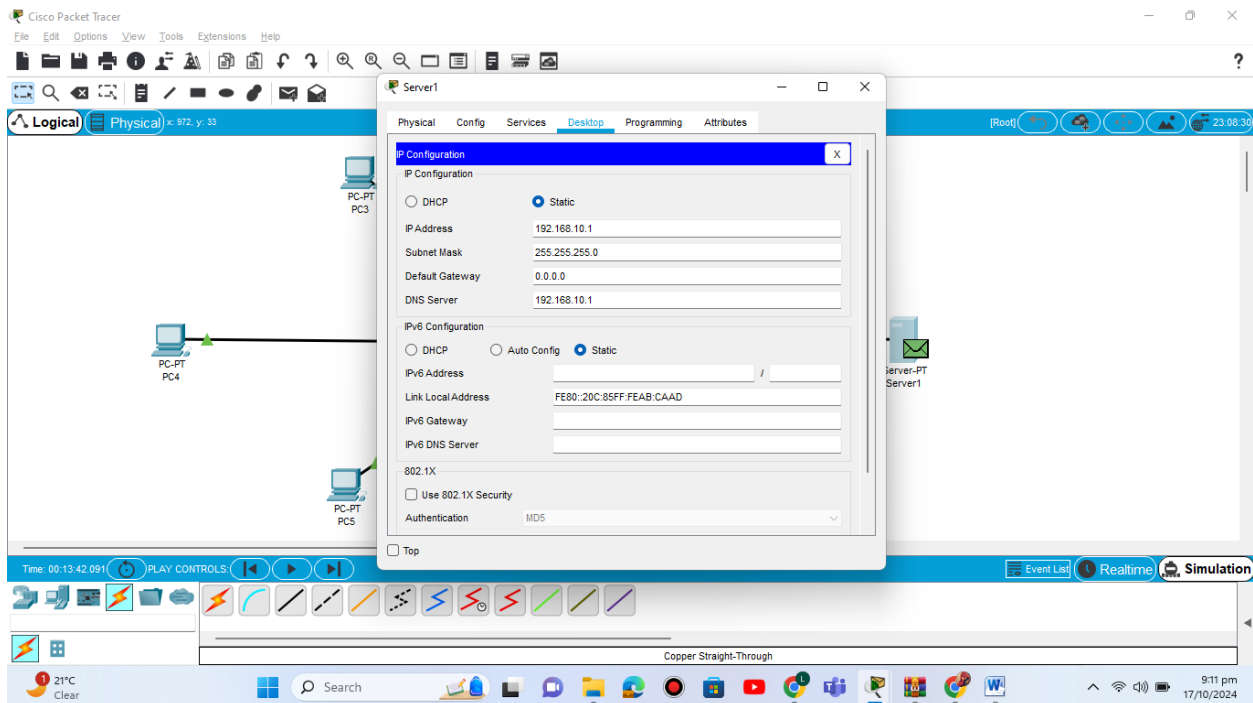


3. Now start with configuring server, assign the IP addresses to server.

- i. Click on Server, go to Config
- ii. Assign IP address to DNS server and close server configuration.



- iii. Again, click on Server and go to Desktop
- iv. Then click on IP Configuration and assign IP address

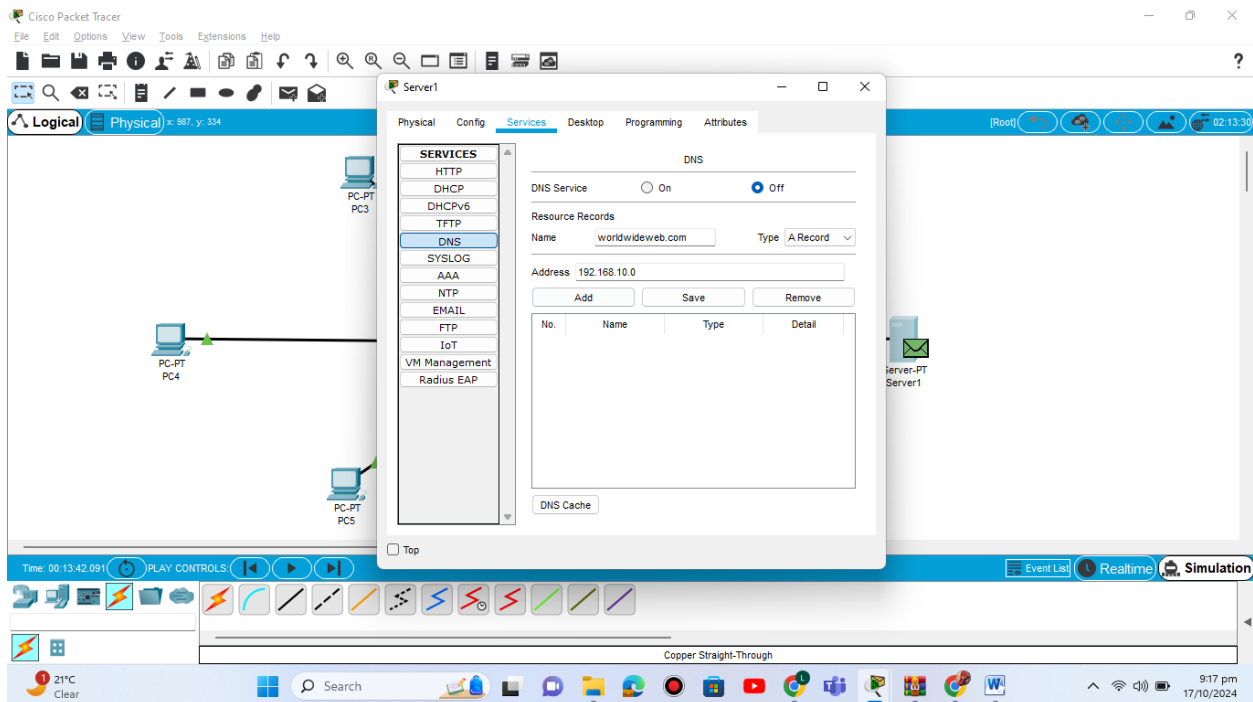


v. Now go to Services and click on DNS from left bar.

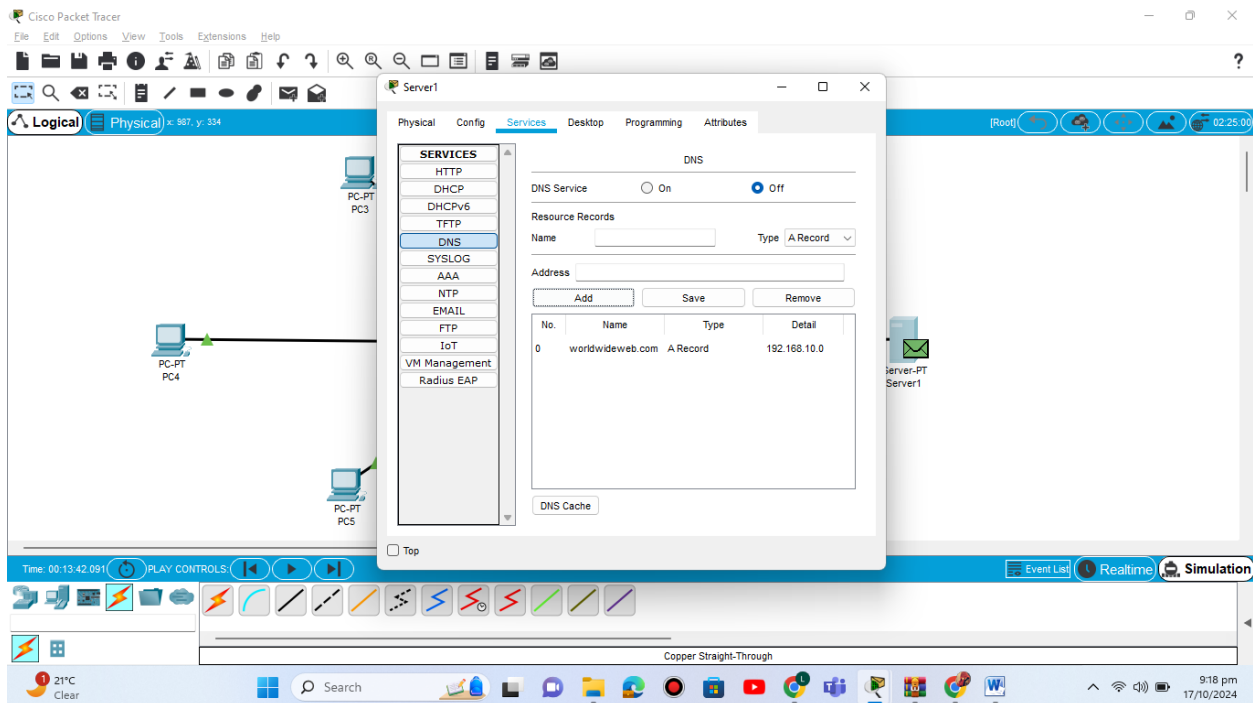
vi. Give Name and Address here as:

Name:worldwideweb.com

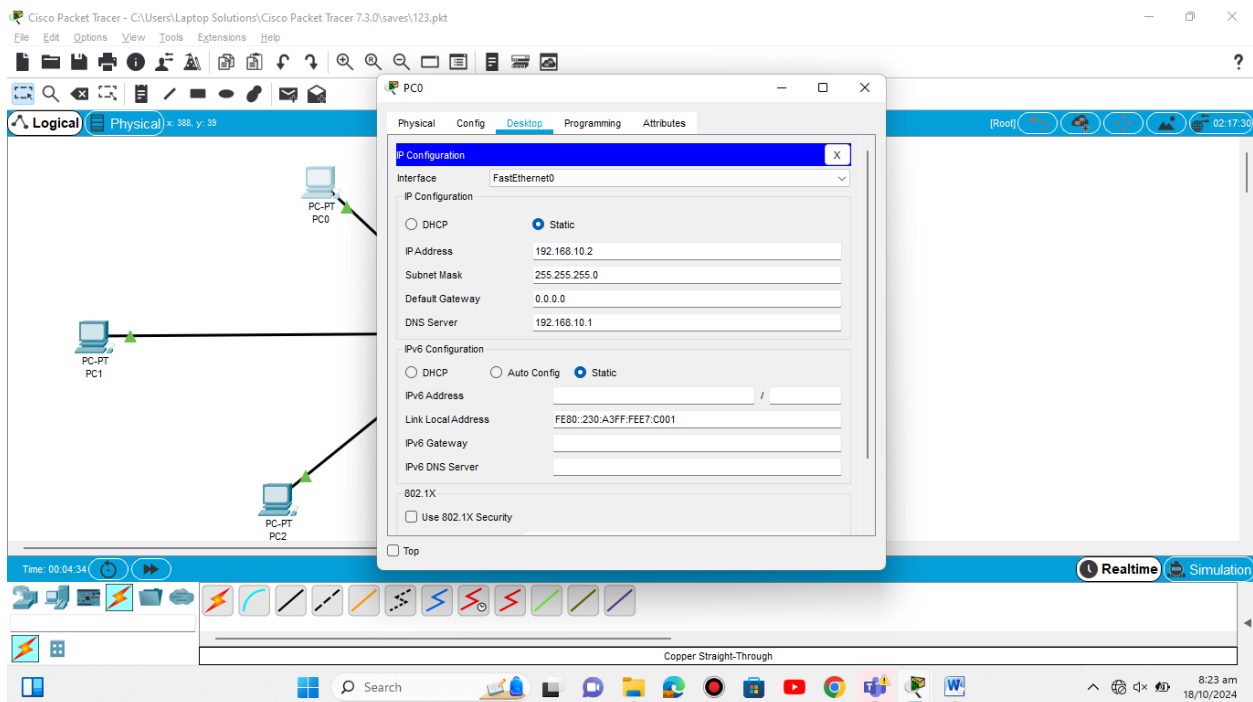
Address:192.168.10.0



vii. Click on ADD



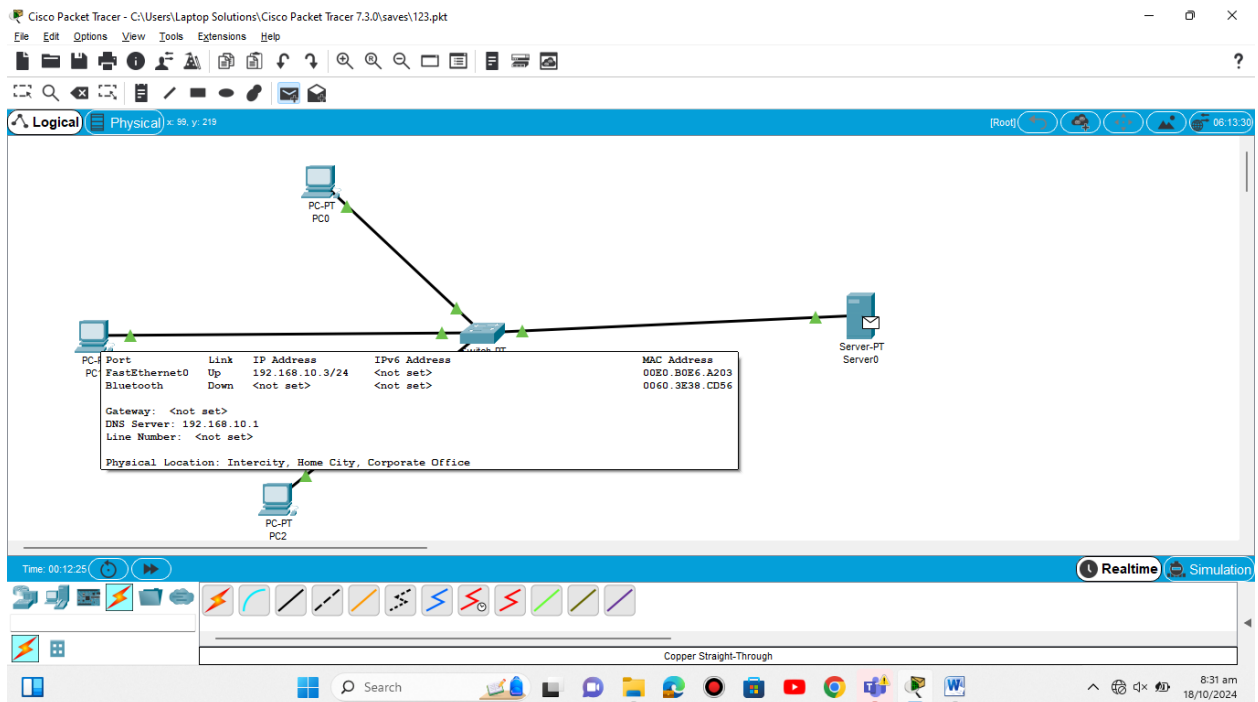
- viii. Now assign IP addresses to PC's
- Click on PC0 and go to Desktop, click on IP configuration
 PC0:
 IP Address: 192.168.10.2
 Subnet Mask: 255.255.255.0
 DNS Server: 192.168.10.1



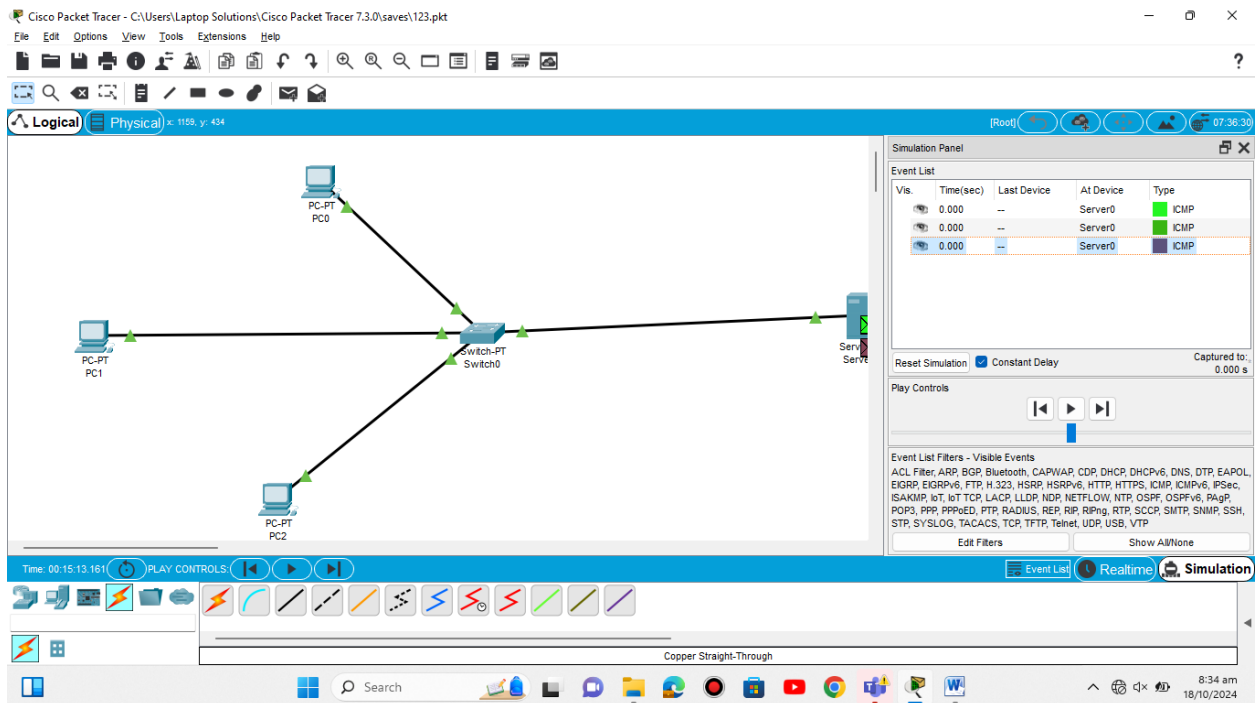
- ix. Repeat the steps for PC1 and PC2 as well

- a. PC1:
IP Address: 192.168.10.3
Subnet Mask: 255.255.255.0
DNS: 192.168.10.1
- b. PC2:
IP Address: 192.168.10.4
Subnet Mask: 255.255.255.0
DNS: 192.168.10.1

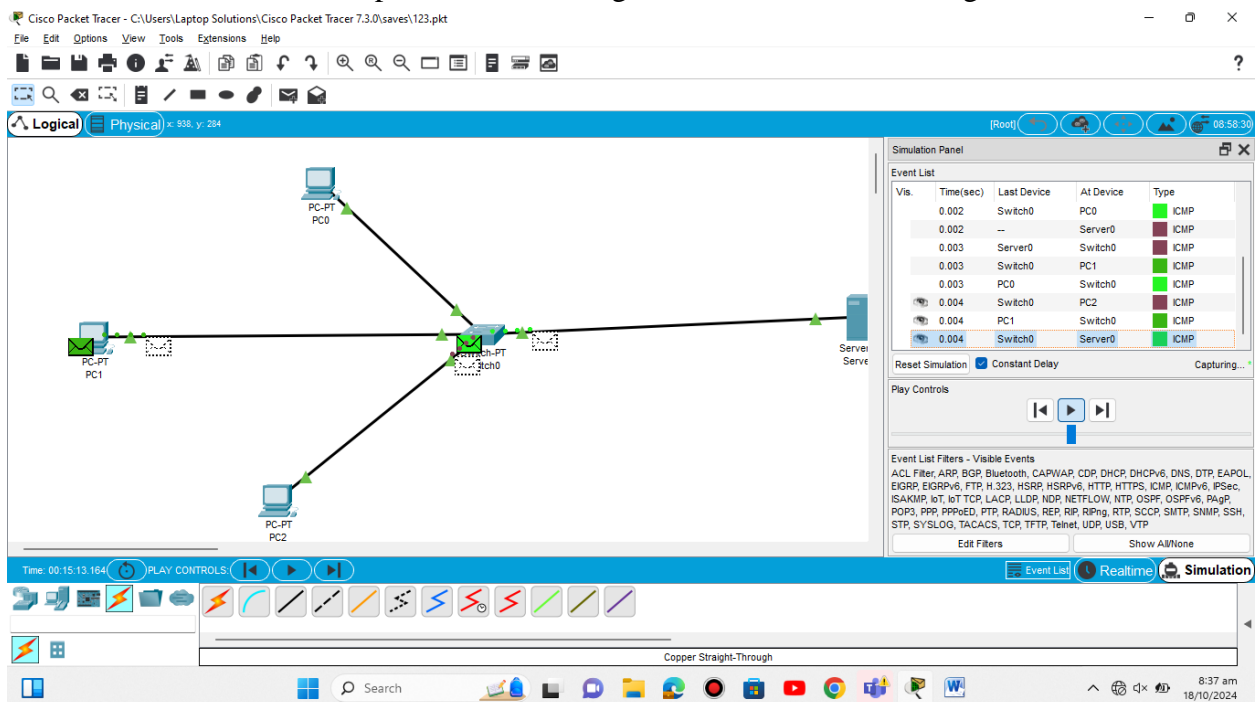
- x. Now pass the message packet from Server to all three PC's and check the connection is established or not.



- xi. Go to Simulation mode and see the packet transferring.



xii. Show the packets transferring from server to PC's through switch.



xiii. This is how DNS configuration actually happens.

LAB TASK:

1. Do the same configuration using 5 PC's and make a report of it showing each step.