# Practical 2

Title : To demonstrate configuration of Mail Server (SMTP).

Scenario : Mr. Tim is planning to set up the network for his company's branch office which contains 2 departments- Department A and Department B. The configuration should be done such that all the devices in those departments should be able to reach each other. For security reasons, Mr. Tim doesn't want to use any external company service for mail. So, he asked his Network Engineer to set up the server in the company premises only to use the mail services. Therefore, help the network Engineer to do the same. Note the important point while designing and implementing the network. The branch office is connected to the main office. Therefore you need to show the network of the main office as well. The mail domain of the branch office is @future.second.in and the mail domain of the main office is @future.first.in.All the users in the main office and branch office should be able to send and receive the mail. Design the network so that at least 2 users are there in each department of the branch office and at least 3 users in each department of the main office. Static routing should be used in the entire network.

Procedure :

1. Design a network using two routers and two servers. Main office is using Server0 with one department and the Branch office is using Server1 with two departments, separated by switches.
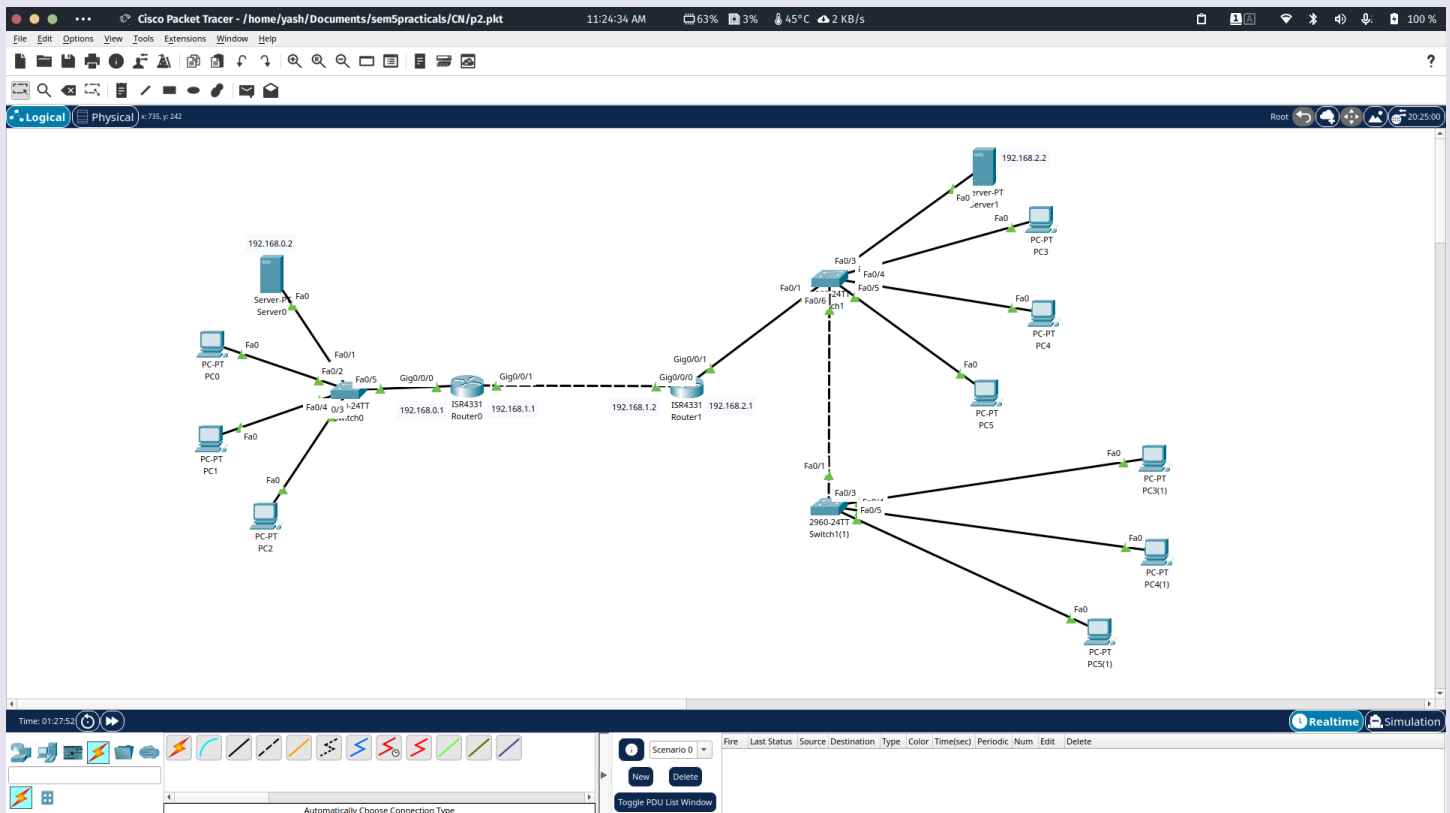
2. Start configuration from Router0 with given IP address and subnet mask for interface 0/0 connected to the main office's switch.
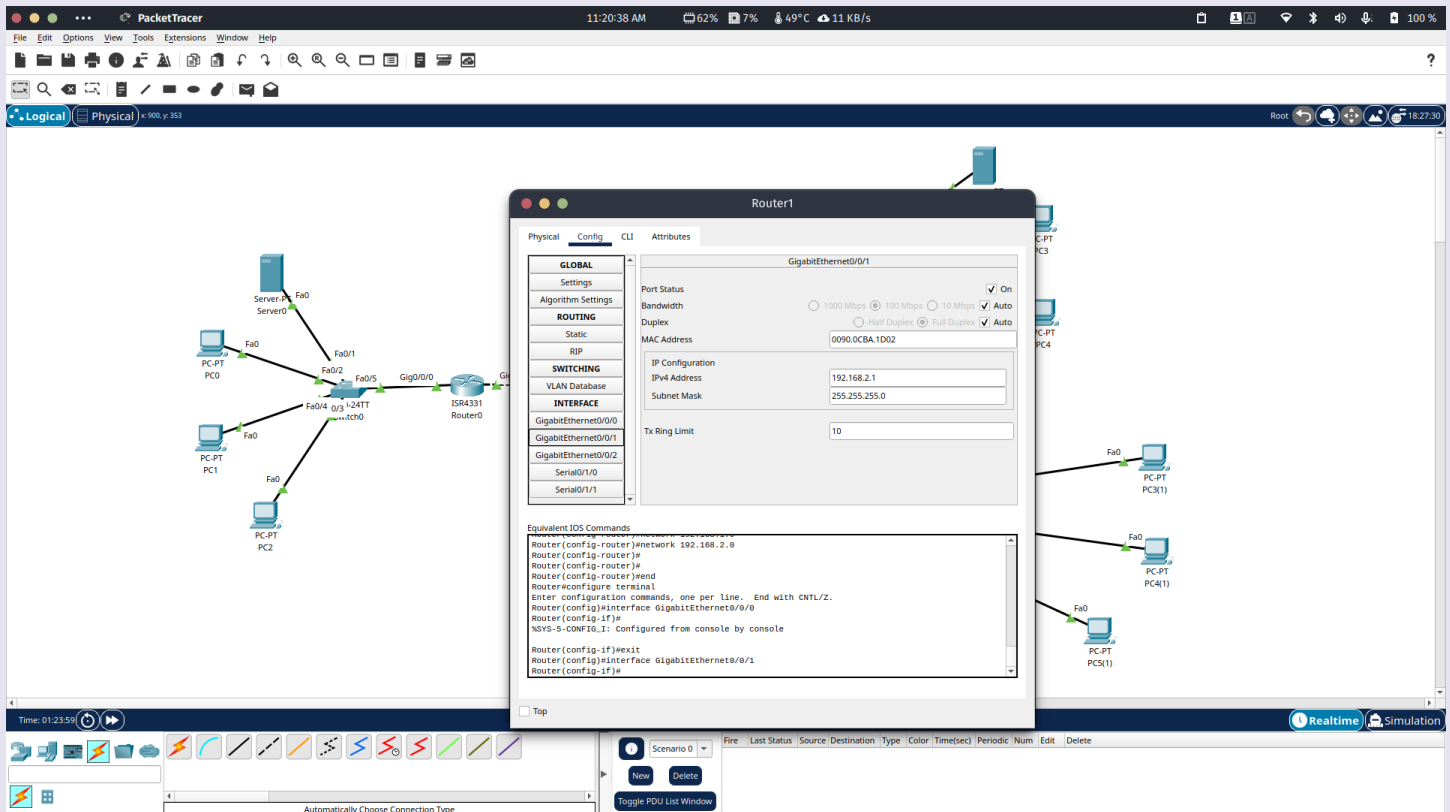
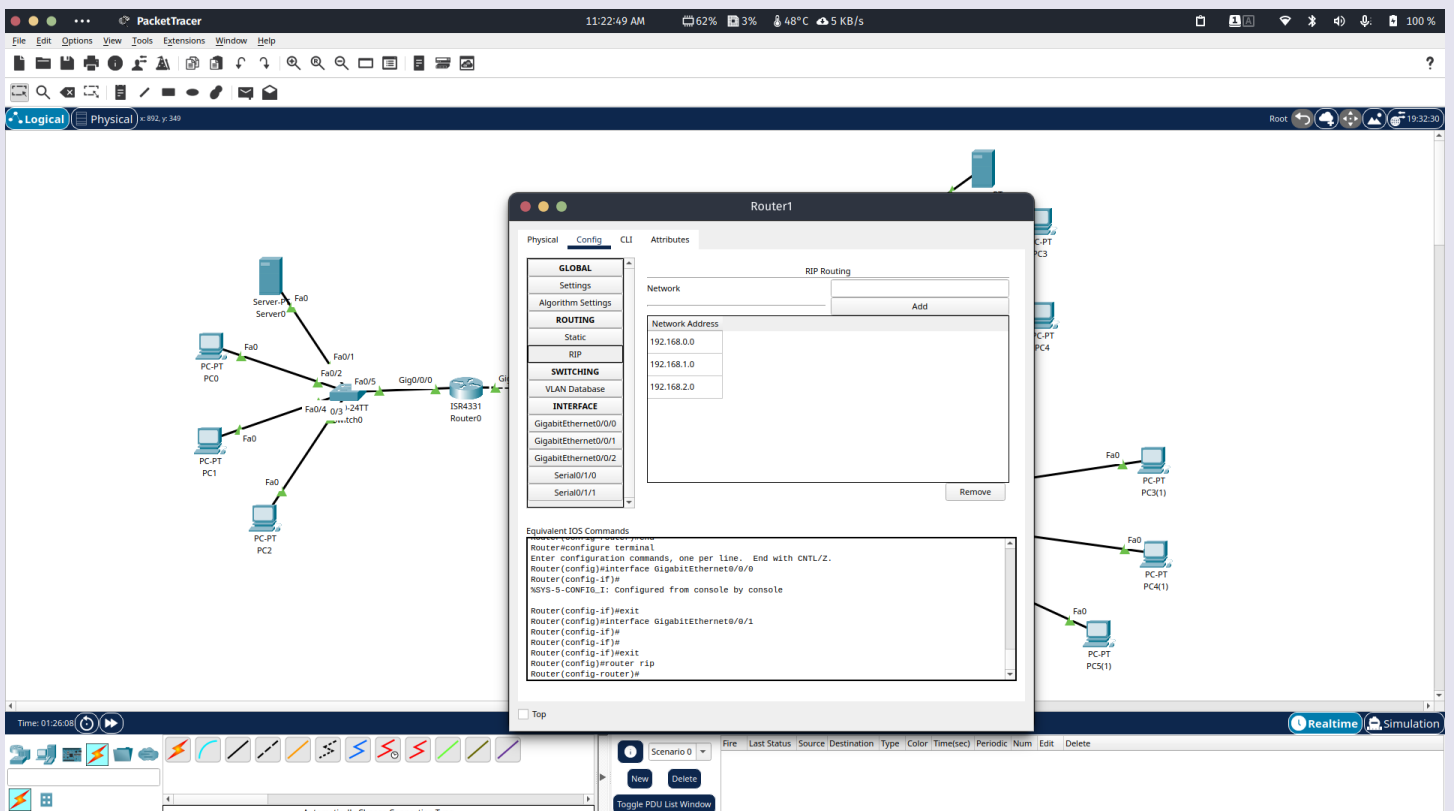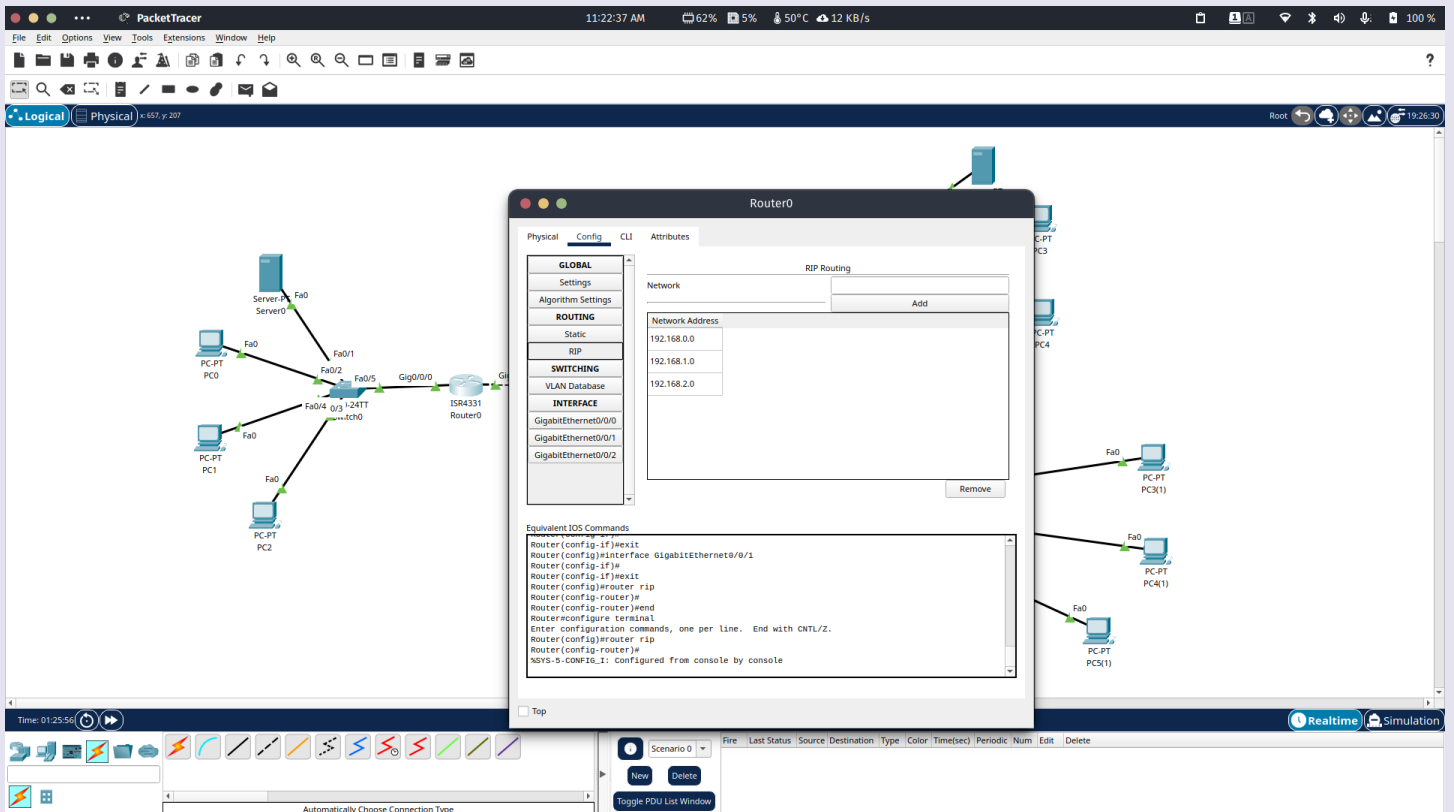## 3. Similarly, configure the same for interface 0/1 connected to Router1
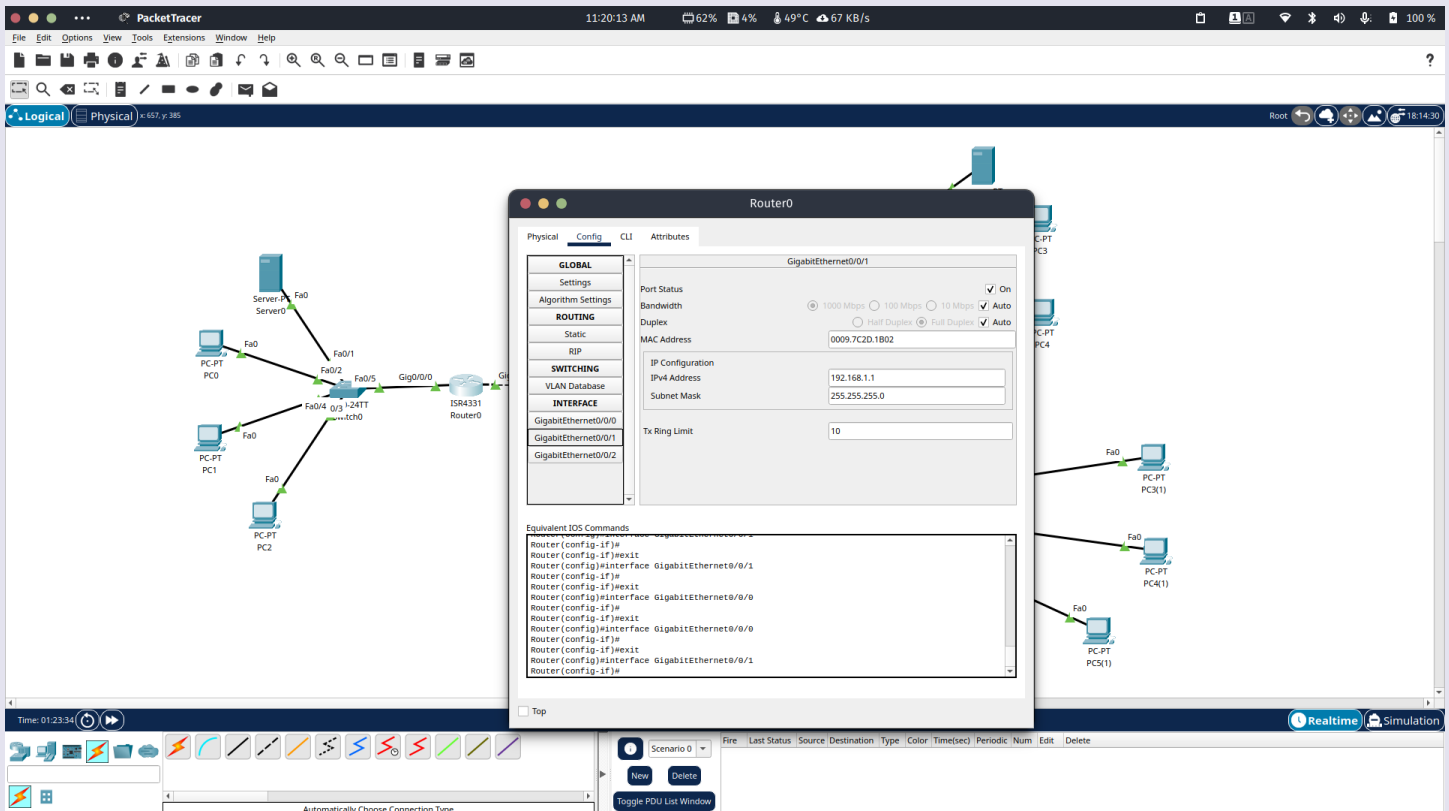
4. Configure Router1, with interface 0/0 having the given IP address and subnet mask, connected to interface 0/1 of Router0
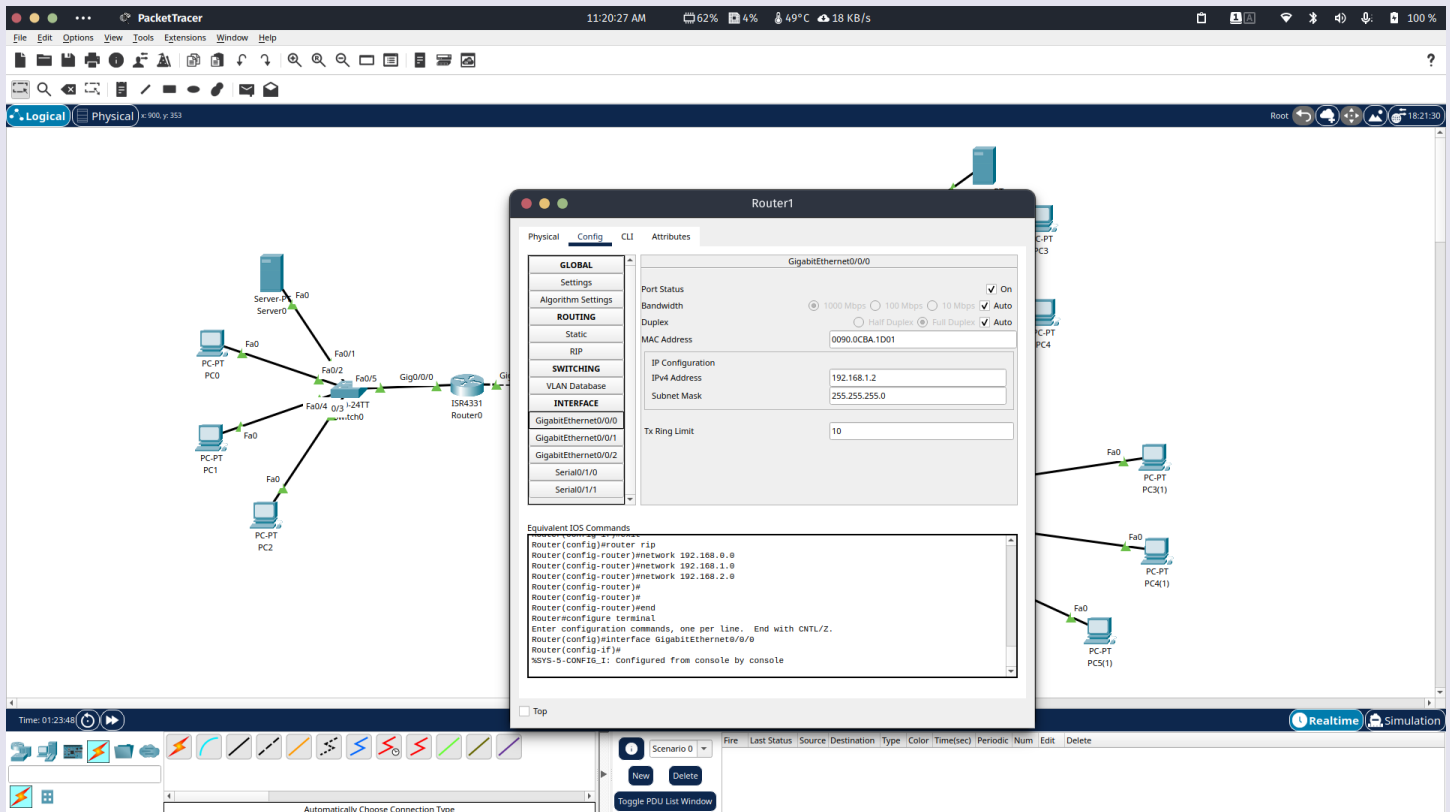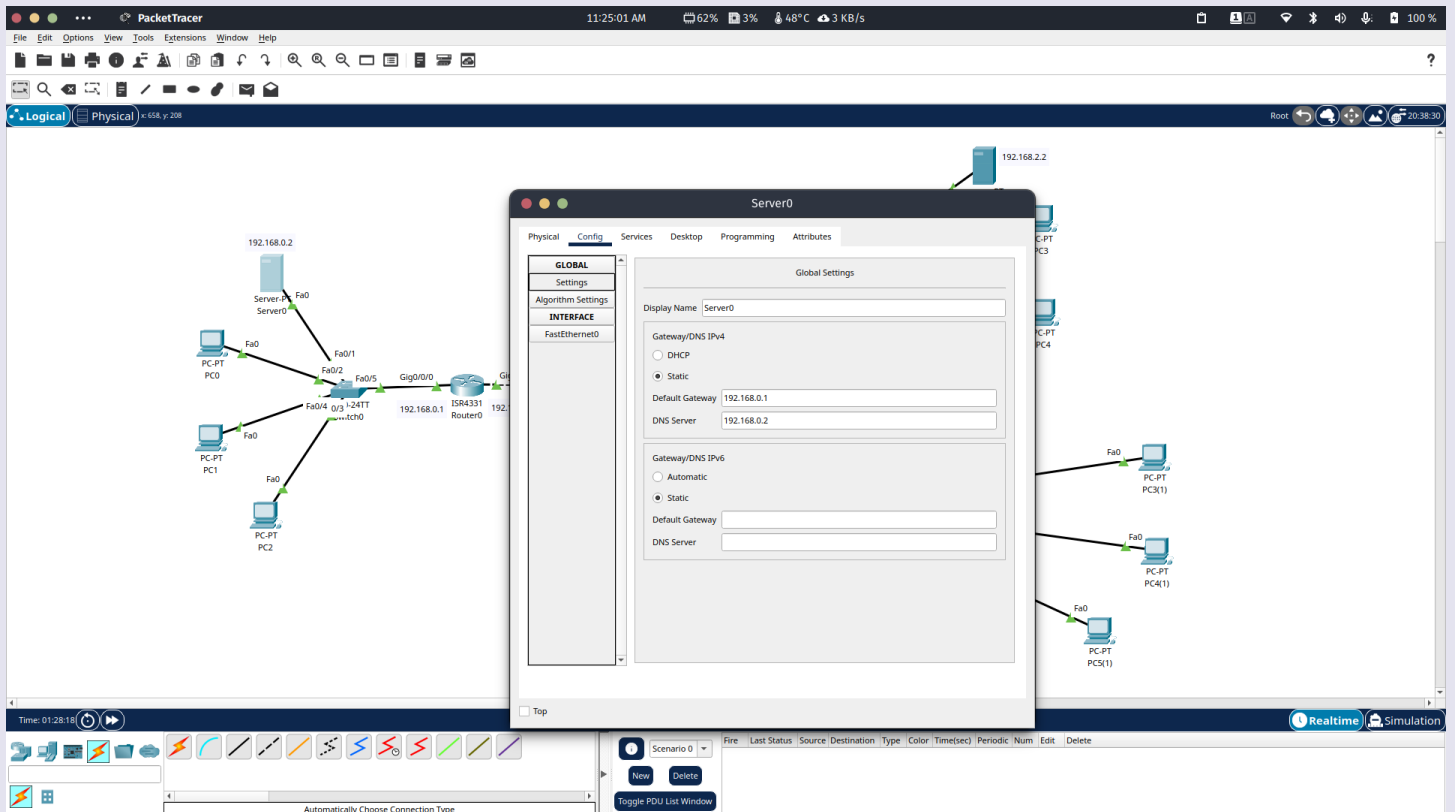
5. Similarly, the same process for its interface 0/1 connected to branch office's switch
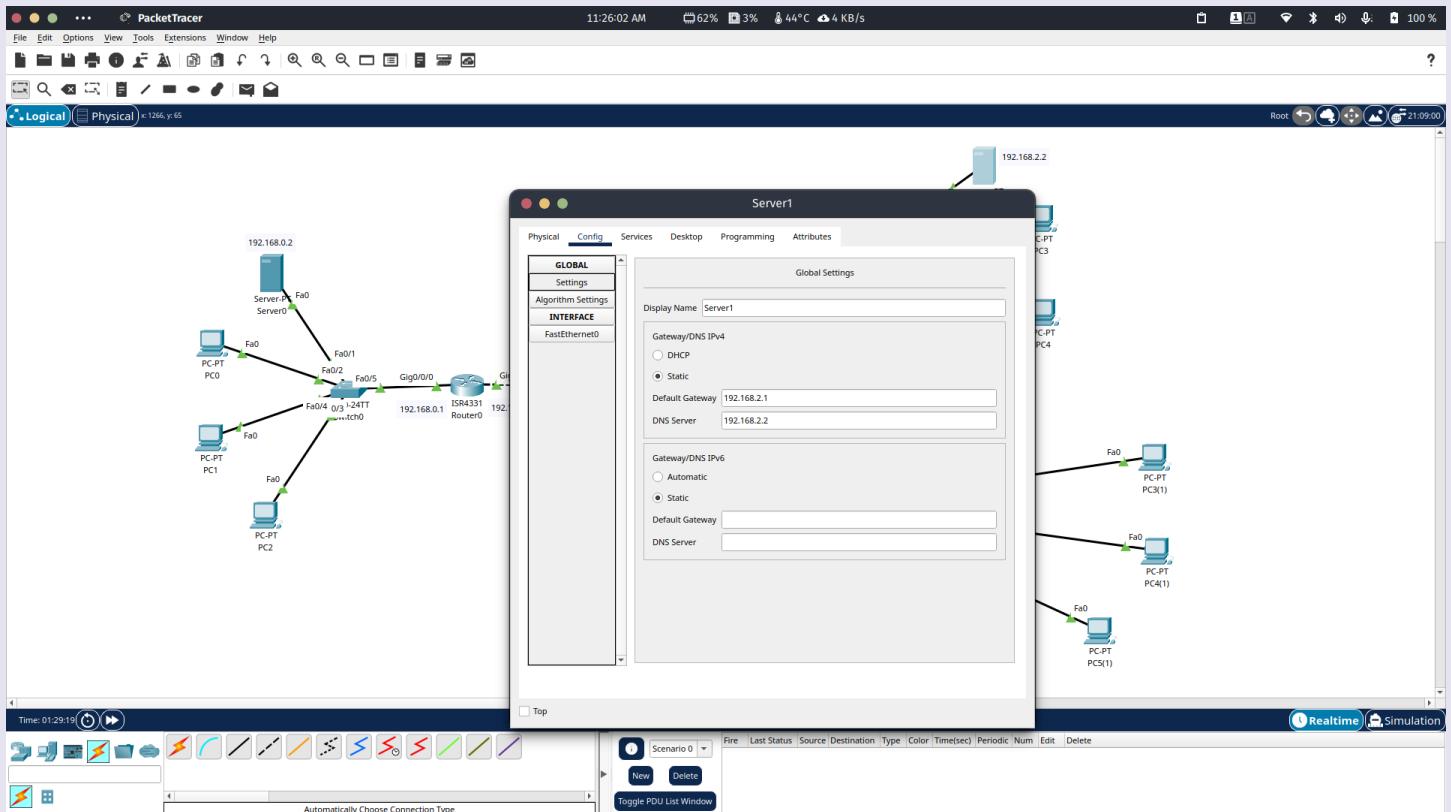
## 6. Add routing to Router0 and Router1 using RIP with all three networks' interfaces

7. Configure Server0 of the main office with the given IP address and subnet mask.
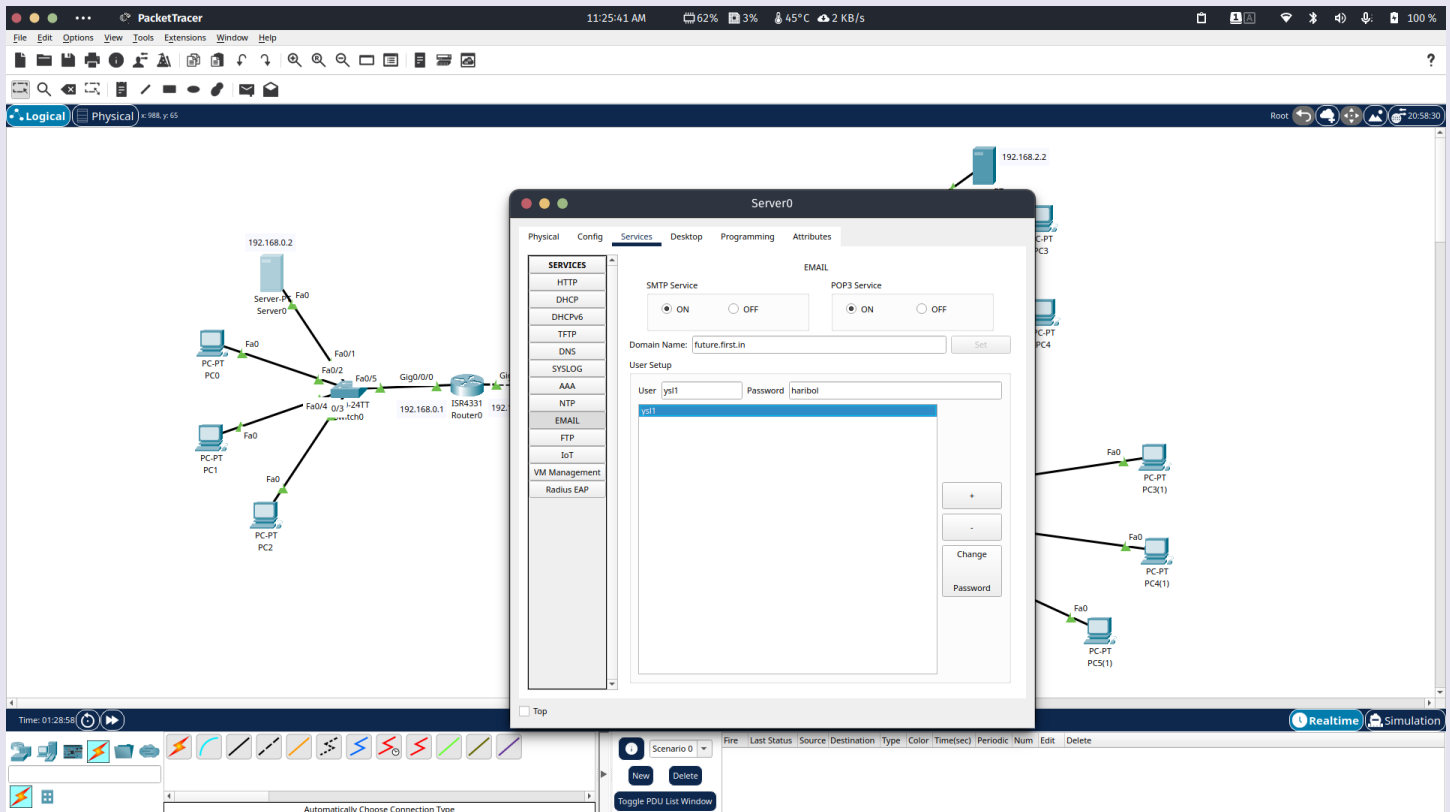
8. Similarly, for Server1 of branch office, assign the IP address and subnet mask respectively.
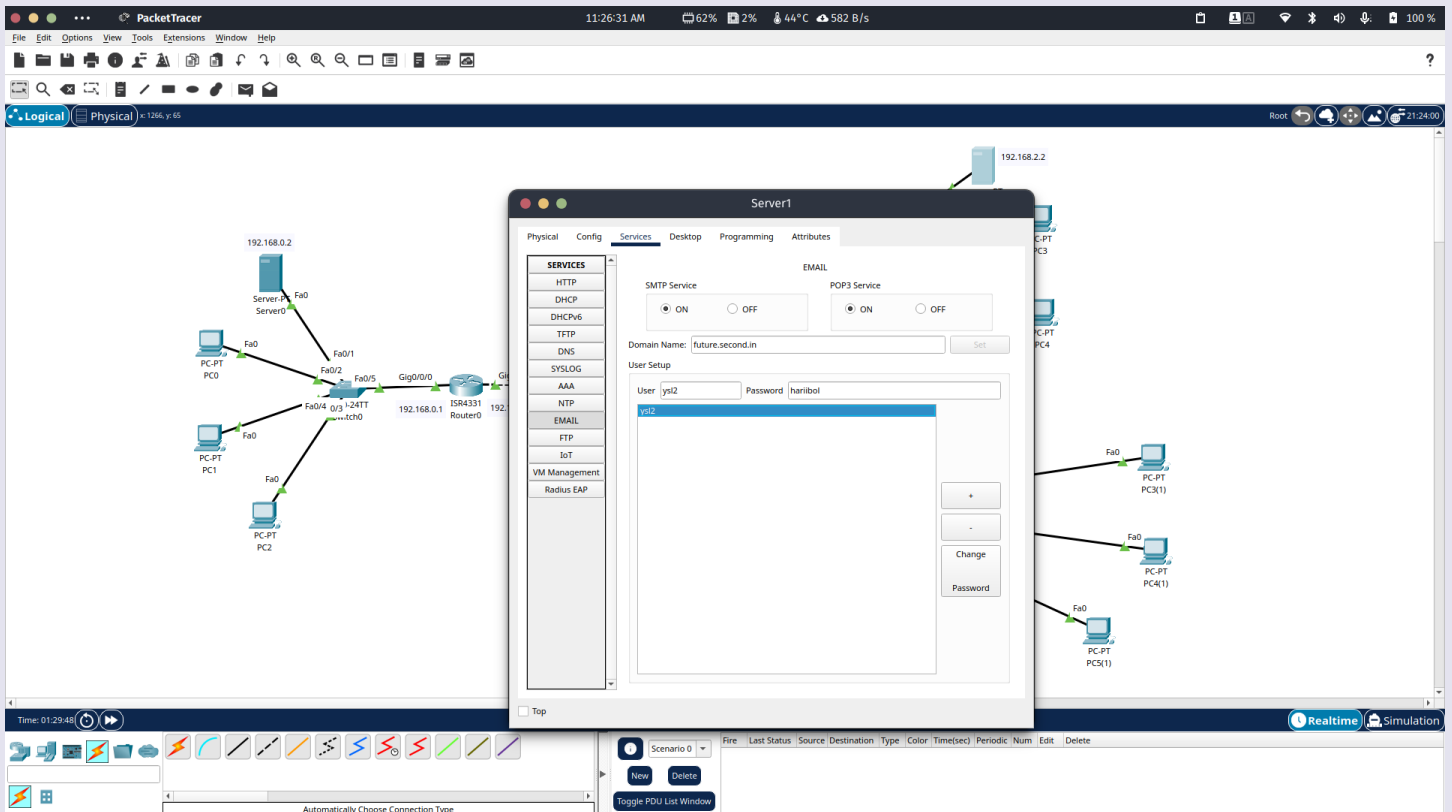
9. Now, turn ON and configure DNS for both the servers with future.first.in as domain for main office and future.second.in for the branch office.
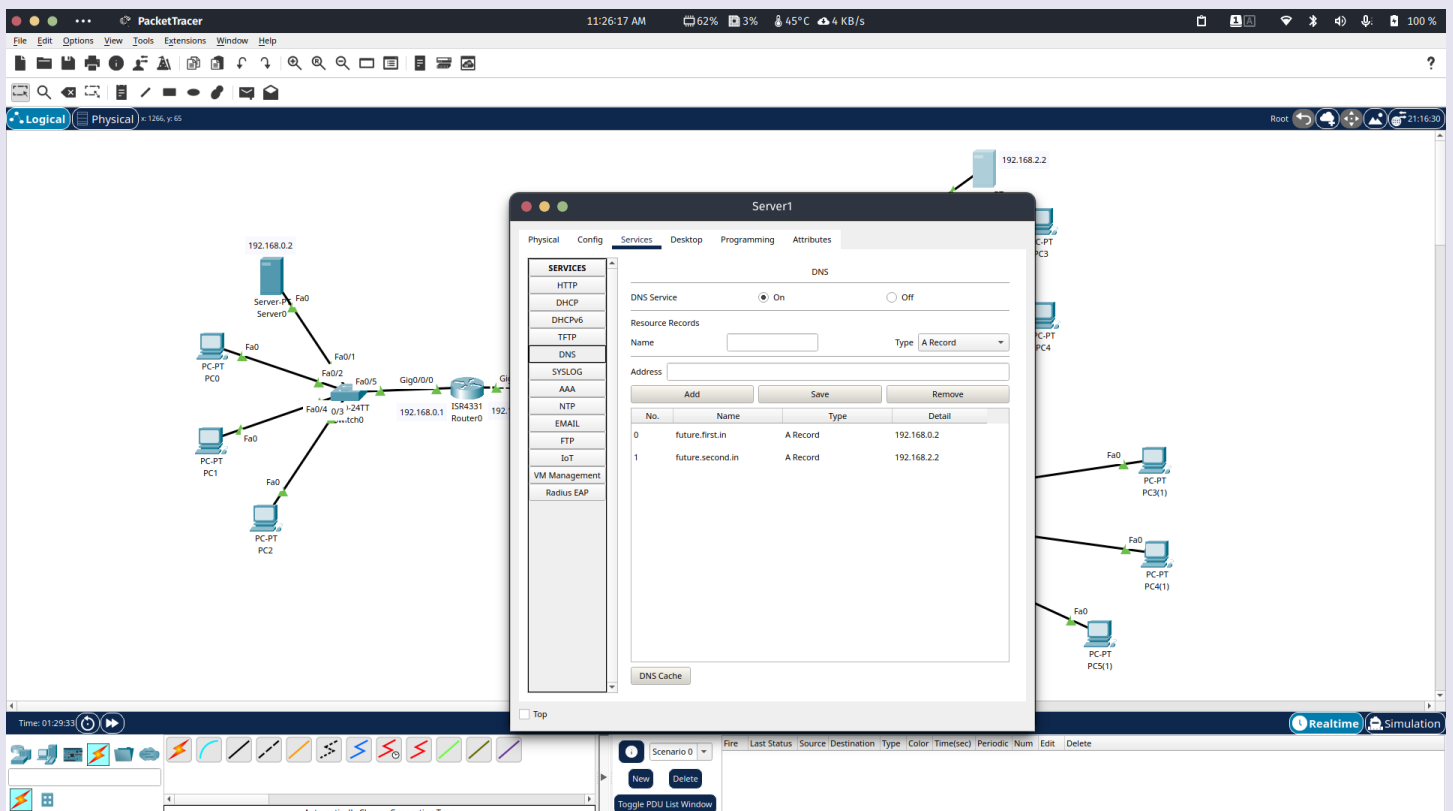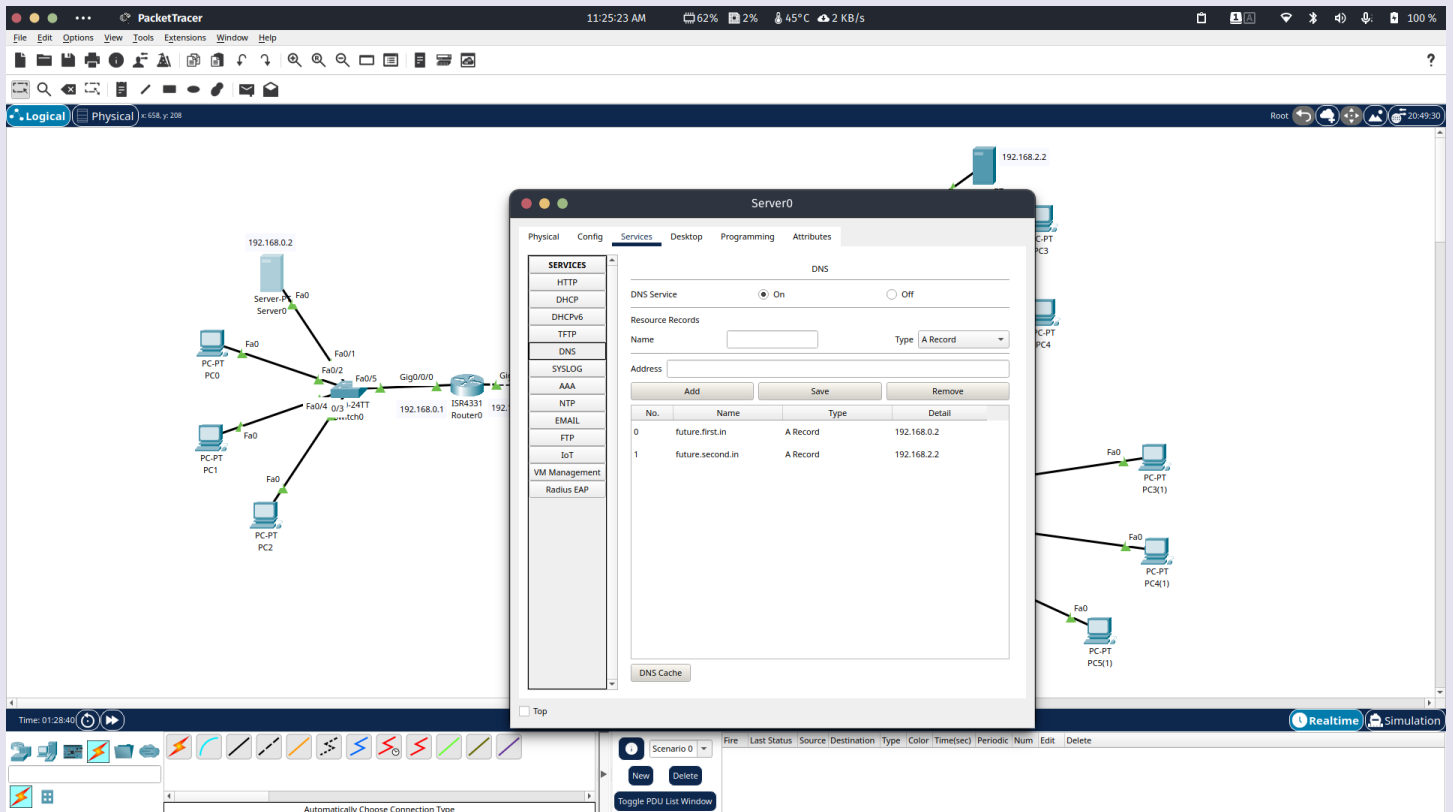
10. Create a user with appropriate password in Server0 with domain future.first.in. Afterwards, create another 2 users.
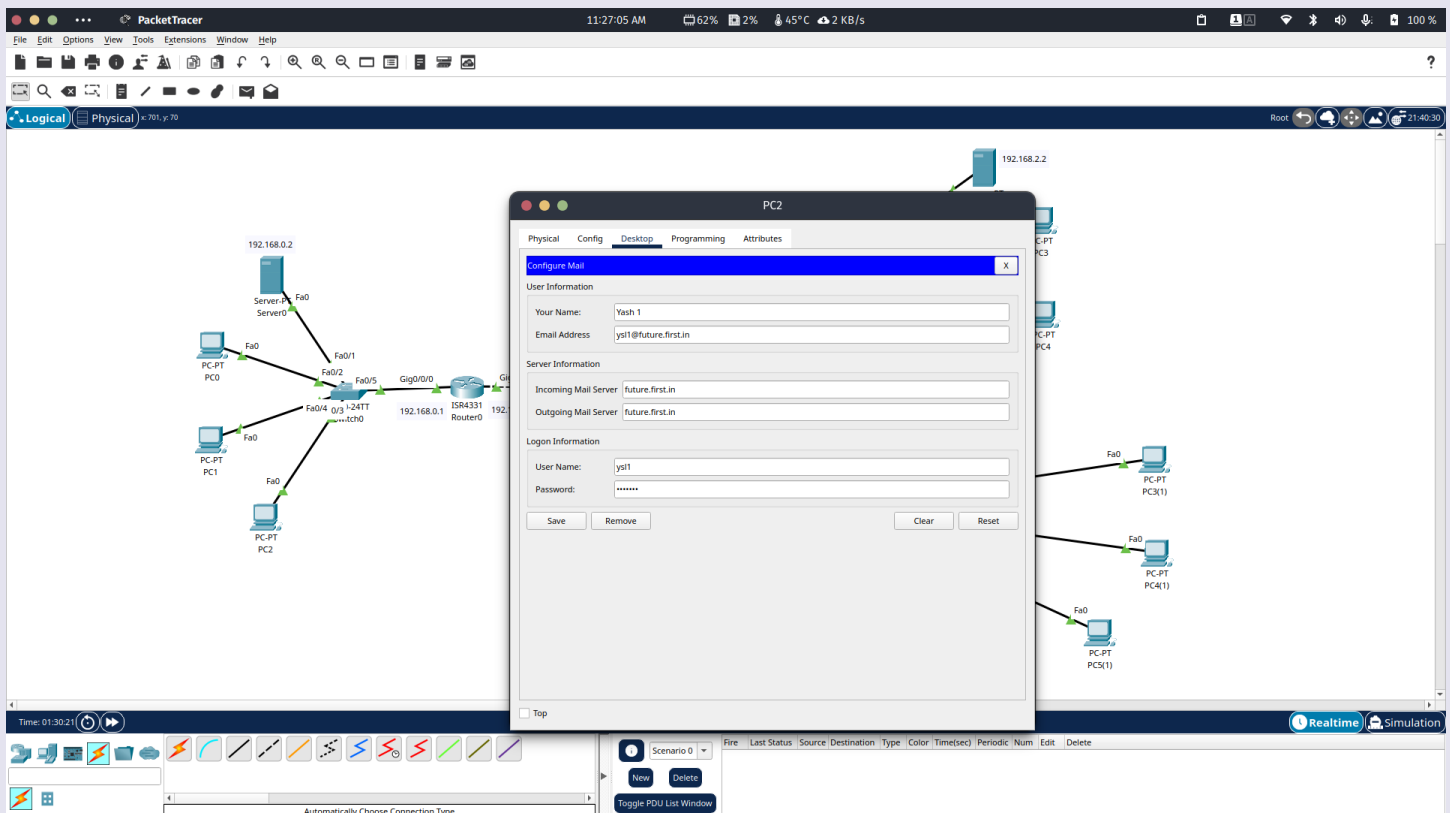
11. Similarly, create a second user in Server1 with domain future.second.in. Then, create another 2 users.
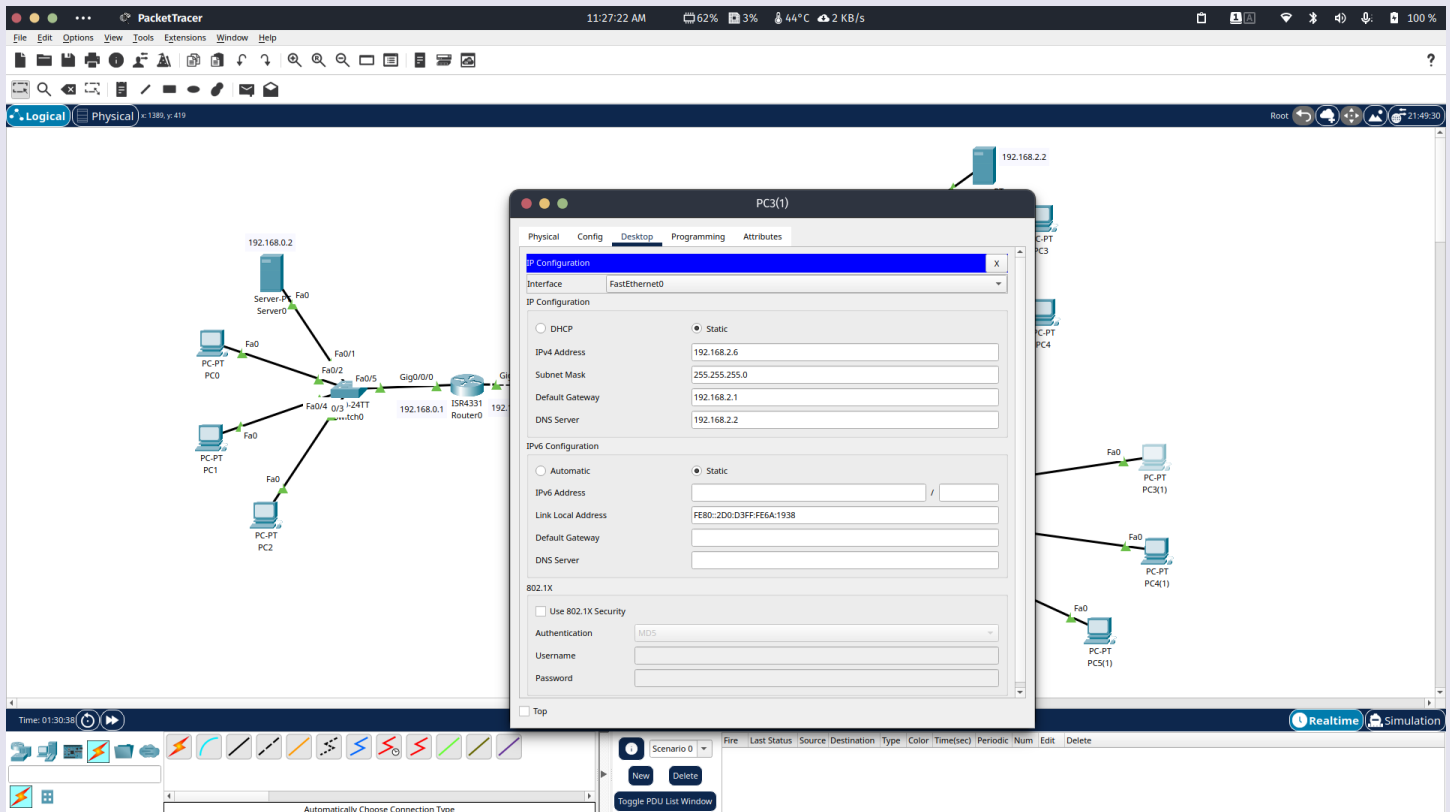
12. Assign the IP address and subnet mask with proper gateway and DNS server to PC2 (end device) of main office, and afterwards do the same for other end devices.
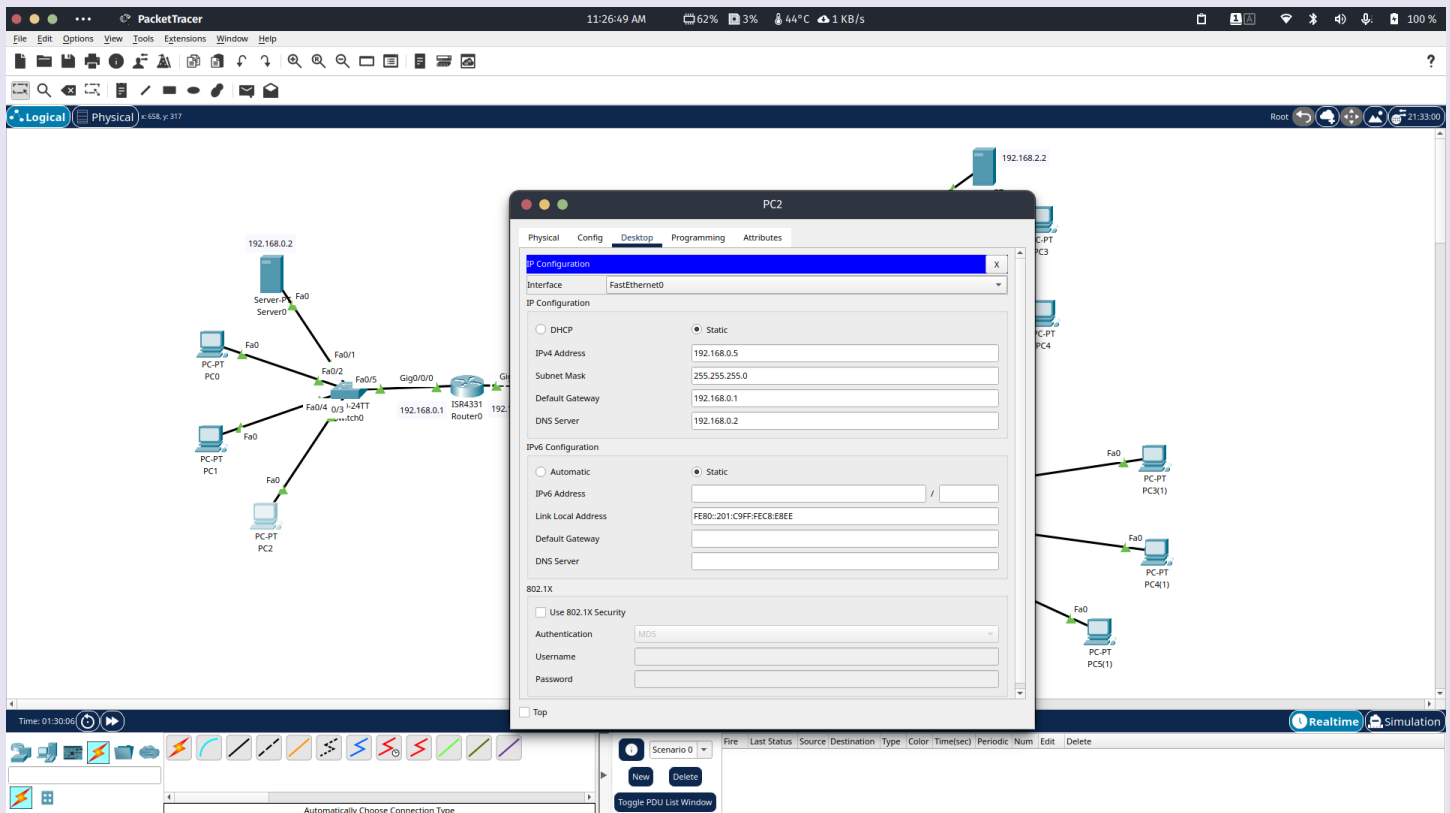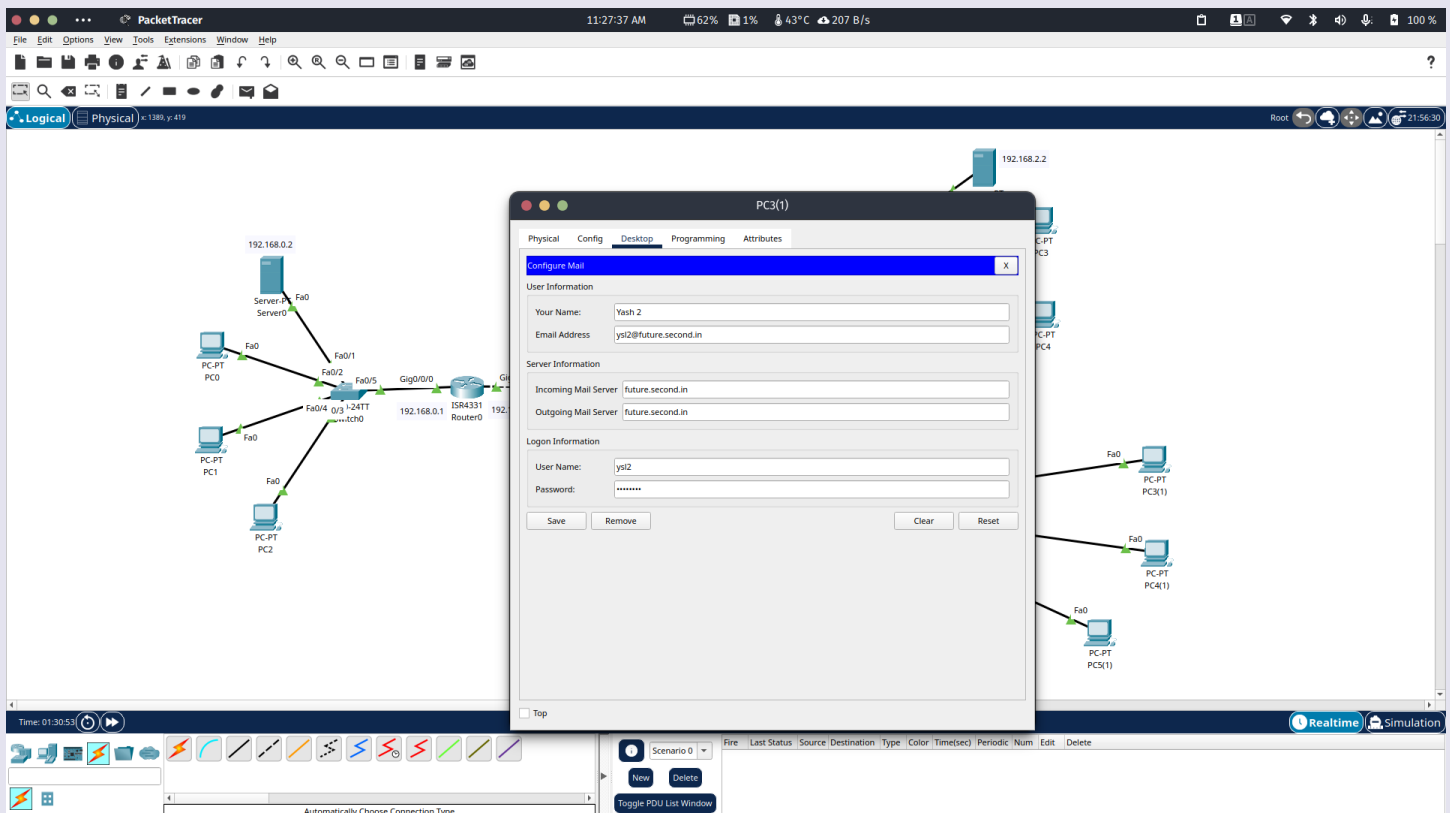
13. Configure Mail settings of PC2 with credentials of any user of Server0.
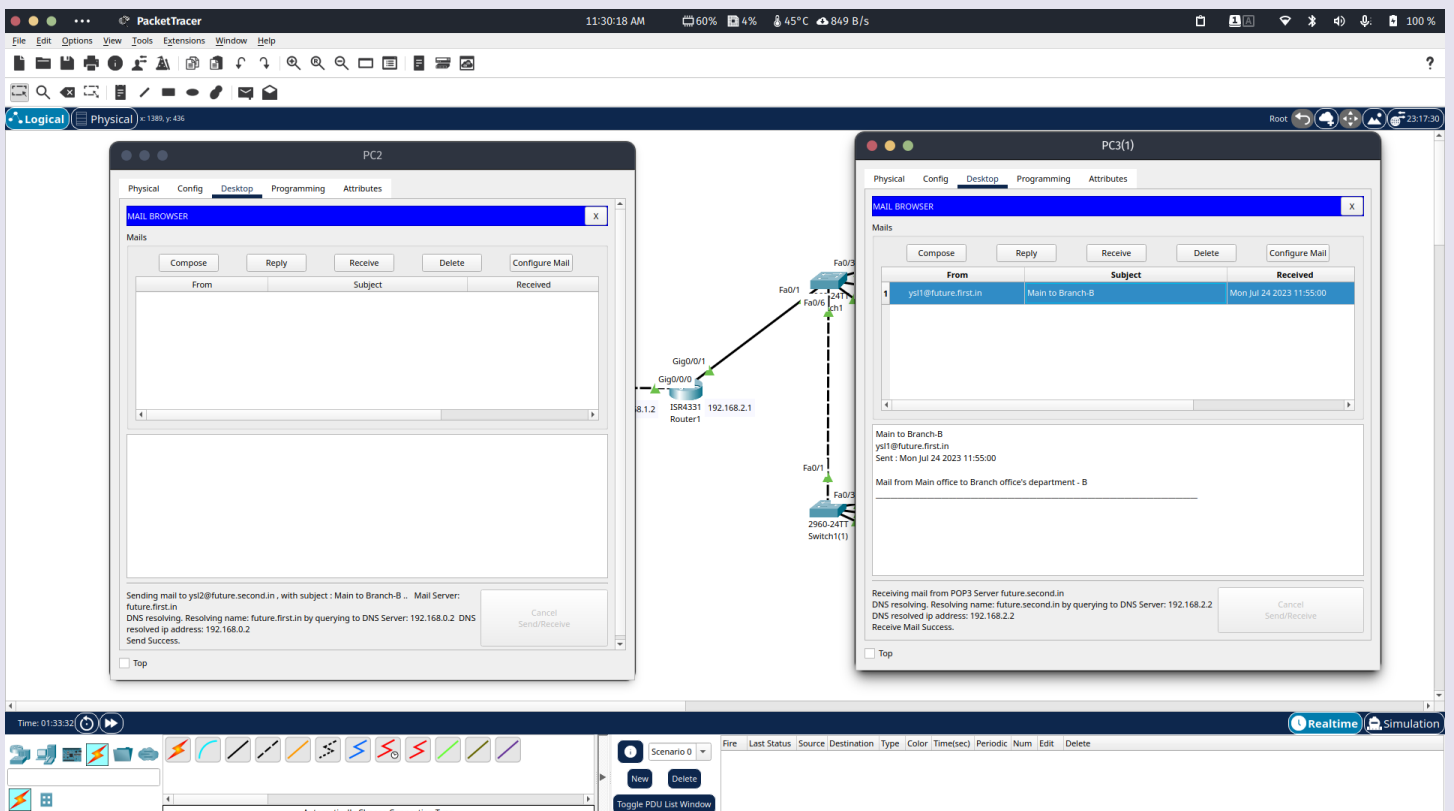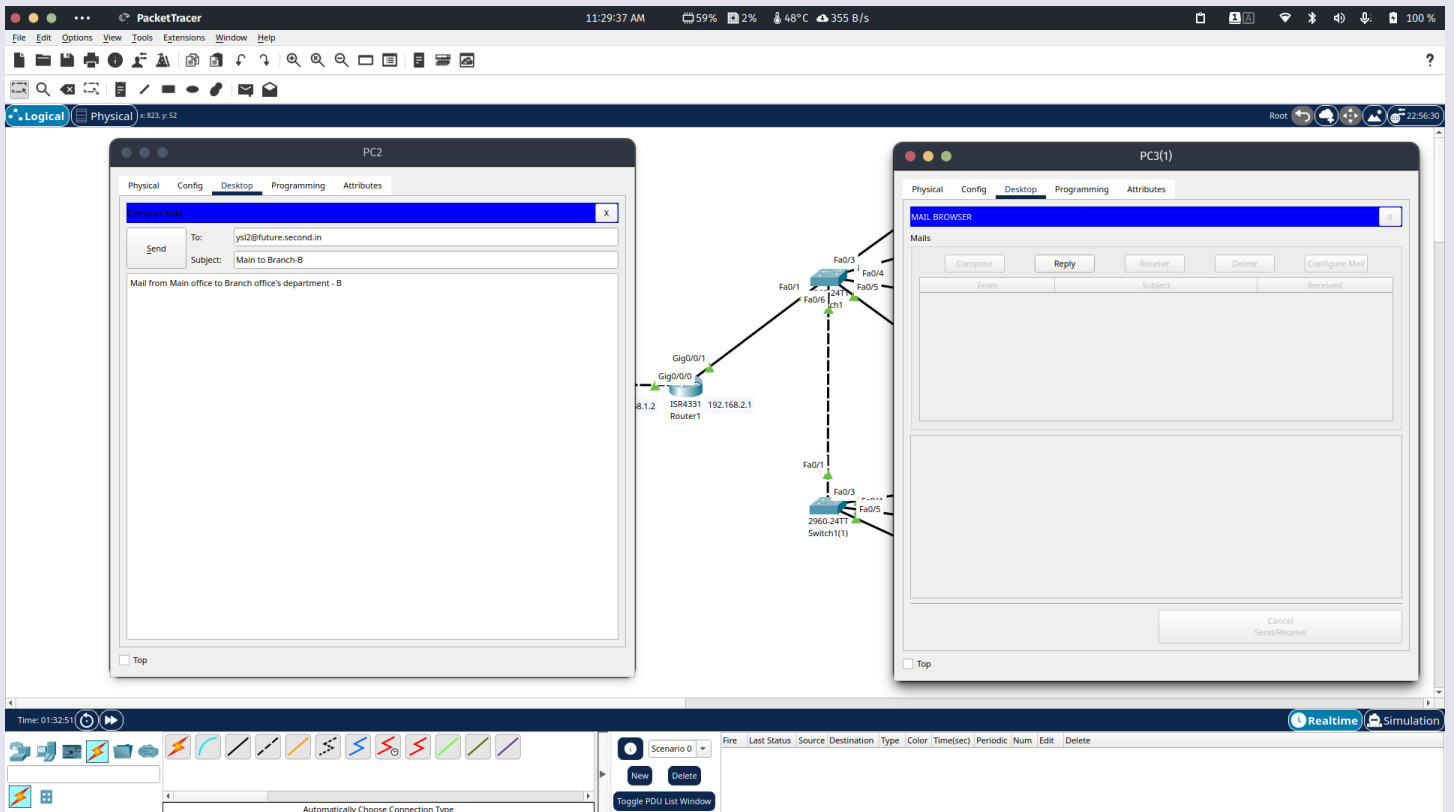
14. Similarly, configure the IP address for PC3(1) of department-B of branch office and afterwards do the same for other end devices.

15. Also configure its email settings with credentials of any user of Server2

16. Now, compose mail from PC2 of the main office, which should be sent to PC3(1) of the branch office. Send the mail and receive the same from PC3.

Conclusion : From this experiment, we concluded and observed how SMTP (Simple Mail Transfer Protocol) works. Local servers of an organization can be used as DNS servers (and gateway also in case routers aren't there) and Mail Servers with custom domains and mails can be transferred among the end devices of the organization's different departments privately and securely without any third party interference.