# Practical 5

Aim : **To utilize Telnet, SSH and FTP in a network of an organization**

Scenario : Design the network of an organization having 5 different departments. Make sure the below mentioned requirements must be fulfilled.

1) Create 3 users which will be able to get the access of the router using Telnet.

2) Create a single password to get the access of the router using Telnet.

3) Create 3 users which will be able to get the access of the router using SSH.

4) Create a FTP server and perform the operation to upload and download a file. And explore all the operation available with the ftp server.
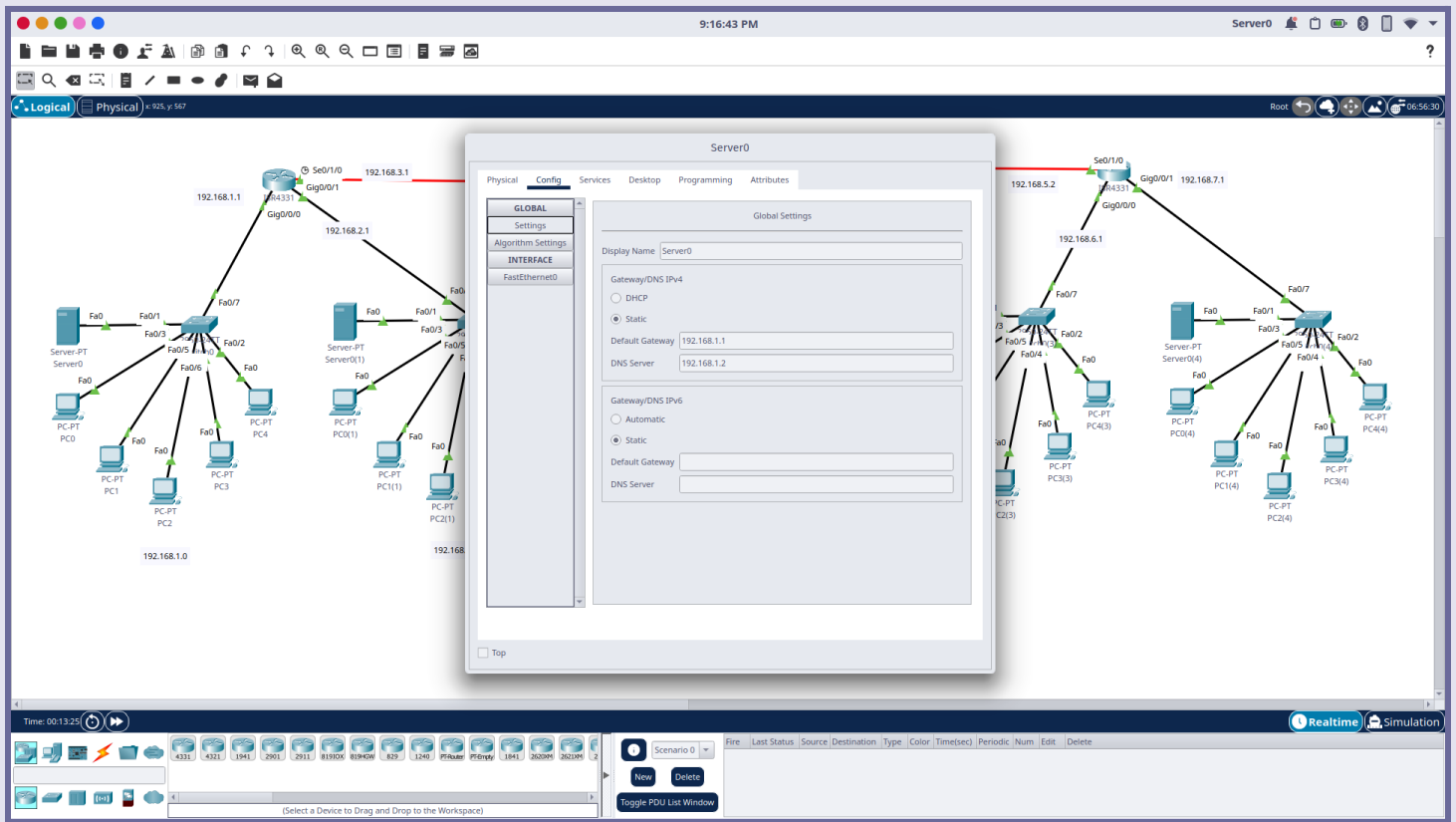
Procedure :

1. Design the network as given in the scenario with networks 192.168.1.0, 192.168.2.0, ... 192.168.7.0 as shown in the figure
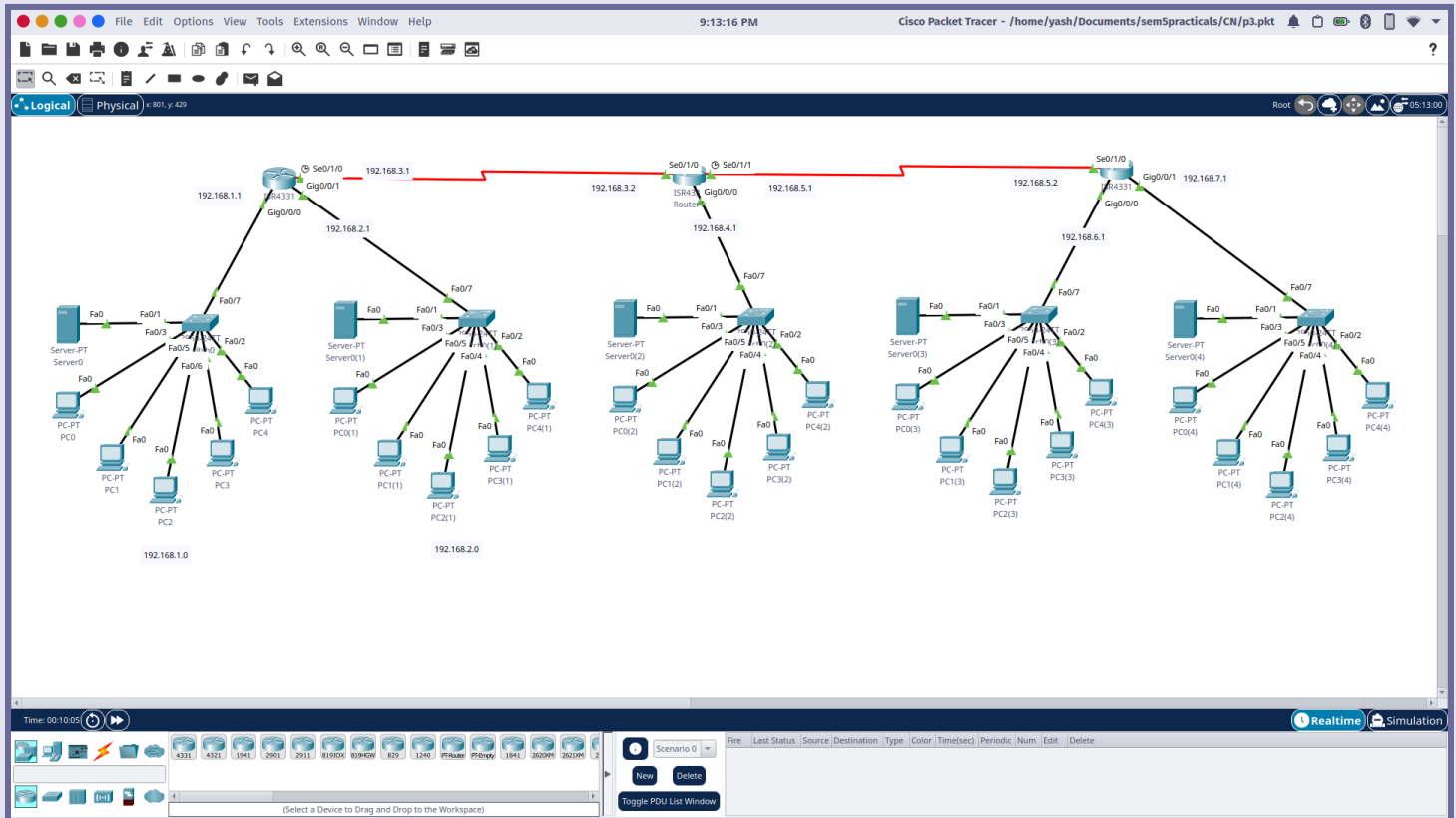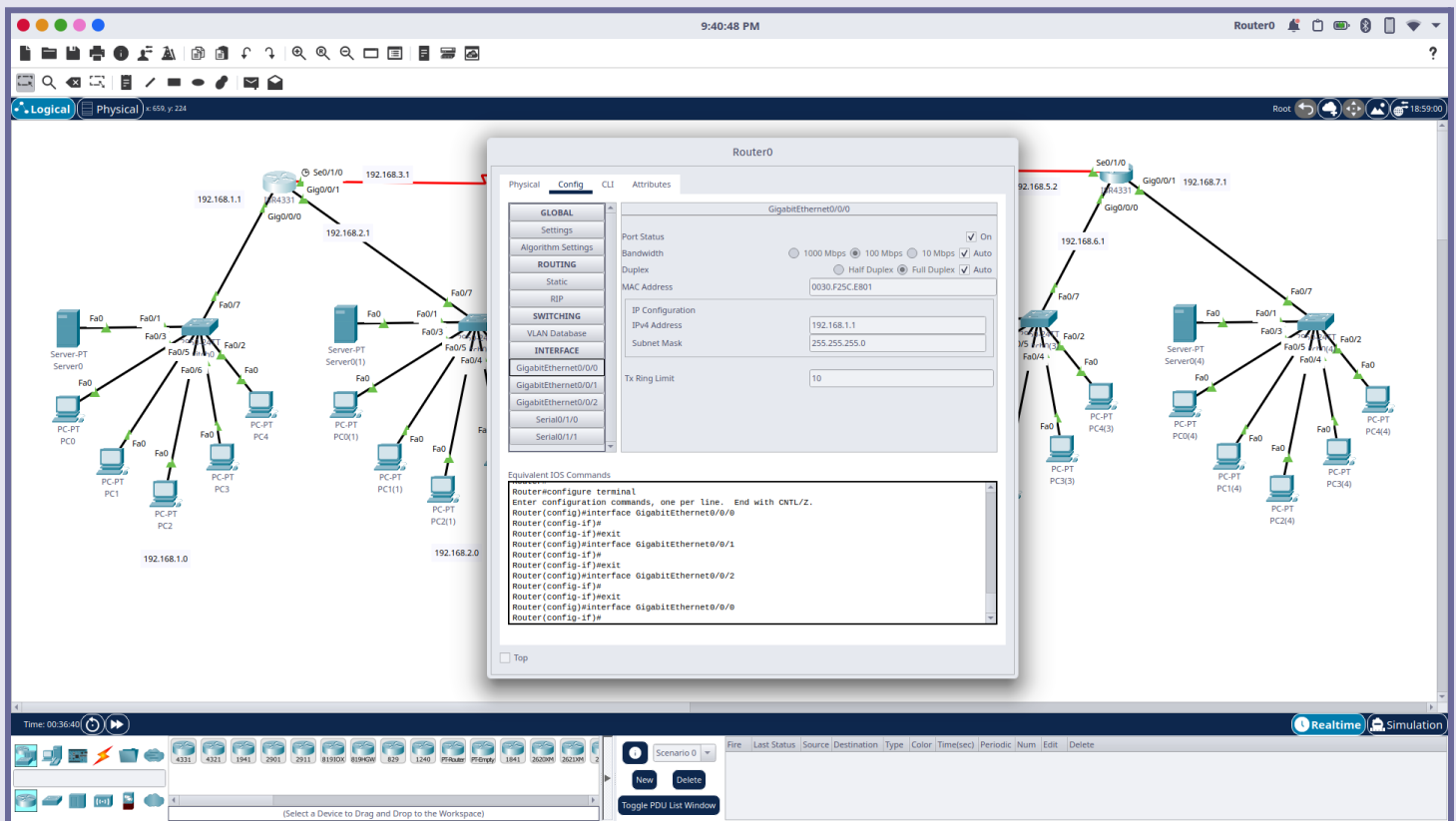
2. Assign an IP address 192.168.1.2 to the Server0 of the Admin department of the network 192.168.1.0

3. Assign gateway IP of the router connected to it and its own IP as DNS server

4. Assign IP to Router0's gigabit ethernet port connected to the router, which was given as gateway in Server0

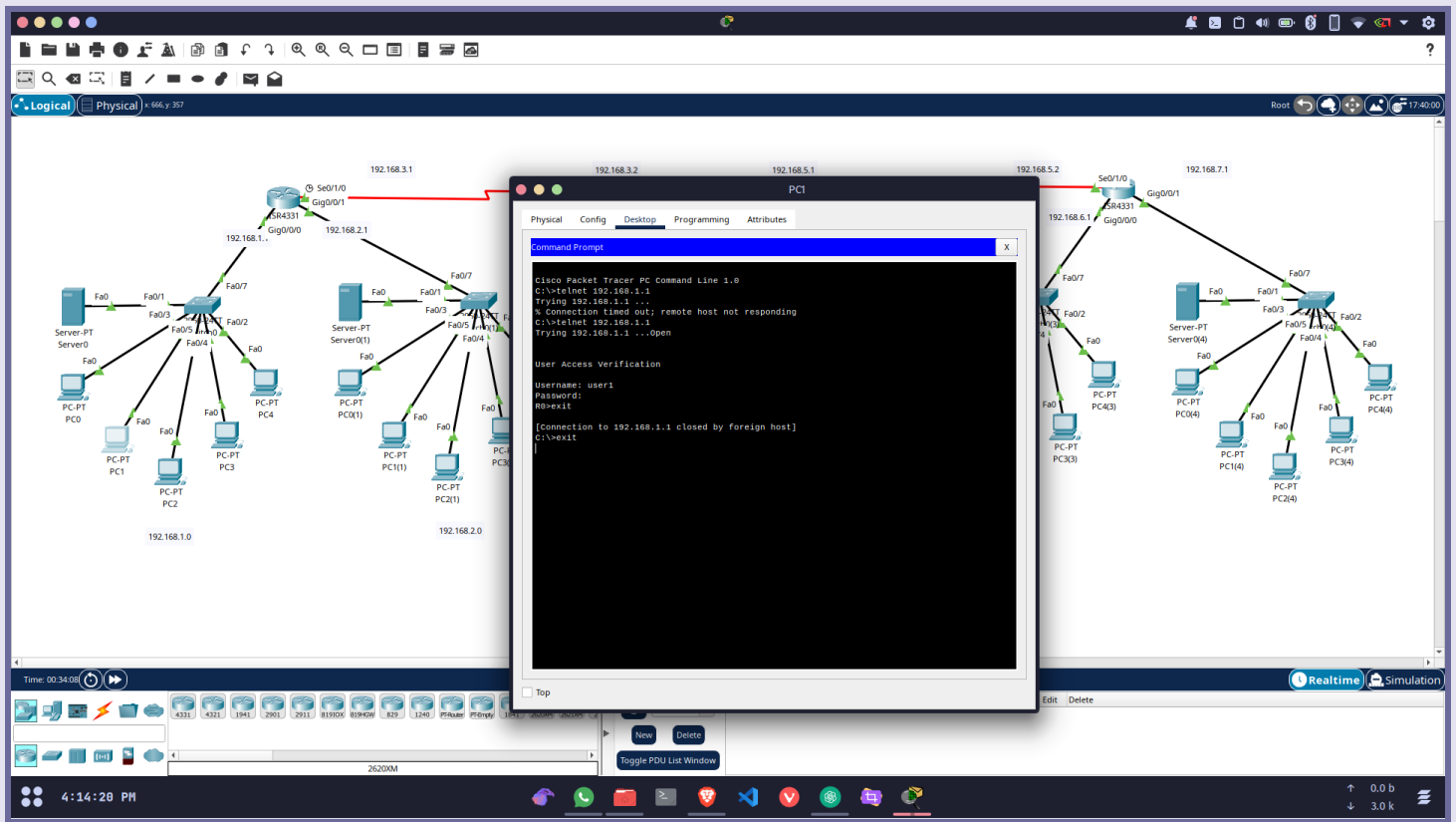## 5. Assign IP to other ports of Router0 accordingly.

6. Configure all end devices connected to Server0 to use DHCP for IP addresses.
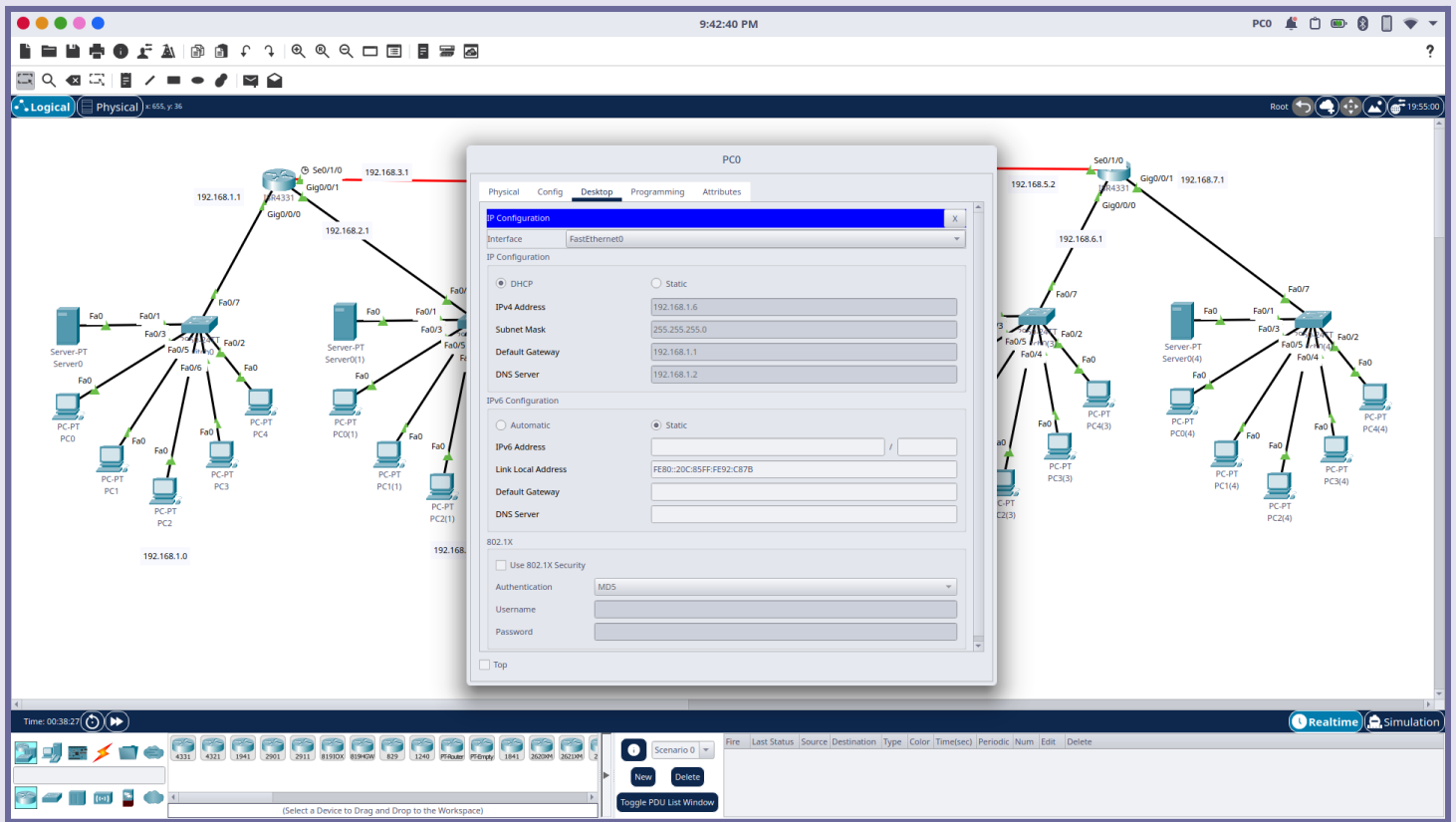
7. Similarly setup all networks and then Router0 for Telnet access using the given commands.
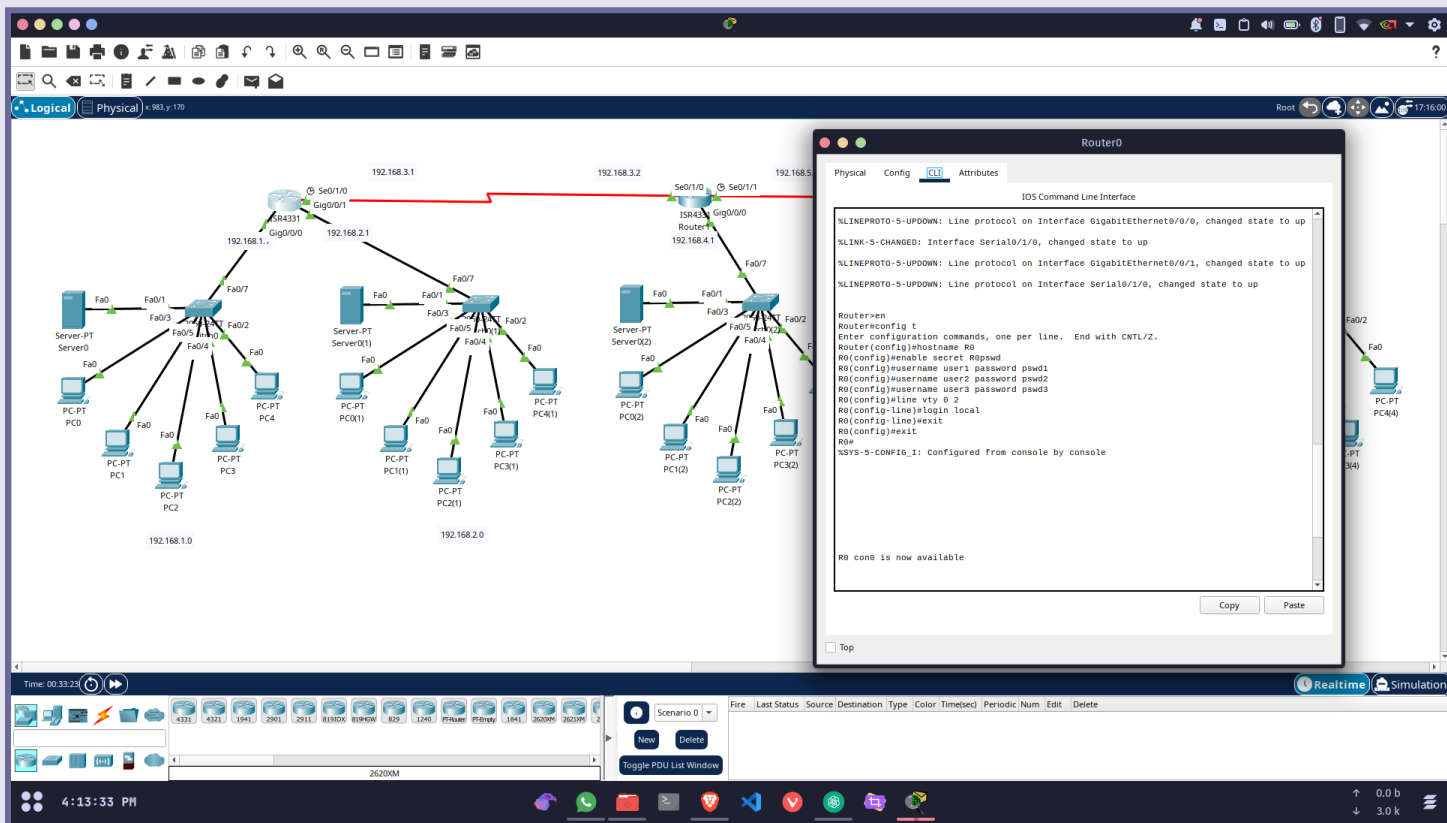
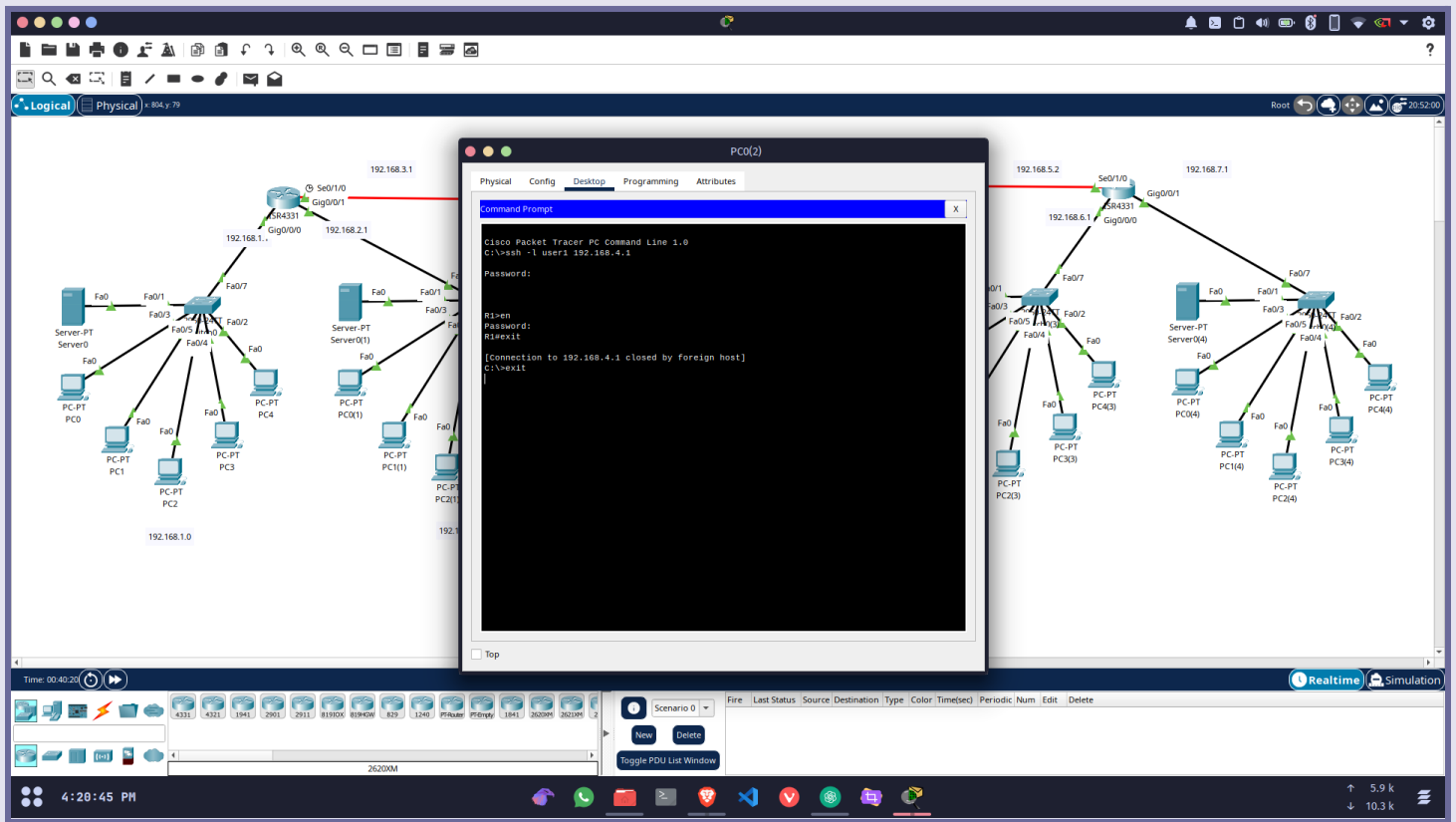## 8. Test the telnet access from any of the connected end device.

9. Configure SSH access to the Router1 using the given commands.

10. Test the SSH access to the router through any of the connected end devices.

11. By default, FTP is on with cisco user already set up. So upload and download a file using FTP from two different end devices.
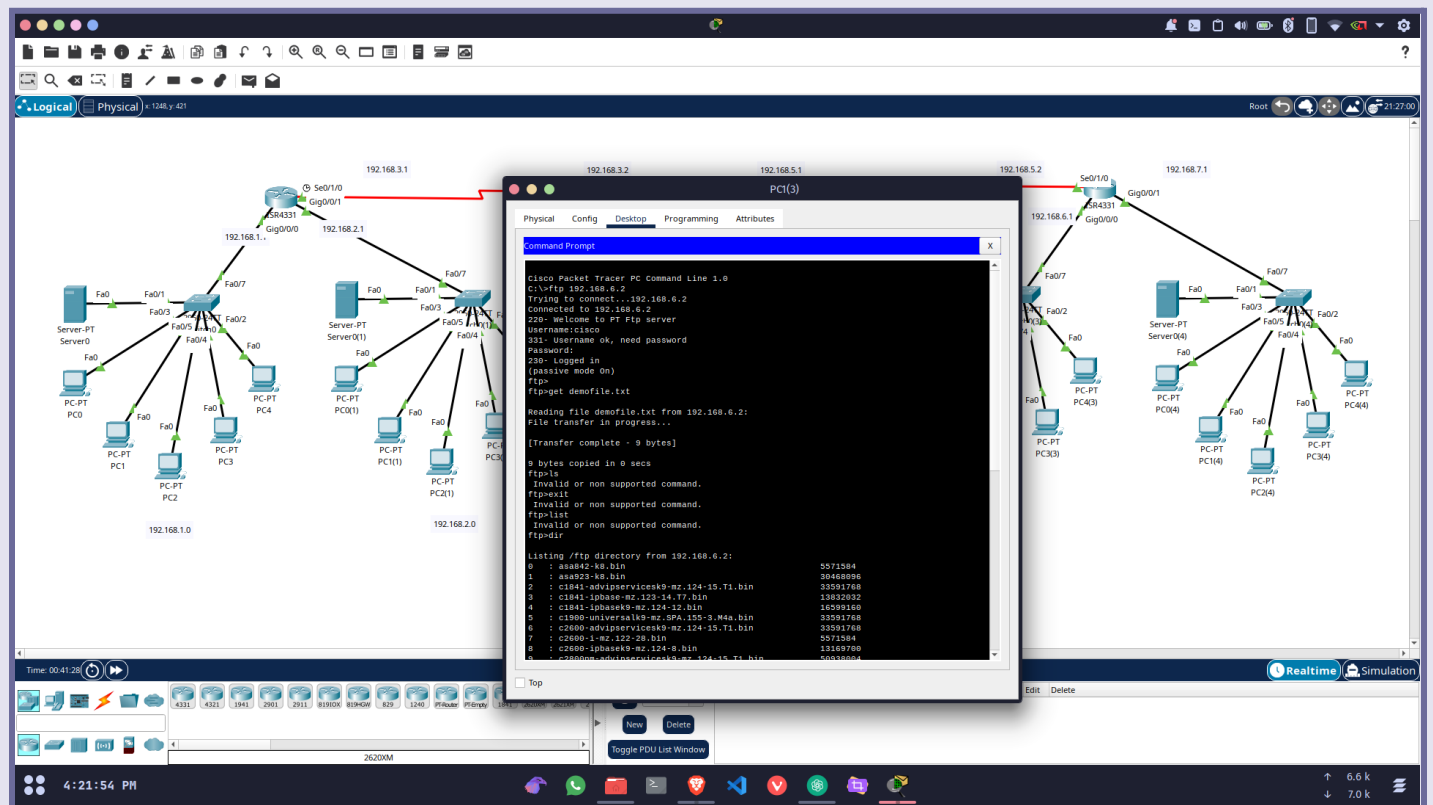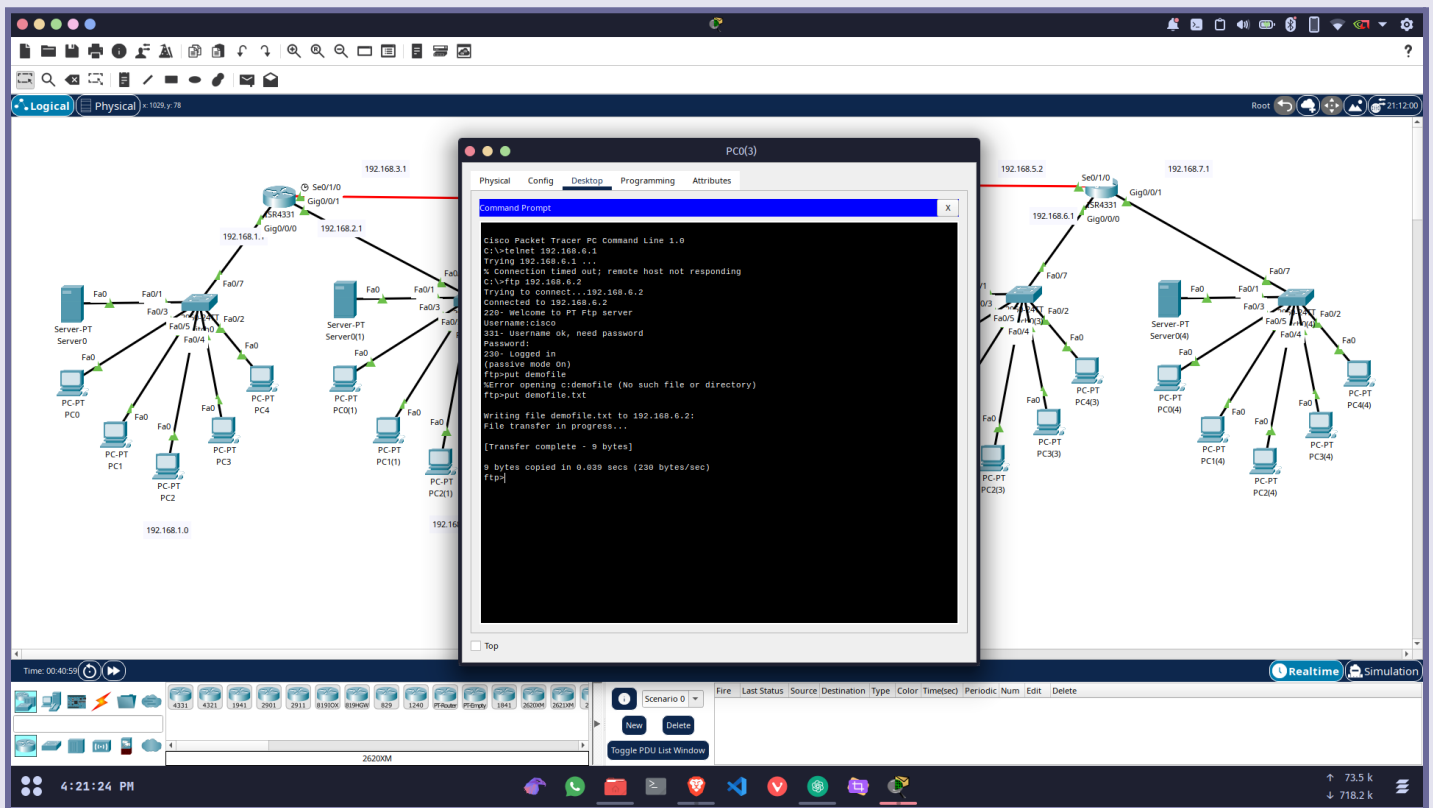
Further commands rename, delete can be used in FTP for renaming, deleting a file in FTP server

Conclusion : This experiment clears the understanding of Telnet, SSH and FTP in computer networks. Using Telnet and SSH protocols, end device(s) can get access to Router using VTY, virtual terminal lines and FTP can be used to transfer files between end devices using FTP server.