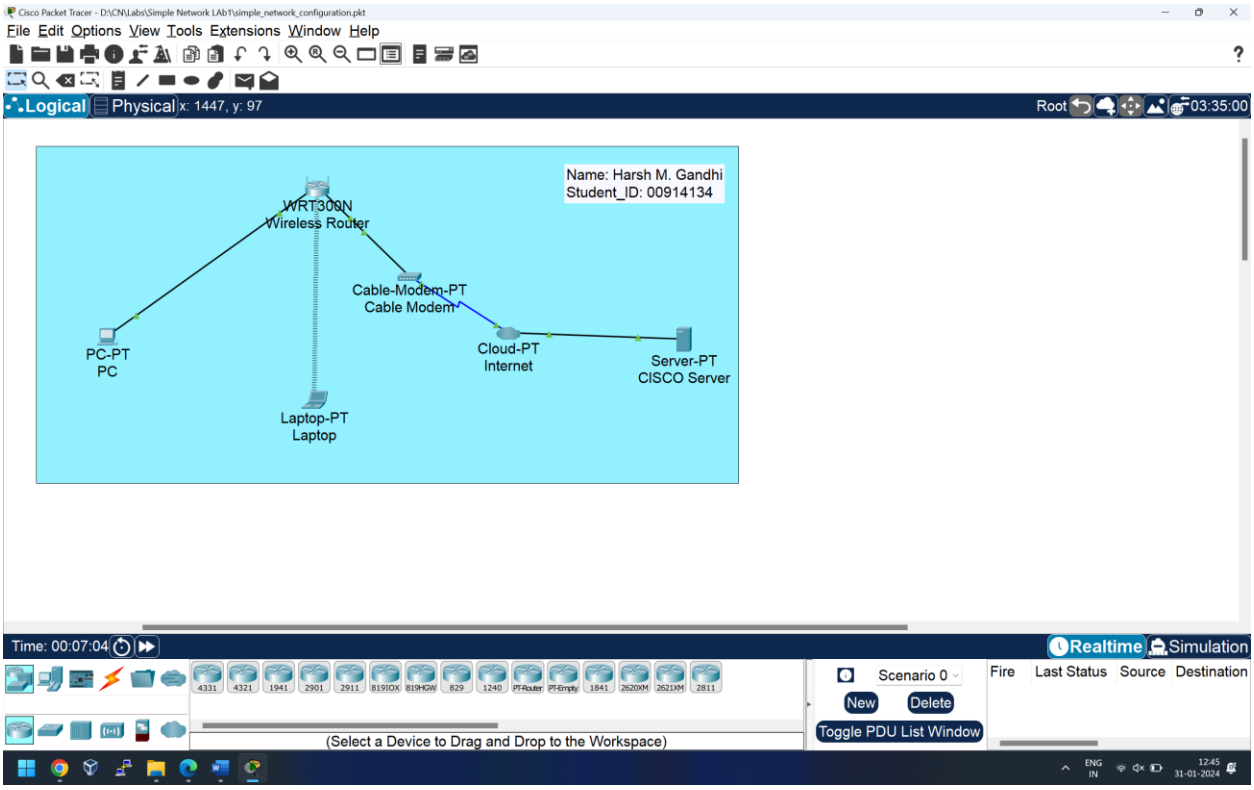
Packet Tracer – Create a simple network using Packet Tracer

Topology



Addressing Table

Device	Interface	IP Address	Subnet Mask	Default Gateway
PC	Ethernet0	DHCP		192.168.0.1
Wireless Router	LAN	192.168.0.1	255.255.255.0	
Wireless Router	Internet	DHCP		
Cisco.com Server	Ethernet0	208.67.220.220	255.255.255.0	
Laptop	Wireless0	DHCP		

Objectives

Part 1: Build a simple network in the logical topology Workspace.

Part 2: Configure the Network Device.

Part 3: Test Connectivity between Network Devices.

Part 4: Save File and Close Packet Tracer.

Background / Scenario

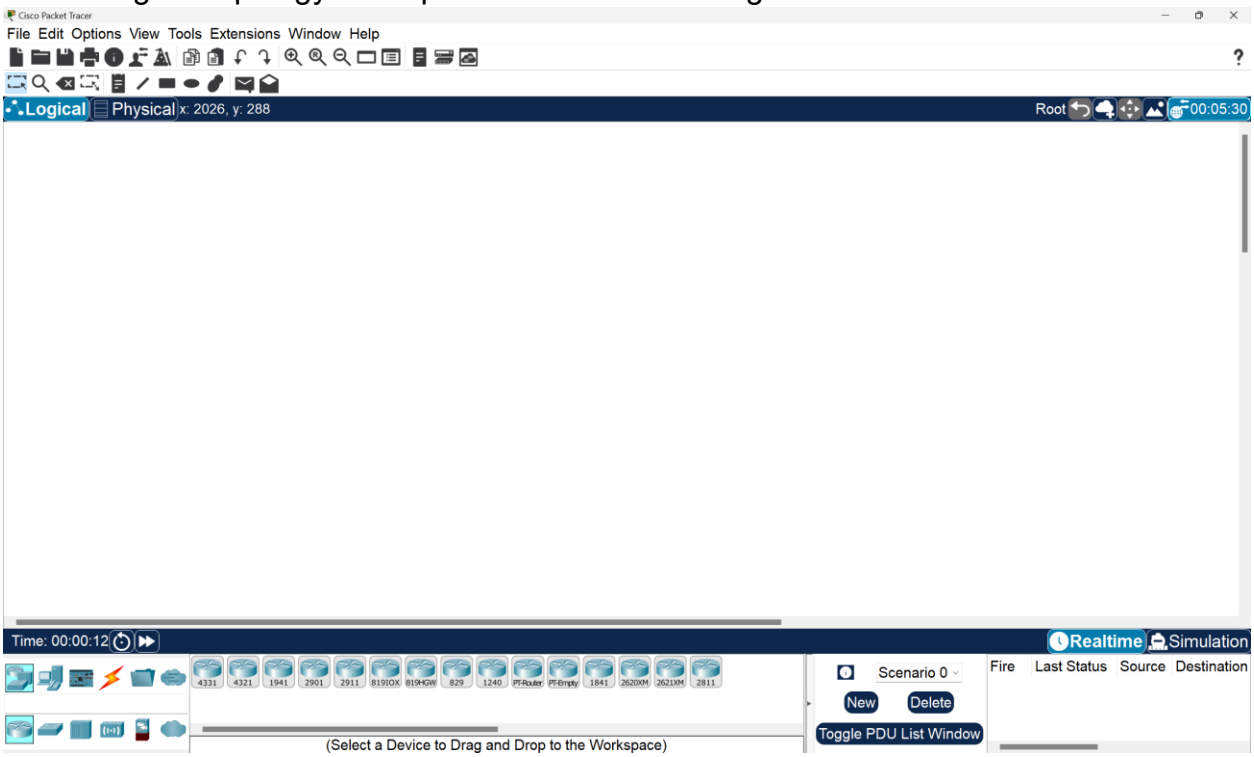
In this activity you have to build a simple network in Packet Tracer from the beginning and then save the network as a packet tracer Activity File (.pkt)

Index

Part 1: Build a simple Network in the Logical Topology Workspace.

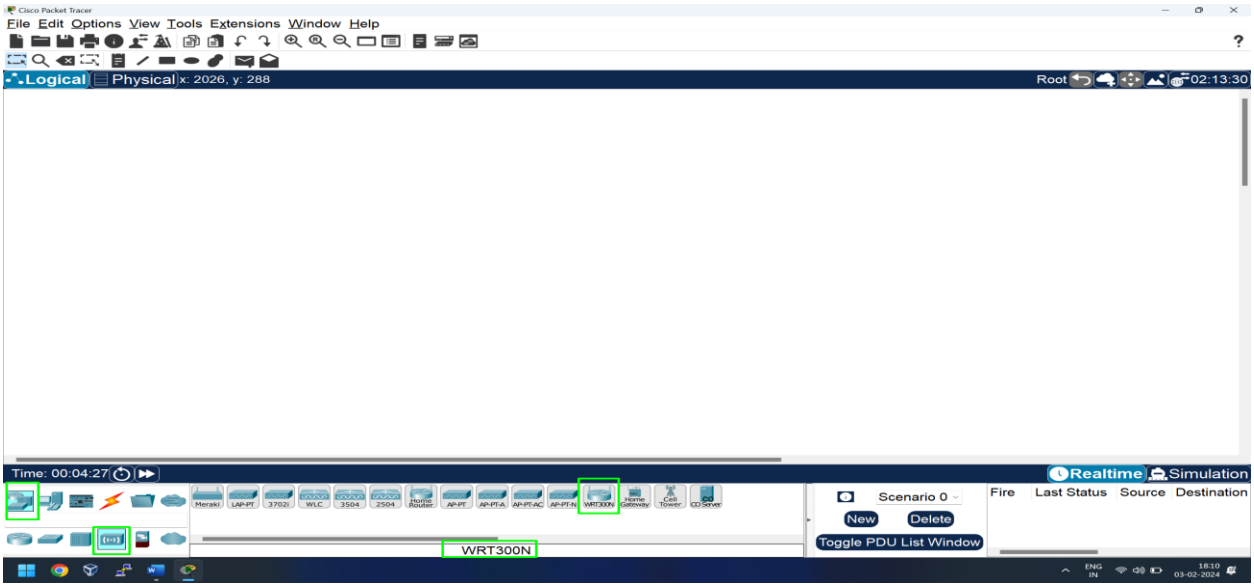
Step 1: Launch Packet Tracer.

- Launch Packet Tracer in Your System
- Create a New File for make fresh project, so we can design the network form the beginning(Scratch) Or we can set the Packet Tracer to always open with a blank default logical topology workspace as shown in the figure below.

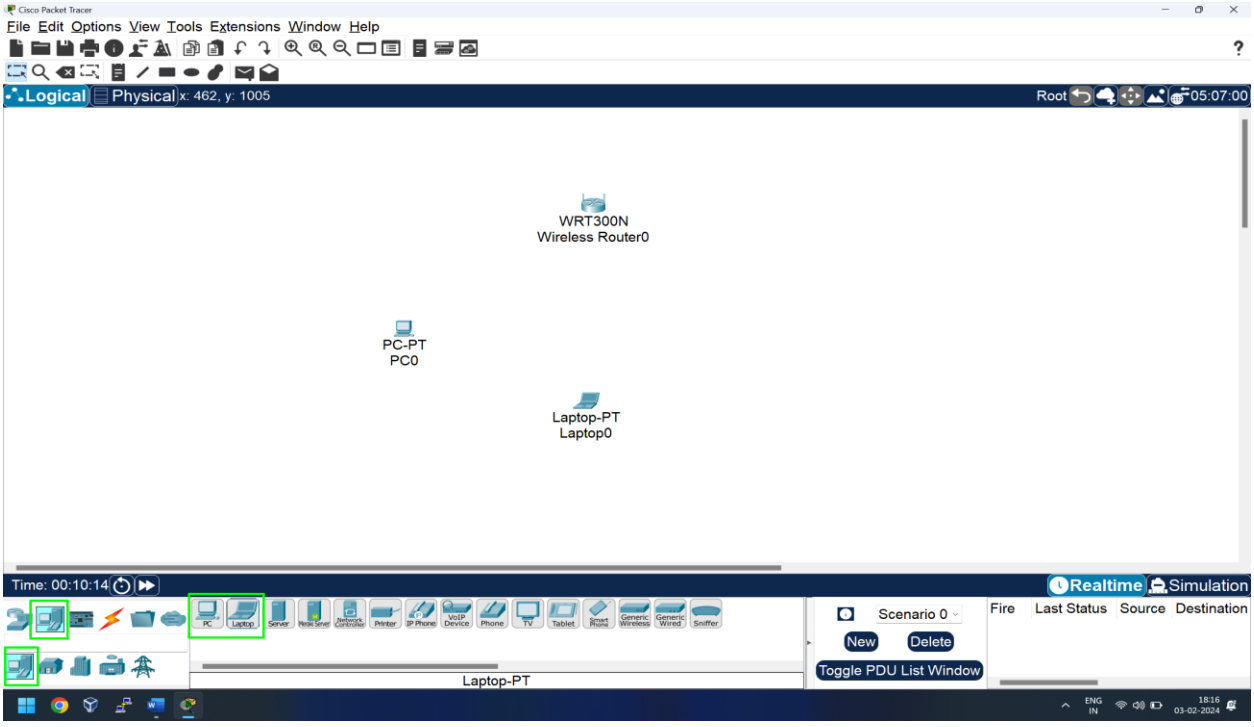


Step 2: Build the Topology.

- Add Network device to the workspace as provide at the question.
- First of all add the Network Device from the Wireless Device use the specific router type **WRT300N** as shown in figure.

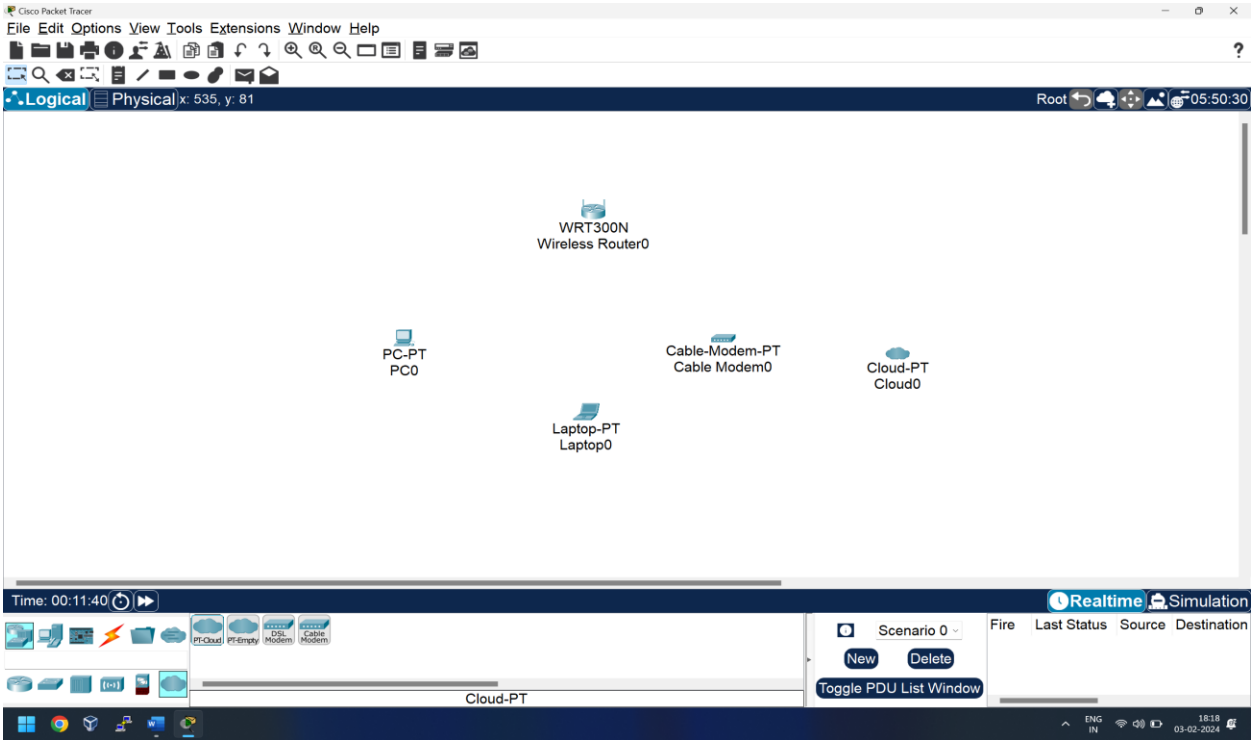


- Now add the End Devices like PC and Laptop.

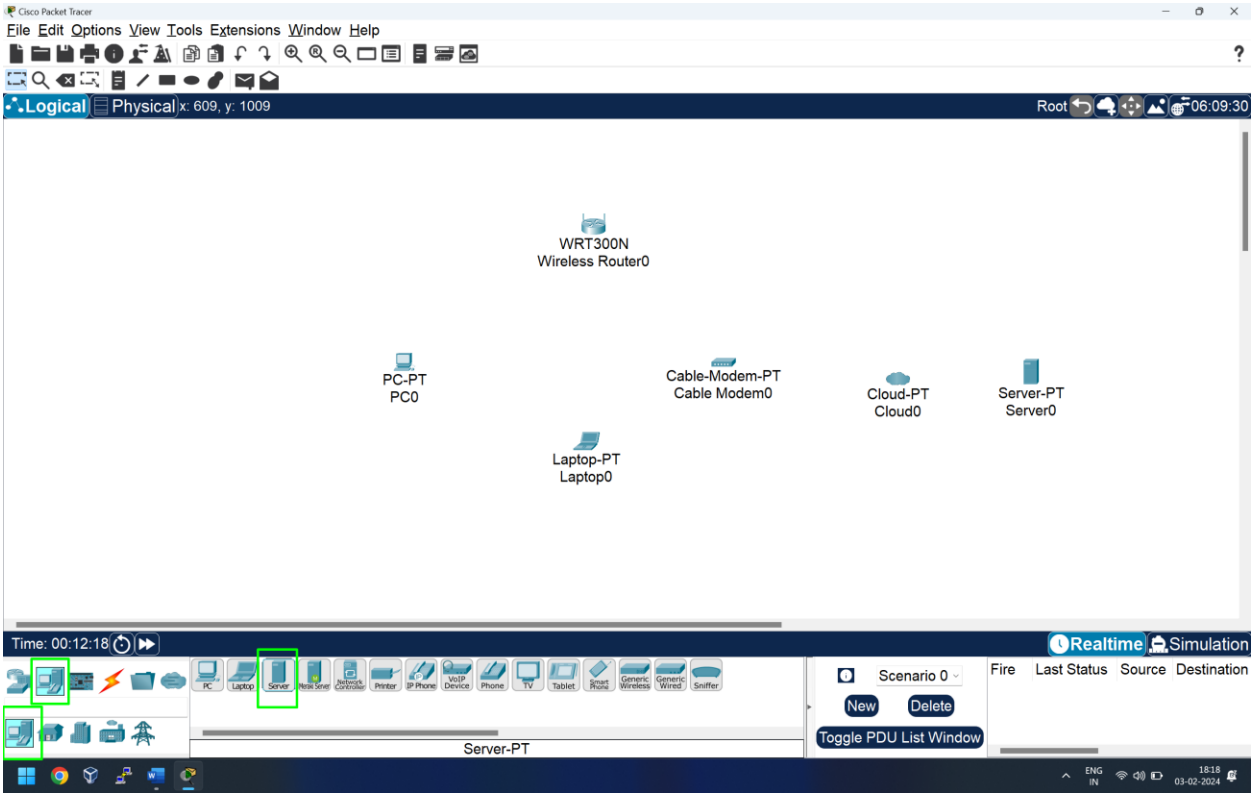


- Then add Cable Modern from the Network Device.

- Then add Pt-Cloud from the Network Device.

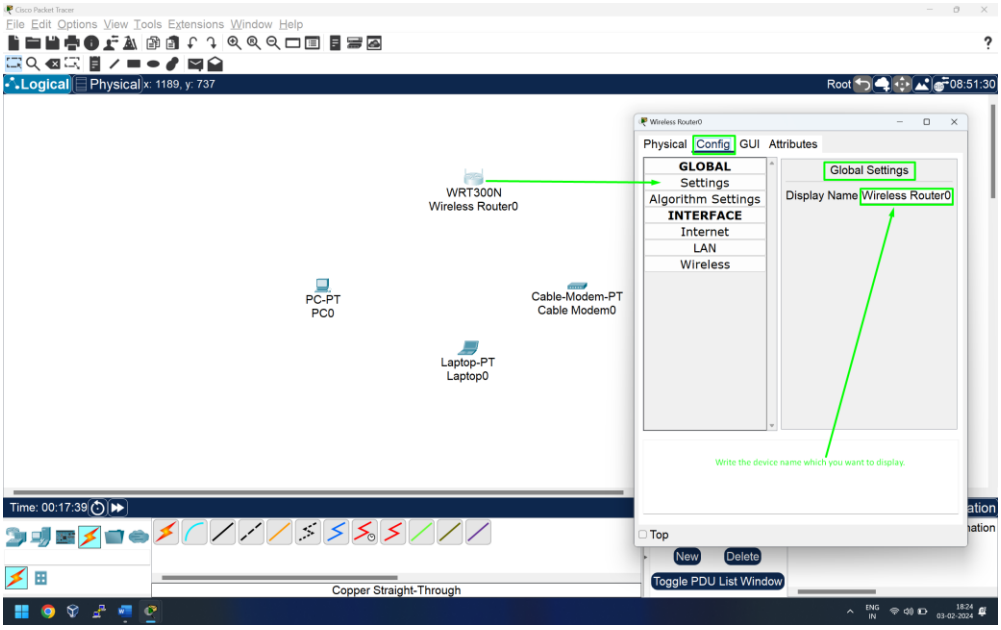


- In last add the Server from the End Devices.



B. Change the Display name of the Network Devices.

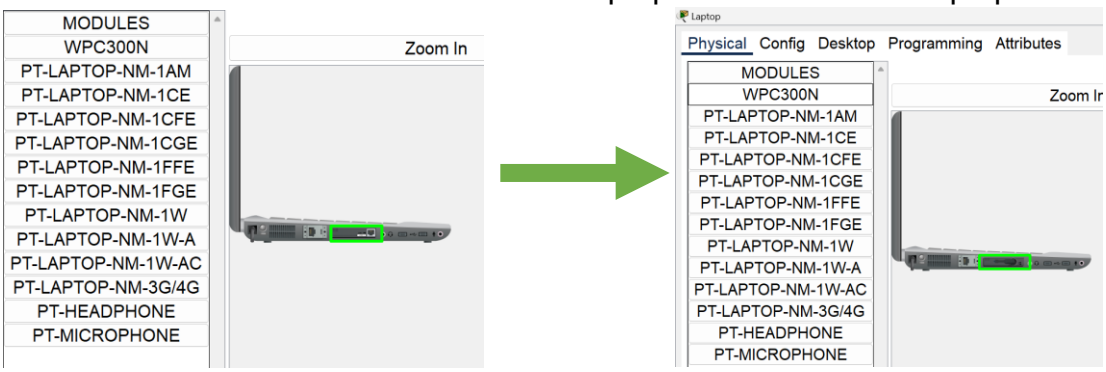
- For change the display name just double click on the device and select the Config tab and select the global setting and change the display name for all the devices as shown in the figure.



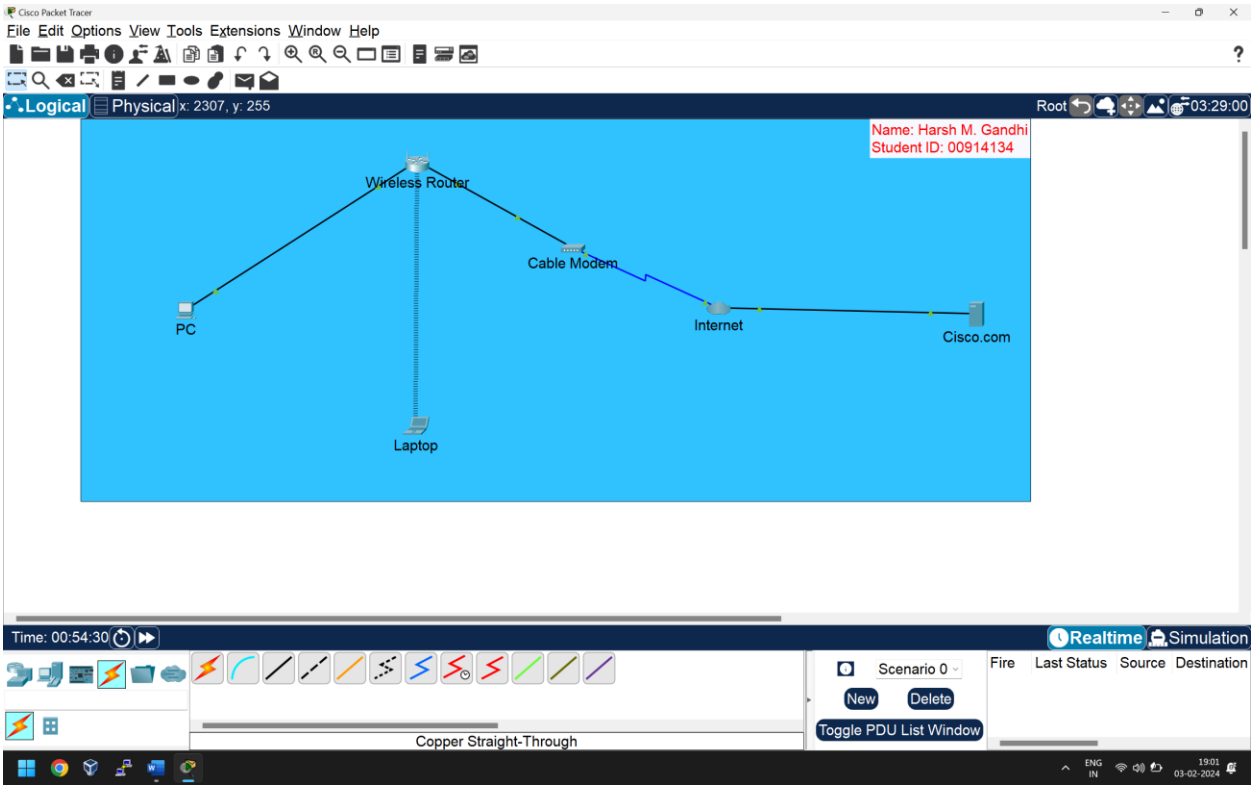
- And then from Preference Tab unchecked the Show device model name, so it look better.

C. Make a connection for all the devices.

- Now make a connection from router to all other end devices.
- Use **Copper-Straight-Through** to make connection between **Router** and **PC**. Select the **FastEthernet0** port from the PC and Select the **Ethernet1** from the Router.
- For laptop we are using **WIFI(Wireless Connection)** for that we have to make changes in the hardware of the Laptop. For that double click on the Laptop and move to physical tab. Then Power off the Laptop and remove the **PT-LAPTOP-NM-1AM** and attached the **WPC300N** to laptop and Turn-on the Laptop.



- To make connections between **router** and **cable modern** we required the Copper-Straight-Through, select **Internet** from router and **Port 1** from the Cable Modern.
- Then Select the **Coaxial Cable** to make connections between **Cable Modern** and **Internet**. Select **Port0** from the Cable Modern and **Coaxial 7** from the Internet device.
- Now again select the **Copper-Straight-Through** to make connection between the **Internet** and **Cisco.Com (Server),** select the **Ethernet** from Internet and select the **FastEthenet0** from the Server. as Shown in the figure make all the connection**.**

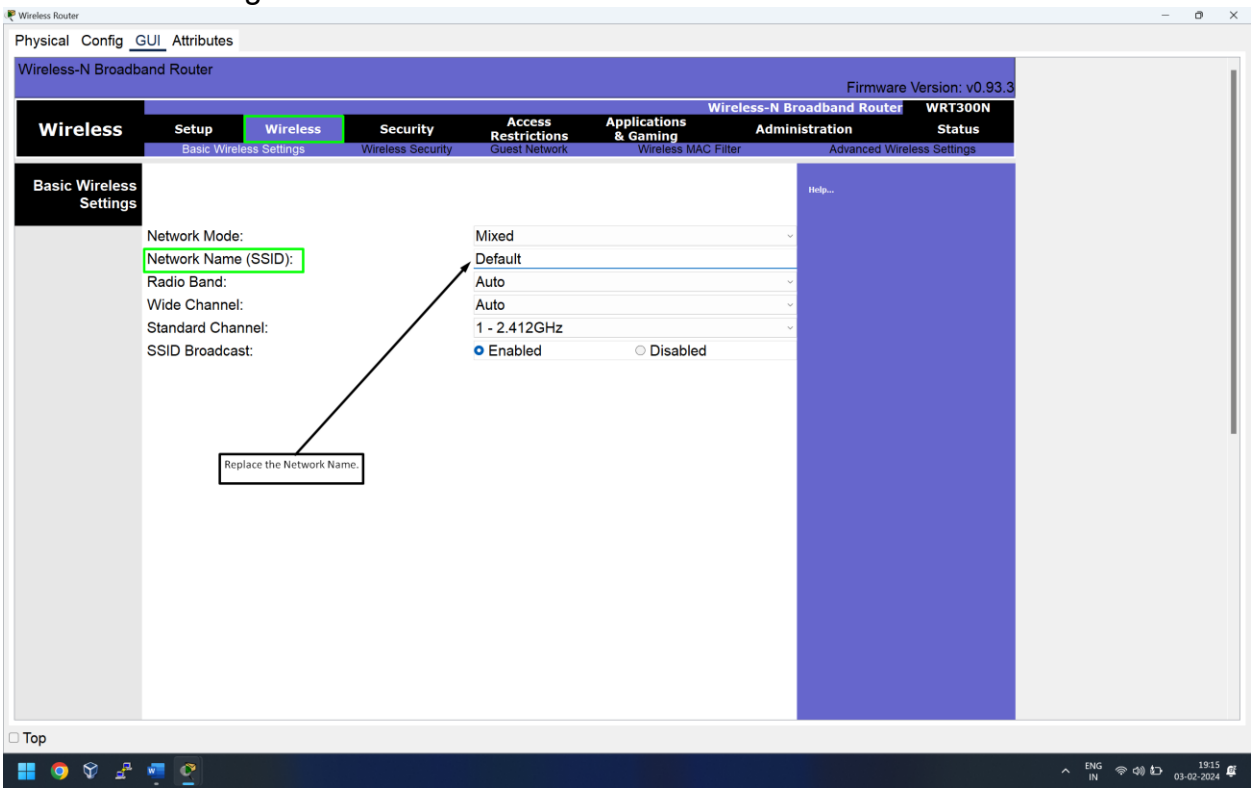


Part 2: Configure the Network Devices.

Step 1: Configure the Wireless Router.

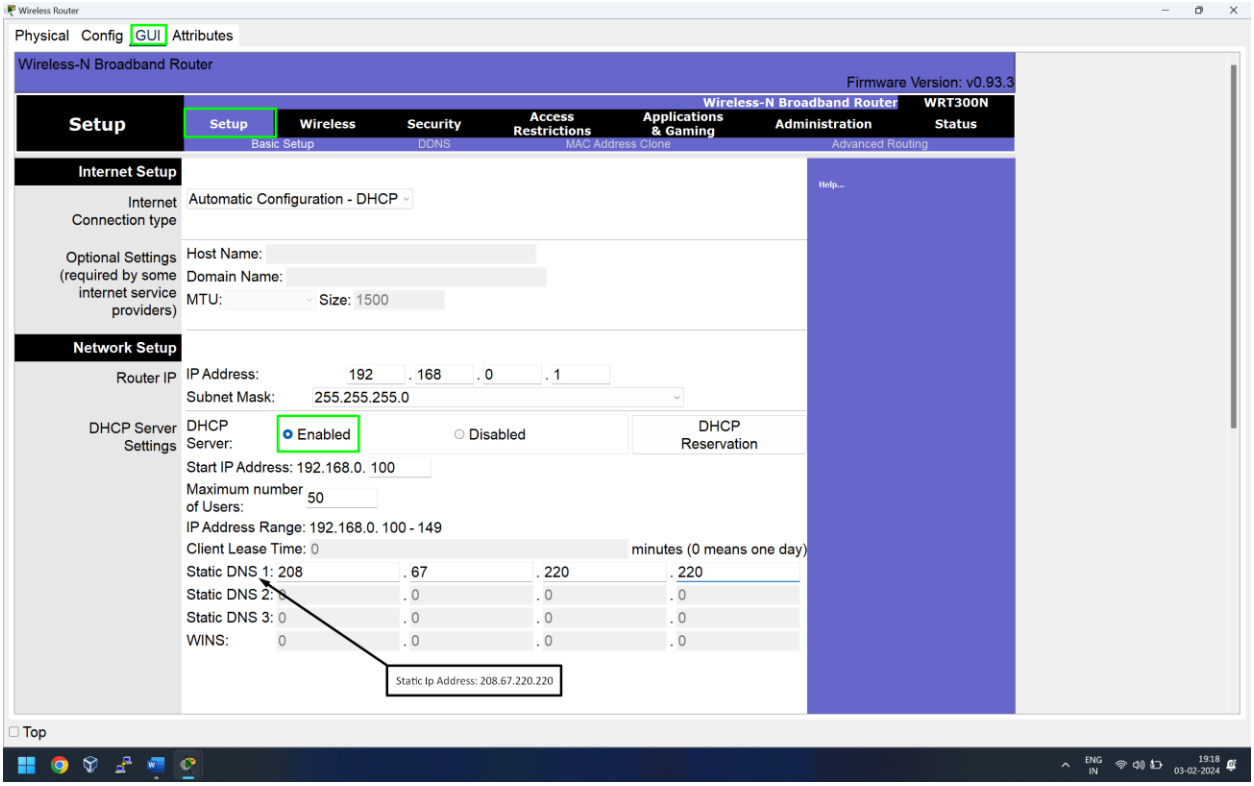
A. Create the wireless network on the wireless router.

- Click on the **Wireless Router** icon and open the GUI tab to view configuration options for the wireless router.
- We need to change the Network Name from default to HomeNetwork.



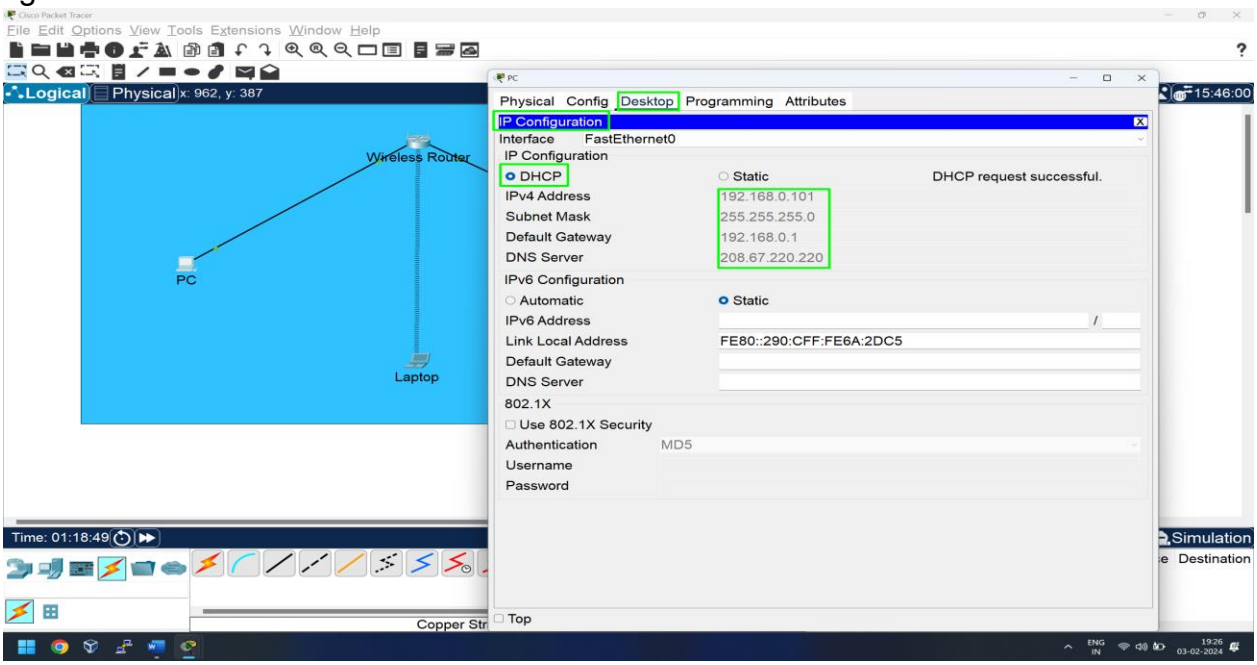
B. Configure the Network Setup.

- Now open the Setup tab in wireless router GUI interface.
- Verify the DHCP Server is enable or not and configure the Static IP address of the DNS server as 208.67.220.220 as shown in the Figure.

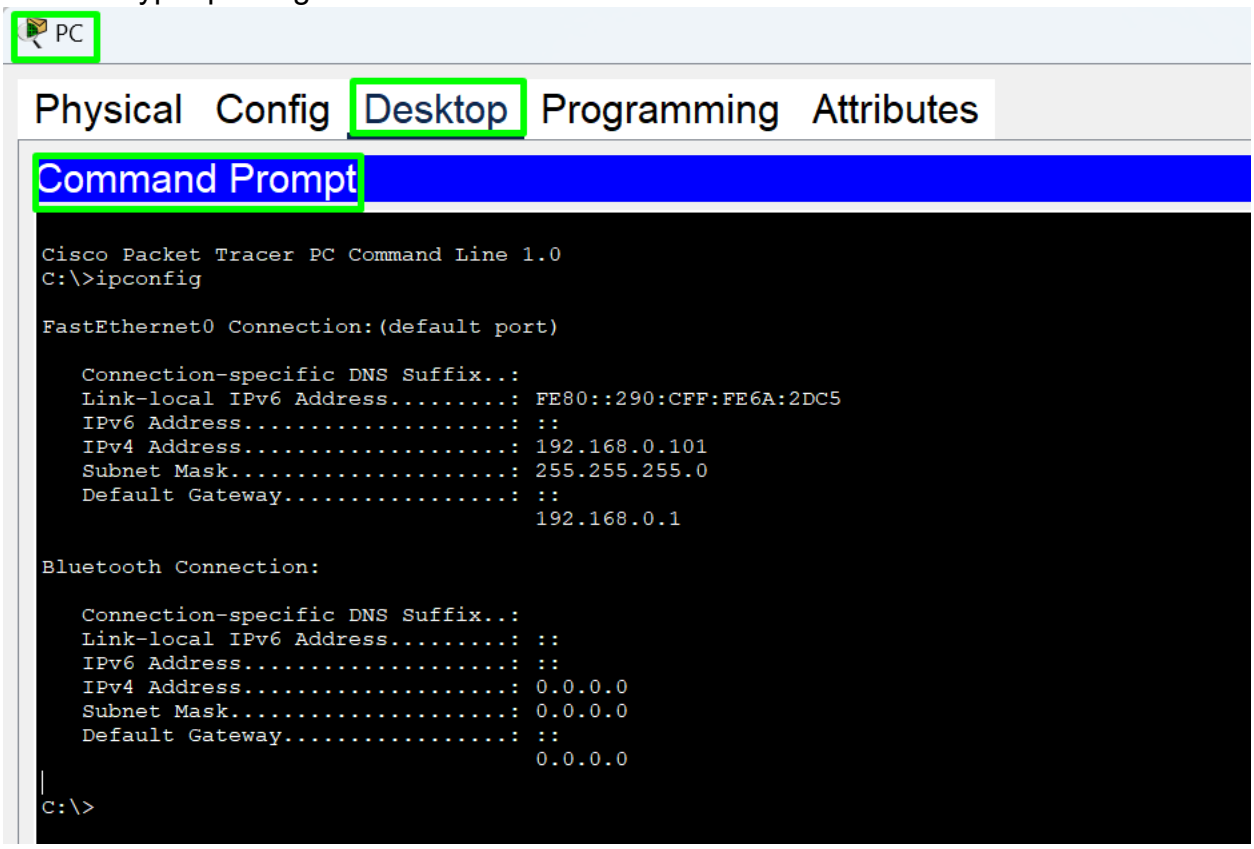


Step 2: Configure the PC.

- Double Click on the **PC** icon and Open the **Desktop Tab** and then Open the **IP Configuration Window.**
- Select the DHCP radio button to allocate the IPv4 address from the wireless router automatically and close the window after Ip been seen as shown in the figure.

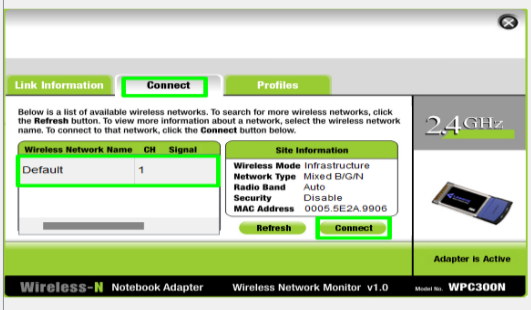


- For verify the Ip we have to open the command prompt from the Desktop Tab of PC. And type Ipconfig to see the IP address of the PC.



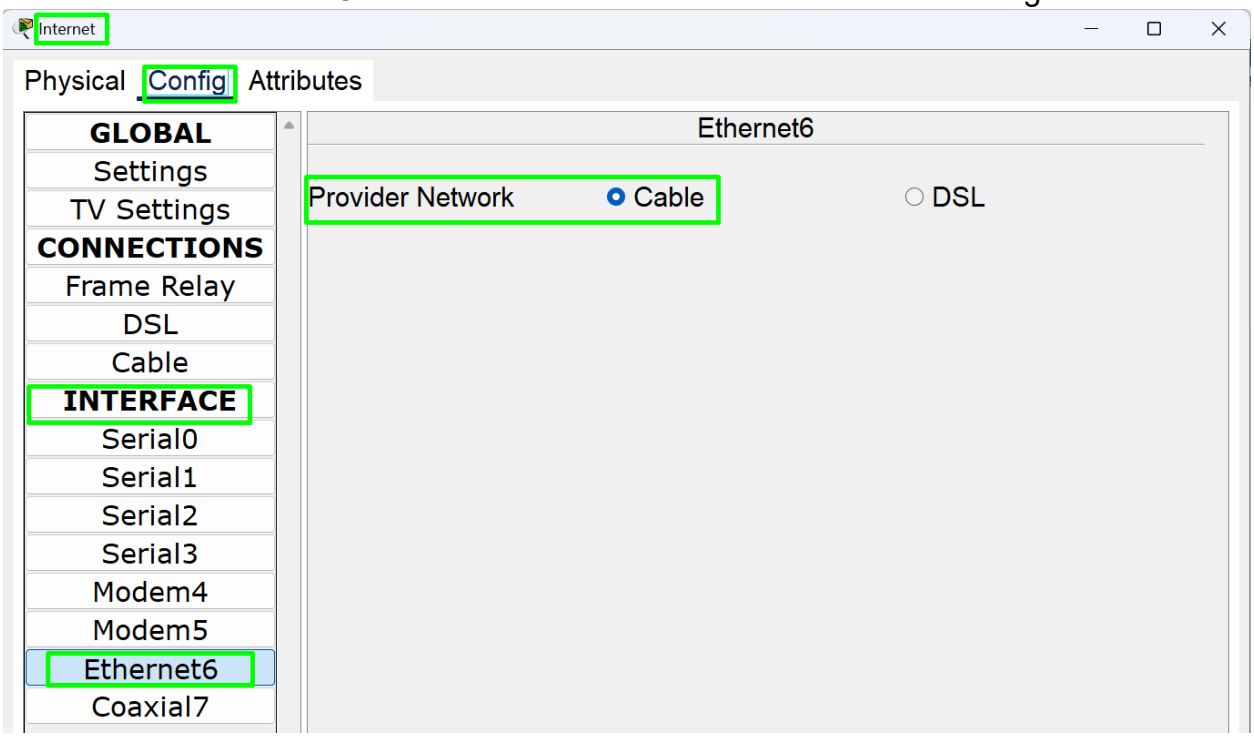
Step 3: Configure the Laptop.

- Double click on the Laptop Icon and Open the Desktop Tab and Click on the PC-Wireless Icon to connect the wireless Network of the Wireless Router.
- Once the PC-Wireless window open move to Connect tab, refresh the page then you get the wireless network **"Home Network"** should be visible in the list select it and press the Connect Button as shown in the figure.

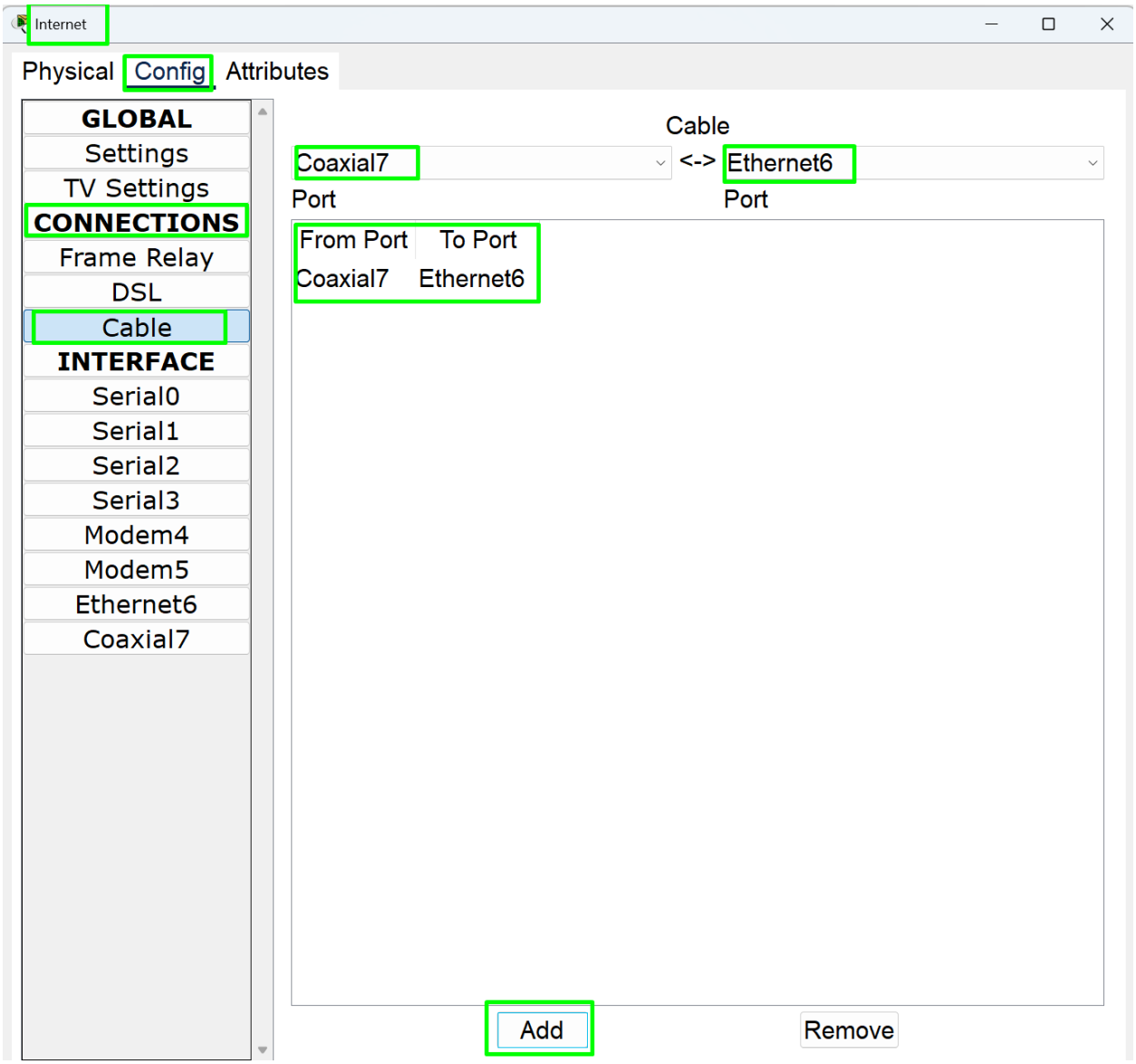


Step 4: Configure the Internet Cloud.

- Click on the Config tab in the Cloud device
- Identify the type of provider, Click on the Ethernet under the INTERFACE in the Left Pannel. Select the Cable as the Network Provider as shown in the figure.



- Identify the from and To Ports.
- Click on the **Cable** under the **CONNECTION** on the left panel of the Config Tab, In the **First** drop down box choose the **Coaxial** and in the **Second** drop down box choose **Ethernet** then click the **ADD** button as shown in the figure.

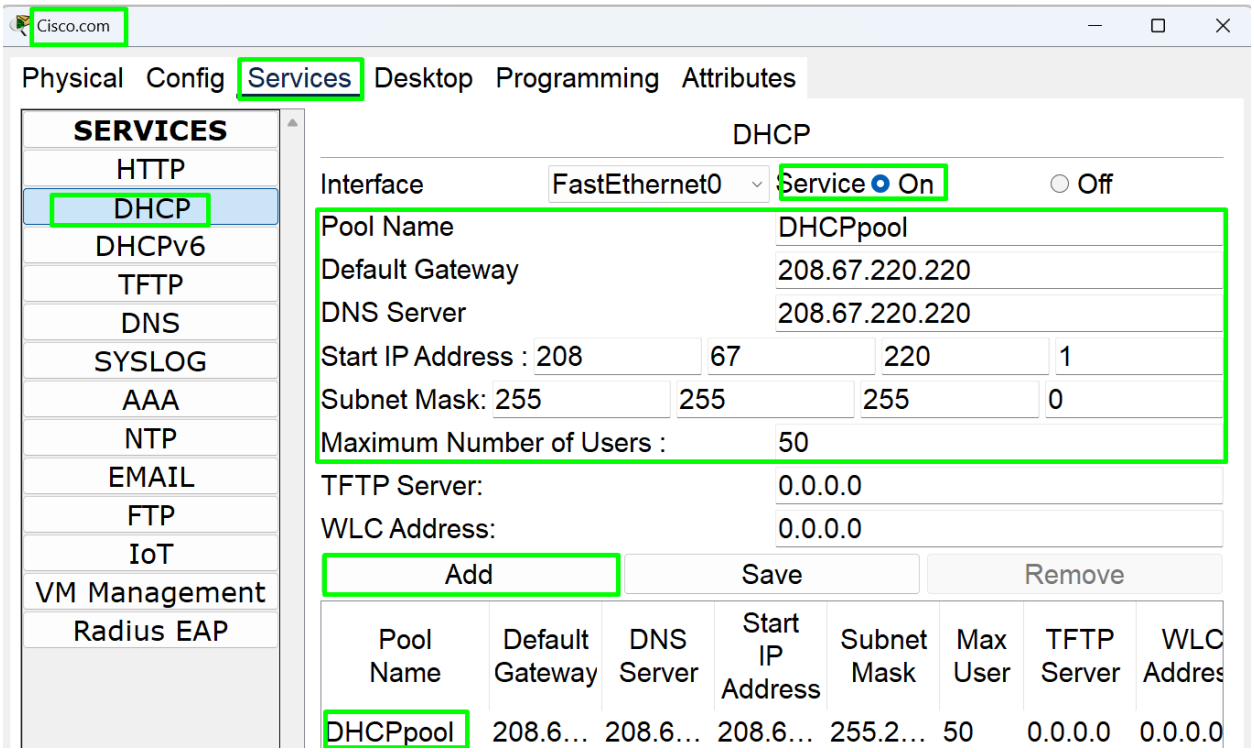


Step 5: Configure the Cisco.com Server.

A. Configure the Cisco.com server as a DHCP server.

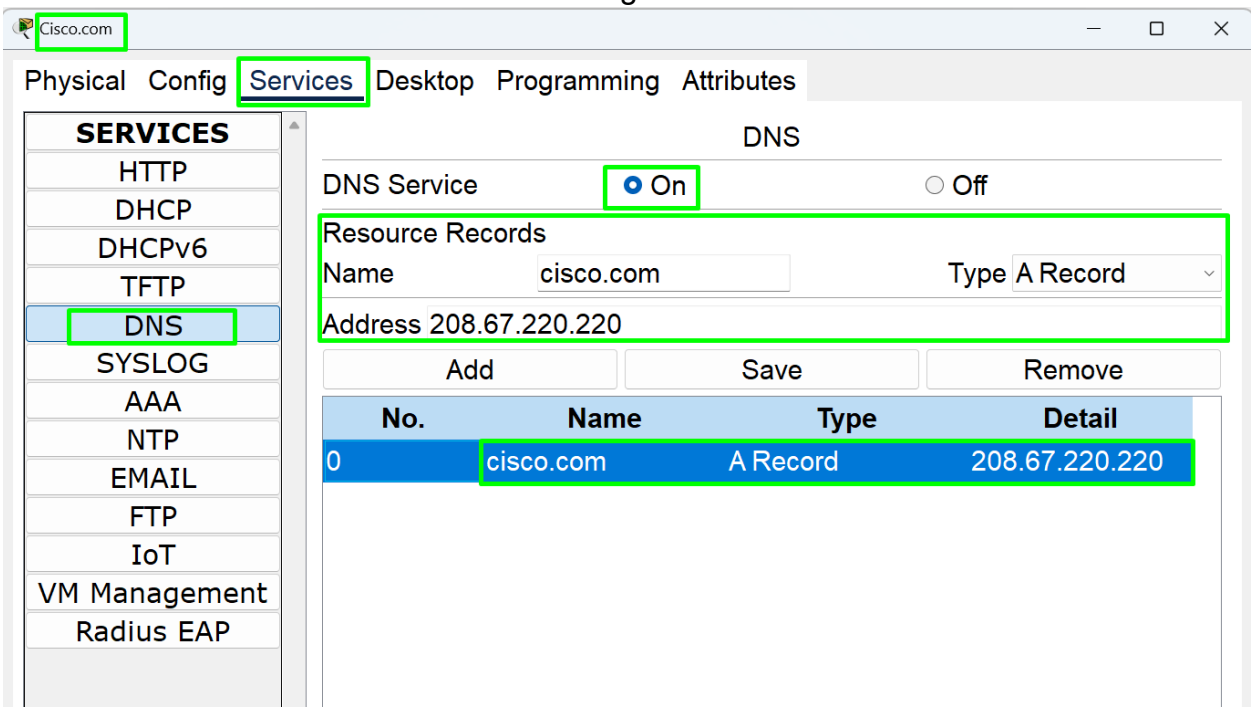
- Double click on the Cisco.com icon and open the Service tab. Select the **DHCP** from the **Service** list in the left pannel.
- In **DHCP** configuration window, configure a DHCP as mention in the Question.
    - Click **ON** to turn on the **DHCP** Services.
    - Pool Name: DHCP Pool
    - Default Gateway: 208.67.220.220
    - DNS server: 208.67.220.220
    - Starting IP Address: 208.67.220.1
    - Subnet Mask: 255.255.255.0
    - Maximum number of User: 50

- Click on add to Add the Pool.



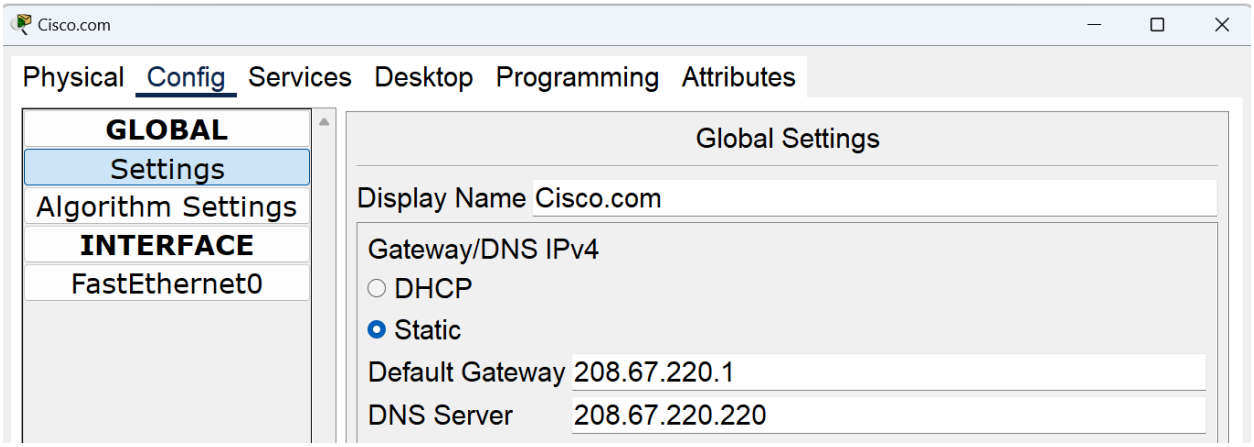
B. Configure the DNS service.

- Select the **DNS** from the **SERVICE** listed on the Left panel.
- Configure the **DNS** service as mention over here.
    - Click **ON** to turn on the DNS service.
    - Name: Cisco.com
    - Type: A Record.
    - Address: 208.67.220.220
- Click on add to Add the DNS services settings.



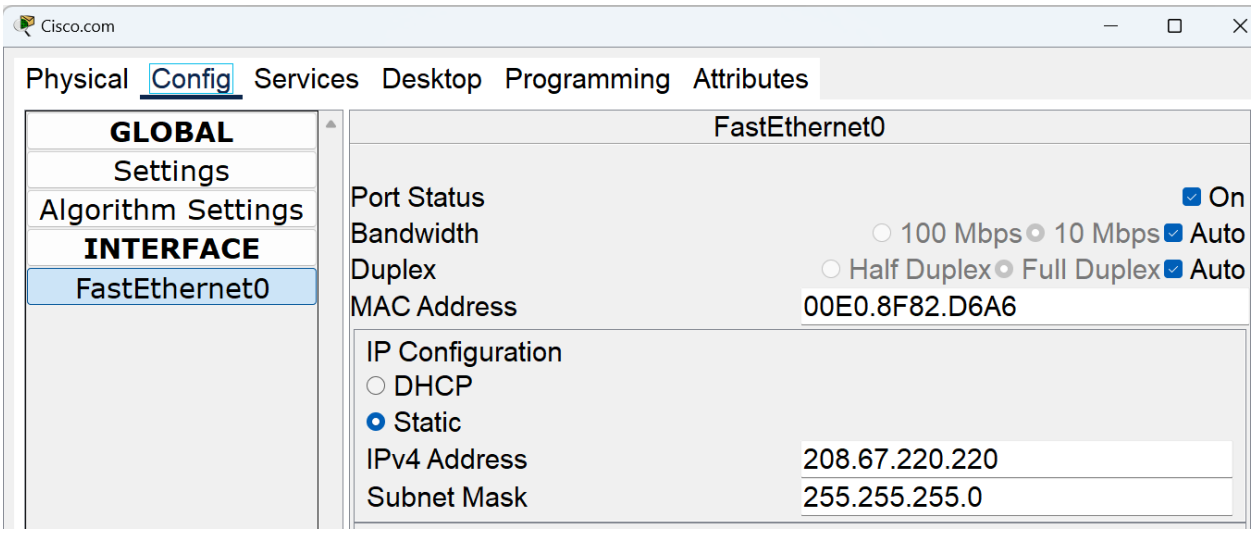
C. Configure the Cisco.com Server Global Setting.

- Select the **Config** tab.
- Open the Setting Window under the Global Setting.
    - Select **Static** radio button.
    - Gateway: 208.67.220.1
    - DNS server: 208.67.220.220



D. Configure the FastEthernet0 Interface setting.

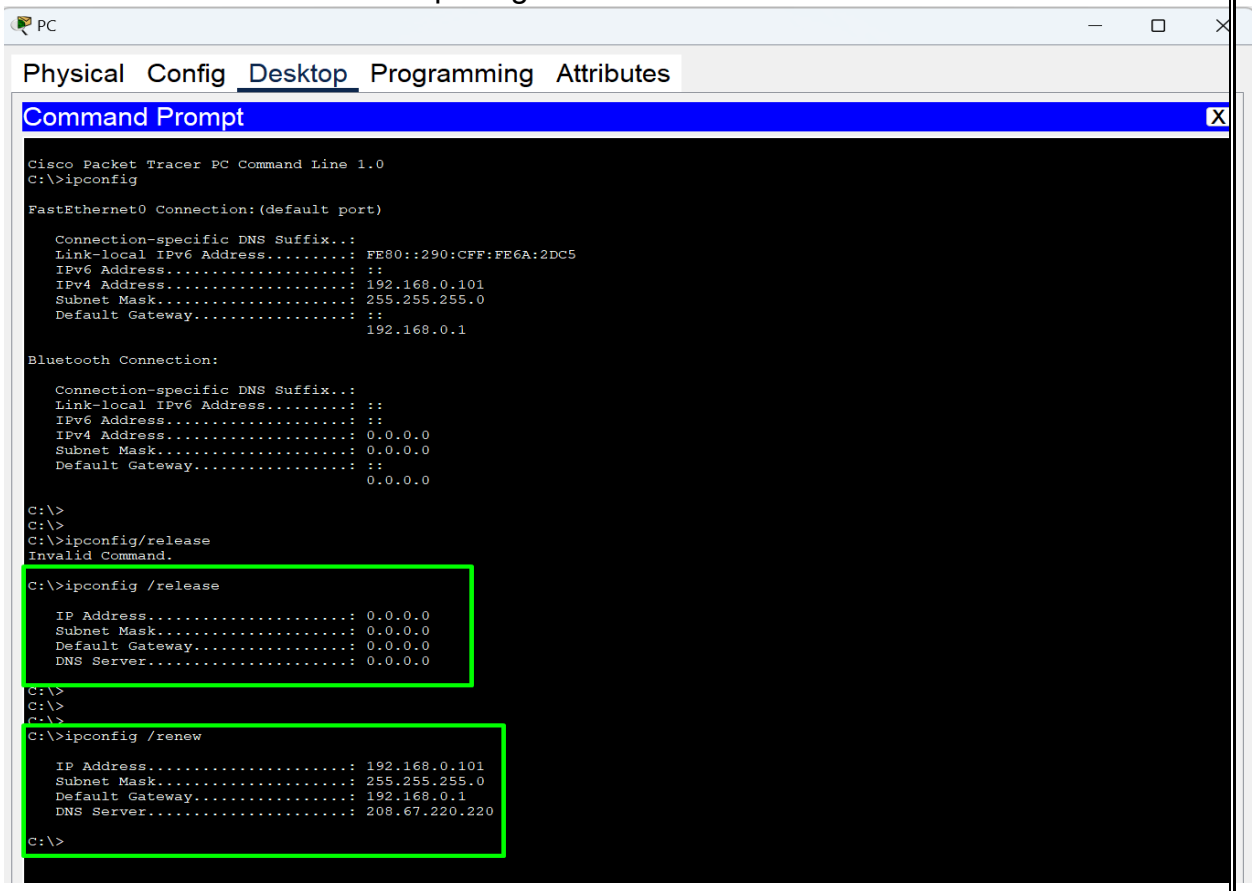
- Open the FastEthent0 window
    - Select **Static** under the IP configuration.
    - IP Address: 208.67.220.220
    - Subnet Mask: 255.255.255.0



Part 3: Verify Connectivity.

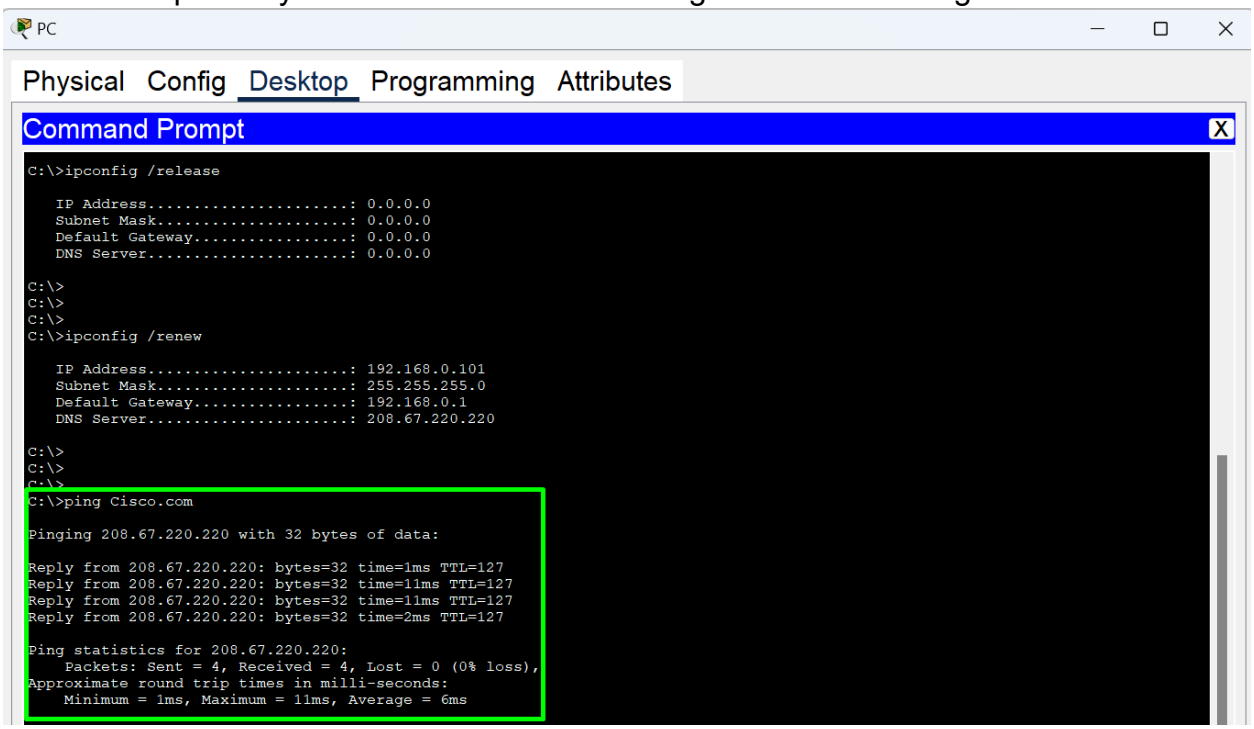
Step 1: Refresh the IPv4 setting on the PC.

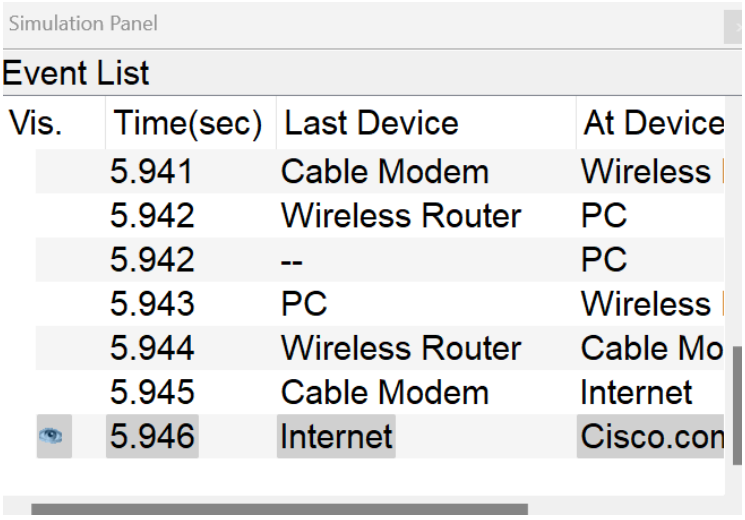
A. Renew the IPv4 Setting on the PC.
Open the Command Prompt and type ipconfig/release to precheck the given IP setting and after viewing that type ipconfig/renew for update the IP setting. You can see the difference of Ip in figure.



B. Test the Connectivity to the Cisco.com server from the PC.

- For check the connectivity we have to share the traffic to the server by ping the Cisco.com.
- If we obtain the below Output in Command prompt than the connection is established perfectly other wise we have to configure the network again.

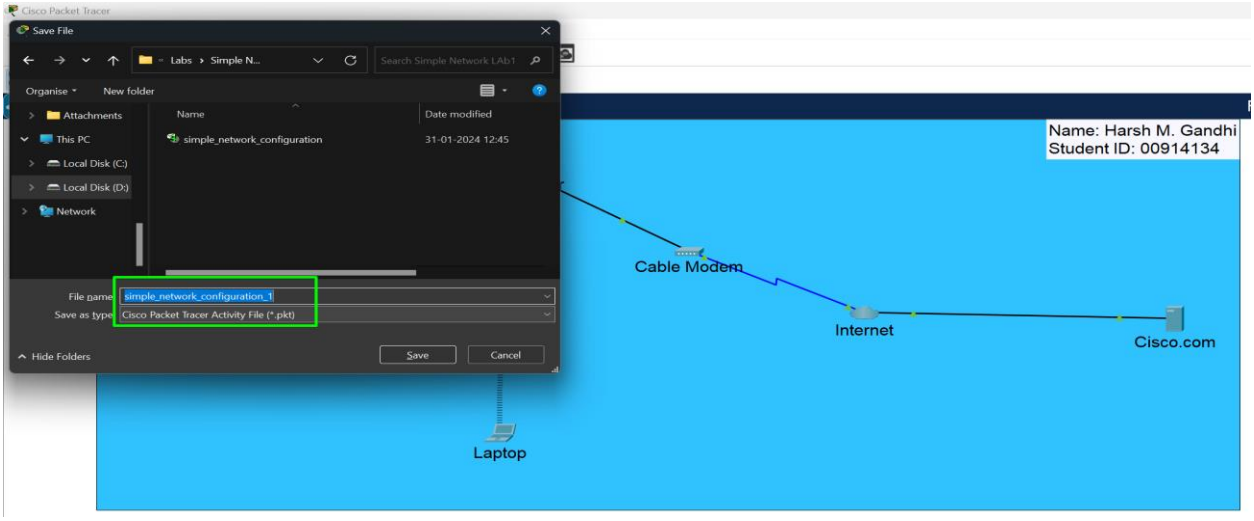




Part 4: Save and Close the Packet Tracer file.

A. Save the file as Packet Tracer Activity file (*.pkt).

- To save the completed network, click on the **File** in packet tracer menu bar and then select **SaveAs** from the drop-down menu. Select the Directory where you want to store the file and give the appropriate file name. By default the file will save with .pkt extension.



B. Close the Packet Tracer.

- Press Alt+F4 to close the Packet tracer or Press the X button over the right side of the laptop edge.

Discussion or Analysis

- At starting I'm baffled about the lab, and in initial tries i have gone through many mistakes, but at the end I realized all my mistakes and set right them.
- I have a bit confused while configuring the server and get wrong many times over there.
- Starting I have facing problem while the configuring the devices and I corrected them.
- I tries many times then I found my mistake finally I create a network without any mistakes.

.

Conclusions

- I have successfully build a network by using some network devices and connected them.
- Through this lab I have gained a valuable information and learned how to create a network.
- With the cisco packet tracer can gain hands on experience.