

Weekly Assessment – 3

Thanvi Katakam (2023006366)

Week 3 - Router Configuration

Aim:

To configure a router in Cisco Packet Tracer, connect devices, and ensure successful communication between different networks.

Description:

This setup involves creating a small network where a **router connects two networks**: one for PCs and one for Servers. The router enables communication between these networks by configuring IP addresses on its interfaces.

Devices Used:

- 1 Router
- 2 Switches (1 for PCs, 1 for Servers)
- 1 PC and 1 laptop(here)
- 2 Servers

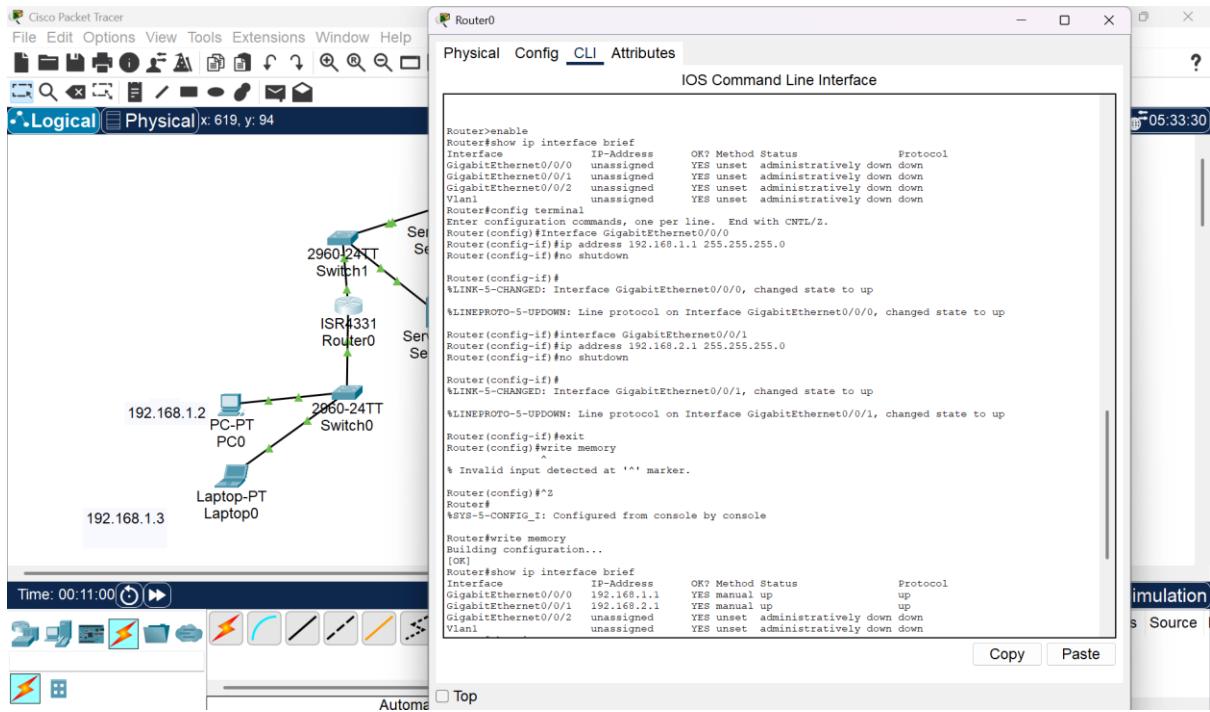
Procedure:

Step 1: Enter CLI on Router

- Click on the **Router** in Cisco Packet Tracer.
- Go to the **CLI Tab** and press **Enter** to start.

Step 2: Configure Router Interfaces

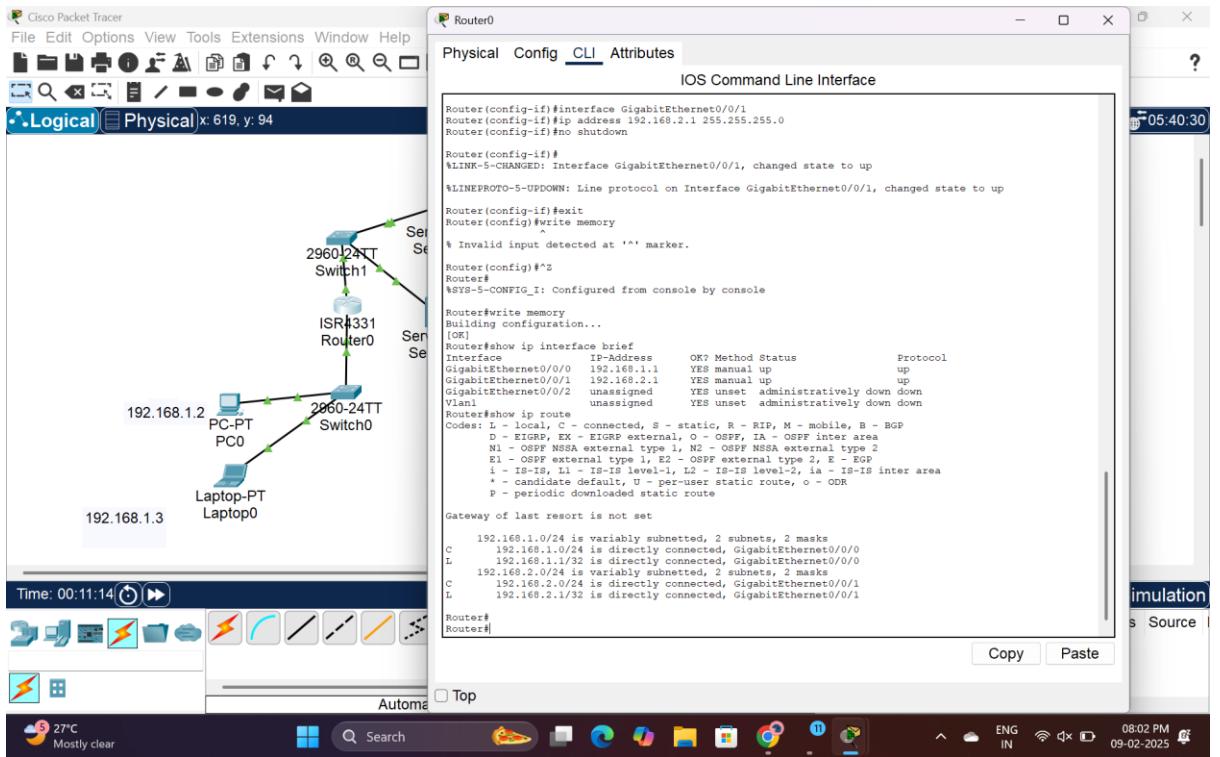
- **Enable and config the terminal**
- **Give IP addresses for the interfaces GigabitEthernet0/0/0-1**
- **Enable no shutdown**
- **Exit and end**
- **Write memory**



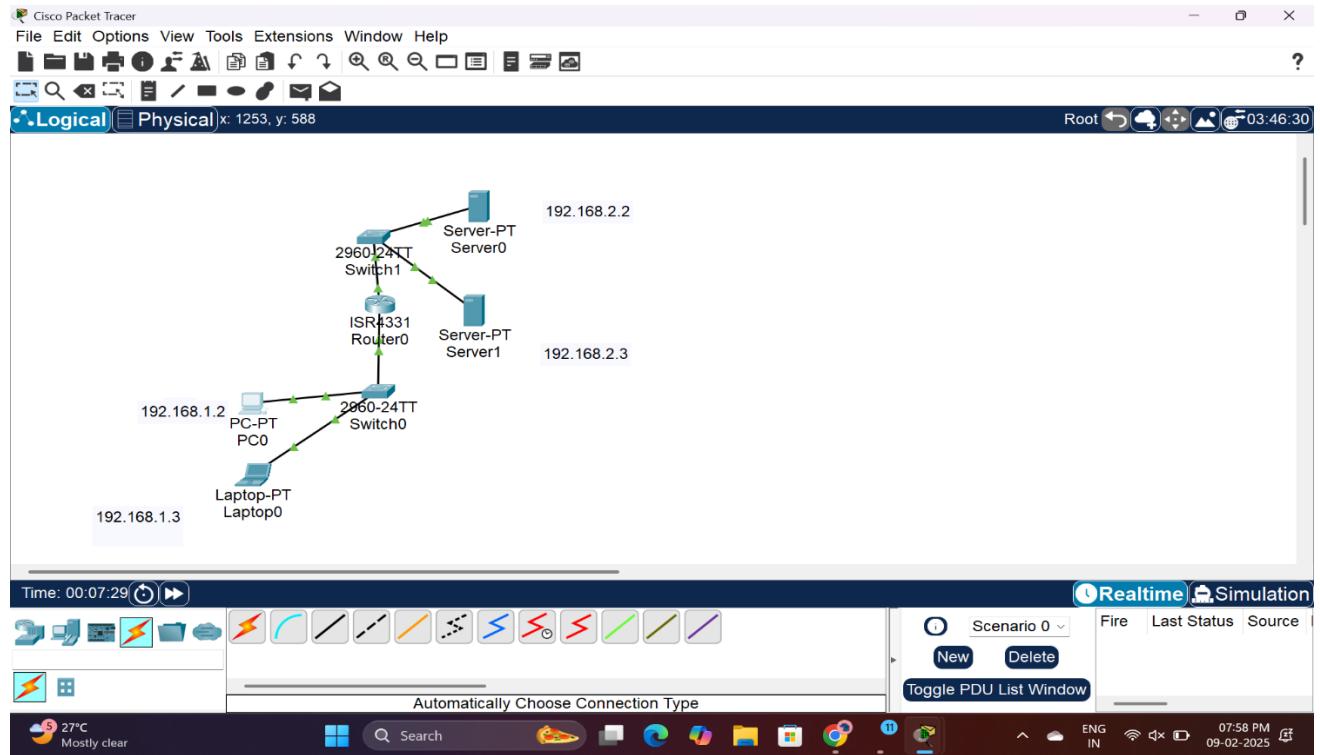
Note : Only after entering the following commands we will be able to configure the interfaces and make sure they are working and not in shutdown.

- After configuring make sure to check if the IP addresses and protocols are set properly using 'show ip interface brief' command .
- To see ip route(in CLI tab.)

Type 'show ip route' without configuring the terminal (right after 'enable').



Step 4: Configure IP Addresses on PCs and Servers



1. Go to PC0, PC1, Server1, and Server2.

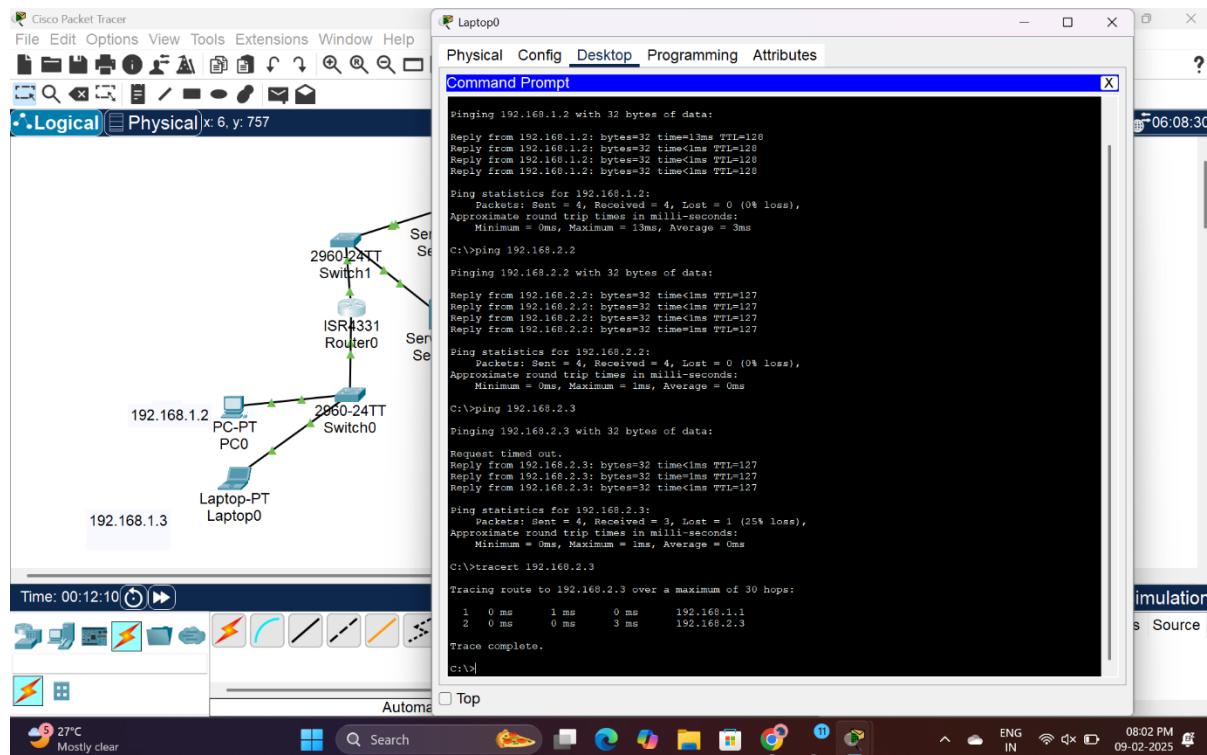
2. Open Desktop > IP Configuration.

IP Configuration:

Device	Interface	IP Address	Subnet Mask	Default Gateway
PC0	-	192.168.1.2	255.255.255.0	192.168.1.1
Laptop0	-	192.168.1.3	255.255.255.0	192.168.1.1
Server1	-	192.168.2.2	255.255.255.0	192.168.2.1
Server2	-	192.168.2.3	255.255.255.0	192.168.2.1

Step 5: Test Connectivity Using Ping

💡 On Laptop0 Command Prompt:



- ping 192.168.1.3 to Test Laptop0 <-> PC0 (Same Network)
- ping 192.168.2.2 to Test Laptop0 <-> Server1 (Different Network)
- ping 192.168.2.3 to Test Laptop0 <-> Server2 (Different Network)
- tracert 192.168.2.3 to see the packets routing from Laptop0 <-> Server
This way we can configure the interfaces of our router and also test their routing connections in command prompt and also trace route of the packets travelling from one network to another