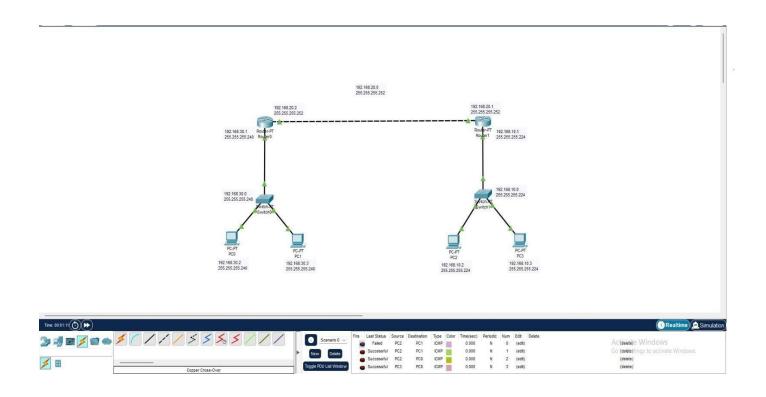
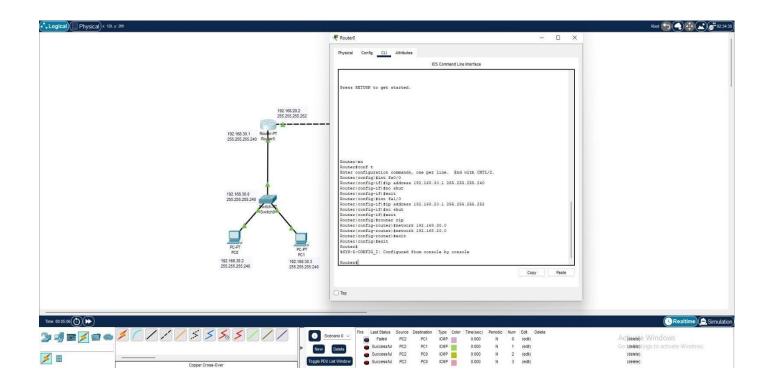
# **CN LAB Detailed Procedures**

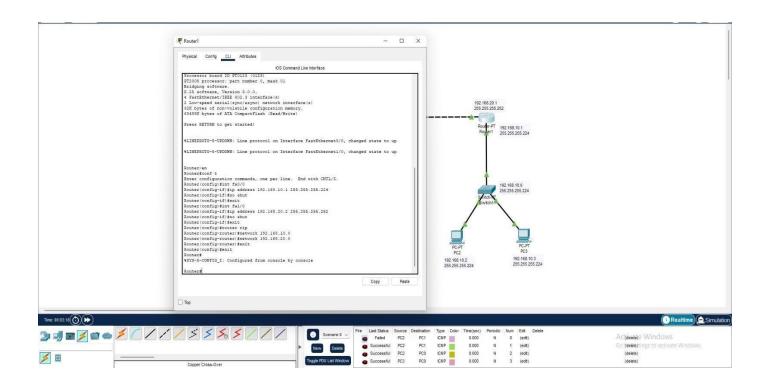
MOHAMED ZAYED A (RA2211003050091)

# Lab 7: Implementation of RIP Version 1

- 1. Open Packet Tracer:
- Launch Cisco Packet Tracer on your computer.
- 2. Create a Network:
- Drag three routers onto the workspace and connect them in a linear topology.
- Connect a computer to each router using Ethernet cables.
- 3. Configure IP Addresses:
- Assign IP addresses to each interface on the routers and computers.
- 4. Enable RIP Version 1:
- Access the CLI of each router.
- Enable RIP routing: router rip, version 1.
- Advertise connected networks: network <network address>.
- 5. Test Connectivity:
- Use the ping command to test connectivity between the computers

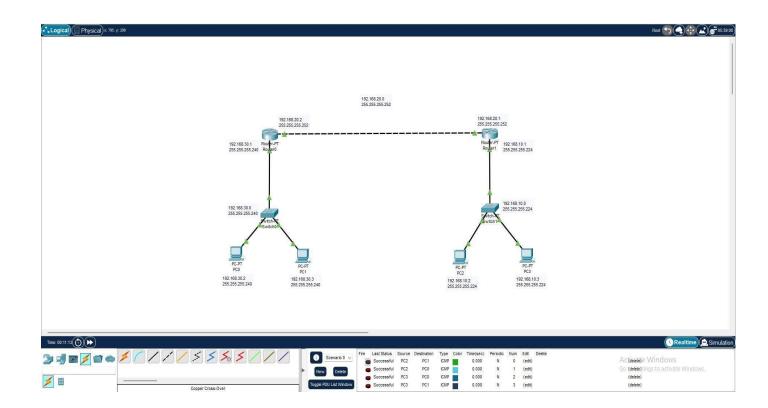


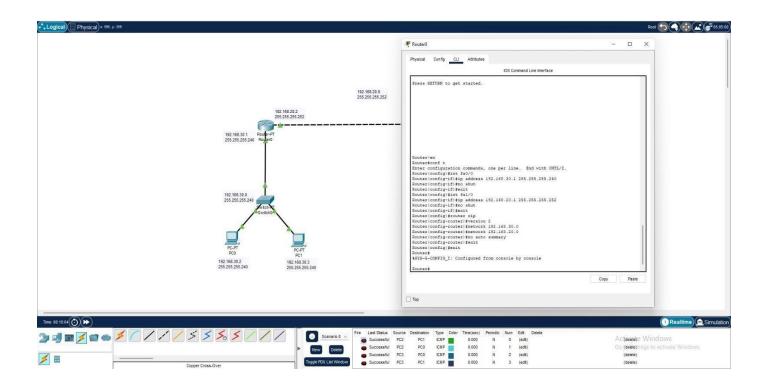


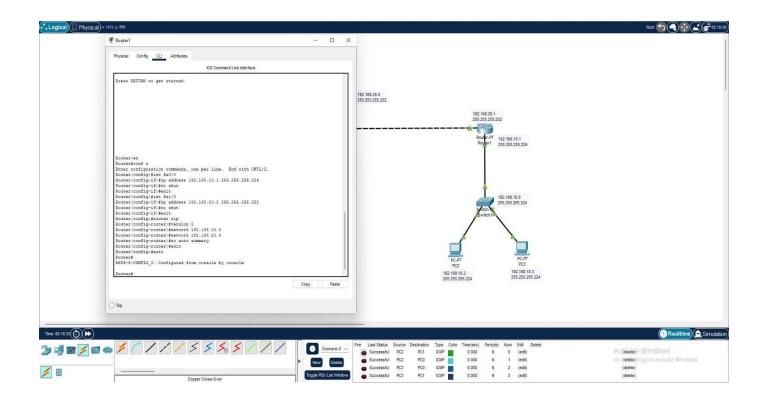


# Lab 8: Implementation of RIP Version 2

- 1. Open Packet Tracer:
- Launch Cisco Packet Tracer on your computer.
- 2. Create a Network:
- Drag three routers onto the workspace and connect them in a linear topology.
- Connect a computer to each router using Ethernet cables.
- 3. Configure IP Addresses:
- Assign IP addresses to each interface on the routers and computers.
- 4. Enable RIP Version 2:
- Access the CLI of each router.
- Enable RIP routing: router rip, version 2.
- Advertise connected networks: network <network address>.
- 5. Test Connectivity:
- Use the ping command to test connectivity between the computers

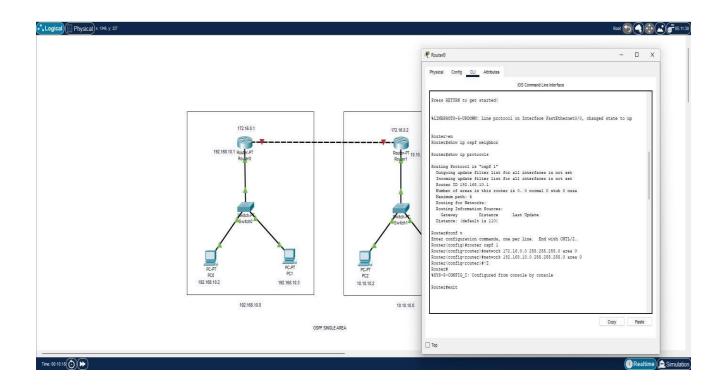


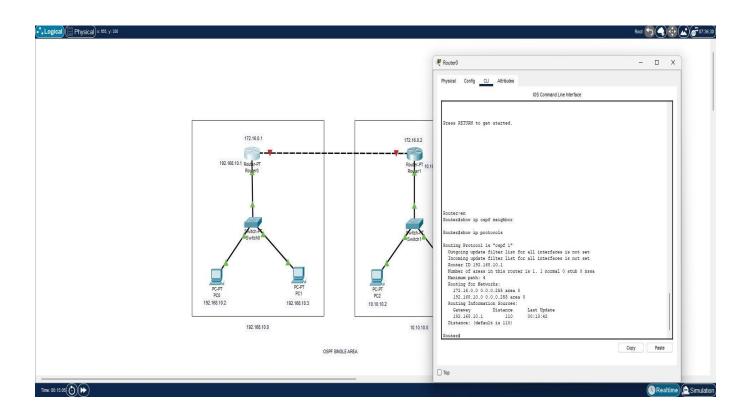


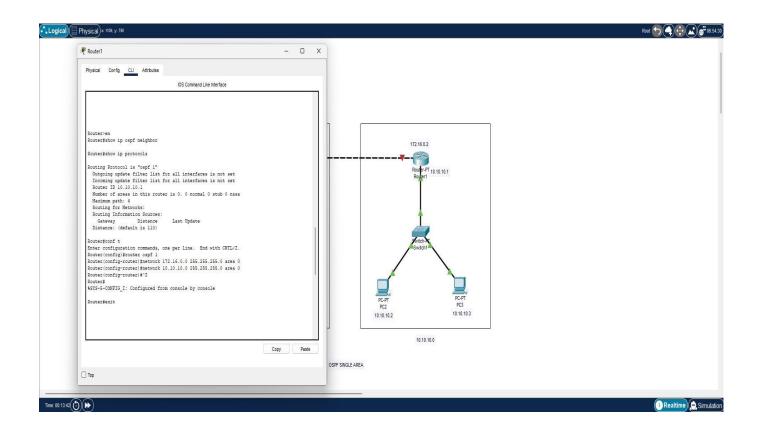


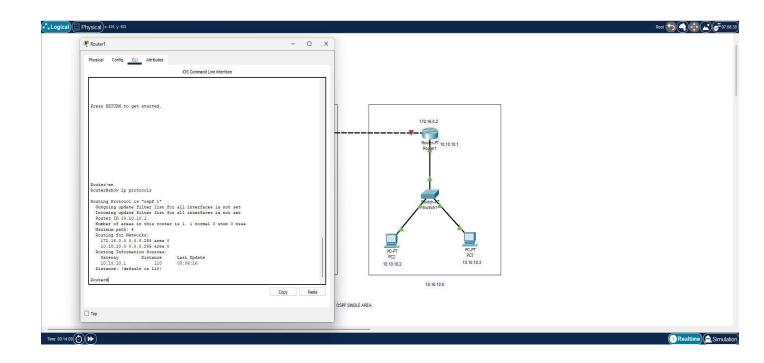
# Lab 9: Implementation of Single Area OSPF

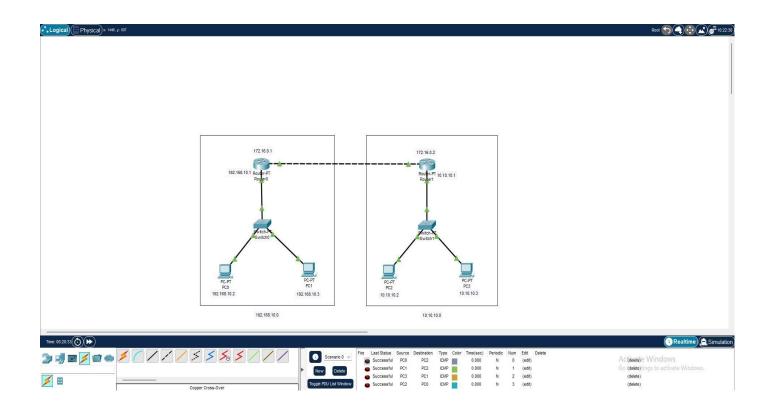
- 1. Open Packet Tracer:
- Launch Cisco Packet Tracer on your computer.
- 2. Create a Network:
- Drag three routers onto the workspace and connect them in a triangular topology.
- Connect a computer to each router using Ethernet cables.
- 3. Configure IP Addresses:
- Assign IP addresses to each interface on the routers and computers.
- 4. Enable OSPF:
- Access the CLI of each router.
- Enable OSPF: router ospf 1.
- Advertise connected networks: network <network address> area 0.
- 5. Test Connectivity:
- Use the ping command to test connectivity between the computers





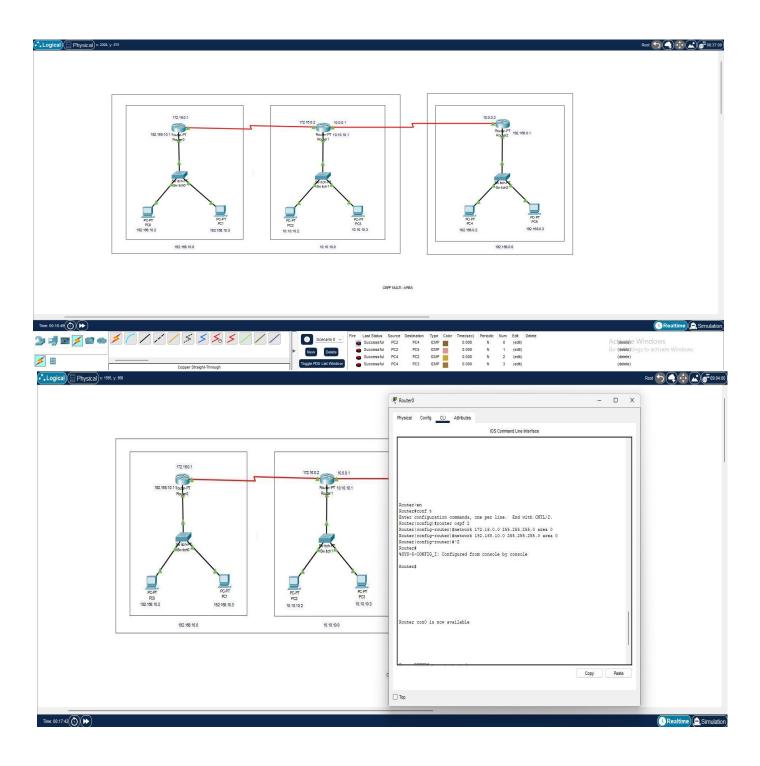


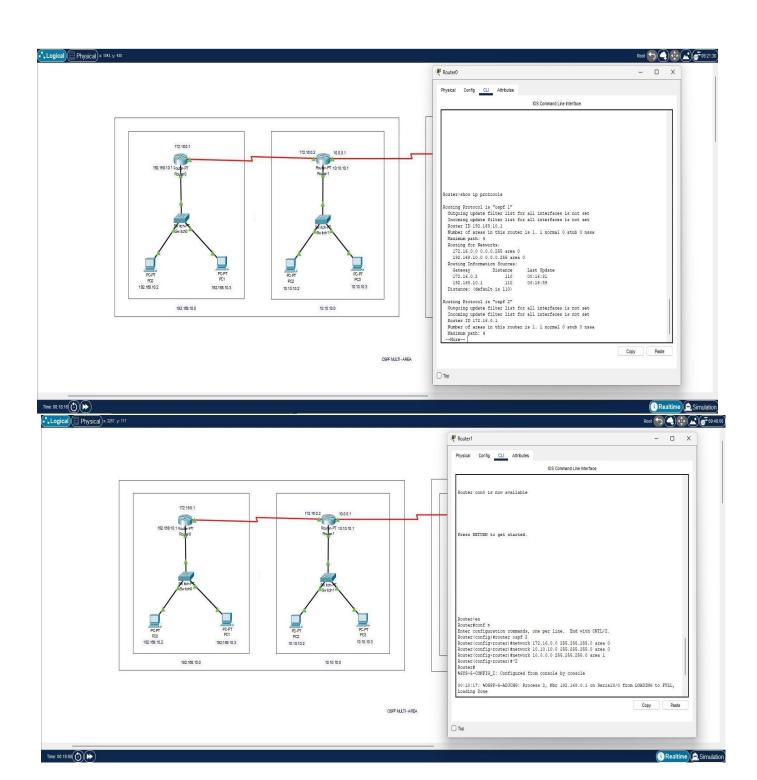


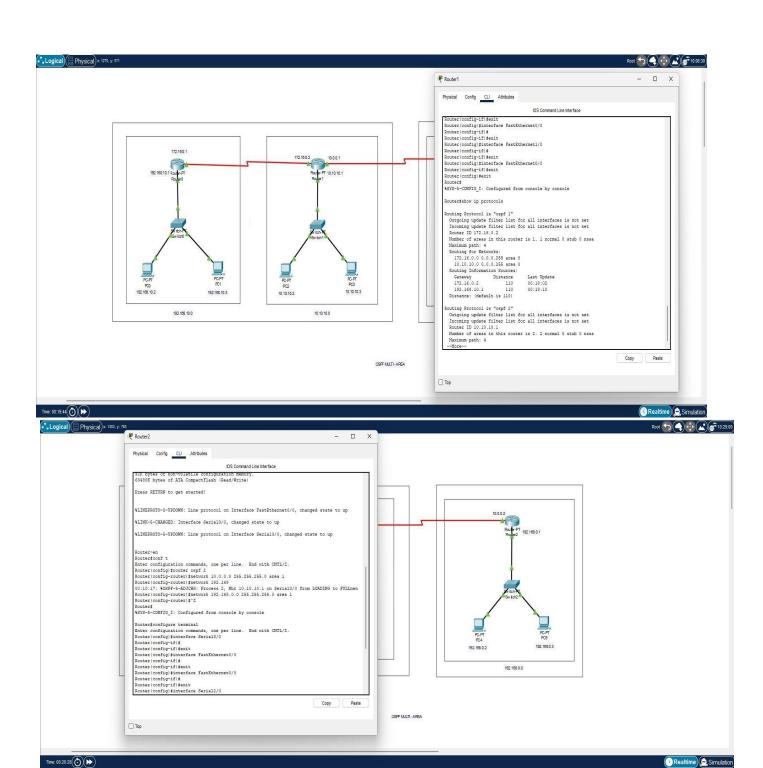


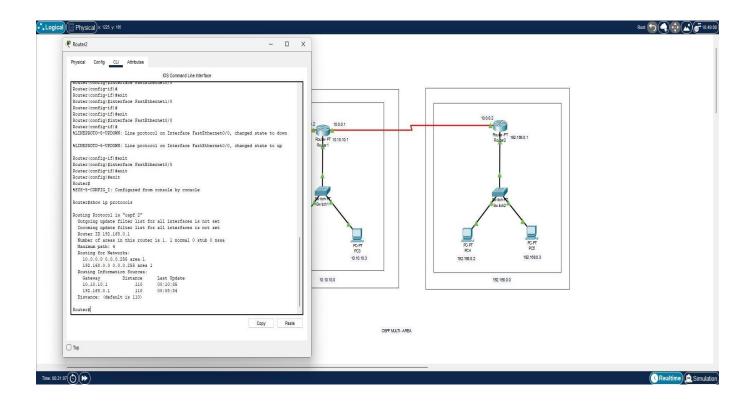
## Lab 10: Implementation of Multi Area OSPF

- 1. Open Packet Tracer:
- Launch Cisco Packet Tracer on your computer.
- 2. Create a Network:
- Drag four routers onto the workspace and connect them to form two separate OSPF areas with an Area 0 backbone.
- Connect a computer to each router using Ethernet cables.
- 3. Configure IP Addresses:
- Assign IP addresses to each interface on the routers and computers.
- 4. Enable OSPF:
- Access the CLI of each router.
- Enable OSPF on Area 0 routers: router ospf 1.
- Advertise connected networks: network <network address> area 0.
- Enable OSPF on Area 1 routers: router ospf 1.
- Advertise connected networks: network <network address> area 5. Test Connectivity:
- Use the ping command to test connectivity between the computers.



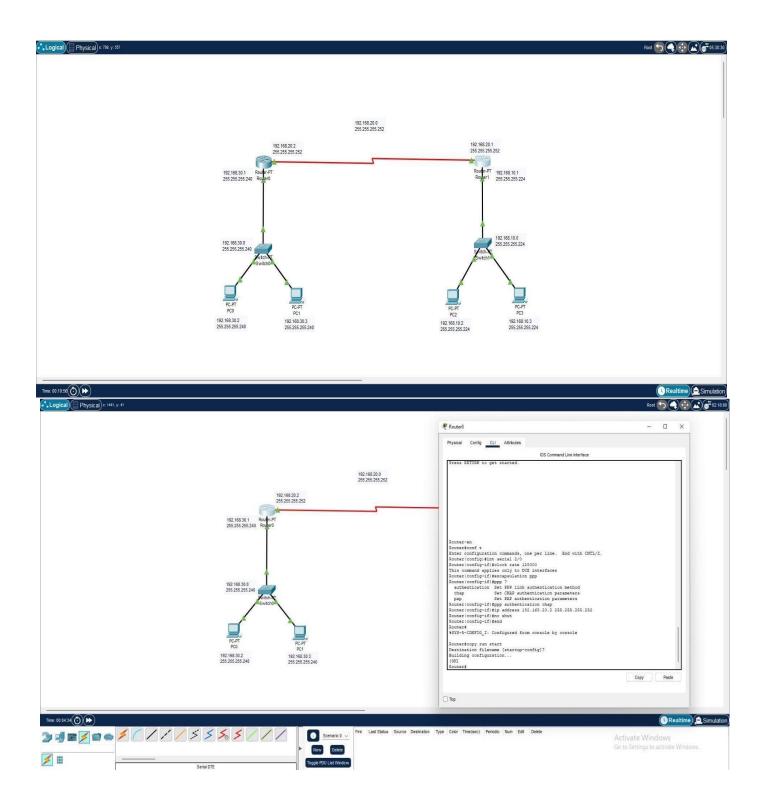


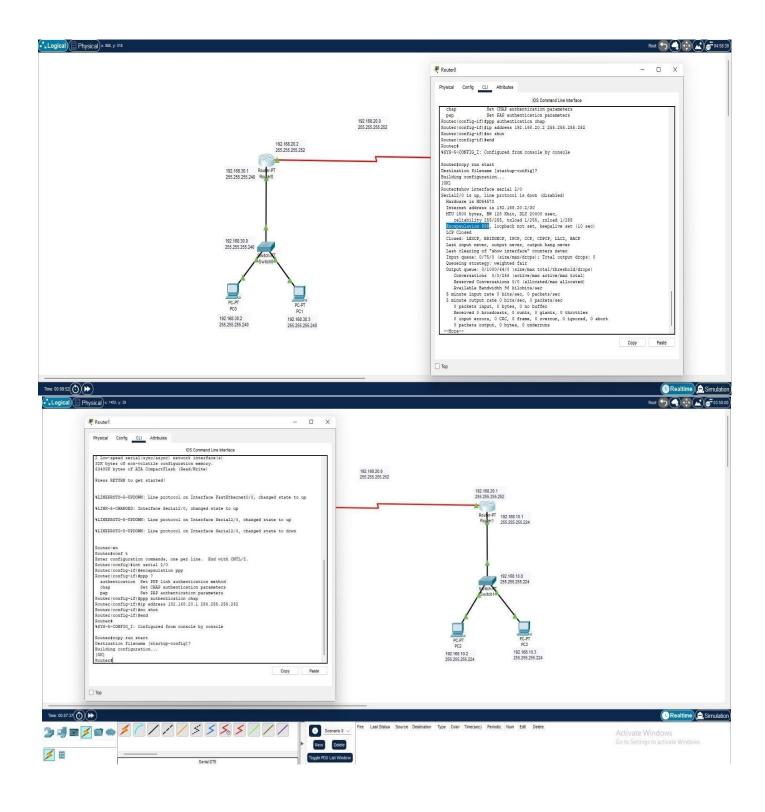


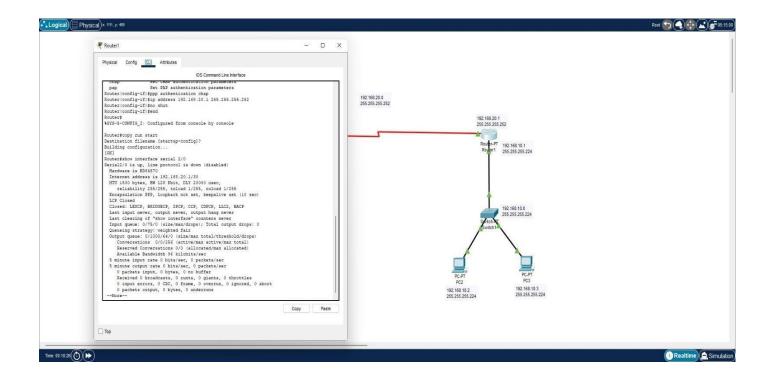


# **Lab 11: PPP Configuration**

- 1. Open Packet Tracer:
- Launch Cisco Packet Tracer on your computer.
- 2. Create a Network:
- Drag two routers onto the workspace and connect them using a serial connection.
- Connect a computer to each router using Ethernet cables.
- 3. Configure IP Addresses:
- Assign IP addresses to each interface on the routers and computers.
- 4. Configure PPP:
- Access the CLI of each router.
- Enter interface configuration mode for the serial interface: interface serial 0/0/0.
- Enable PPP encapsulation: encapsulation ppp.
- 5. Test Connectivity:
- Use the ping command to test connectivity between the computers.



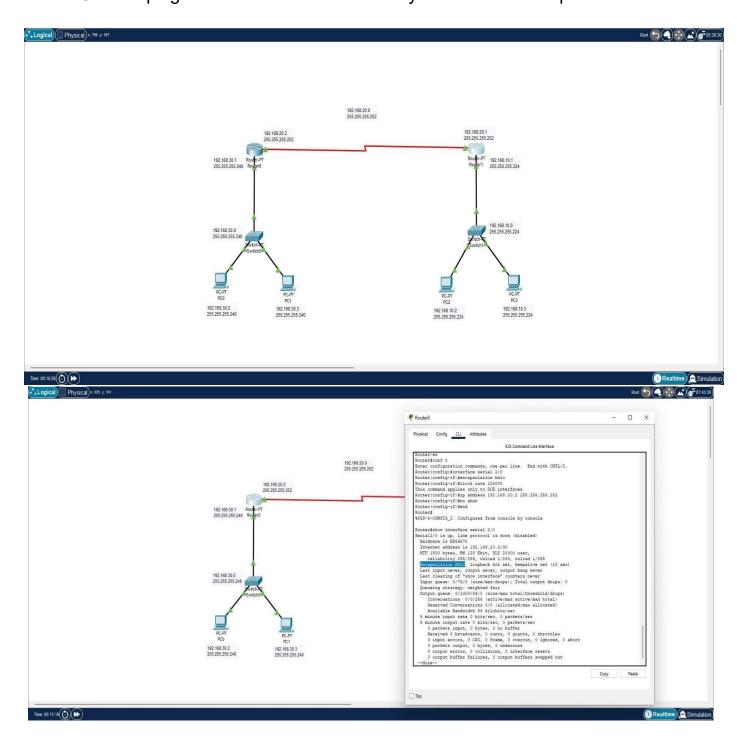


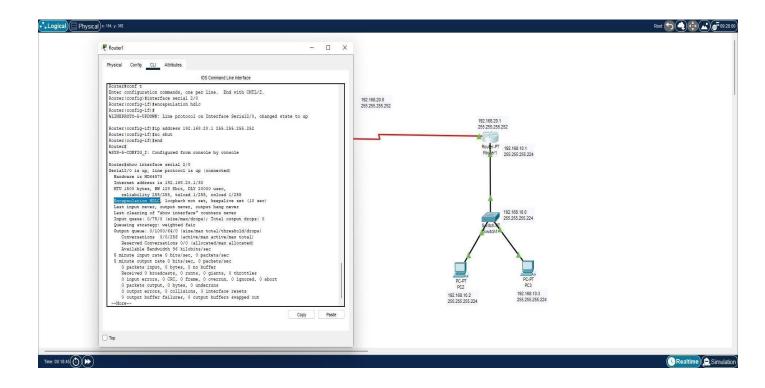


# **Lab 12: HDLC Configuration**

- 1. Open Packet Tracer:
- Launch Cisco Packet Tracer on your computer.
- 2. Create a Network:
- Drag two routers onto the workspace and connect them using a serial connection.
- Connect a computer to each router using Ethernet cables.
- 3. Configure IP Addresses:
- Assign IP addresses to each interface on the routers and computers.
- 4. Configure HDLC:
- Access the CLI of each router.
- Enter interface configuration mode for the serial interface: interface serial 0/0/0.
- Enable HDLC encapsulation: encapsulation hdlc.
- 5. Test Connectivity:

■ Use the ping command to test connectivity between the computers.

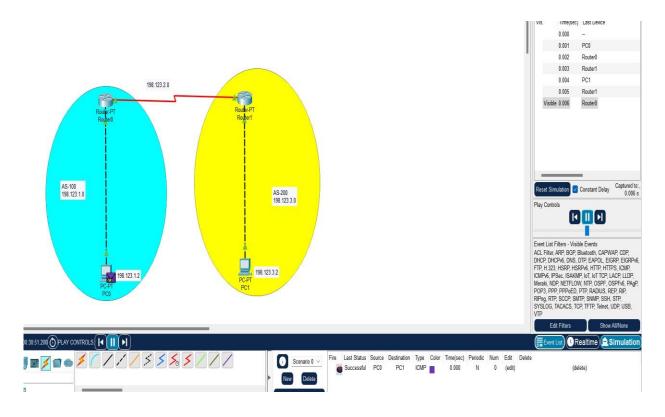




# Lab 13: Implementation of BGP

- 1. Open Packet Tracer:
- Launch Cisco Packet Tracer on your computer.
- 2. Create a Network:
- Drag two routers onto the workspace and connect them to form separate autonomous systems (AS).
- Connect a computer to each router using Ethernet cables.
- 3. Configure IP Addresses:
- Assign IP addresses to each interface on the routers and computers.
- 4. Enable BGP:
- Access the CLI of each router.
- Enable BGP on each router: router bgp <AS number>. Establish BGP peering: neighbor <IP address> remote-as <AS number>.
- Advertise connected networks: network <network address>.

- 5. Test Connectivity:
- Use the ping command to test connectivity between the computers.



# Lab 14: Implementation of EIGRP

- 1. Open Packet Tracer:
- Launch Cisco Packet Tracer on your computer.
- 2. Create a Network:
- Drag three routers onto the workspace and connect them in a triangular topology.
- Connect a computer to each router using Ethernet cables.
- 3. Configure IP Addresses:
- Assign IP addresses to each interface on the routers and computers.
- 4. Enable EIGRP:
- Access the CLI of each router.
- Enable EIGRP: router eigrp 1.
- Advertise connected networks: network <network address>.
- 5. Test Connectivity:

■ Use the ping command to test connectivity between the computers.

## **Lab 15: Telnet Configuration**

- 1. Open Packet Tracer:
- Launch Cisco Packet Tracer on your computer.
- 2. Create a Network:
- Drag a router and a computer onto the workspace.
- Connect the computer to the router using an Ethernet cable.
- 3. Configure IP Addresses:
- Assign IP addresses to the router and computer.
- 4. Fnable Telnet:
- Access the CLI of the router.
- Enter global configuration mode: enable, configure terminal.
- Enable Telnet: line vty 0 4, password cisco, login.
- 5. Test Telnet Connectivity:
- Use the Command Prompt on the computer to connect to the router using Telnet: telnet <router IP address>.

