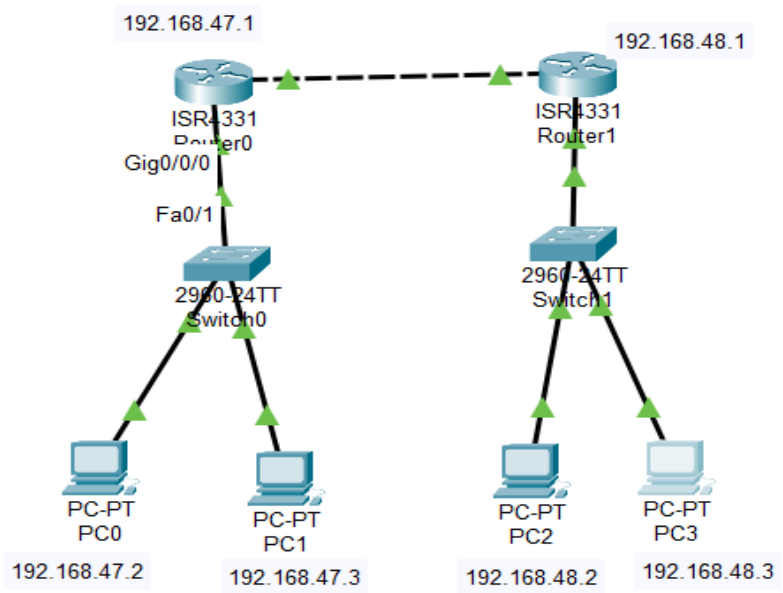
Step-by-Step Procedure for RIP Configuration in Packet Tracer

1) **Place network devices**
   - From the End Devices menu, drag 4 PCs (rename them as C1, C2, C3, C4).
   - From the Switches menu, drag 2 switches (rename them Switch1, Switch2).
   - From the Routers menu, drag 2 routers (e.g. 4331) — name them Router1 and Router2.

2) **Connect devices with cables**

- Select the **Connections (lightning bolt icon)** tool → choose **Automatically choose connection type**.

- **Connect:**
  - PC1 → Switch1
  - PC2 → Switch1
  - PC3 → Switch2
  - PC4 → Switch2
  - Switch1 → Router1 (GigabitEthernet0/0)
  - Switch2 → Router2 (GigabitEthernet0/0)
  - Router1 (GigabitEthernet0/1) → Router2 (GigabitEthernet0/1)



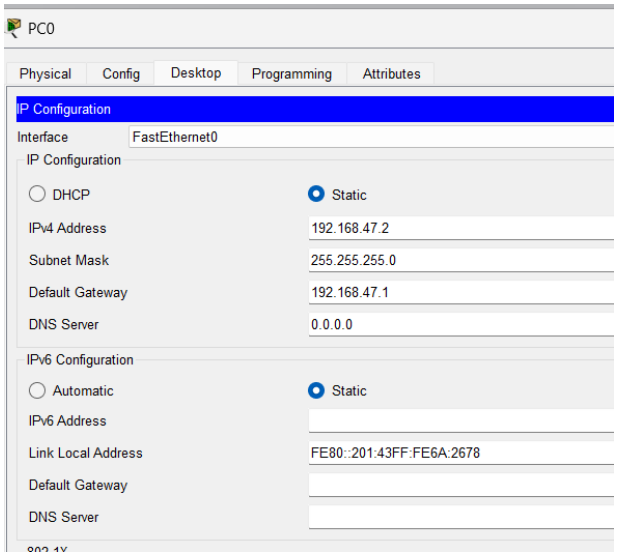
3) Assign IP addresses to PCs

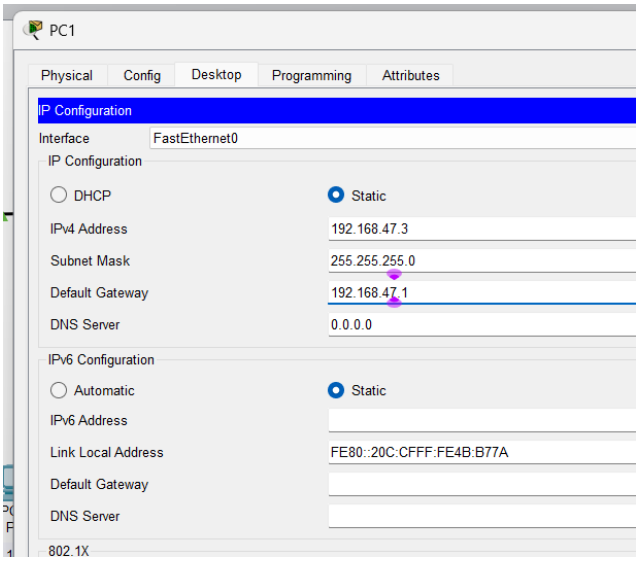
a. For each PC:

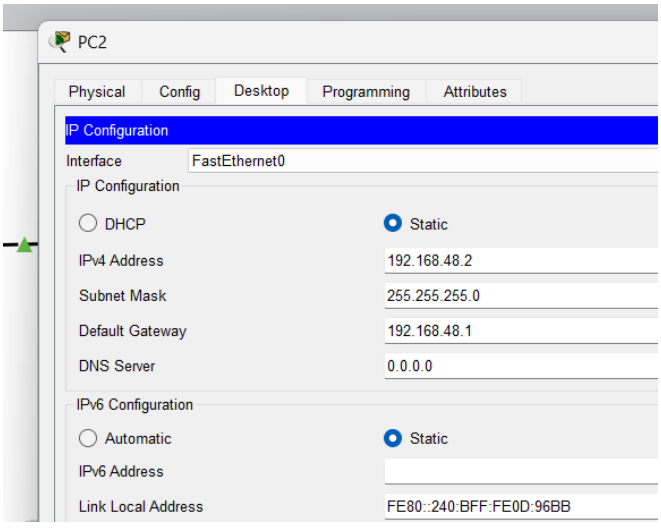
Click the PC → **Desktop tab** → **IP Configuration**.

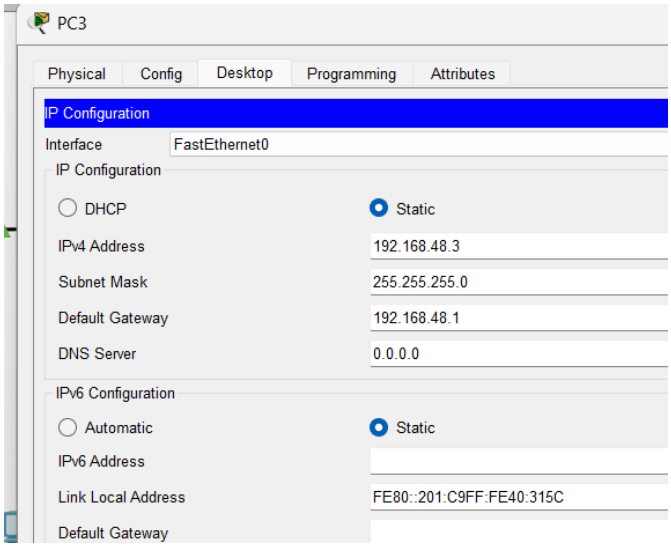
b. Enter details:

- **PC1**: IP = 192.168.47.2, Subnet = 255.255.255.0, Gateway = 192.168.47.1
- **PC2**: IP = 192.168.47.3, Subnet = 255.255.255.0, Gateway = 192.168.47.1
- **PC3**: IP = 192.168.48.2, Subnet = 255.255.255.0, Gateway = 192.168.48.1
- **PC4**: IP = 192.168.48.3, Subnet = 255.255.255.0, Gateway = 192.168.48.1

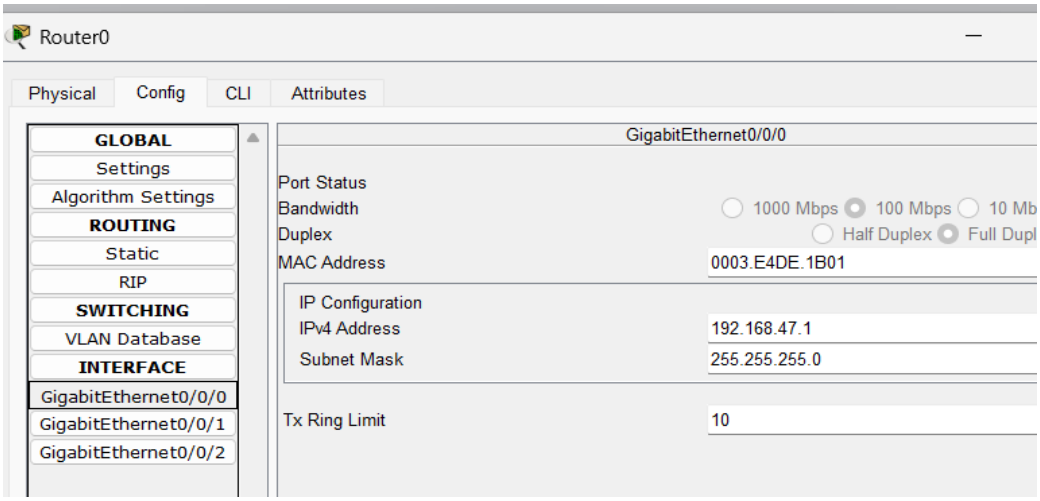


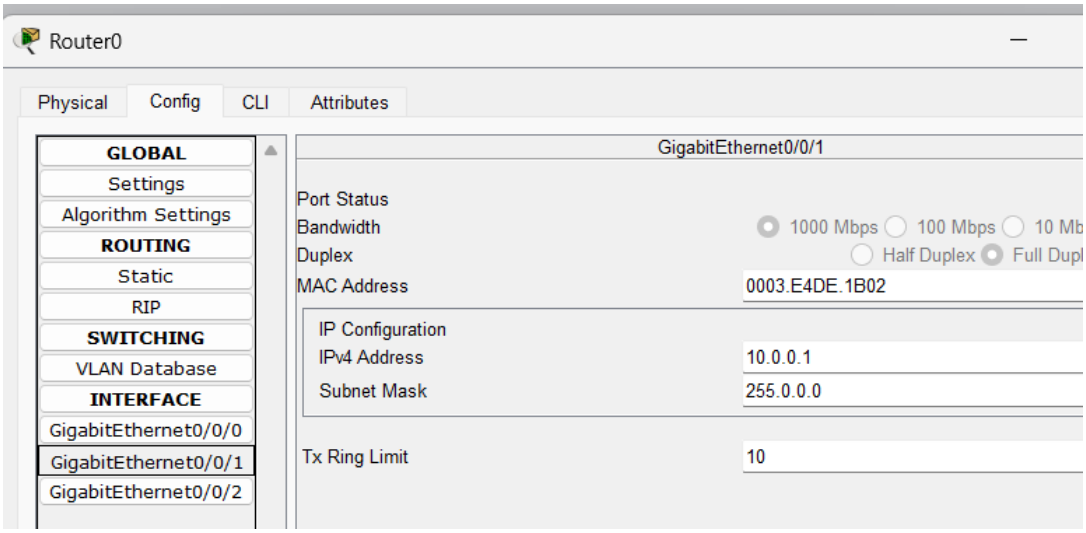


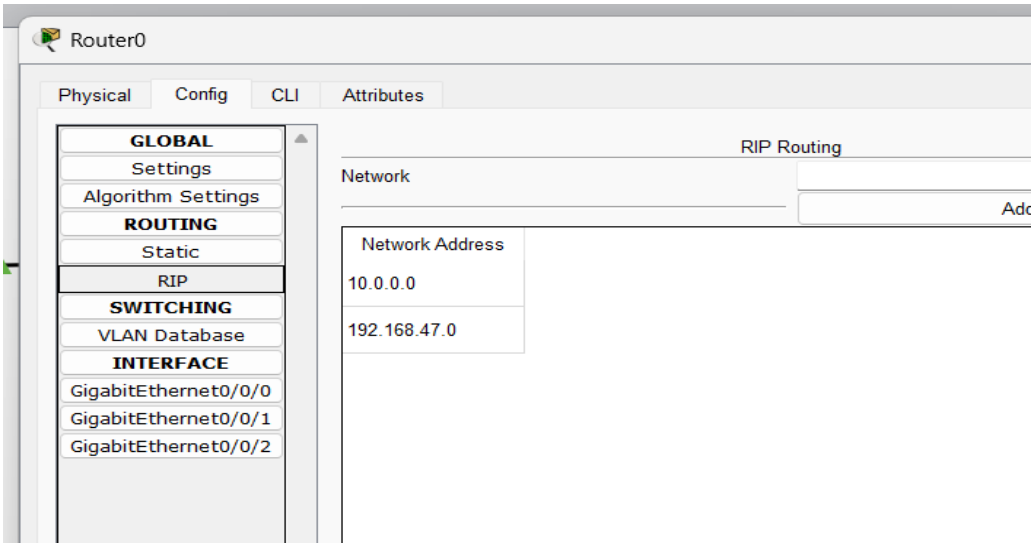




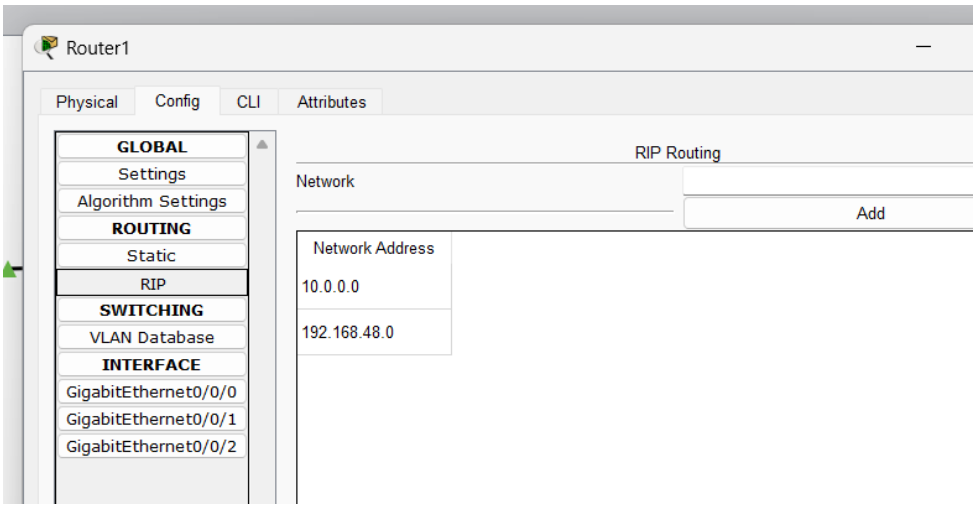
4) Configure Router1 interfaces

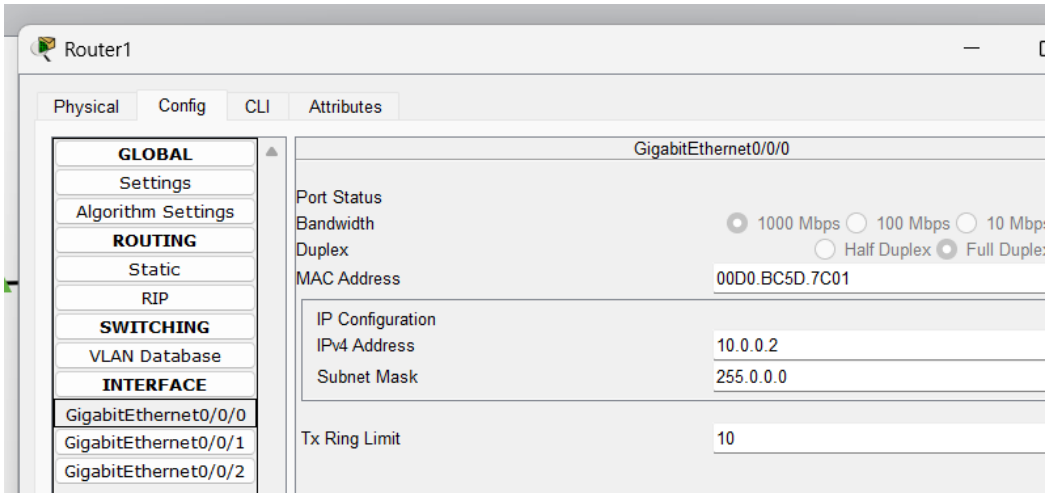


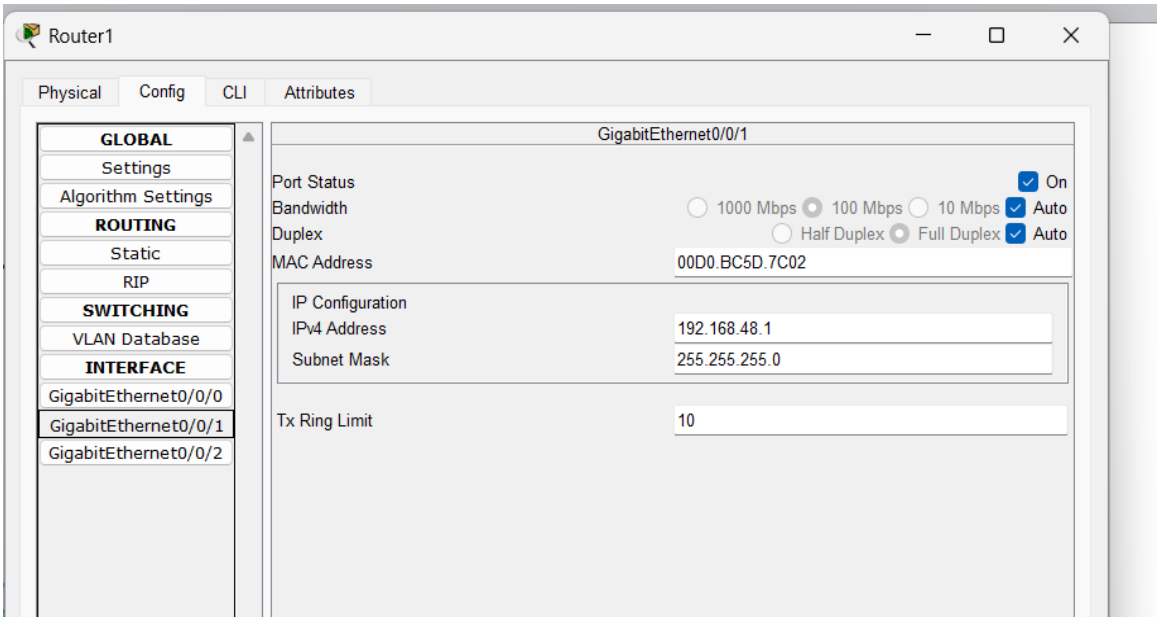




5) Configure Router2 interfaces

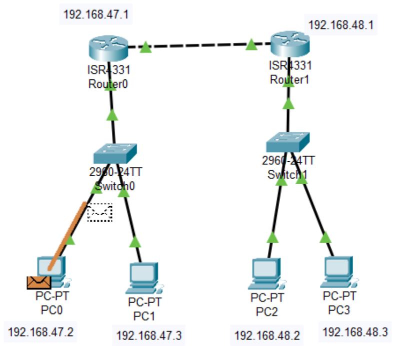


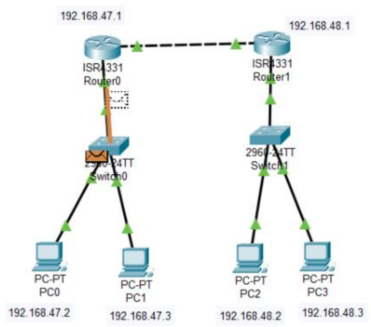


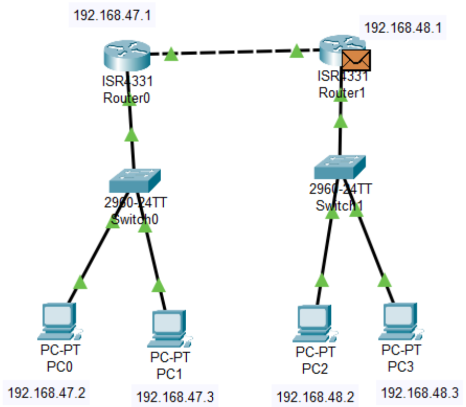


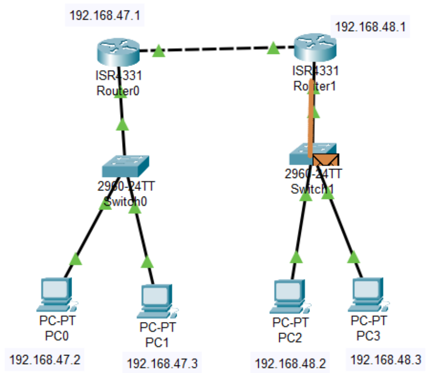
6) Real-Time and Simulation Mode:

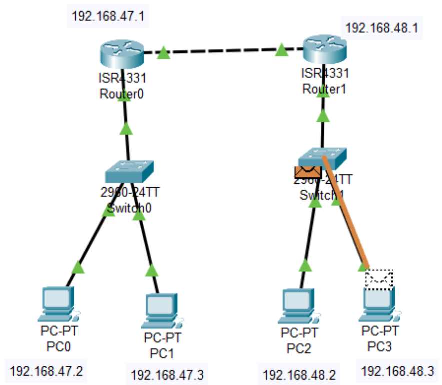
- Go to Simulation Mode:
- Use "Add Simple PDU" tool.
  Click on sender PC and receiver PC to send a packet.
- Run the simulation.

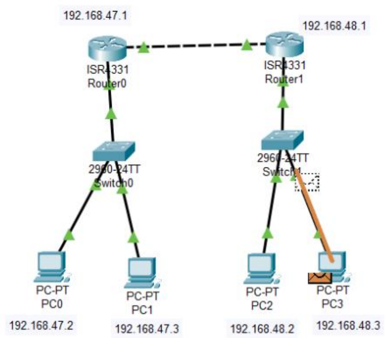


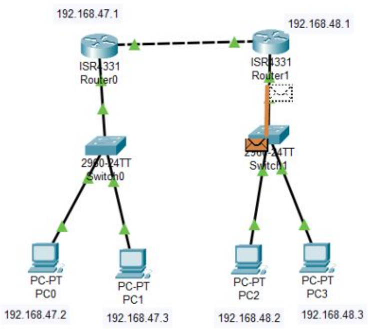


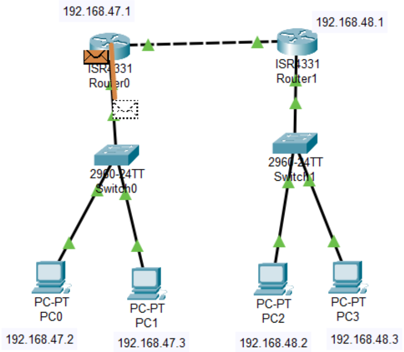


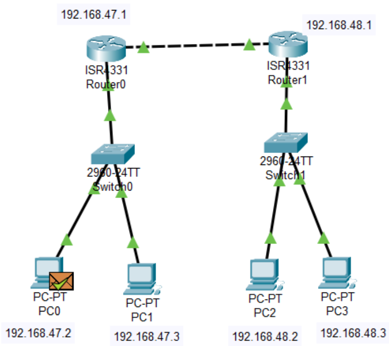


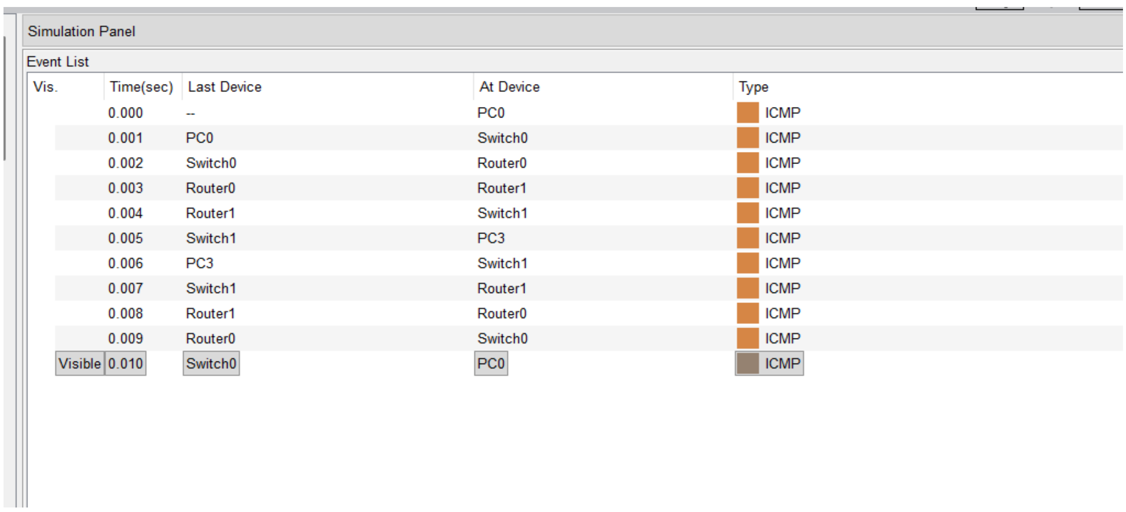


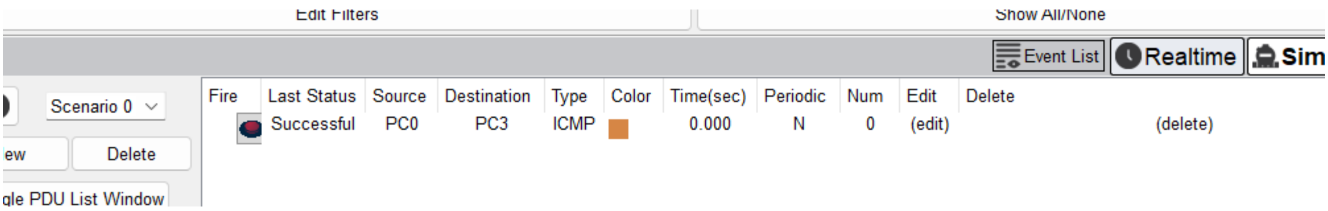



192.168.47.1
192.168.48.1
ISR4331
Router0
ISR4331
Router1
2960-24TT
Switch0
2960-24TT
Switch1
PC-PT
PC0
PC-PT
PC1
PC-PT
PC2
PC-PT
PC3
192.168.47.2
192.168.47.3
192.168.48.2
192.168.48.3


192.168.47.1
192.168.48.1
ISR4331
Router0
ISR4331
Router1
2960-24TT
Switch0
2960-24TT
Switch1
PC-PT
PC0
PC-PT
PC1
PC-PT
PC2
PC-PT
PC3
192.168.47.2
192.168.47.3
192.168.48.2
192.168.48.3


192.168.47.1
192.168.48.1
ISR4331
Router0
ISR4331
Router1
2960-24TT
Switch0
2960-24TT
Switch1
PC-PT
PC0
PC-PT
PC1
PC-PT
PC2
PC-PT
PC3
192.168.47.2
192.168.47.3
192.168.48.2
192.168.48.3


Simulation Panel
Event List
Vis. Time(sec) Last Device At Device Type
0.000 -- PC0 ICMP
0.001 PC0 Switch0 ICMP
0.002 Switch0 Router0 ICMP
0.003 Router0 Router1 ICMP
0.004 Router1 Switch1 ICMP
0.005 Switch1 PC3 ICMP
0.006 PC3 Switch1 ICMP
0.007 Switch1 Router1 ICMP
0.008 Router1 Router0 ICMP
0.009 Router0 Switch0 ICMP
Visible 0.010 Switch0 PC0 ICMP


Edit Filters
Show All/None
Event List
Realtime
Sim
Scenario 0
Delete
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete
Successful PC0 PC3 ICMP 0.000 N 0 (edit) (delete)

Step-by-Step Procedure for BGP Configuration in Packet Tracer

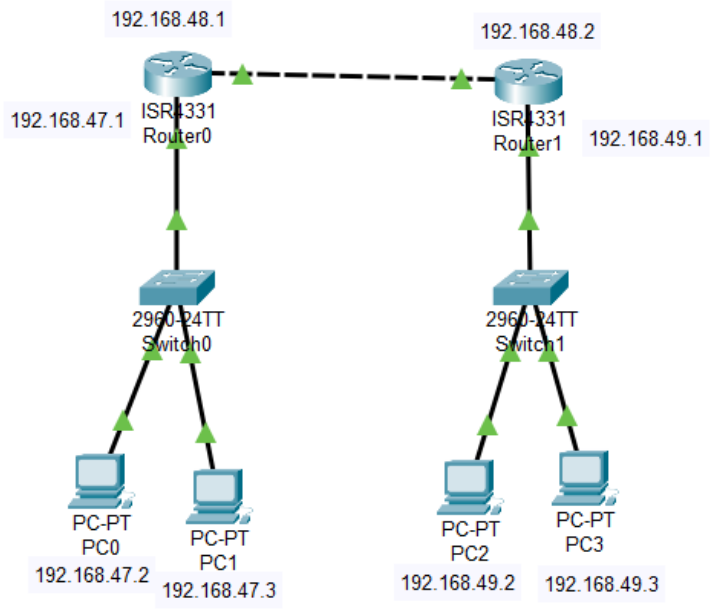
1) Place Network Devices

• From the **End Devices** menu, drag **4 PCs**.
• From the **Switches** menu, drag **2 switches** (rename them **Switch1** and **Switch2**).
• From the **Routers** menu, drag **2 routers** (e.g., **4331**) — rename them **Router1** and **Router2**.

2) Connect devices with Cables

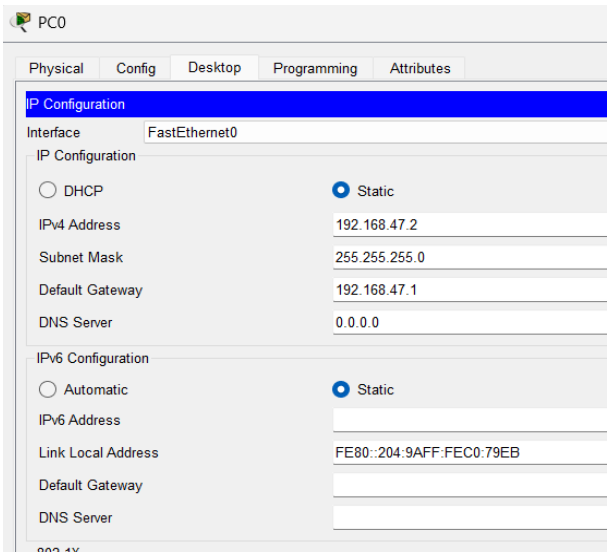
• Select the **Connections (lightning bolt) icon** → choose Automatically choose connection type.
• Connect:

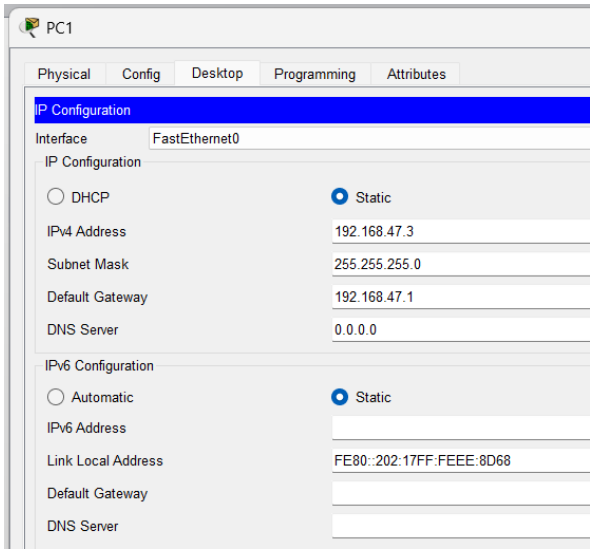
- PC0 → Switch1
- PC1 → Switch1
- PC2 → Switch2
- PC3 → Switch2
- Switch1 → Router1 **(GigabitEthernet0/0)**
- Switch2 → Router2 **(GigabitEthernet0/0)**
- Router1 **(GigabitEthernet0/1)** → Router2 **(GigabitEthernet0/1)**

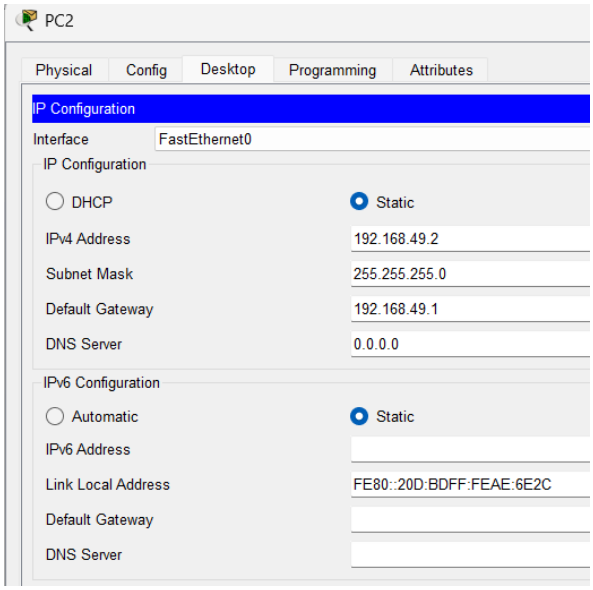


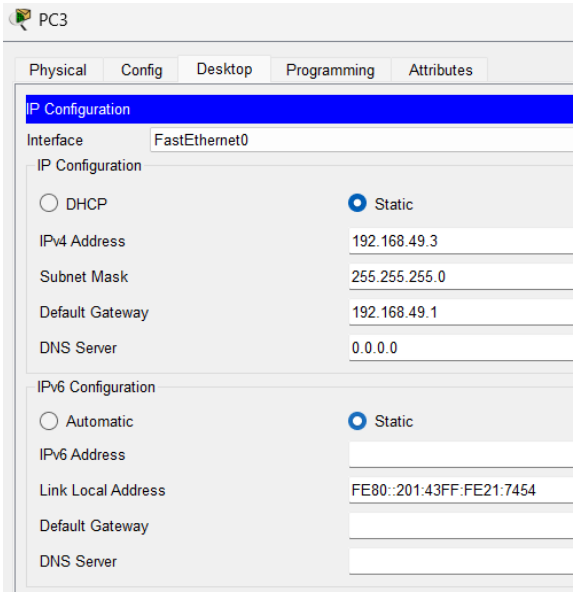
3) Assign IP Addresses to PCs

PC	IP Address	Subnet Mask	Default Gateway
PC0	192.168.47.2	255.255.255.0	192.168.47.1
PC1	192.168.47.3	255.255.255.0	192.168.47.1
PC2	192.168.49.2	255.255.255.0	192.168.49.1
PC3	192.168.49.3	255.255.255.0	192.168.49.1

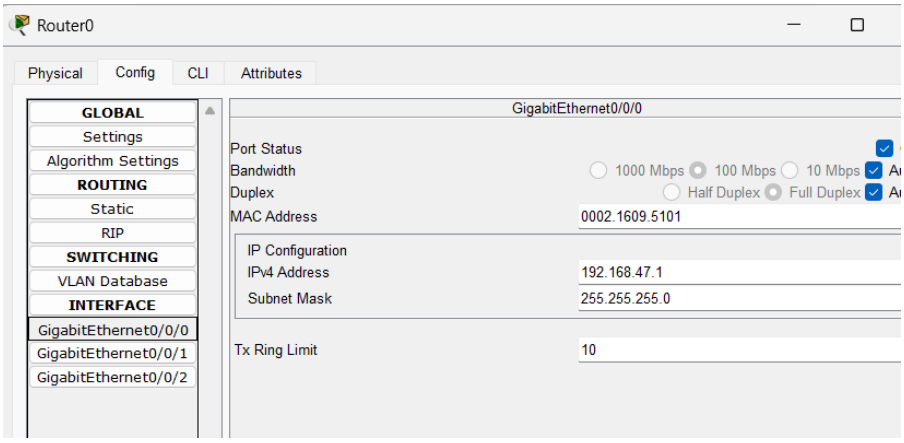


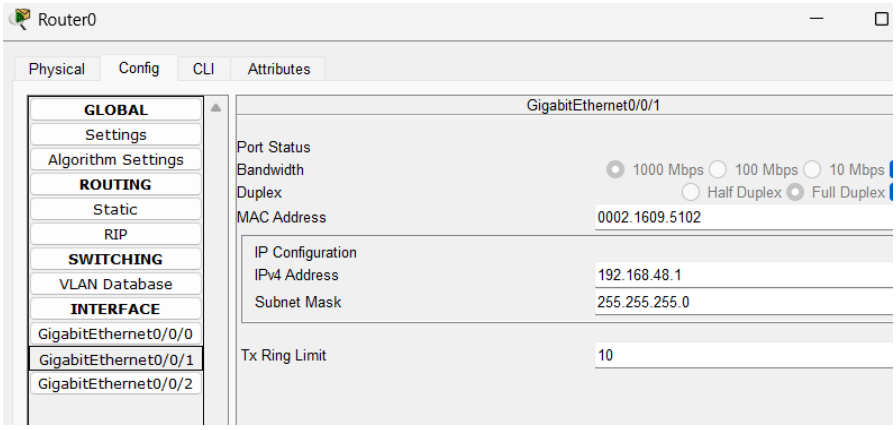




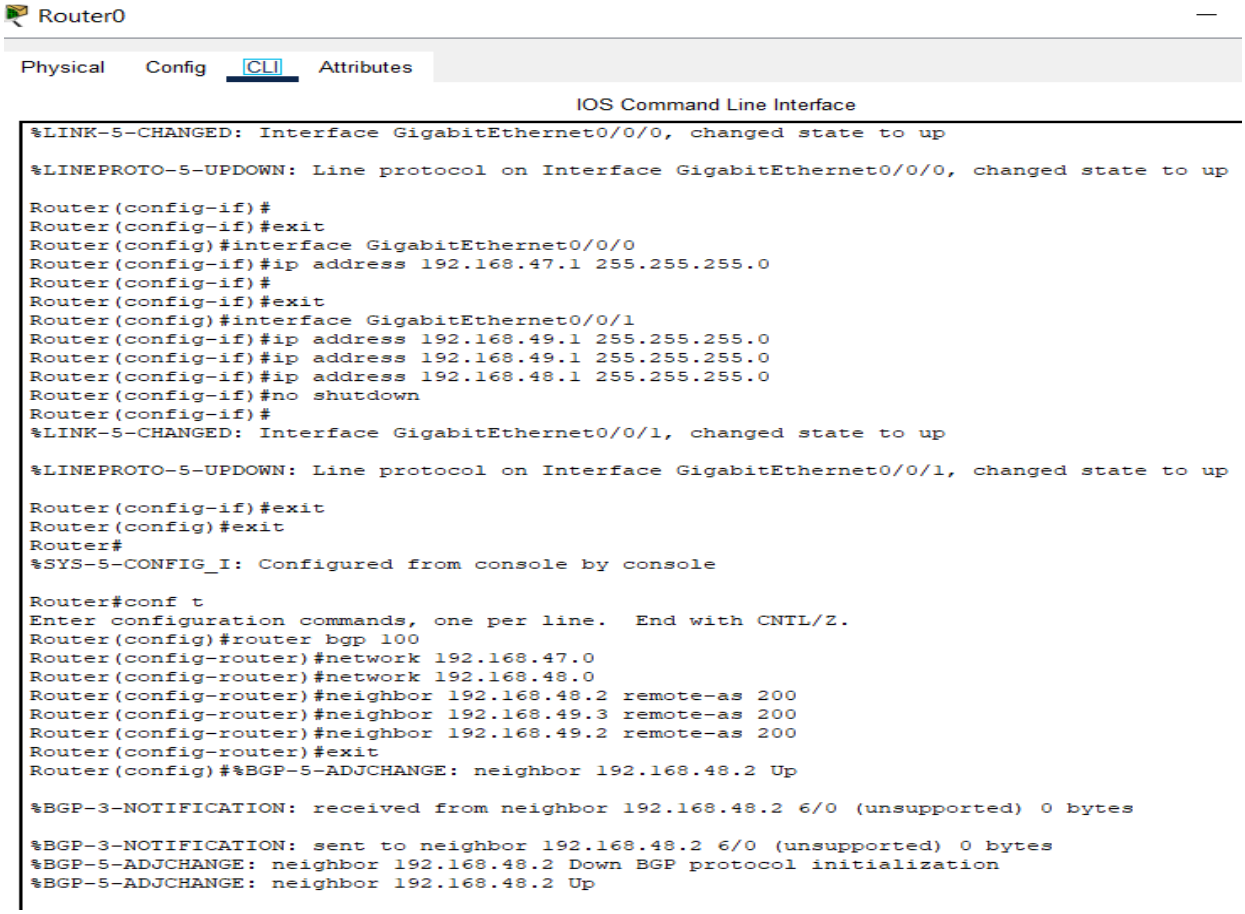


4) Configure Router1 interfaces

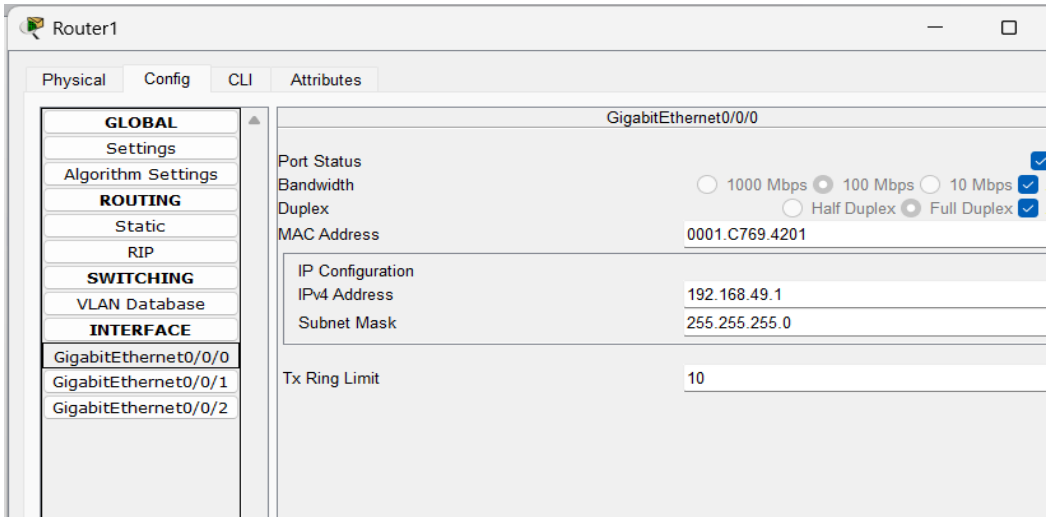


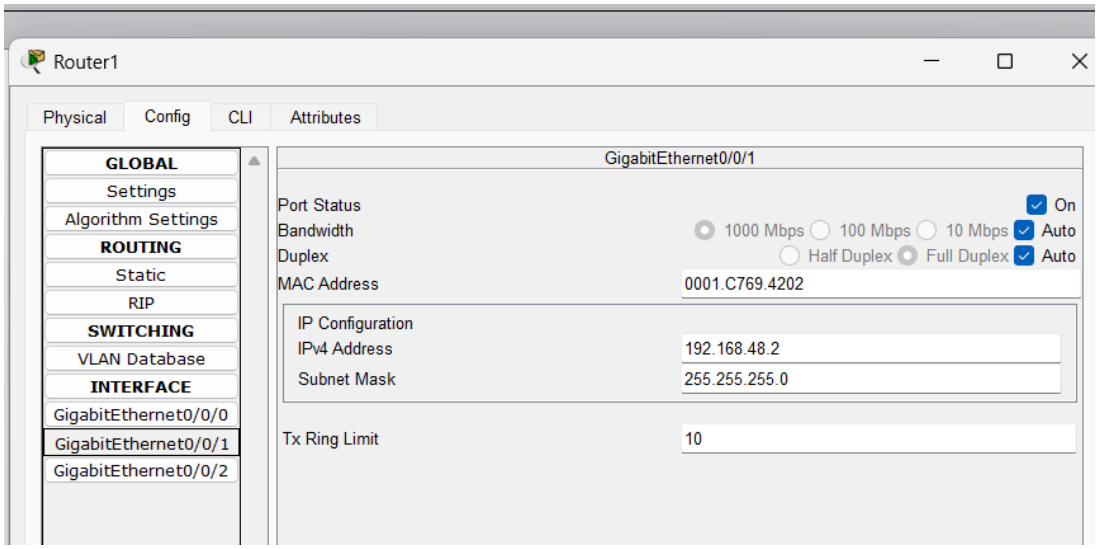


5) Configure BGP on Router1

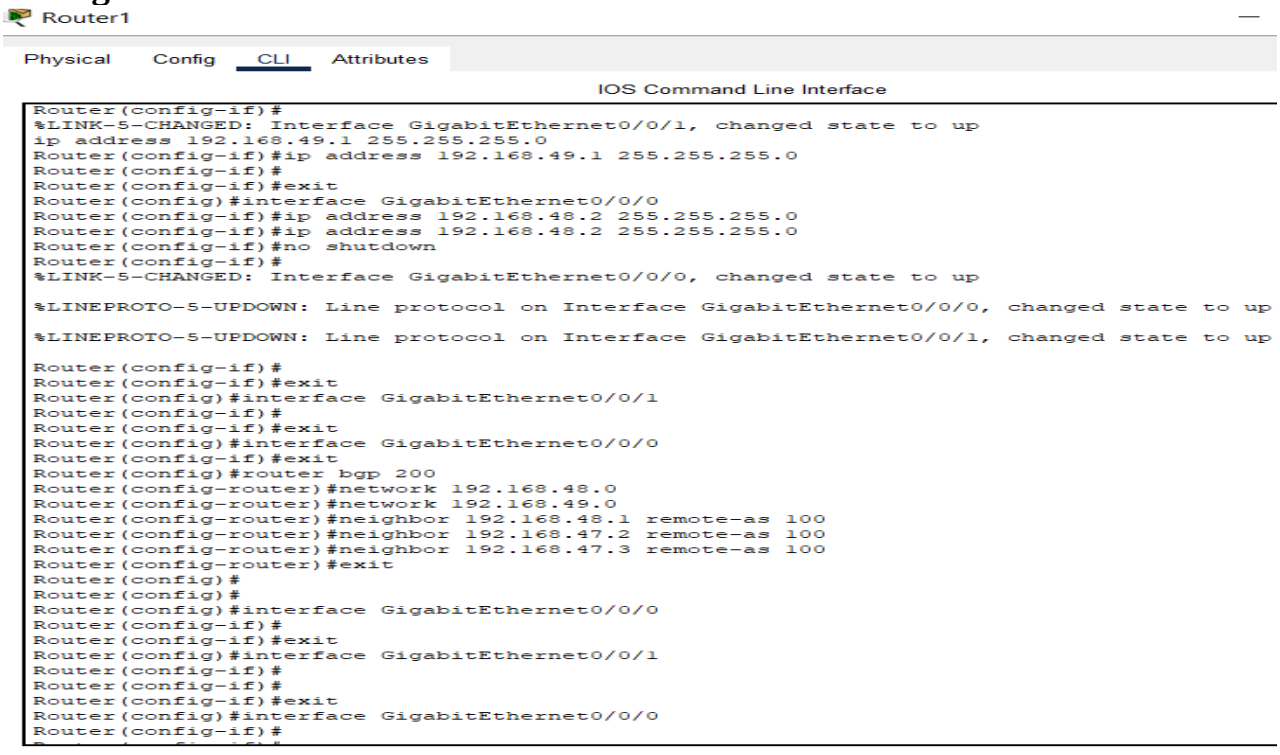


6) Configure Router2 interfaces



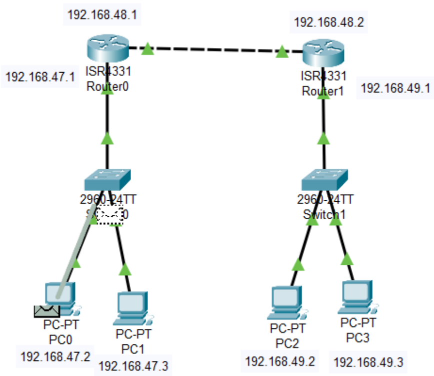


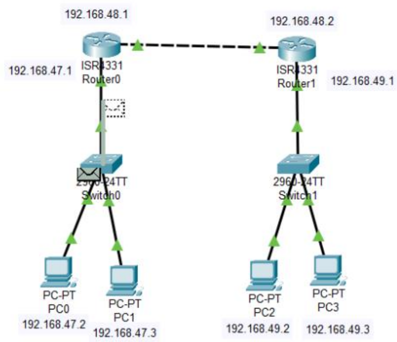
7) Configure BGP on Router2

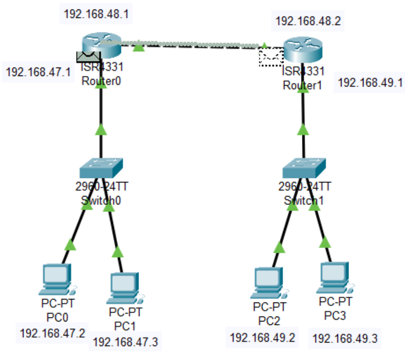


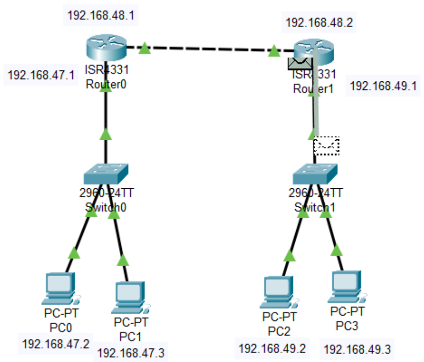
8) Real-Time and Simulation Mode:

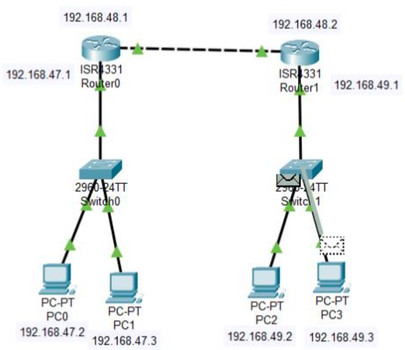
- Go to Simulation Mode:
- Use "Add Simple PDU" tool.
  Click on sender PC and receiver PC to send a packet.
- Run the simulation.

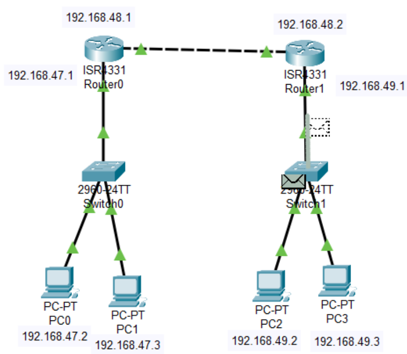


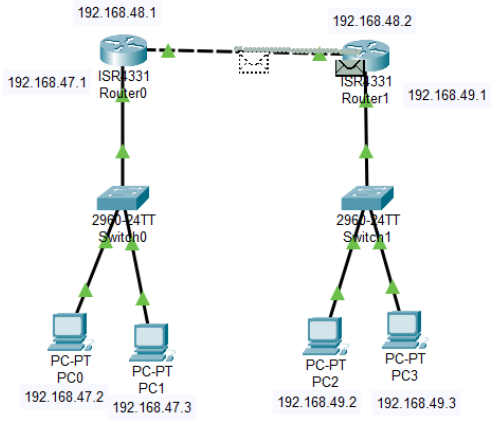


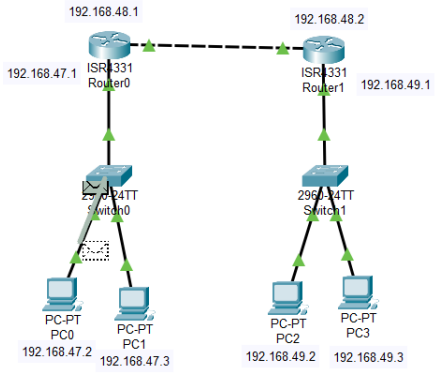


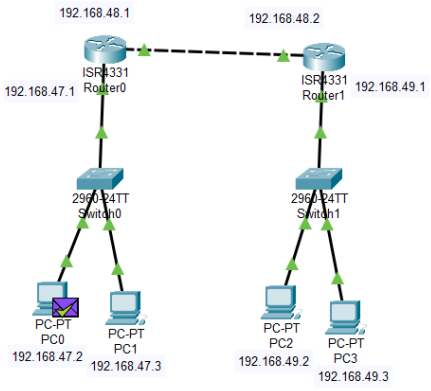












Root

Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.000	--	PC0	ICMP
	0.001	PC0	Switch0	ICMP
	0.002	Switch0	Router0	ICMP
	0.003	Router0	Router1	ICMP
	0.004	Router1	Switch1	ICMP
	0.005	Switch1	PC3	ICMP
	0.006	PC3	Switch1	ICMP
	0.007	Switch1	Router1	ICMP
	0.008	Router1	Router0	ICMP
	0.009	Router0	Switch0	ICMP
Visible	0.010	Switch0	PC0	ICMP

Edit Filters

Show All/None

Event List | Realtime | Simulation

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC3	ICMP		0.000	N	0	(edit)	(delete)

Step-by-Step Procedure for OSPF Configuration in Packet Tracer

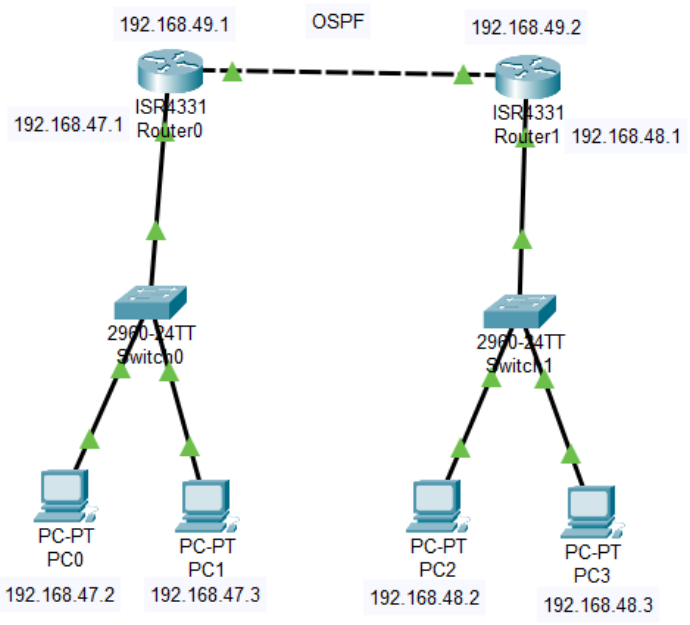
1) Place Network Devices

• From the **End Devices** menu, drag **4 PCs**
• From the **Switches** menu, drag **2 switches** (rename them **Switch1** and **Switch2**).
• From the **Routers** menu, drag **2 routers** (e.g., **4331**) — rename them **Router1** and **Router2**.

2) Connect devices with Cables

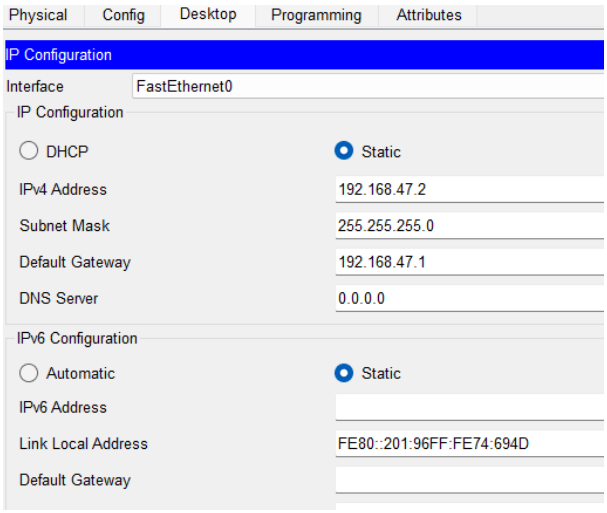
• Select the **Connections (lightning bolt) icon** → choose Automatically choose connection type.
• Connect:

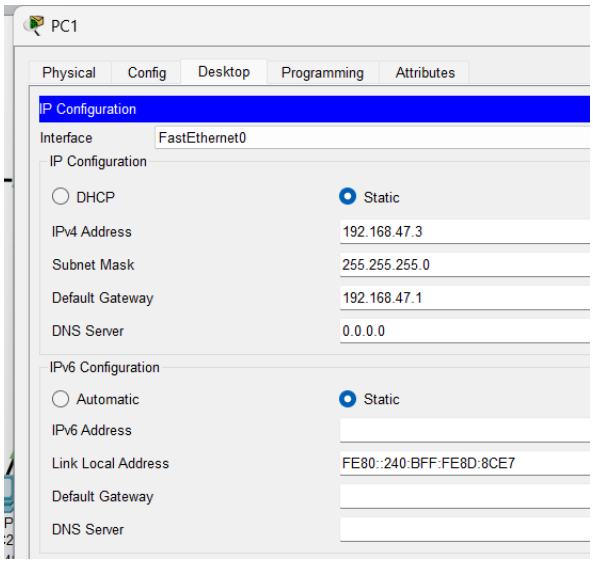
- PC0 → Switch1
- PC1 → Switch1
- PC2 → Switch2
- PC3 → Switch2
- Switch1 → Router1 **(GigabitEthernet0/0)**
- Switch2 → Router2 **(GigabitEthernet0/0)**
- Router1 **(GigabitEthernet0/1)** → Router2 **(GigabitEthernet0/1)**

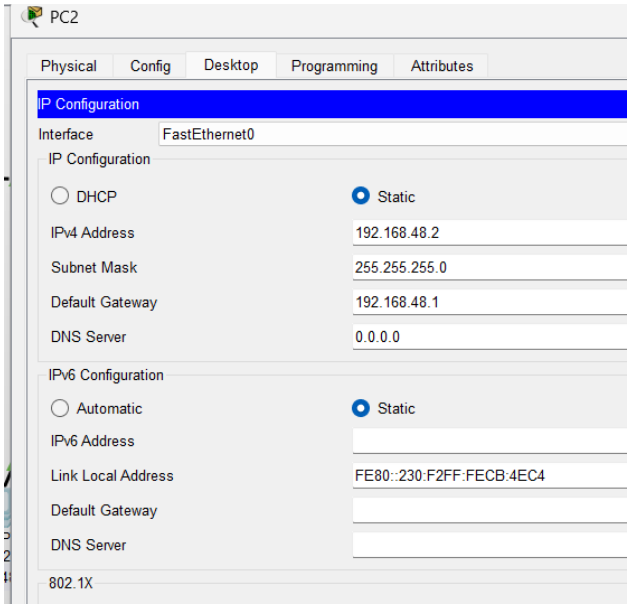


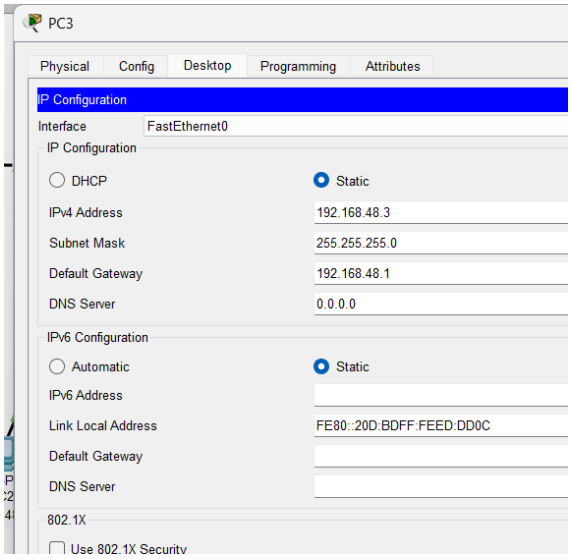
3) Assign IP Addresses to PCs

PC	IP Address	Subnet Mask	Default Gateway
PC0	192.168.47.2	255.255.255.0	192.168.47.1
PC1	192.168.47.3	255.255.255.0	192.168.47.1
PC2	192.168.48.2	255.255.255.0	192.168.48.2
PC3	192.168.48.3	255.255.255.0	192.168.48.2

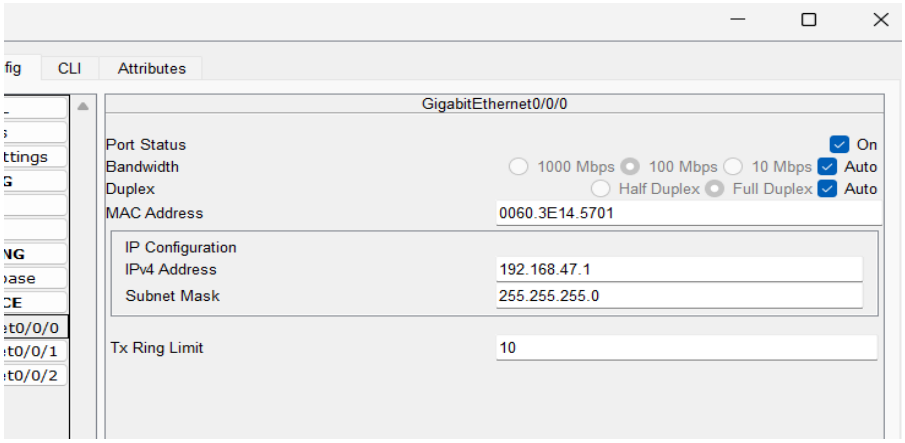


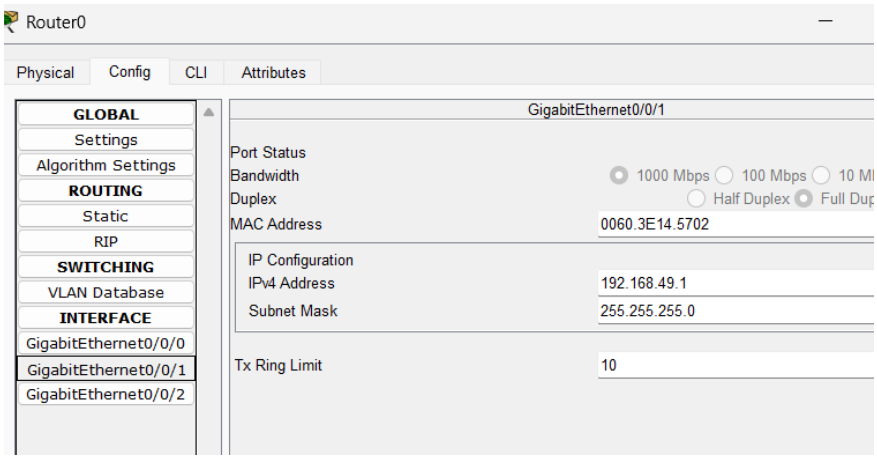




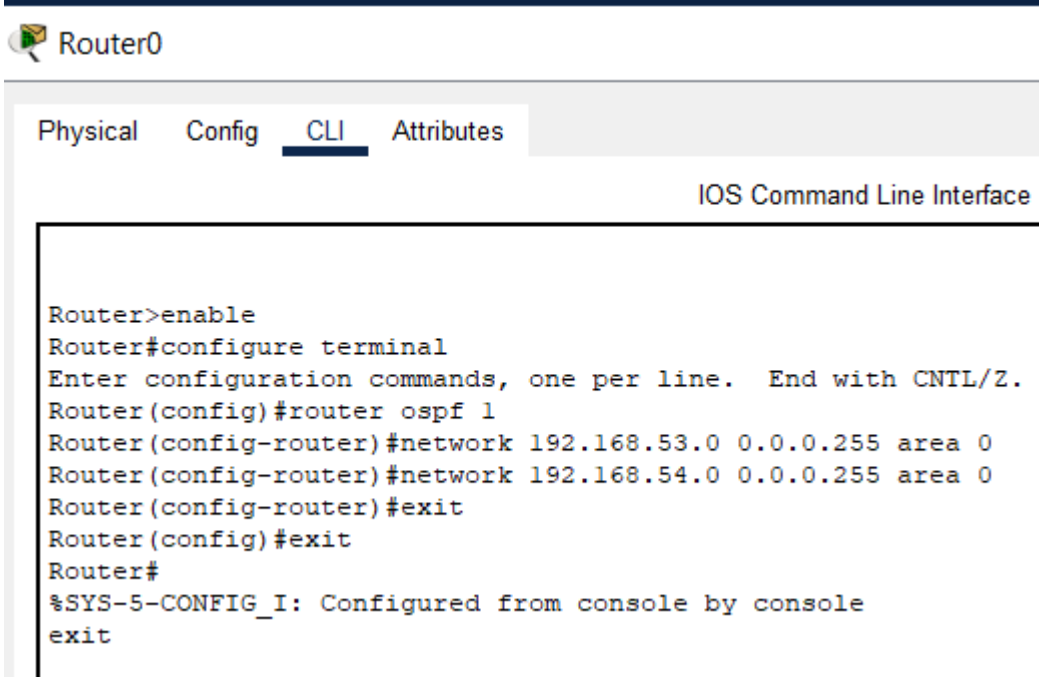


4) Configure Router1 interfaces

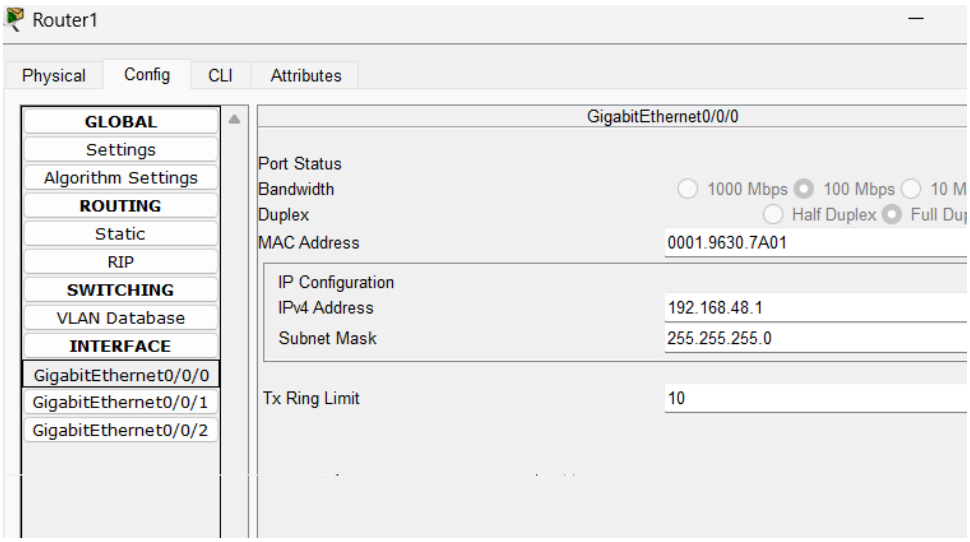


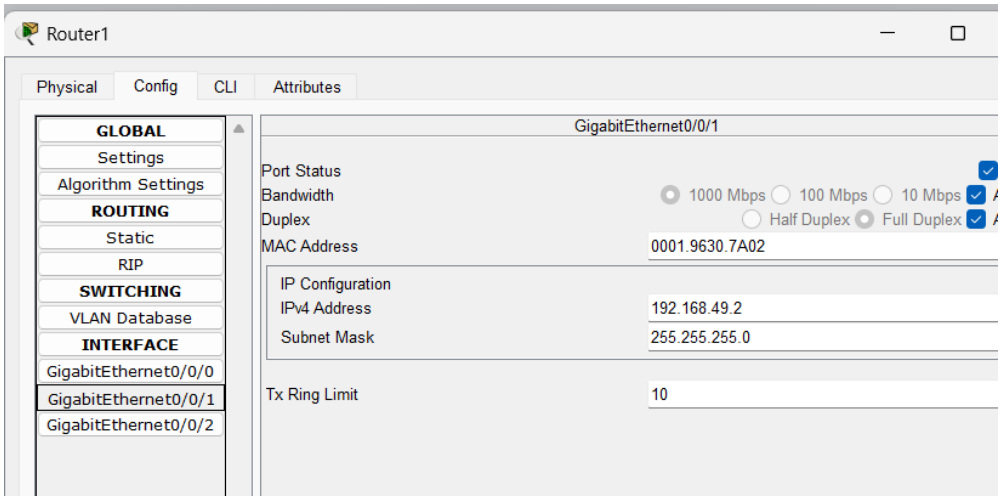


5) Configure OSPF on Router1

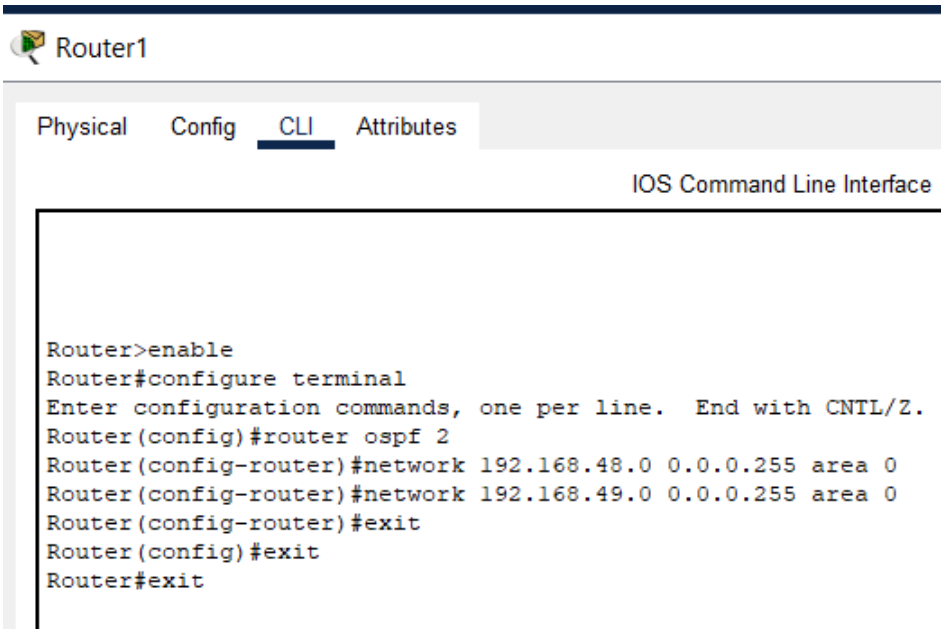


6) Configure Router2 interfaces



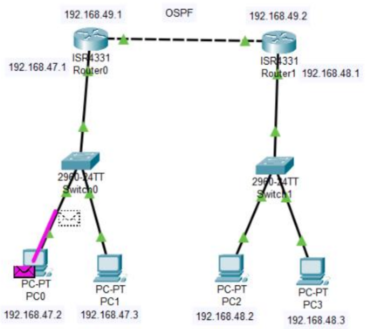


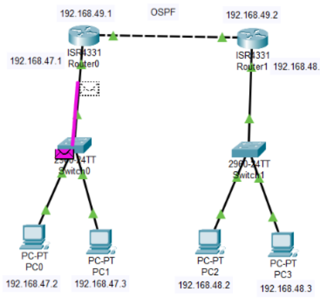
7) Configure OSPF on Router2

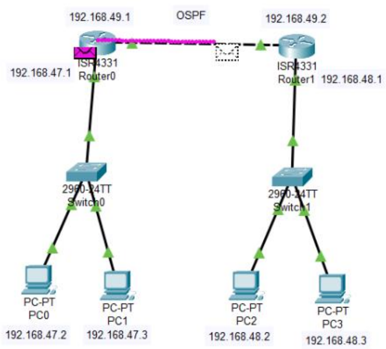


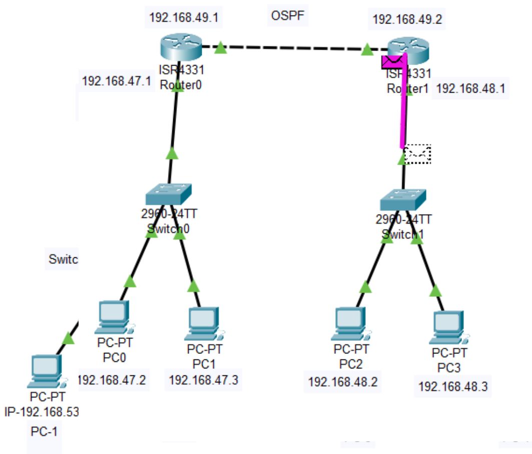
8) Real-Time and Simulation Mode:

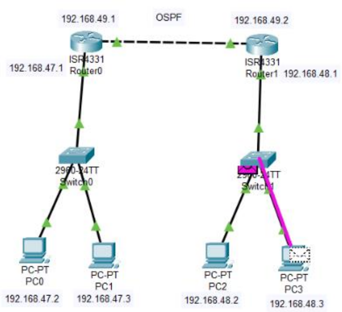
- Go to Simulation Mode:
- Use "Add Simple PDU" tool.
  Click on sender PC and receiver PC to send a packet.
- Run the simulation.

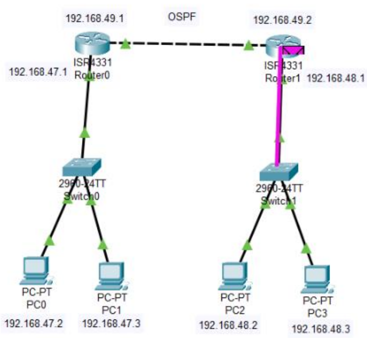


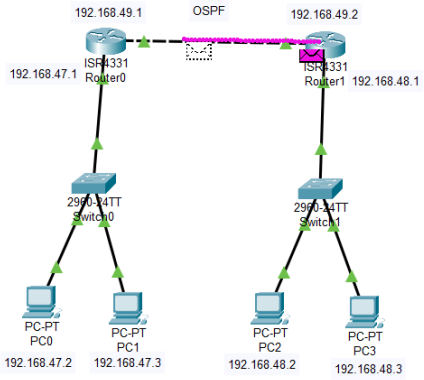


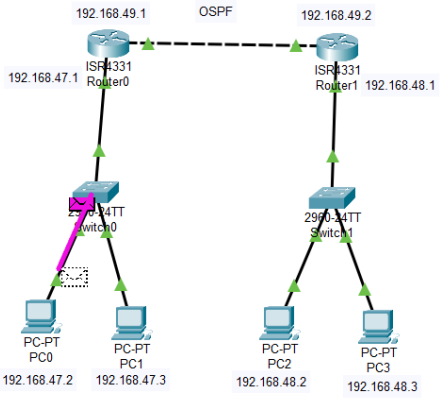


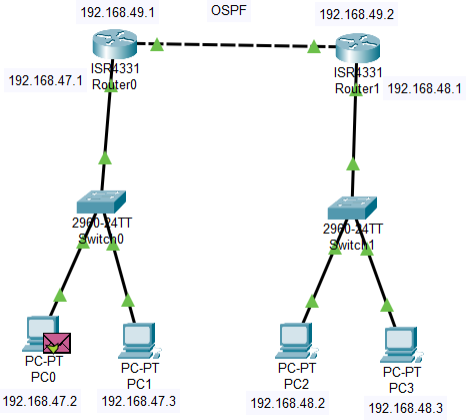












Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.000	--	PC0	ICMP
	0.001	PC0	Switch0	ICMP
	0.002	Switch0	Router0	ICMP
	0.003	Router0	Router1	ICMP
	0.004	Router1	Switch1	ICMP
	0.005	Switch1	PC3	ICMP
	0.006	PC3	Switch1	ICMP
	0.007	Switch1	Router1	ICMP
	0.008	Router1	Router0	ICMP
	0.009	Router0	Switch0	ICMP
	0.010	Switch0	PC0	ICMP
Visible	0.077	--	Switch0	STP

Event List | Realtime | Simul

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC3	ICMP		0.000	N	0	(edit)	(delete)