

EX NO:5B
DATE:14.8.24**DESIGN A SIMPLE TOPOLOGY USING
CISCO PACKET TRACER****AIM:**

To design and analyse the behavior of networking devices using cisco packet tracer Simulator.

4Generic PCs and One Hub:

1.Open Cisco Packet Tracer.

2. Place Devices: Drag and drop 4 PCs and 1 Hub onto the workspace.

3. Connect Devices:

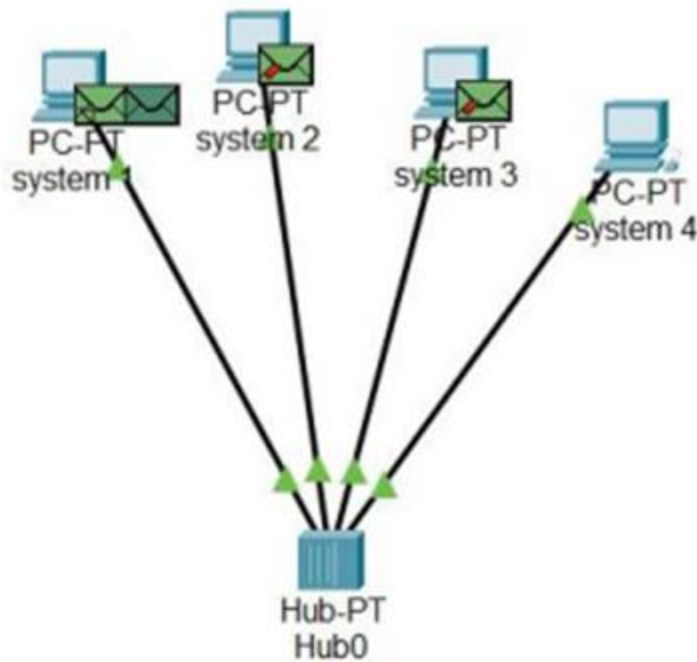
- Use a copper straight-through cable.
- Connect each PC to the Hub's ports.

4. Configure IP Addresses:

- Click on each PC, go to the Desktop tab, and select IP Configuration.
- Assign a unique IP address and subnet mask to each PC (e.g., 192.168.1.1/24, 192.168.1.2/24, etc.).

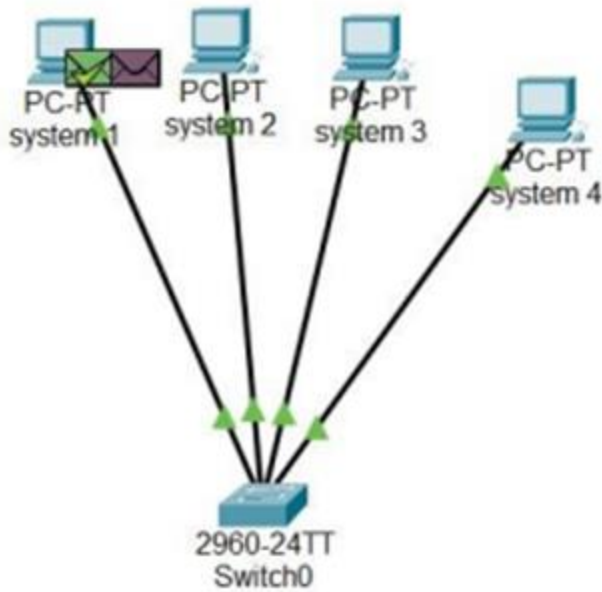
5. Verify Connectivity:

- Open the Command Prompt on each PC.
- Use the ping command to test connectivity between PCs (e.g., ping 192.168.1.2).



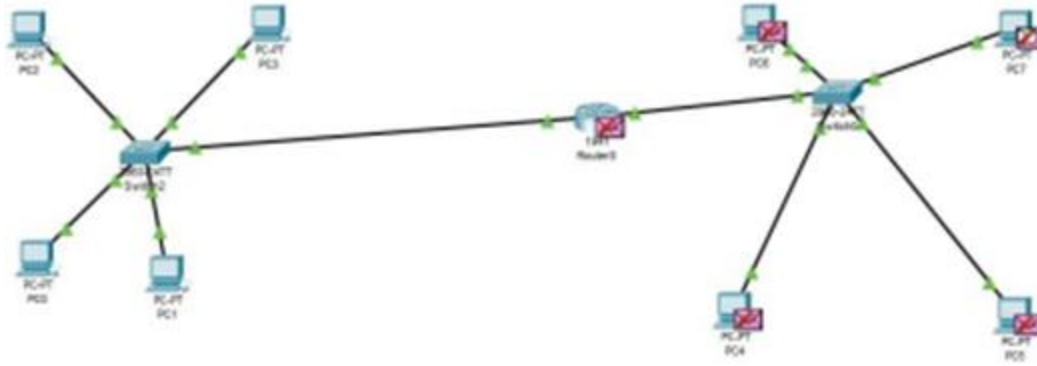
4 Generic PCs and One Switch:

1. Open Cisco Packet Tracer.
2. Place Devices: Drag and drop 4 PCs and 1 Switch onto the workspace.
3. Connect Devices:
 - Use a copper straight-through cable.
 - Connect each PC to the Switch's ports.
4. Configure IP Addresses:
 - Assign IP addresses to each PC as described above.
5. Verify Connectivity:
 - Use the ping command from each PC to test connectivity.

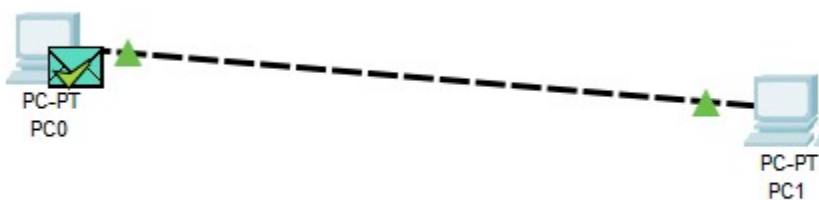


Connecting with Router:

1. Open Cisco Packet Tracer.
2. Place Devices: Drag and drop 4 PCs, 1 Switch, and 1 Router onto the workspace.
3. Connect Devices:
 - Connect PCs to the Switch using copper straight-through cables.
 - Connect the Switch to the Router using a copper straight-through cable (typically use FastEthernet or GigabitEthernet interfaces).
4. Configure IP Addresses:
 - On each PC, assign an IP address within the same subnet.
 - On the Router, assign IP addresses to the router's interfaces connected to the Switch and configure routing if necessary.
5. Verify Connectivity:
 - Use the ping command from PCs to test connectivity through the Router.
 - Ensure the router's interfaces are correctly configured with IP addresses.

**Peer-to-Peer Connection:**

1. Open Cisco Packet Tracer.
2. Place Devices: Drag and drop 2 PCs onto the workspace.
3. Connect Devices:
 - Use a copper crossover cable to directly connect the two PCs.
4. Configure IP Addresses:
 - Assign IP addresses in the same subnet to each PC (e.g., 192.168.1.1/24 and 192.168.1.2/24).
5. Verify Connectivity:
 - Use the ping command to test connectivity between the two PCs.

**RESULT:**

A simple topology connections using cisco packet tracer is studied and designed successfully.