

# Computer Networks – LAB 2: Implementation of Network Topologies

## Objective:

- To explore and implement various network topologies using Cisco Packet Tracer.
- To understand the use of different network cables and their appropriate connections.
- To assign IP addresses and test connectivity within each topology.
- To document the setup and save the Packet Tracer files for future reference.

## Requirements:

- Cisco Packet Tracer software.
- A GitHub account and a repository for lab assignments.
- Access to Google Classroom for submission

## Procedure:

### 1. Open Packet Tracer:

- Launch Cisco Packet Tracer on your computer.

### 2. Implement a Bus Topology:

- Drag three computers onto the workspace.
- Connect them using a single backbone cable (Coaxial Cable).

### 3. Implement a Star Topology:

- Drag three computers and a switch onto the workspace.
- Connect each computer to the switch using straight-through Ethernet

cables.

### 4. Implement a Ring Topology:

- Drag three computers onto the workspace.
- Connect them in a circular manner using crossover cables.

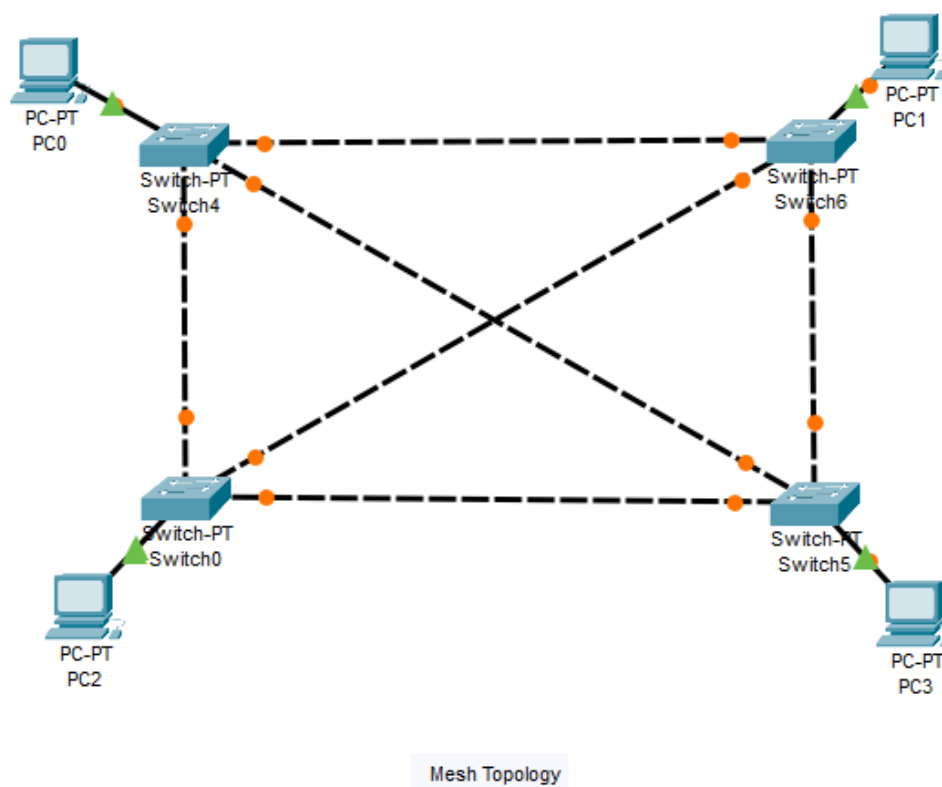
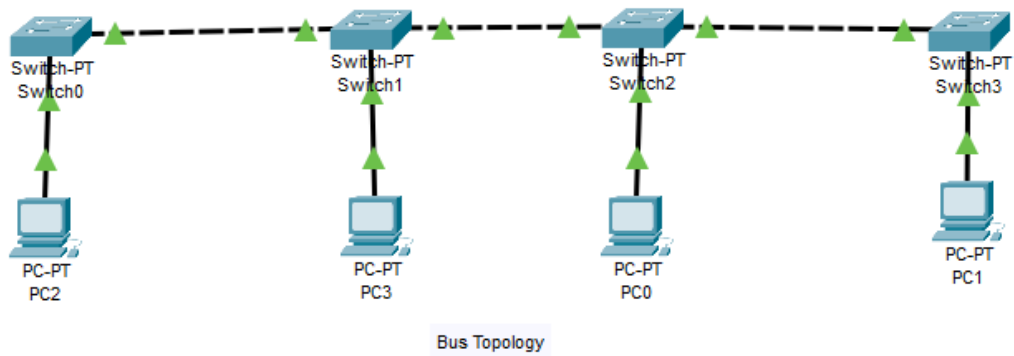
### 5. Implement a Mesh Topology:

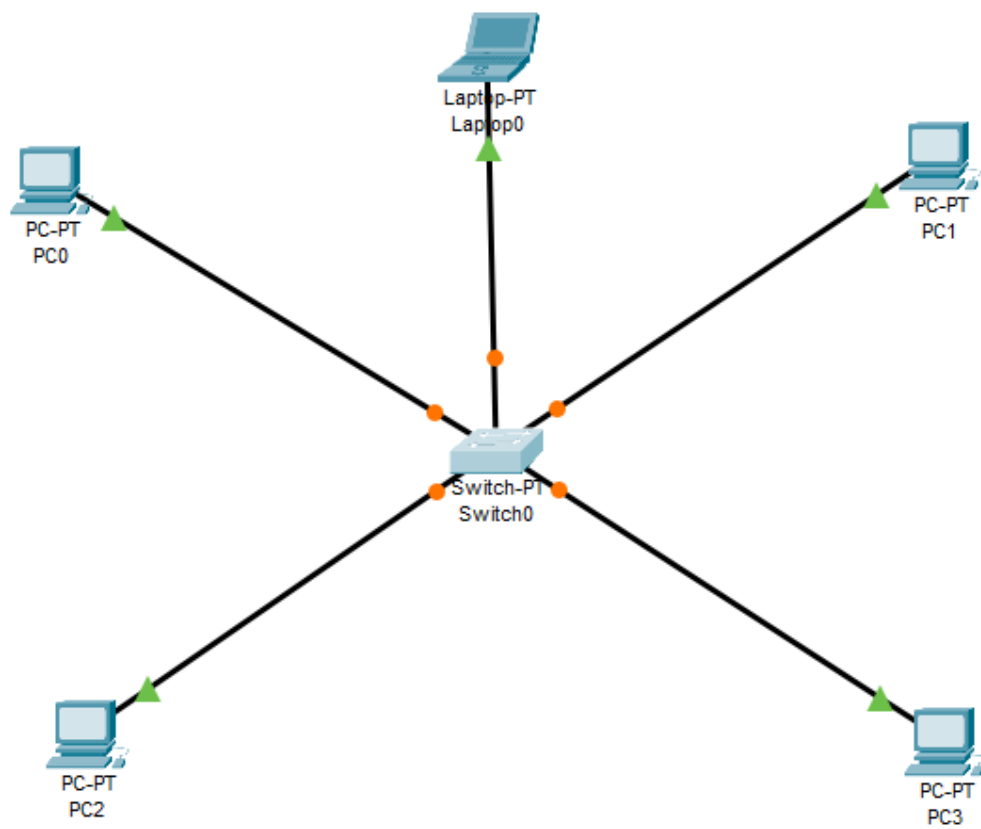
- Drag three computers onto the workspace.
- Connect each computer to every other computer using crossover cables.

### 6. Test Connectivity:

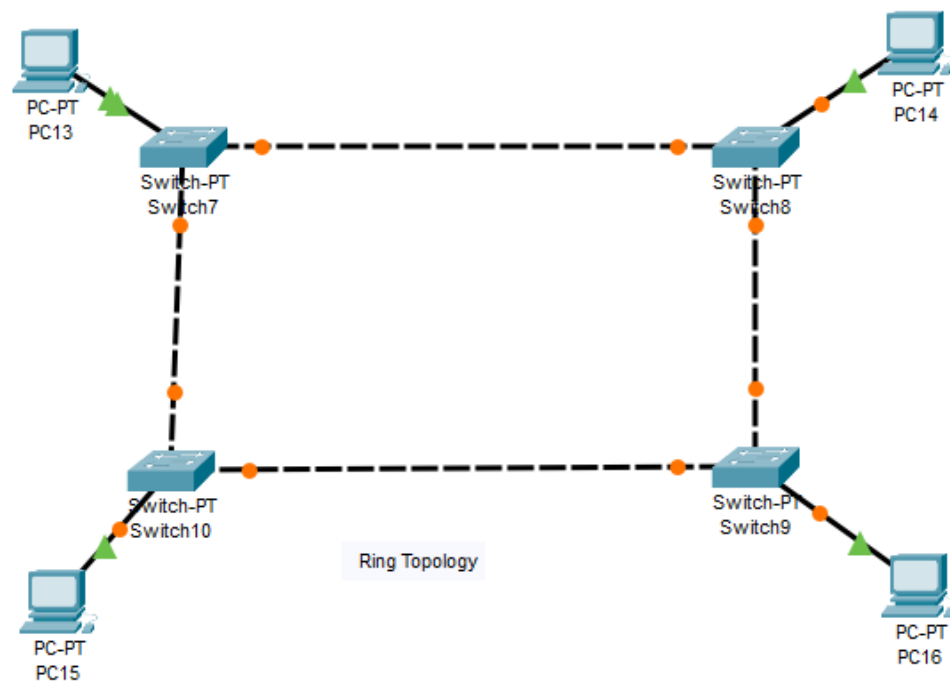
- For each topology, assign IP addresses to the computers.
- Use the ping command to test connectivity between all computers.

## Results:





Star Topology



Ring Topology

