

Computer Networks

Lab_2 Assignment Documentation

Lab 2: Implementation of Network Topologies

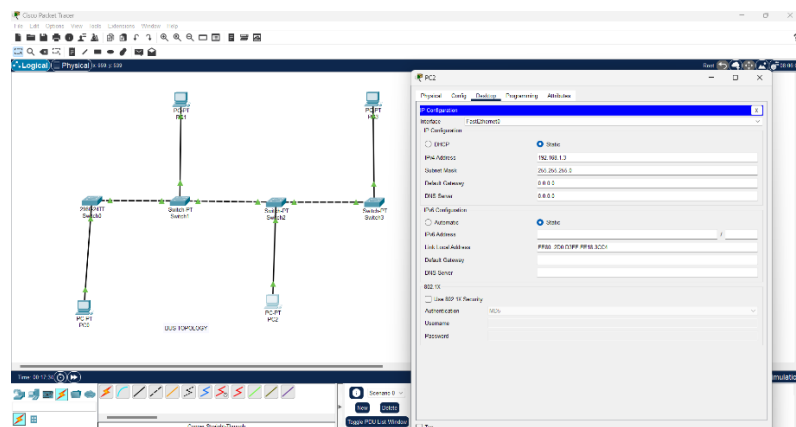
Procedure:

1. Open Packet Tracer:

- Launch Cisco Packet Tracer on your computer.

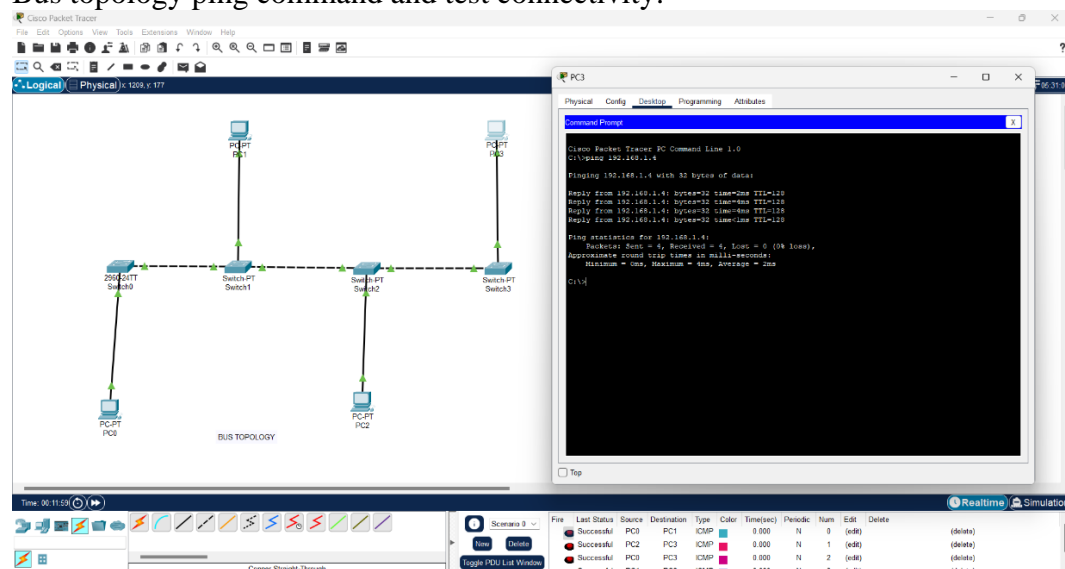
2. Implement a Bus Topology:

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



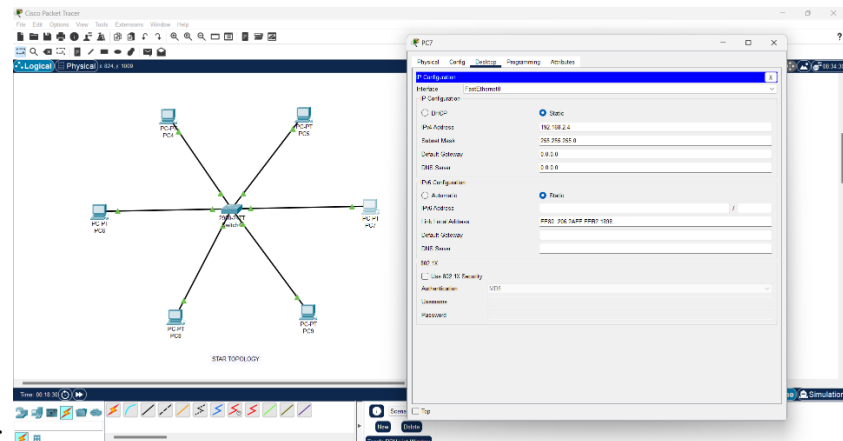
Ip address configuration:

Bus topology ping command and test connectivity:



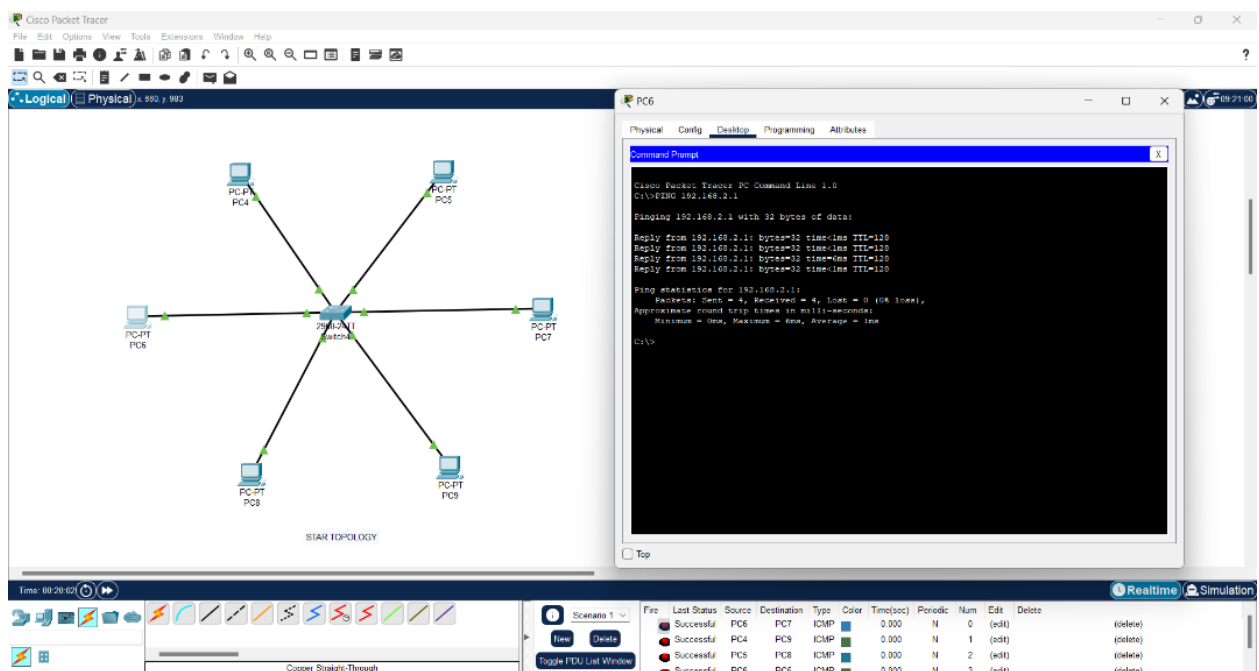
3. Implement a Star Topology:

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



Ip address configuration:

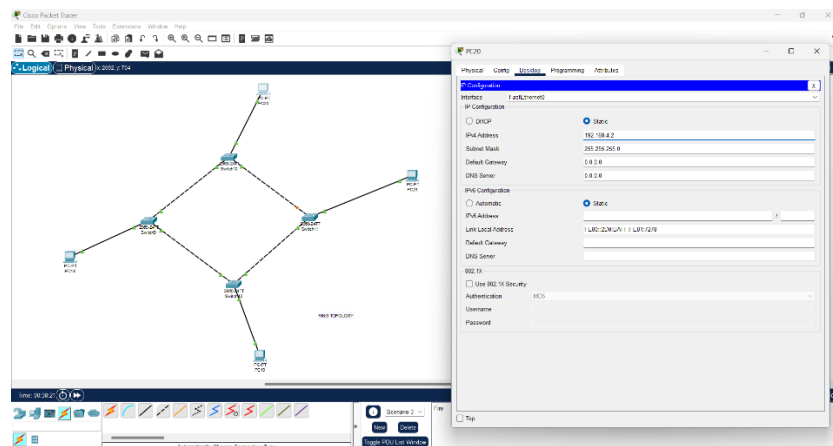
Star topology ping command and test connectivity:



4. Implement a Ring Topology:

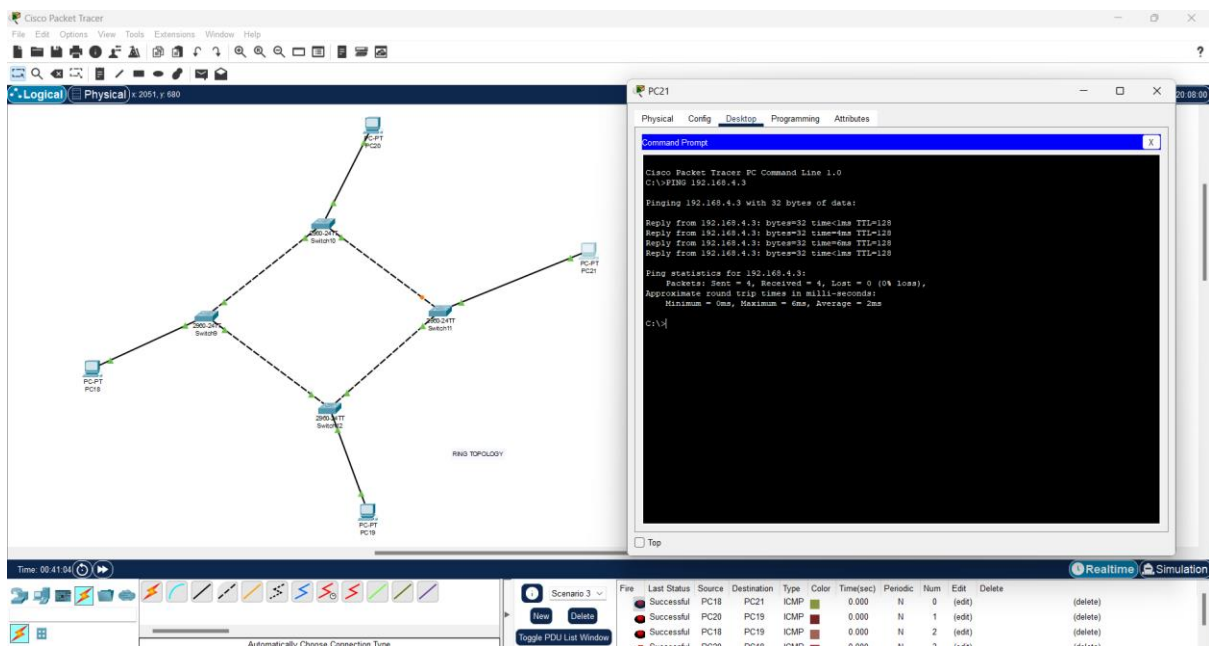
- Drag three computers onto the workspace.

- Connect them in a circular manner using crossover cables.



Ip address configuration:

Ring topology ping command and test connectivity:

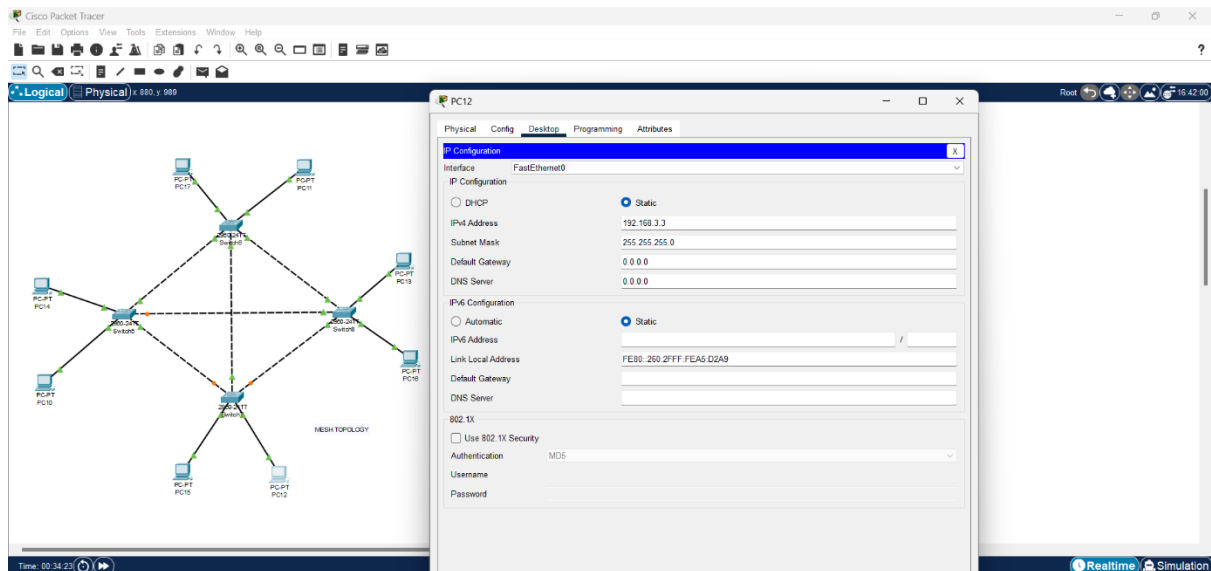


5. Implement a Mesh Topology:

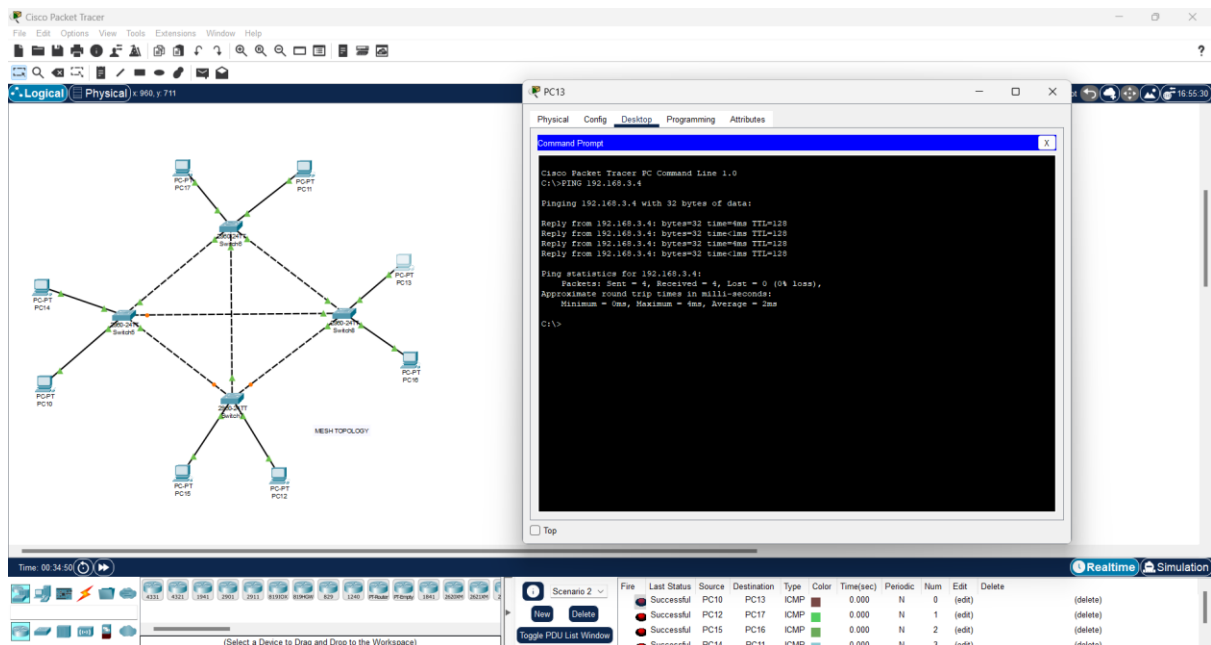
- Drag three computers onto the workspace.

- Connect each computer to every other computer using crossover cables.

Ip address configuration:



Mesh topology ping command and test connectivity:



6. Test Connectivity:

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

The ip address is assigned to each computer and their connectivity is tested by using the ping command between all the computers and the screenshot of the test connectivity is provided above.

SUMMARY:

In this lab assignment we learned the different network topologies that are available for example bus, star, ring, mesh topologies and how to implement these topologies in the cisco packet tracer.