# Worksheet :- 2.2

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**Aim:-** Implement Mesh Topology with the help of packet tracer or NS2 software.

**Objective: -** To simulate Mesh Topology.

**Software Requirements:-** Packet Tracer or NS2.

## Hardware Requirements:-

- **Processor** – Any suitable Processor e.g. Celeron
- **Main Memory** - 128 MB RAM
- **Hard Disk** – minimum 20 GB IDE Hard Disk
- **Removable Drives**–1.44 MB Floppy Disk Drive–52X IDE CD-ROM Drive
- **PS/2 HCL** - Keyboard and Mouse

## Method: -

In the mesh topology of networking, each and every device sends its own signal to the other devices that are present in the arrangement of the network.

Steps to Configure and Setup Ring Topology in Cisco Packet Tracer:-

**Step 1:** First, open the Cisco packet tracer desktop and select the devices given below:

| S.NO | Device | Model name |
|---|---|---|
| 1. | PC | PC |

| | | |
|---|---|---|
| **2.** | Switch | PT- switch |

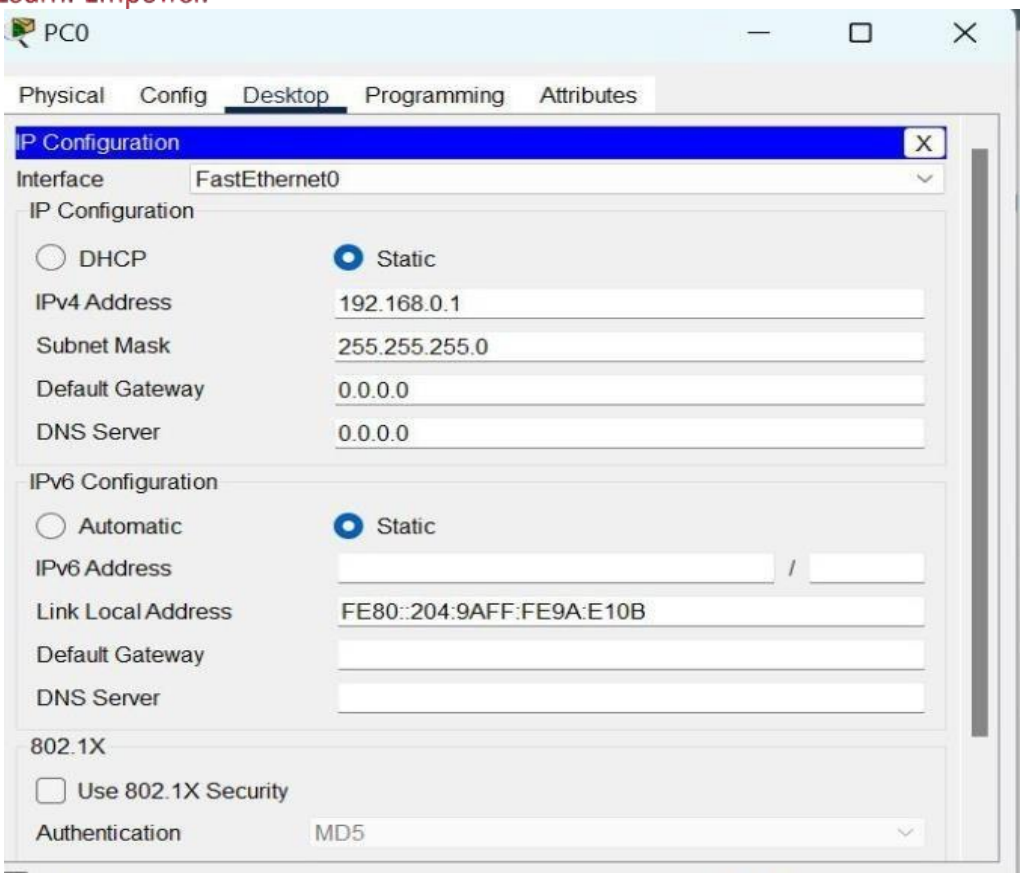
## IP Addressing Table:

| S.NO | Device | IPv4 Address | Subnet Mask |
|---|---|---|---|
| **1.** | pc0 | 192.168.0.1 | 255.255.255.0 |
| **2.** | pc1 | 192.168.0.2 | 255.255.255.0 |
| **3.** | pc2 | 192.168.0.3 | 255.255.255.0 |
| **4.** | pc3 | 192.168.0.4 | 255.255.255.0 |

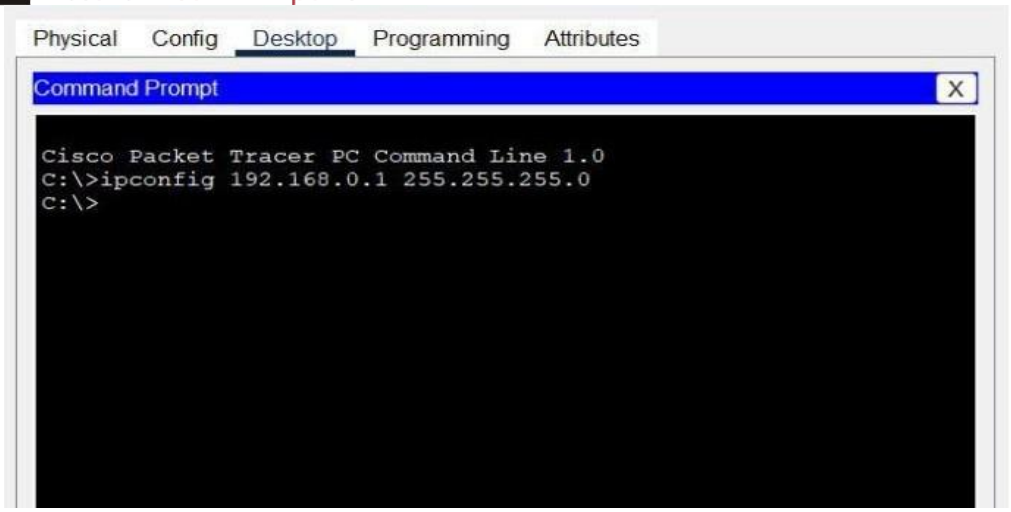
- Then, create a network topology as shown below the image.
- Use an Automatic connecting cable to connect the devices with others.

**Step 2:** Configure the PCs (hosts) with IPv4 address and Subnet Mask according to the IP addressing table given above.

- To assign an IP address in PC0, click on PC0.
- Then, go to desktop and then IP configuration and there you will IPv4 configuration.
- Fill IPv4 address and subnet mask.



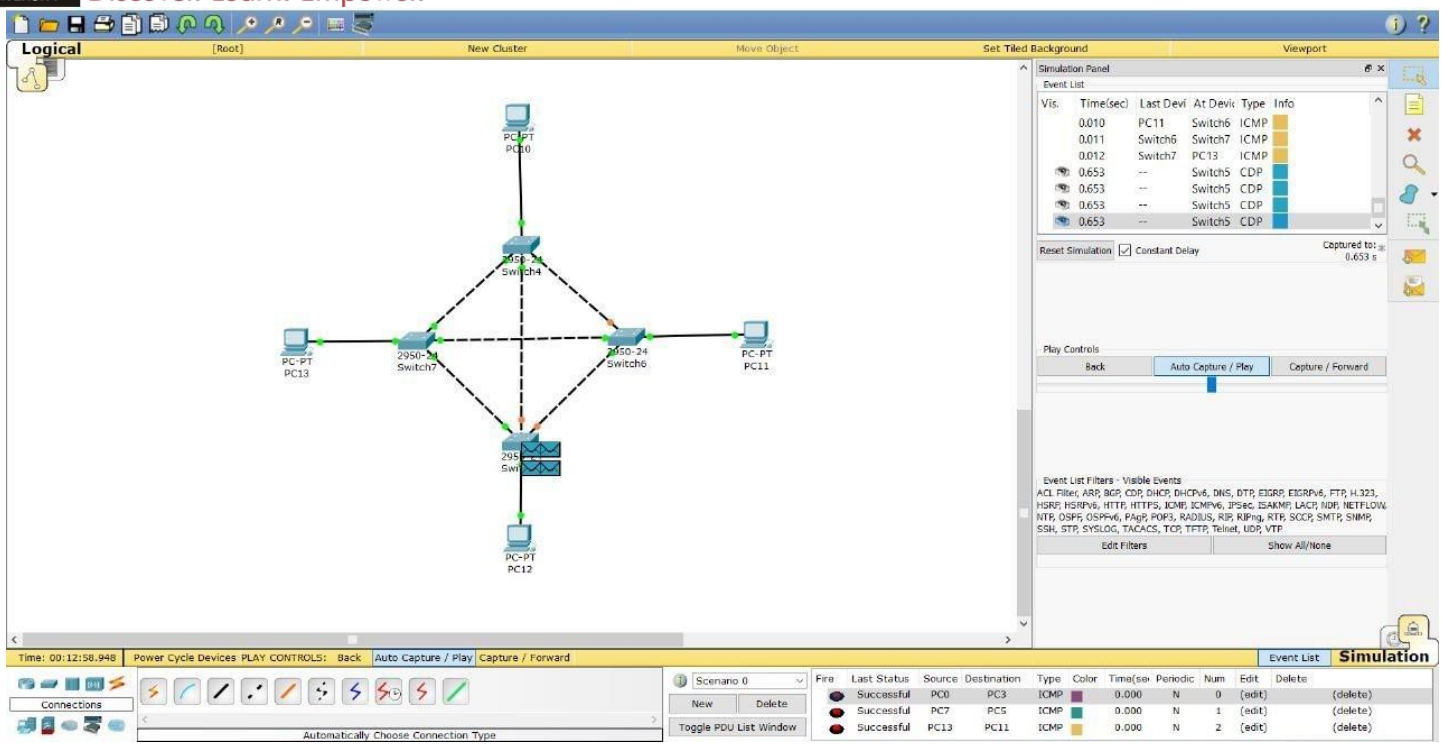

- Assigning IP address using the ipconfig command.
- Also, we can also assign an IP address with the help of a command.
- Go to the command terminal of the PC.
- Then, type ipconfig <IPv4 address><subnet mask><default gateway>(if needed)
  Example: ipconfig 192.168.0.1 255.255.255.0




- Repeat the same procedure with other PCs to configure them thoroughly.

**Step 3:** Verify the connection by pinging the IP address of any host in PC0 Use the ping command to verify the connection.

- We will check if we are getting any replies or not.
- Here we get replies from a targeted node on both PCs.
- Hence the connection is verified.
- A simulation of the experiment is given below we have sent two PDU packets one targeted from PC0 to PC3 and another targeted from PC1 to PC2.




**RESULT:-** Simulated Mesh Topology.