

## Practical No:01

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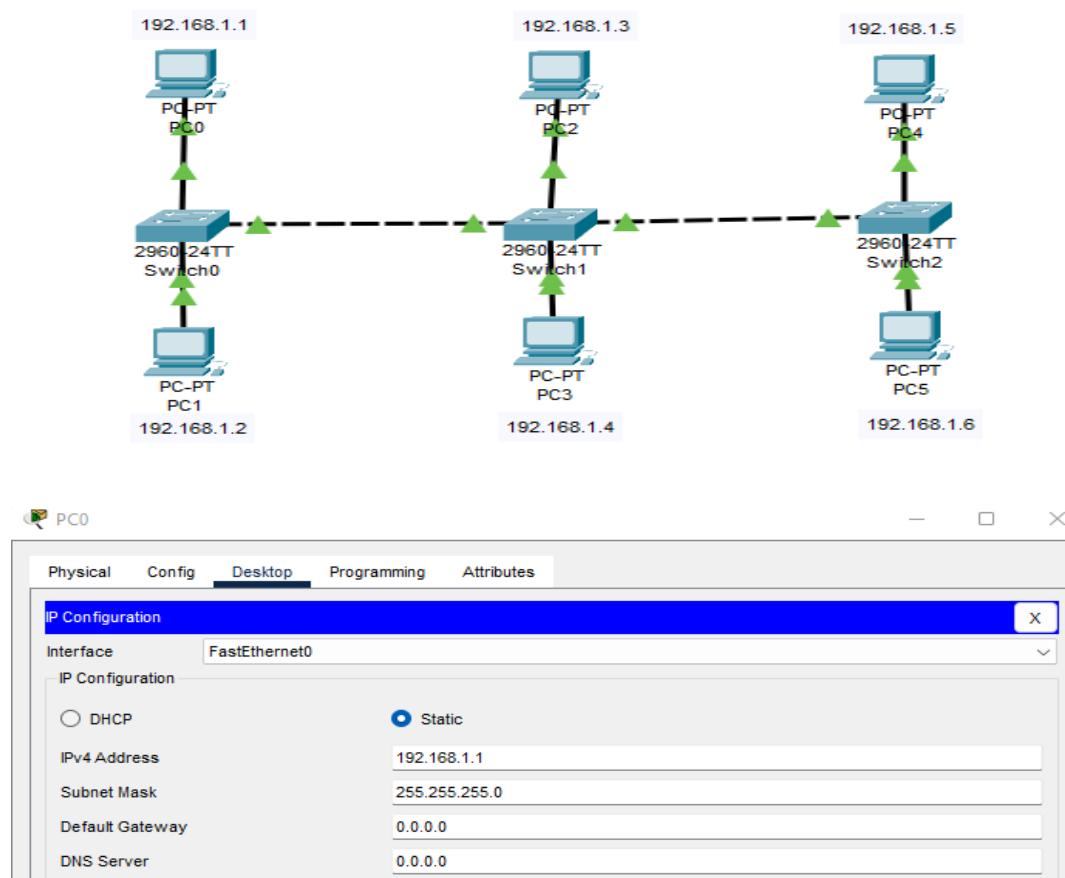
Title: Different Types Of Topologies

Network Structure







### 1)BUS TOPOLOGY:

Actual implementation of Bus Topology using Cisco Package Tracer Tool:

**Step 1:** Establish BUS Topology based network(virtually) using cisco package tracer and Assign IP Address to each Node (PC).



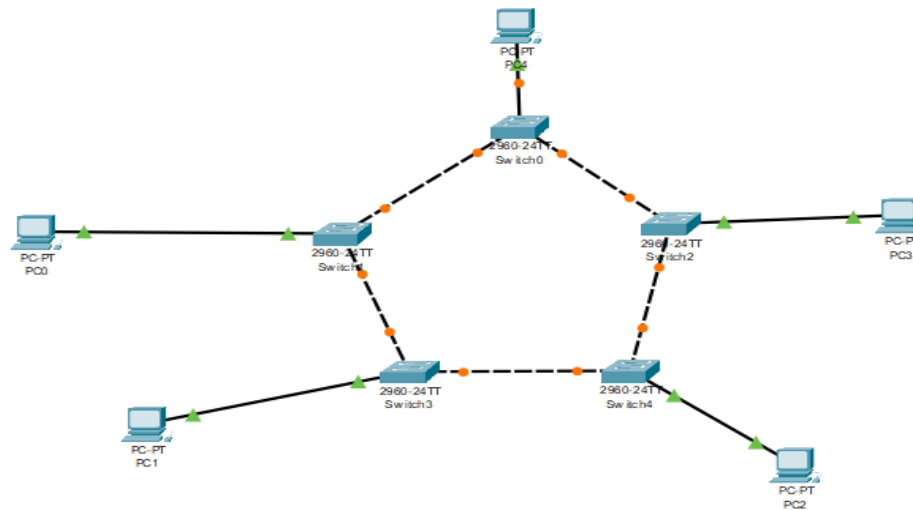
**Step 2:** After establishing the Network run the **ping** command followed by destination IP address in command prompt of particular PC to test the reachability of a host on an IP network.

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit
	Successful	PC0	PC5	ICMP		0.000	N	0	(edit)
	Successful	PC4	PC3	ICMP		0.000	N	1	(edit)
	Successful	PC1	PC2	ICMP		0.000	N	2	(edit)

## 2)RING TOPOLOGY

Actual implementation of Ring Topology using Cisco Package Tracer Tool:

**Step 1:** Establish RING Topology based network(virtually) using cisco package tracer and Assign IP Address to each Node (PC).



**Step 2:** After establishing the Network run the **ping** command followed by destination IP address in command prompt of particular PC to test the reachability of a host on an IP network.

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.5

Pinging 192.168.1.5 with 32 bytes of data:

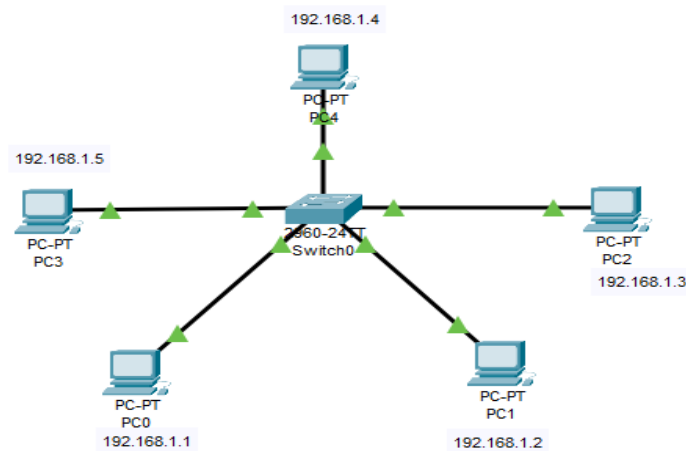
Reply from 192.168.1.5: bytes=32 time=5ms TTL=128
Reply from 192.168.1.5: bytes=32 time=6ms TTL=128
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128
Reply from 192.168.1.5: bytes=32 time=8ms TTL=128

Ping statistics for 192.168.1.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 8ms, Average = 4ms
```

## 3)STAR TOPOLOGY

Actual implementation of Star Topology using Cisco Package Tracer Tool:

**Step 1:** Establish STAR Topology based network(virtually) using cisco package tracer and Assign IP Address to each Node (PC).



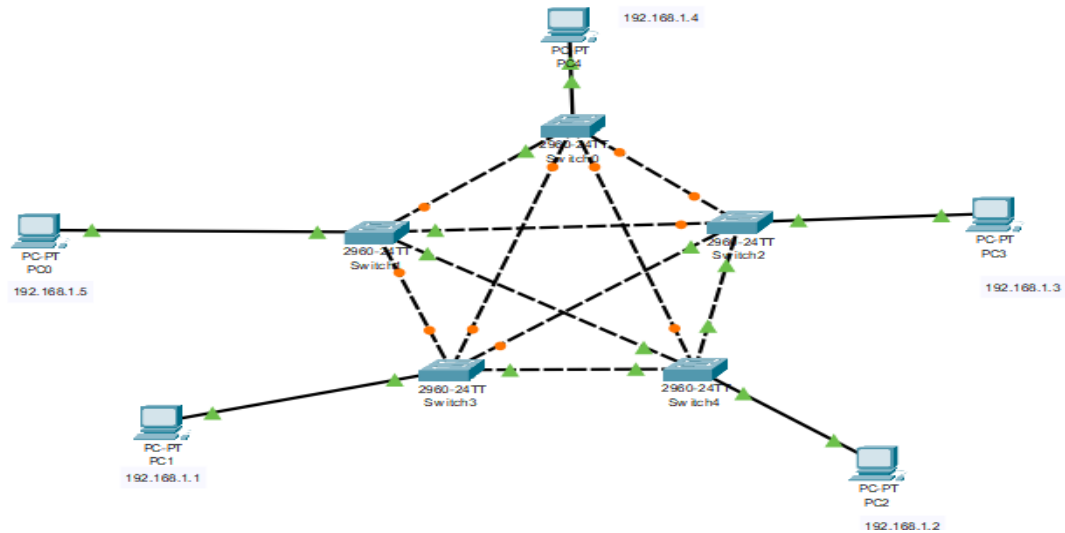
**Step 2:** After establishing the Network run the **ping** command followed by destination IP address in command prompt of particular PC to test the reachability of a host on an IP network.

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit
	Successful	PC0	PC3	ICMP		0.000	N	0	(edit)
	Successful	PC4	PC1	ICMP		0.000	N	1	(edit)
	Successful	PC3	PC2	ICMP		0.000	N	2	(edit)

#### 4)MESH TOPOLOGY

**Actual implementation of Mesh Topology using Cisco Package Tracer Tool:**

**Step 1:** Establish MESH Topology based network(virtually) using cisco package tracer and Assign IP Address to each Node (PC).



**Step 2:** After establishing the Network run the **ping** command followed by destination IP address in command prompt of particular PC to test the reachability of a host on an IP network.

```
C:\>ping 192.168.1.5

Pinging 192.168.1.5 with 32 bytes of data:

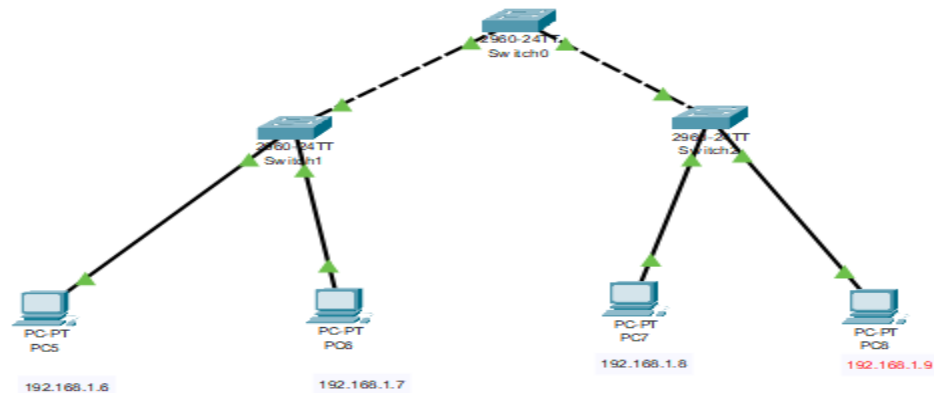
Reply from 192.168.1.5: bytes=32 time=6ms TTL=128
Reply from 192.168.1.5: bytes=32 time=5ms TTL=128
Reply from 192.168.1.5: bytes=32 time=6ms TTL=128
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 6ms, Average = 4ms
```

## 5) TREE TOPOLOGY:

Actual implementation of Tree Topology using Cisco Package Tracer Tool:

**Step 1:** Establish TREE Topology based network(virtually) using cisco package tracer and Assign IP Address to each Node (PC).



**Step 2:** After establishing the Network run the **ping** command followed by destination IP address in command prompt of particular PC to test the reachability of a host on an IP network.

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.6

Pinging 192.168.1.6 with 32 bytes of data:

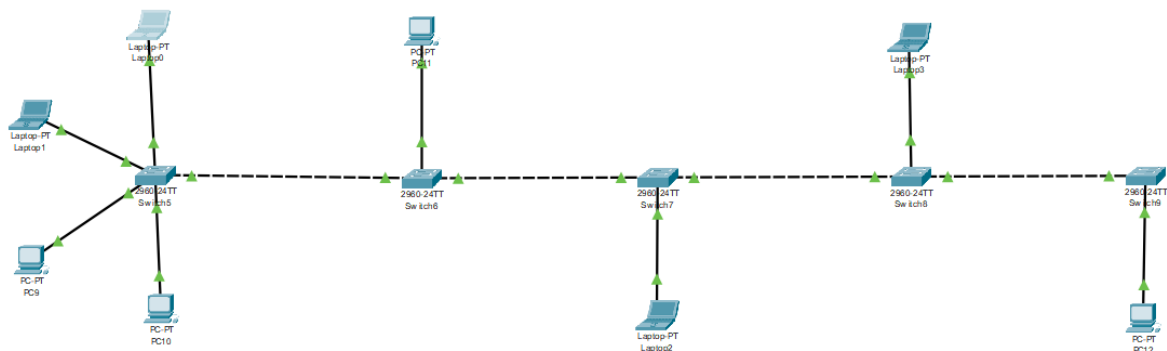
Reply from 192.168.1.6: bytes=32 time=5ms TTL=128
Reply from 192.168.1.6: bytes=32 time=10ms TTL=128
Reply from 192.168.1.6: bytes=32 time=6ms TTL=128
Reply from 192.168.1.6: bytes=32 time=5ms TTL=128

Ping statistics for 192.168.1.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 5ms, Maximum = 10ms, Average = 6ms
```

## 6)HYBRID TOPOLOGY

**Actual implementation of Hybrid Topology using Cisco Package Tracer Tool:**

**Step 1:** Establish HYBRID Topology based network(virtually) using cisco package tracer and Assign IP Address to each Node (PC).



**Step 2:** After establishing the Network run the **ping** command followed by destination IP address in command prompt of particular PC to test the reachability of a host on an IP network.

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.8

Pinging 192.168.1.8 with 32 bytes of data:

Reply from 192.168.1.8: bytes=32 time<1ms TTL=128
Reply from 192.168.1.8: bytes=32 time=1ms TTL=128
Reply from 192.168.1.8: bytes=32 time<1ms TTL=128
Reply from 192.168.1.8: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.1.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```