

Date: 11/07/2024

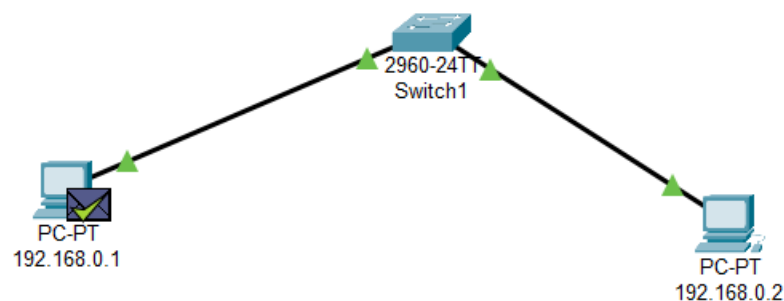
Lab Practical #04:

Installation of Network Simulator (Packet Tracer) and Implement different LAN topologies.

Practical Assignment #04:

1. Create a simple network with switch and two or more pc. Also check connectivity between them using ping command or PDU utility.

- Screenshot :-



PDU Information at Device: 192.168.0.1

OSI Model Inbound PDU Details

PDU Formats

EthernetII

Bytes			
0	4	8	
PREAMBLE: 101010...10		SF D	DEST ADDR: 0060.2F46.83 EE
SRC ADDR: 0007.ECB0.C4D0		TYPE: 0x0800	DATA (VARIABLE LENGTH)
FCS: 0x00000000			

IP

Bits						
0	4	8	16	20	24	
VER: 4		IHL: 5		DSCP: 0x00		TL: 28
ID: 0x0002				FLAGS: 0x0		FRAG OFFSET: 0x000
TTL: 128		PRO: 0x01		CHKSUM		
SRC IP: 192.168.0.2						
DST IP: 192.168.0.1						
DATA (VARIABLE LENGTH)						

ICMP

Bits					
0	8	16			
TYPE: 0x00		CODE: 0x00		CHECKSUM	

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```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.0.1

Pinging 192.168.0.1 with 32 bytes of data:

Reply from 192.168.0.1: bytes=32 time=12ms TTL=128
Reply from 192.168.0.1: bytes=32 time=7ms TTL=128
Reply from 192.168.0.1: bytes=32 time=1ms TTL=128
Reply from 192.168.0.1: bytes=32 time=4ms TTL=128

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 12ms, Average = 6ms
```

```
C:\>ping 192.168.0.2

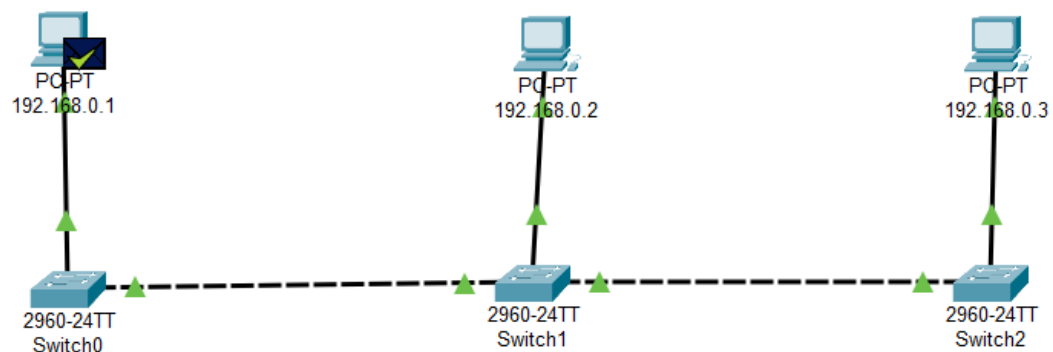
Pinging 192.168.0.2 with 32 bytes of data:

Reply from 192.168.0.2: bytes=32 time<1ms TTL=128
Reply from 192.168.0.2: bytes=32 time=13ms TTL=128
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128

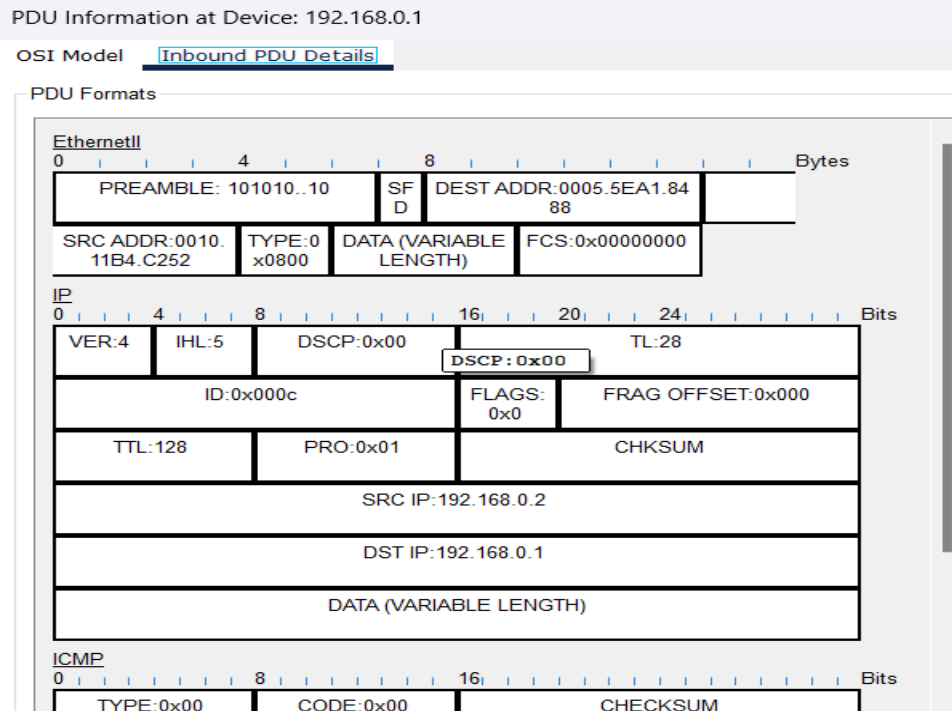
Ping statistics for 192.168.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 13ms, Average = 3ms
```

2. Implement different topologies in packet tracer.

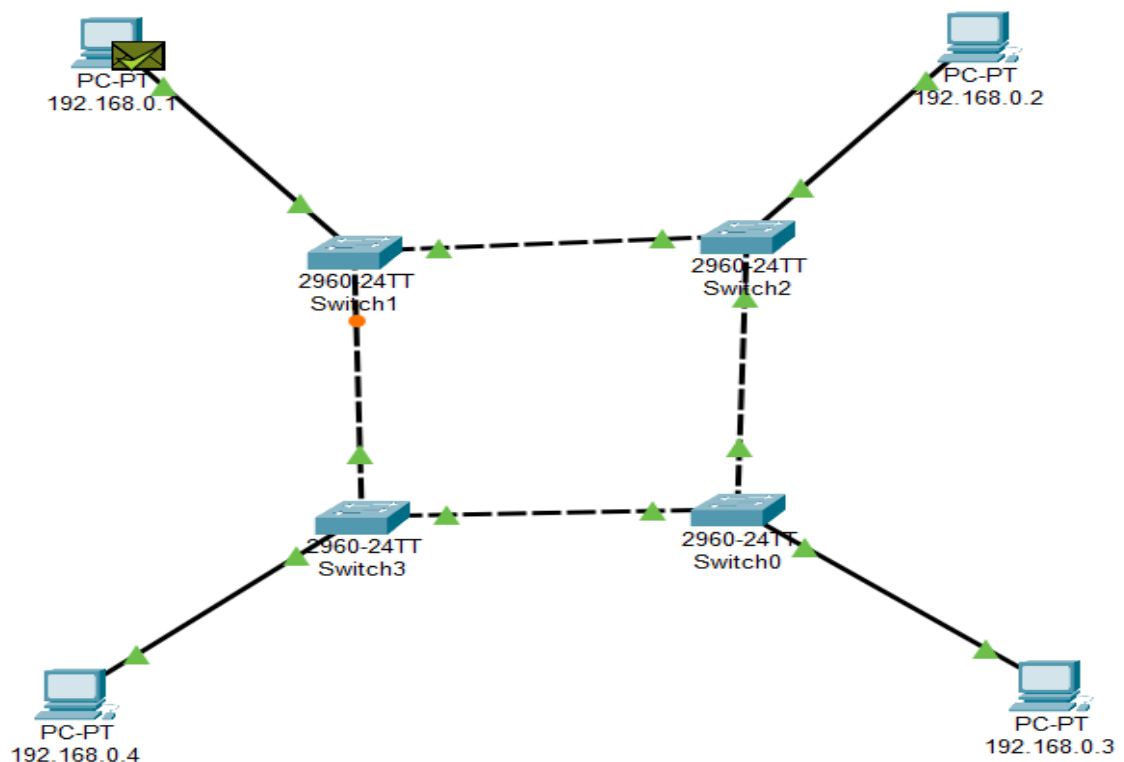
a. Bus :-



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b. Ring :-

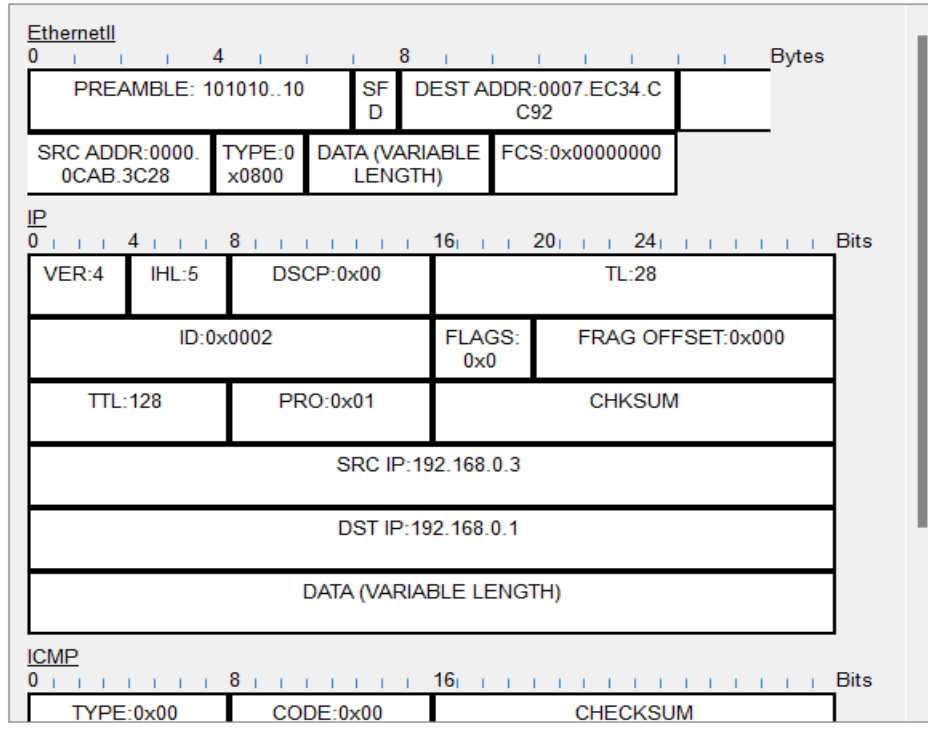


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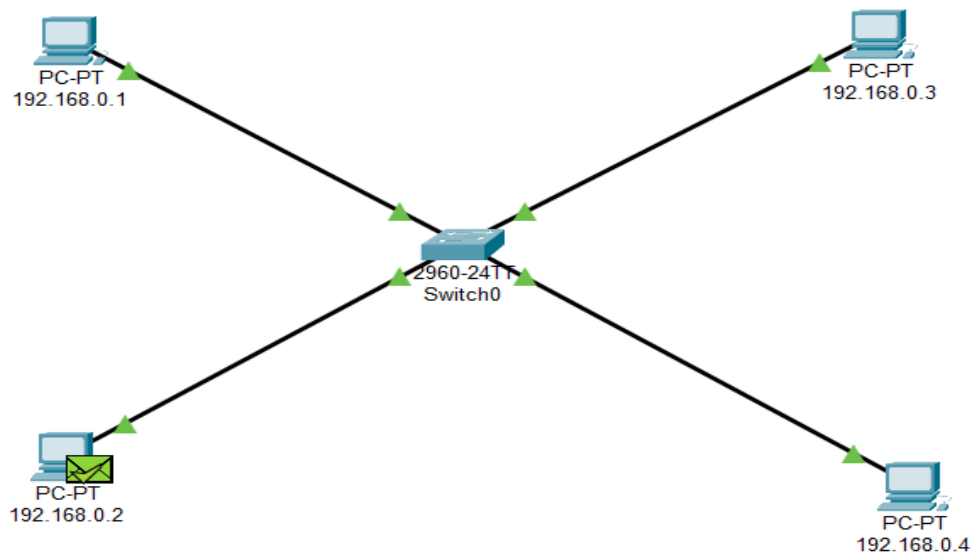
PDU Information at Device: 192.168.0.1

OSI Model [Inbound PDU Details](#)

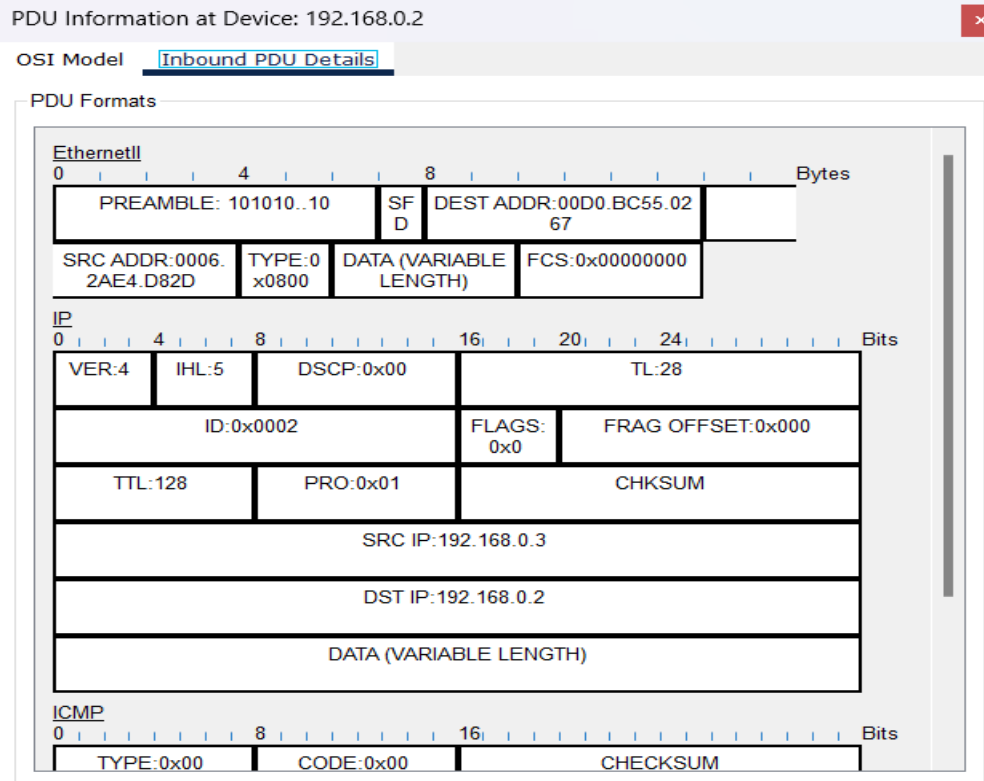
PDU Formats



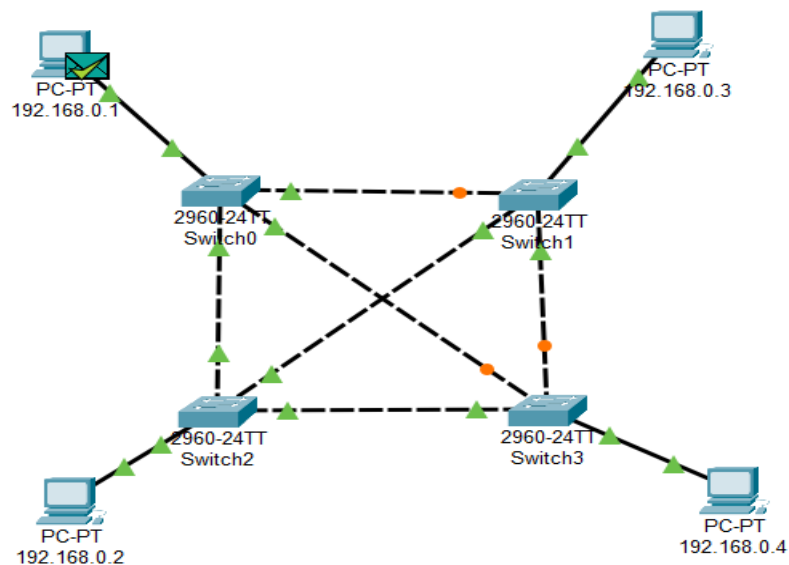
c. Star:-



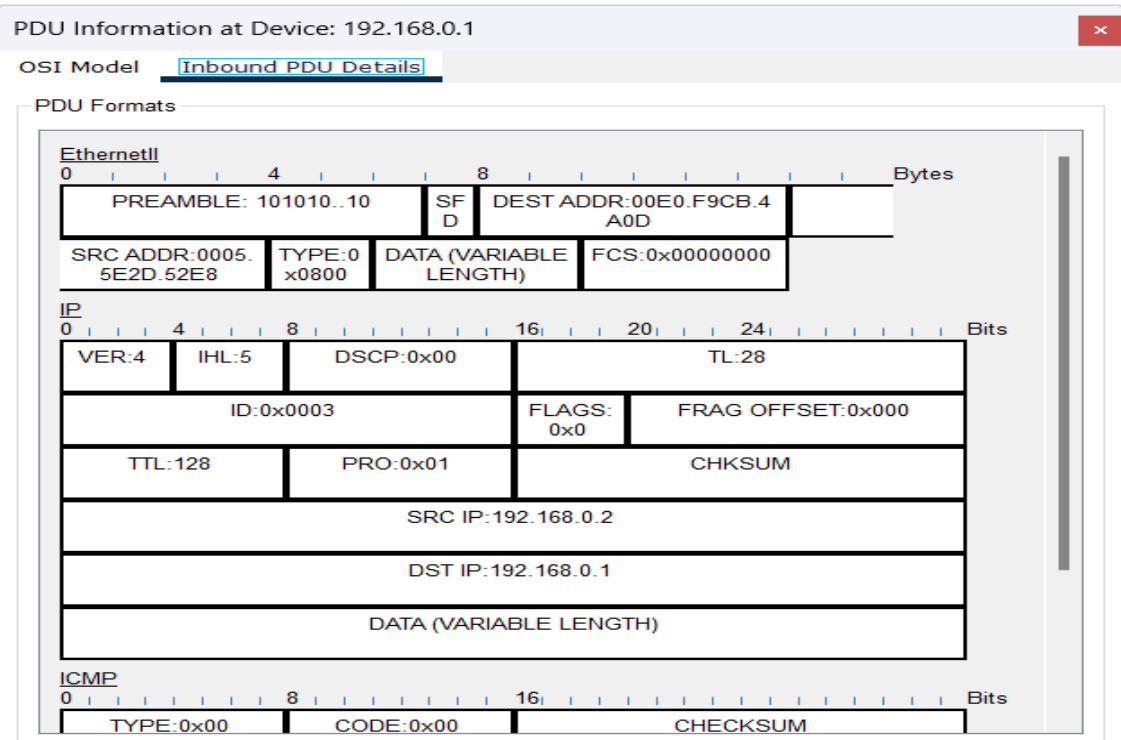
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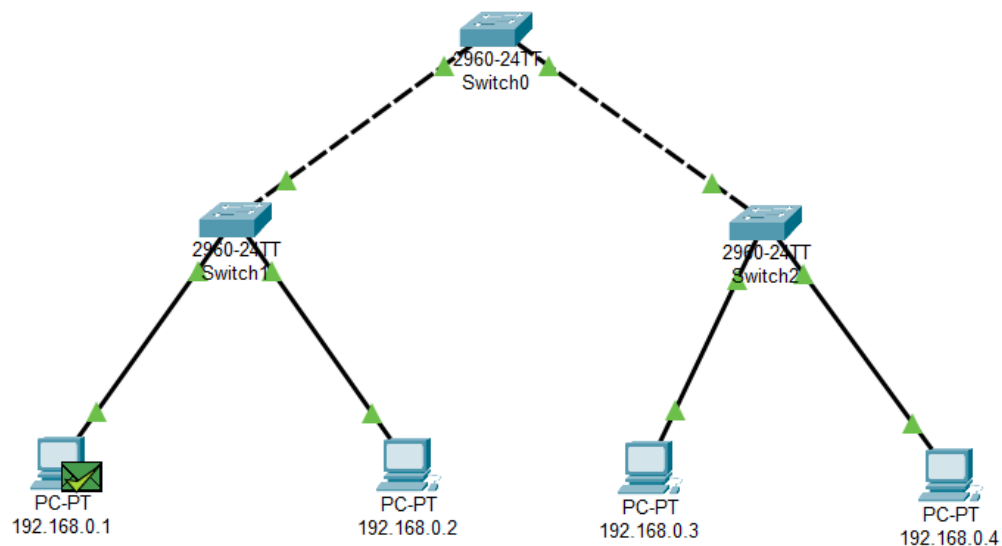
d. Mesh :-



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e. Tree :-



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