

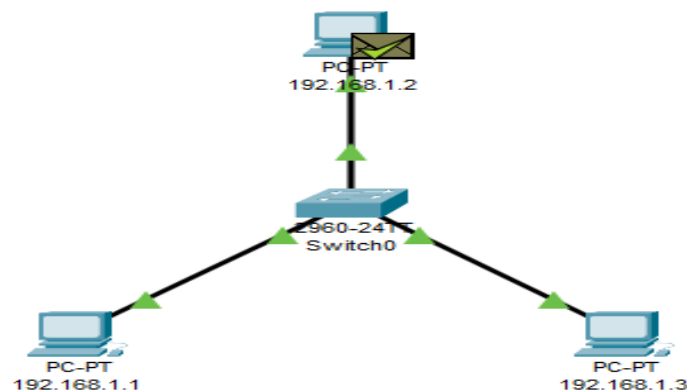
Date: 13/07/2024

### 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.



PDU Information at Device: 192.168.1.2

OSI Model [Inbound PDU Details](#)

PDU Formats

**EthernetII**

Bytes			
PREAMBLE: 101010..10		DEST ADDR: 0007.EC5B.CA27	
SRC ADDR: 000C.85D6.5AD9	TYP E: 0x	DATA (VARIABLE LENGTH)	FCS: 0x00000000

**IP**

Bits			
VER: 4	IHL: 5	DSCP: 0x00	TL: 28
ID: 0x0002		FLAG: 0	FRAG OFFSET: 0x000
TTL: 128	PRO: 0x01	CHKSUM	
SRC IP: 192.168.1.3			
DST IP: 192.168.1.2			
DATA (VARIABLE LENGTH)			

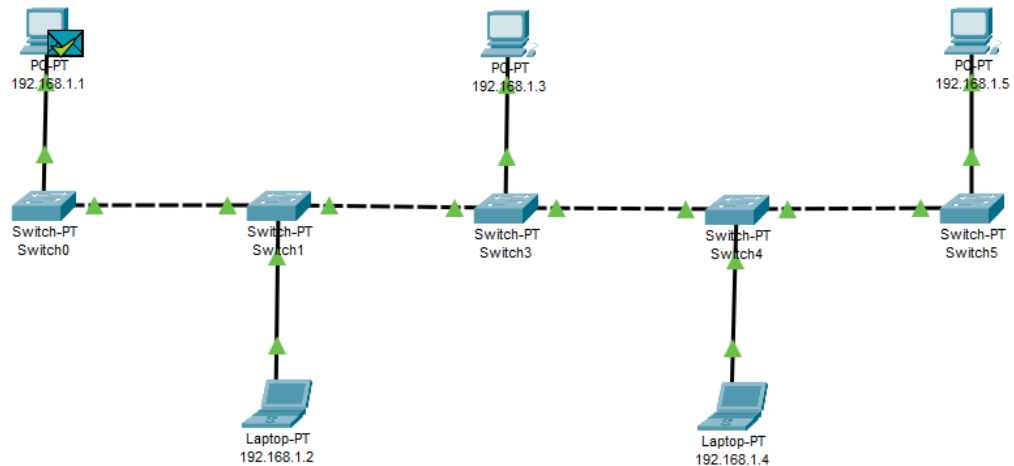
**ICMP**

Bits		
TYPE: 0x00	CODE: 0x00	CHECKSUM

Date: 13/07/2024

## 2. Implement different topologies in packet tracer.

### a. Bus



PDU Information at Device: 192.168.1.1

OSI Model [Inbound PDU Details](#)

PDU Formats

Ethernet II			
0	4	8	Bytes
PREAMBLE: 101010..10		DEST ADDR: 000D.BDAA.20BC	
SRC ADDR: 00E0.B047.D769	TYP E: 0x	DATA (VARIABLE LENGTH)	FCS: 0x00000000

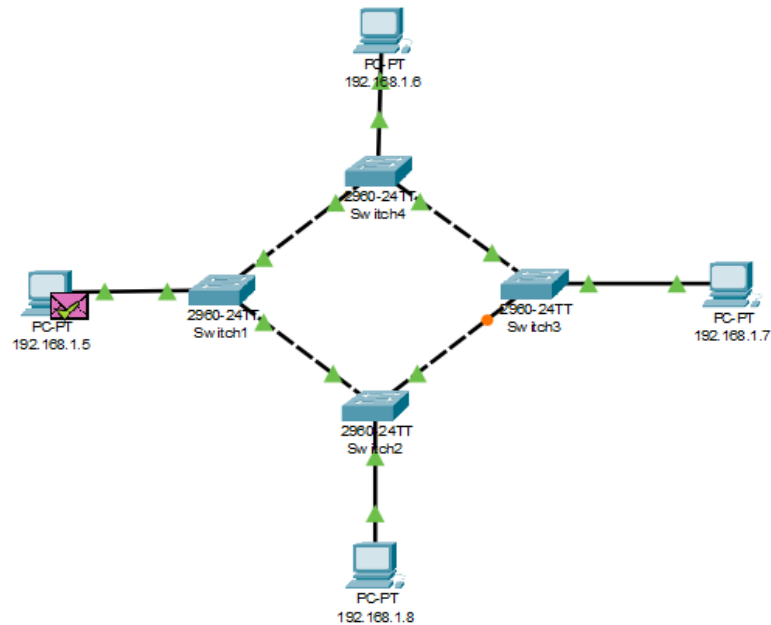
IP						
0	4	8	16	20	24	Bits
VER: 4	IHL: 5	DSCP: 0x00	TL: 28			
ID: 0x0002			FLAG: 0	FRAG OFFSET: 0x000		
TTL: 128		PRO: 0x01	CHKSUM			
SRC IP: 192.168.1.4						
DST IP: 192.168.1.1						
DATA (VARIABLE LENGTH)						

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

Date: 13/07/2024

**b. Ring**



PDU Information at Device: 192.168.1.5

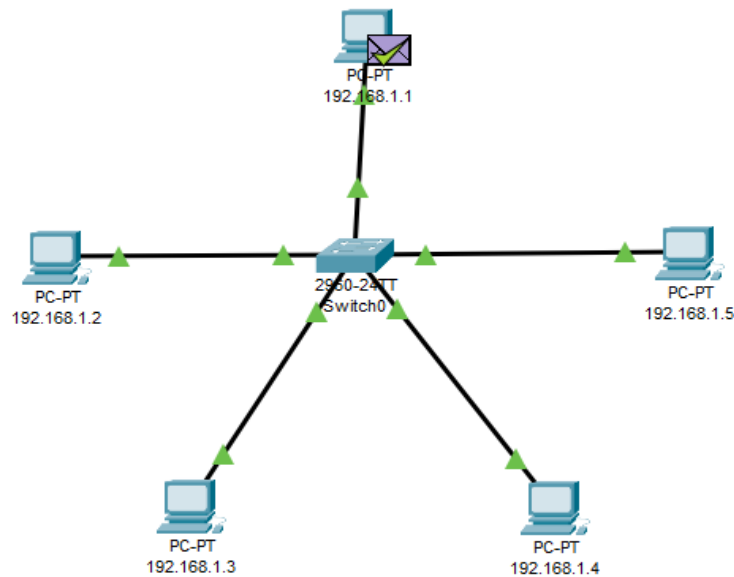
OSI Model [Inbound PDU Details](#)

PDU Formats

EthernetII																Bytes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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Date: 13/07/2024

**c. Star**



PDU Information at Device: 192.168.1.1

OSI Model [Inbound PDU Details](#)

PDU Formats

EthernetII			
0	4	8	Bytes
PREAMBLE: 101010..10		DEST ADDR: 0001.634C.D26A	
SRC ADDR: 0030.A333.29B6	TYP E: 0x	DATA (VARIABLE LENGTH)	FCS: 0x00000000

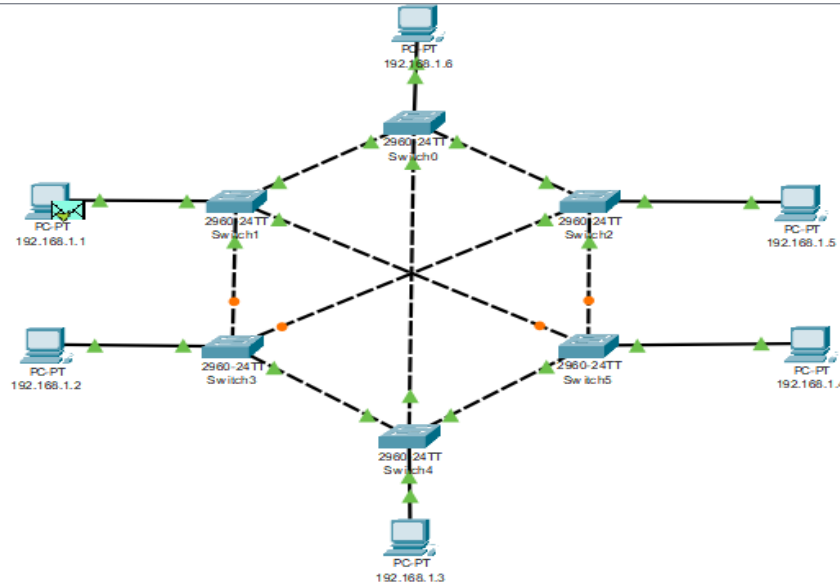
IP						
0	4	8	16	20	24	Bits
VER: 4	IHL: 5	DSCP: 0x00	TL: 28			
ID: 0x0002		FLA GS: 0	FRAG OFFSET: 0x0000			
TTL: 128		PRO: 0x01	CHKSUM			
SRC IP: 192.168.1.3						
DST IP: 192.168.1.1						
DATA (VARIABLE LENGTH)						

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

Date: 13/07/2024

### d. Mesh



PDU Information at Device: 192.168.1.1

OSI Model [Inbound PDU Details](#)

PDU Formats

EthernetII		Bytes
PREAMBLE: 101010...10		DEST ADDR: 0002.175E.E2EB
SRC ADDR: 0030.F266.B8E1	TYP: E:0x	FCS: 0x00000000
DATA (VARIABLE LENGTH)		

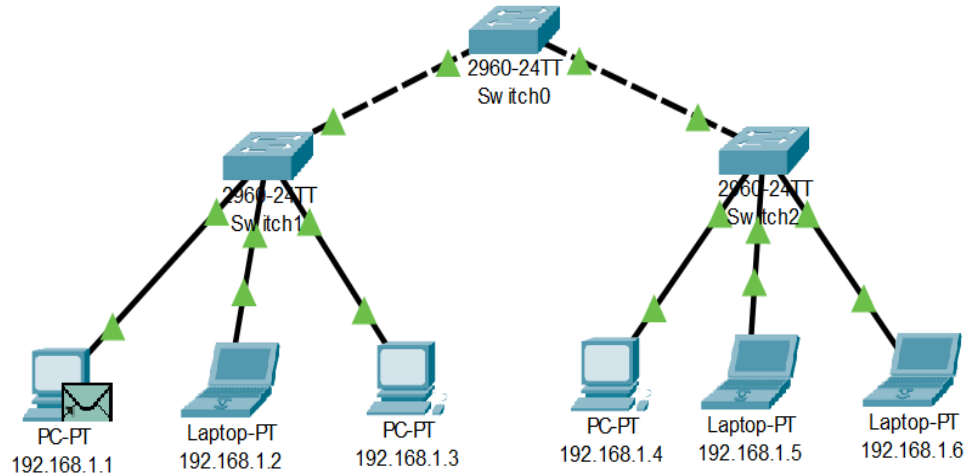
IP		Bits
VER: 4	IHL: 5	DSCP: 0x00
ID: 0x0002		TL: 28
TTL: 128		PRO: 0x01
SRC IP: 192.168.1.5		DST IP: 192.168.1.1
DATA (VARIABLE LENGTH)		

ICMP		Bits
TYPE: 0x00	CODE: 0x00	CHECKSUM

Date: 13/07/2024

**e. Tree**



PDU Information at Device: 192.168.1.1

OSI Model [Inbound PDU Details](#)

PDU Formats

