

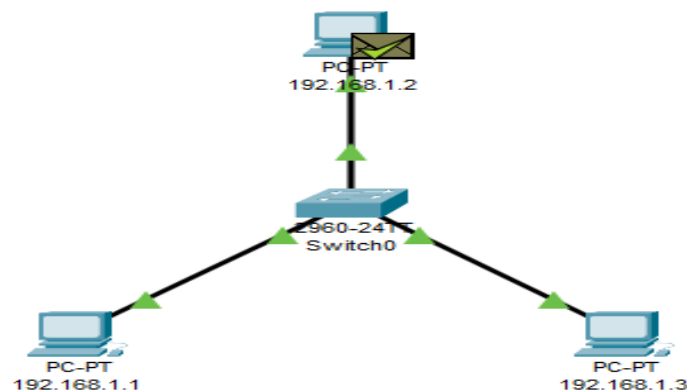
Date: 13/07/2024

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)			

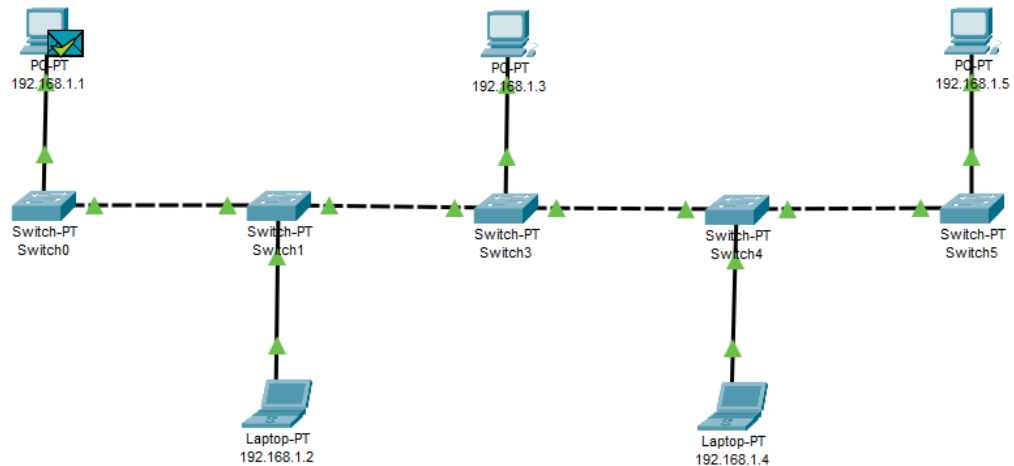
ICMP

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

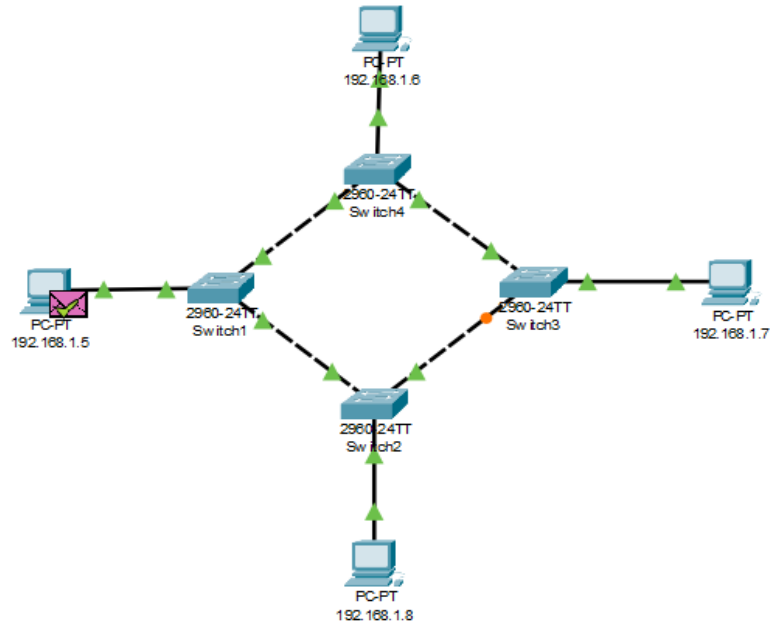
EthernetII			
0	4	8	Bytes
PREAMBLE: 101010..10		DEST ADDR:000D.BDAA.20BC	
SRC ADDR:00E0.B047.D769	TYP E:0x	DATA (VARIABLE LENGTH)	FCS:0x00000000
DEST ADDR: 000D.BDAA.20BC			

IP						
0	4	8	16	20	24	Bits
VER:4	IHL:5	DSCP:0x00	TL:28			
ID:0x0002		FLA GS: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

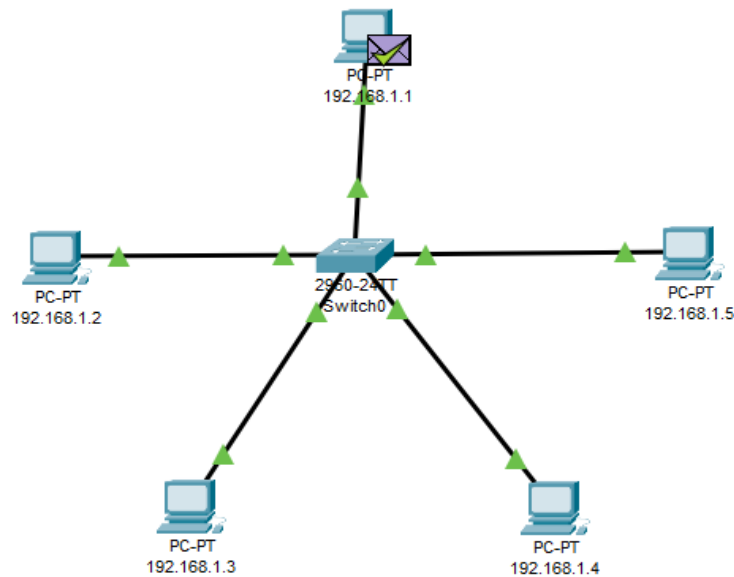
OSI Model [Inbound PDU Details](#)

PDU Formats

EthernetII																Bytes																	
0 4 8																																	
PREAMBLE: 101010..10												↑ ↓		DEST ADDR:0030.A3A8.95A9												↑ ↓							
SRC ADDR:000A.F303.947A												↑ ↓		TYP E:0x		↑ ↓		DATA (VARIABLE LENGTH)		↑ ↓		FCS:0x00000000											
IP																Bits																	
0 4 8 16 20 24																																	
VER:4				IHL:5				DSCP:0x00				TL:28																					
ID:0x0002												FLA GS:0		↑ ↓		FRAG OFFSET:0x000																	
TTL:128				PRO:0x01				CHKSUM																									
SRC IP:192.168.1.7																																	
DST IP:192.168.1.5																																	
DATA (VARIABLE LENGTH)																																	
ICMP																Bits																	
0 8 16																																	
TYPE:0x00				CODE:0x00				CHECKSUM																									

Date: 13/07/2024

c. Star



PDU Information at Device: 192.168.1.1

OSI Model [Inbound PDU Details](#)

PDU Formats

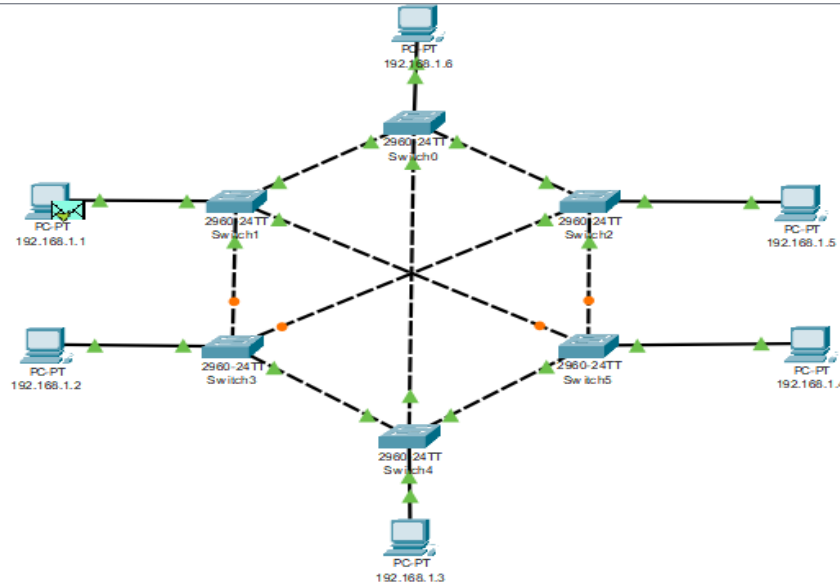
EthernetII			
0	4	8	Bytes
PREAMBLE: 101010..10		DEST ADDR: 0001.634C.D26A	
SRC ADDR: 0030.A333.29B6	TYP E: 0x	DATA (VARIABLE LENGTH)	FCS: 0x00000000

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

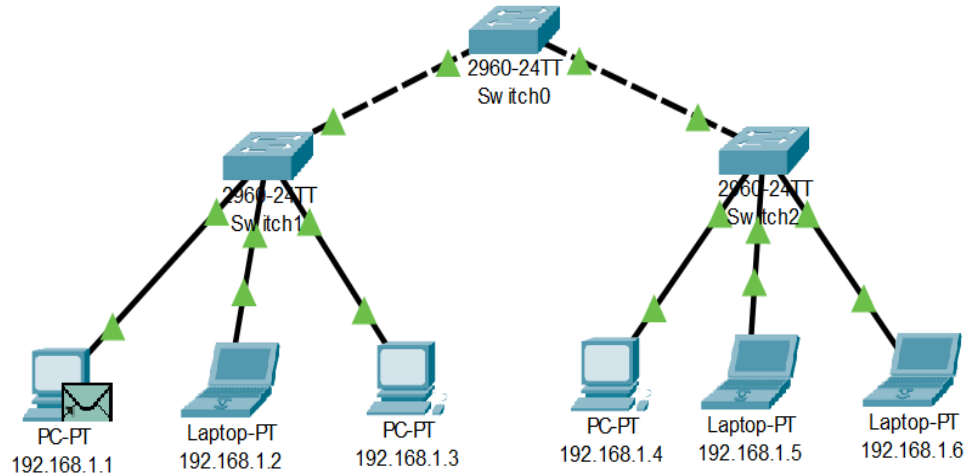
EthernetII		Bytes
PREAMBLE: 101010...10		DEST ADDR: 0002.175E.E2EB
SRC ADDR: 0030.F266.B8E1	TYP: E:0x	FCS: 0x00000000
DATA (VARIABLE LENGTH)		

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

