

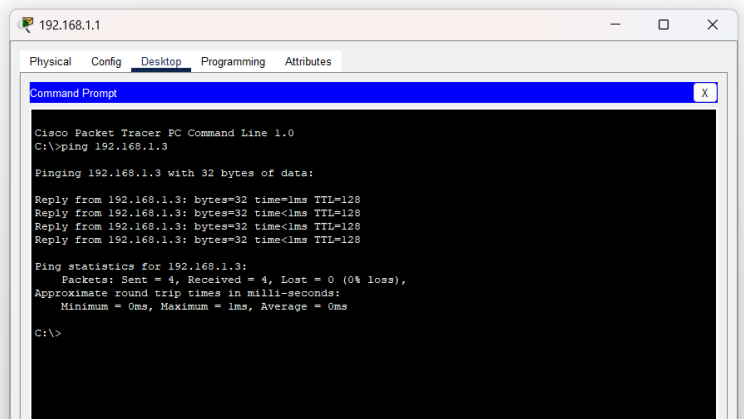
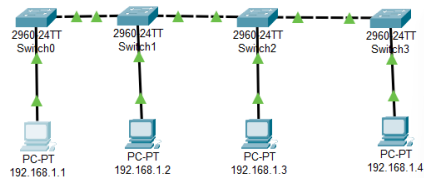
Date: 25/06/2025

Lab Practical #04:

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

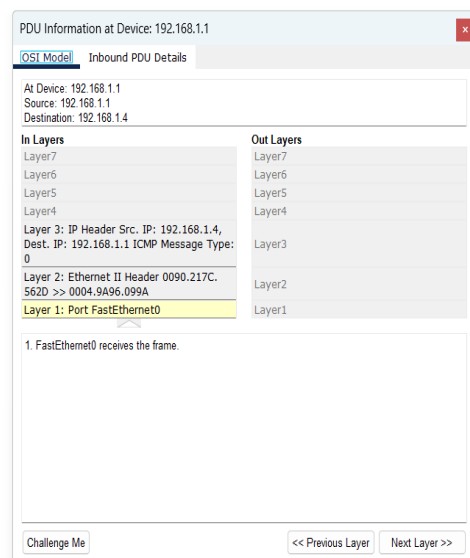
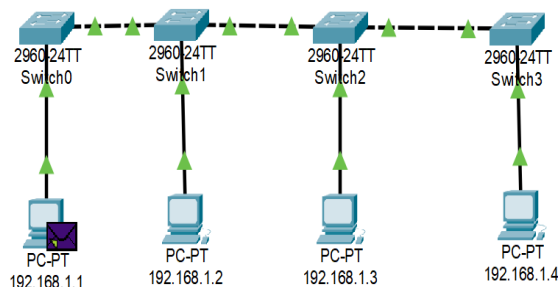
Practical Assignment #04:

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

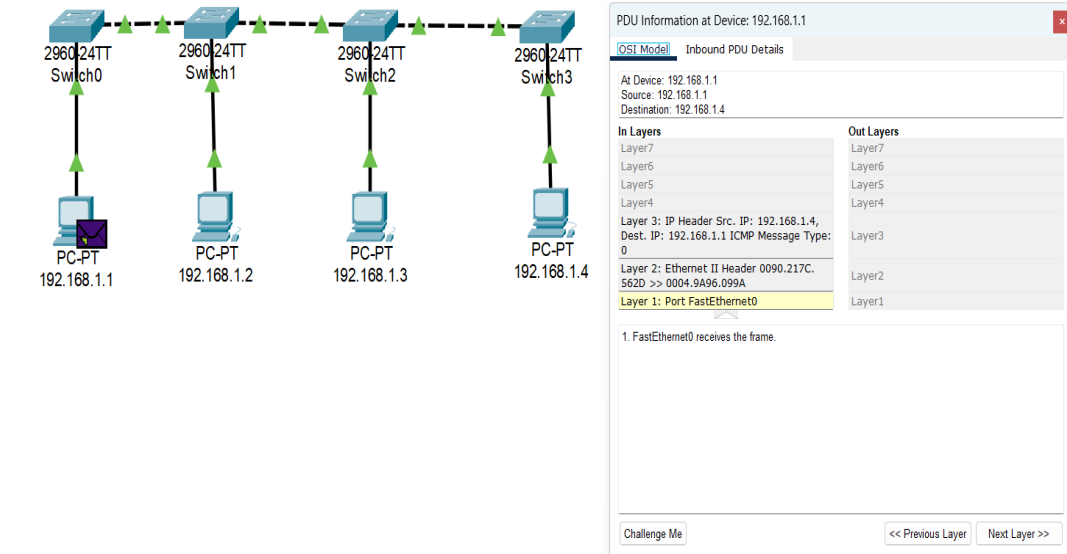


2. Implement different topologies in packet tracer.

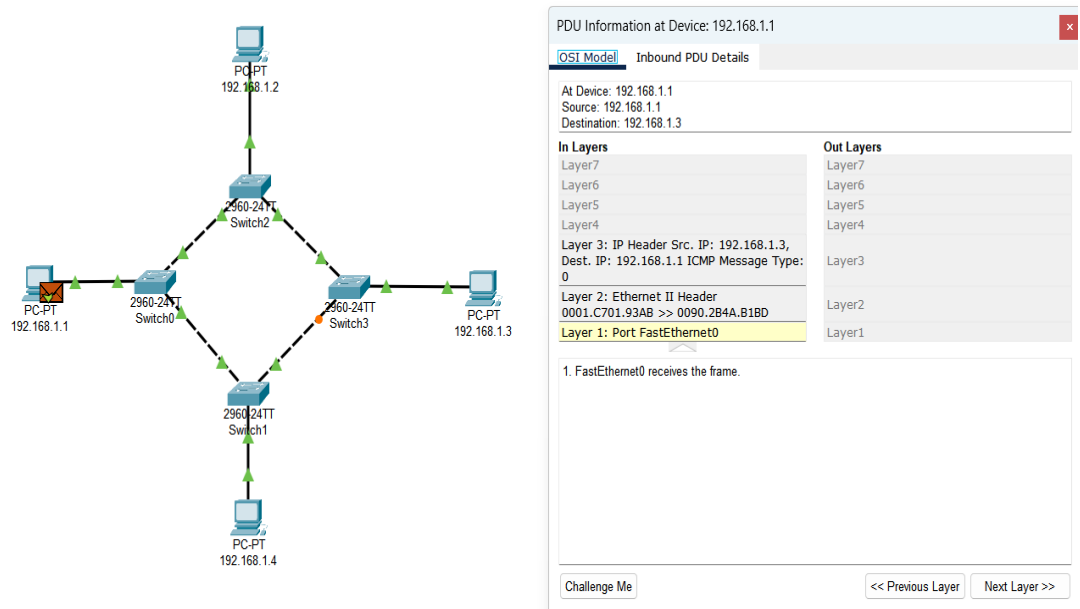
a. Bus



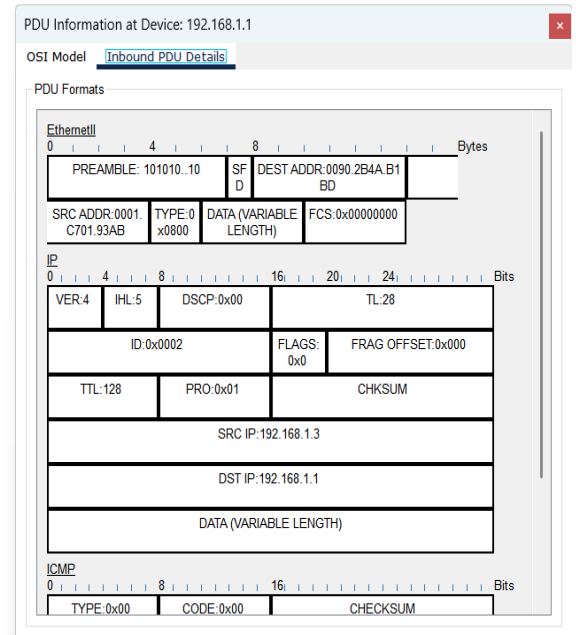
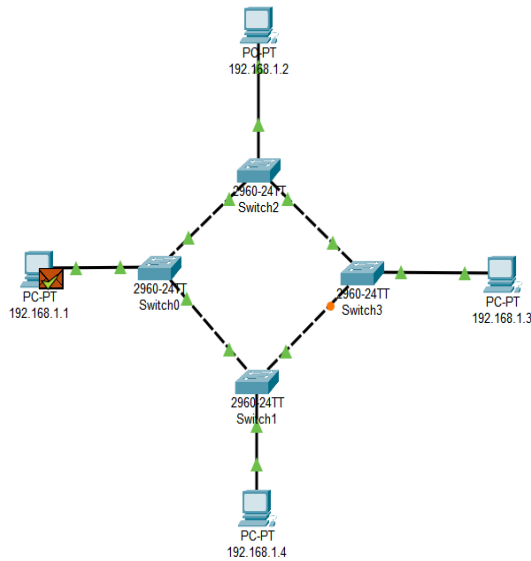
Date: 25/06/2025



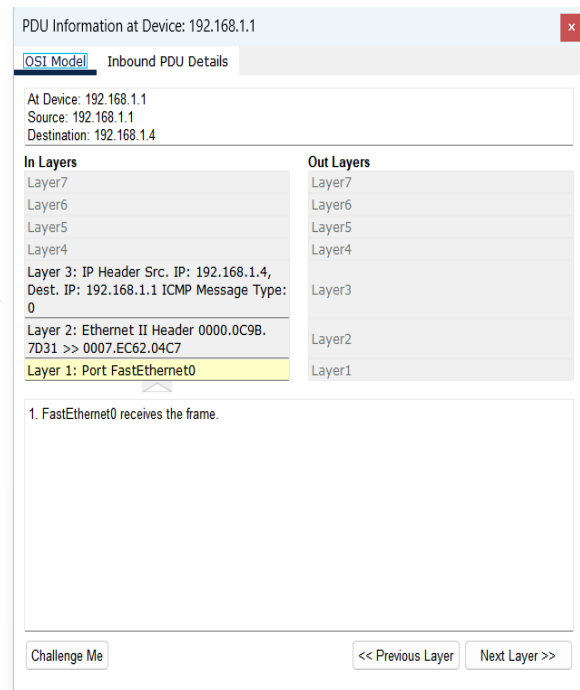
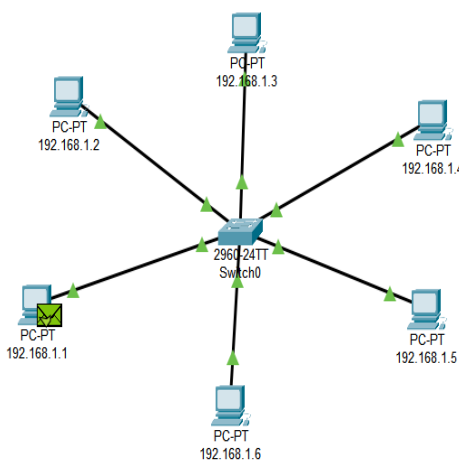
b. Ring



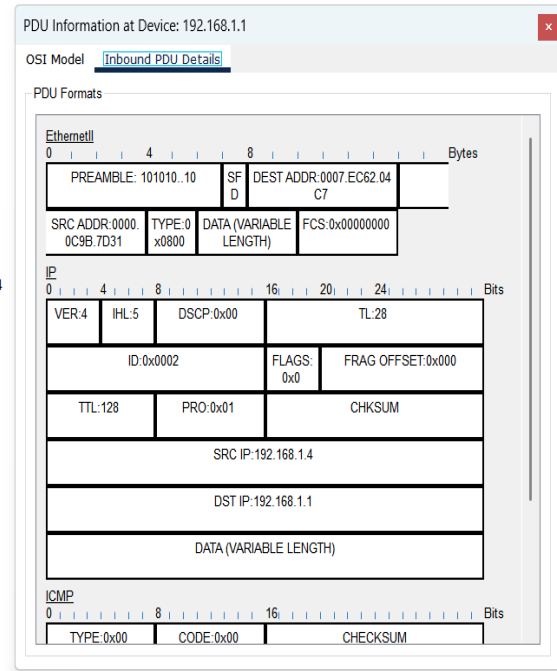
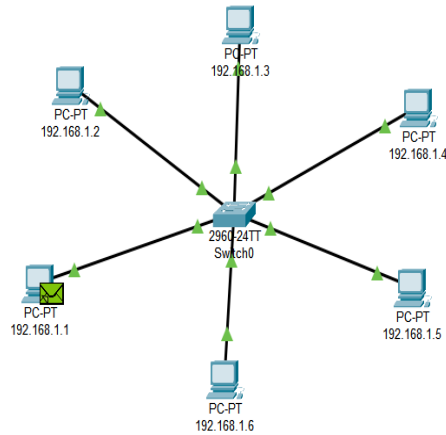
Date: 25/06/2025



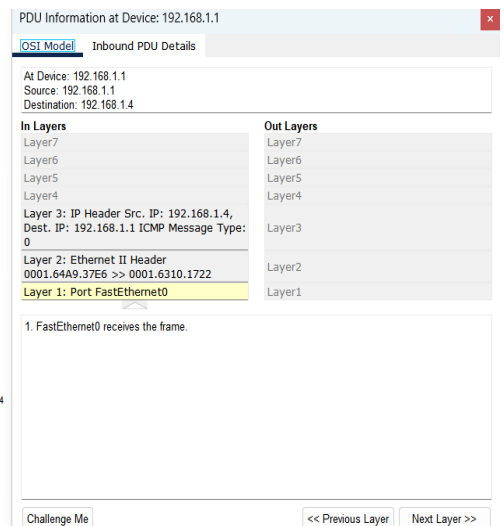
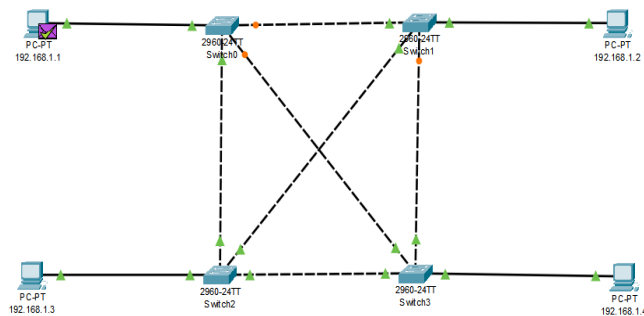
c. Star



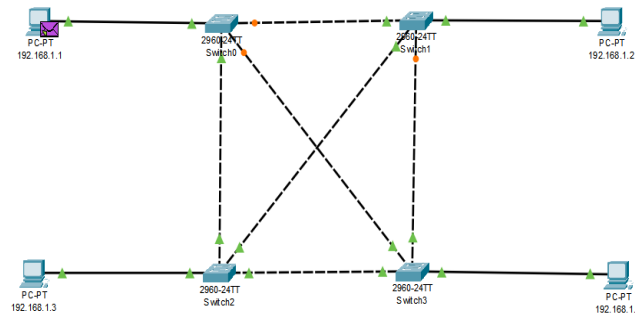
Date: 25/06/2025



d. Mesh



Date: 25/06/2025



PDU Information at Device: 192.168.1.1

OST Model [Inbound PDU Details](#)

PDU Formats

EthernetII

0	4	8	Bytes
PREAMBLE: 101010..10		SF D	DEST ADDR:0001.6310.1722
SRC ADDR:0001.64A9.37E6	TYPE:0x0800	DATA(VARIABLE LENGTH)	FCS:0x00000000

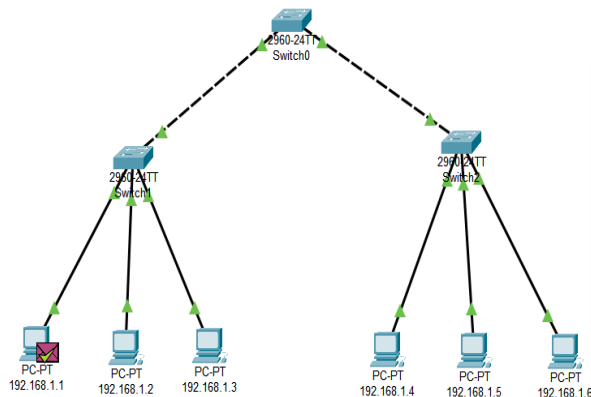
IP

0	4	8	16	20	24	Bits
VER:4	IHL:5	DSCP:0x00	TL:28			
ID:0x0003			FLAGS:0x0	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	

e. Tree



PDU Information at Device: 192.168.1.1

[OST Model](#) [Inbound PDU Details](#)

At Device: 192.168.1.1
Source: 192.168.1.1
Destination: 192.168.1.6

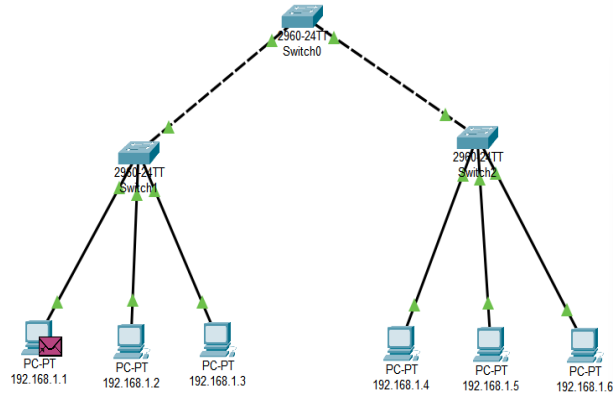
In Layers	Out Layers
Layer7	Layer7
Layer6	Layer6
Layer5	Layer5
Layer4	Layer4
Layer3: IP Header Src. IP: 192.168.1.6, Dest. IP: 192.168.1.1 ICMP Message Type: 0	Layer3
Layer2: Ethernet II Header 00D0.97B0.EA49 >> 00D0.58D9.9A4C	Layer2
Layer1: Port FastEthernet0	Layer1

1. FastEthernet0 receives the frame.

Challenge Me

<< Previous Layer Next Layer >>

Date: 25/06/2025



PDU Information at Device: 192.168.1.1

OSI Model [Inbound PDU Details](#)

PDU Formats

EthernetII									
0 4 8 Bytes									
PREAMBLE: 101010...10						SF D		DEST ADDR: 00D0.58D9.9A4C	
SRC ADDR: 00D0.97B0.EA49		TYPE: 0x0800		DATA (VARIABLE LENGTH)			FCS: 0x00000000		
IP									
0 4 8 16 20 24 Bits									
VER: 4		IHL: 5		DSCP: 0x00				TL: 28	
ID: 0x0002						FLAGS: 0x0		FRAG OFFSET: 0x000	
TTL: 128				PRO: 0x01		CHKSUM			
SRC IP: 192.168.1.6									
DST IP: 192.168.1.1									
DATA (VARIABLE LENGTH)									
ICMP									
0 8 16 Bits									
TYPE: 0x00				CODE: 0x00			CHECKSUM		