

Date: 02 / 07 / 2025

Lab Practical #05:

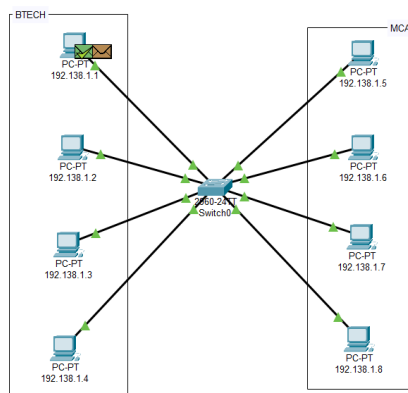
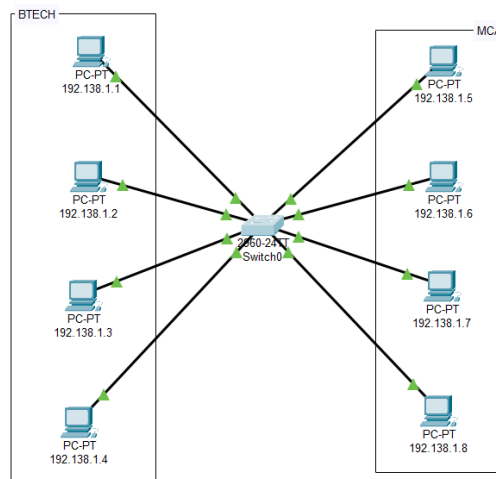
Study the concept of VLAN using packet tracer.

Practical Assignment #05:

1. Implement the different network structures in VLAN and VLAN trunking. Also check connectivity between them using ping command or PDU utility.

Instructions:

1. Different VLANs configuration setup screenshot. (VLAN example given by lab faculty)



PDU Information at Device: 192.138.1.1

OSI Model: [Inbound PDU Details](#)

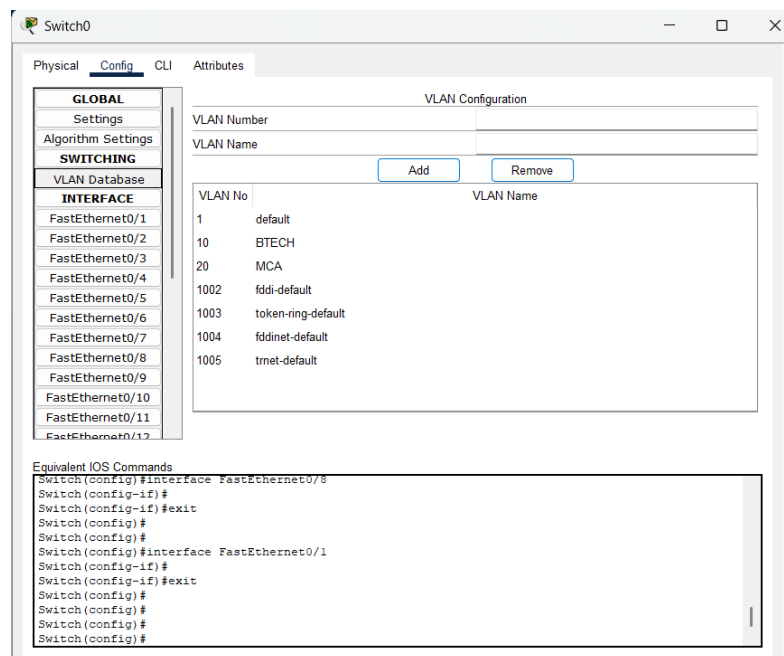
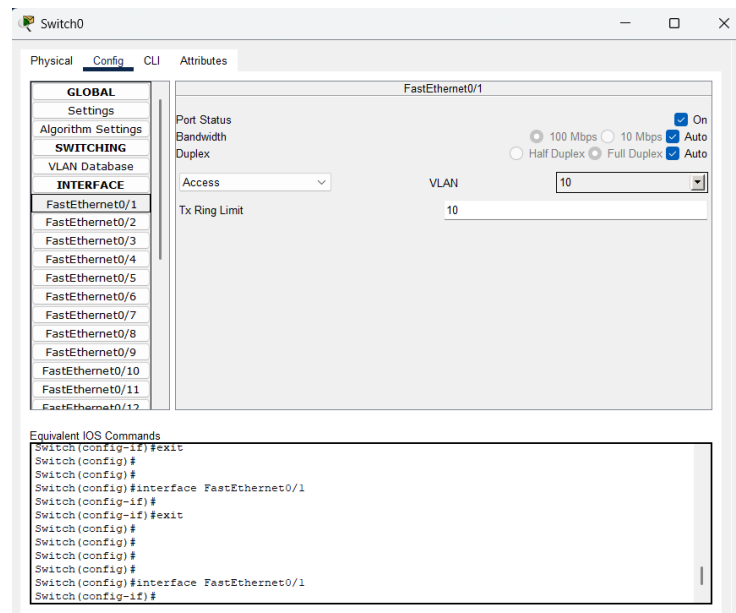
PDU Formats

Ethernet II			
0	4	8	Bytes
PREAMBLE: 101010...10			
SRC ADDR: 000C 8566 B197		DEST ADDR: 0001 C96C 8D0B	
TYPE: 0x0806		FCS: 0x00000000	
DATA (VARIABLE LENGTH)			

ARP	
0	16
8	Bits
HARDWARE TYPE: 0x0001	
PROTOCOL TYPE: 0x0800	
HLEN: 0x06	PLEN: 0x04
OPCODE: 0x0002	
SOURCE MAC: 000C 8566 B197	
SOURCE IP: 192.138.1.4	
TARGET MAC: 0001 C96C 8D0B	
TARGET IP: 192.138.1.1	

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	192.1...	192.138.1.4	ICMP		0.000	N	0	(edit)	(delete)
	Failed	192.1...	192.138.1.4	ICMP		0.004	N	1	(edit)	(delete)

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2. Write steps to create VLANs in packet tracer.

enable

configure terminal

vlan 10

name BTECH

vlan 20

name MCA

exit

interface range fa0/1

switchport mode access

switchport access vlan 10

interface range fa0/2

switchport mode access

switchport access vlan 20

interface range fa0/3

trunk

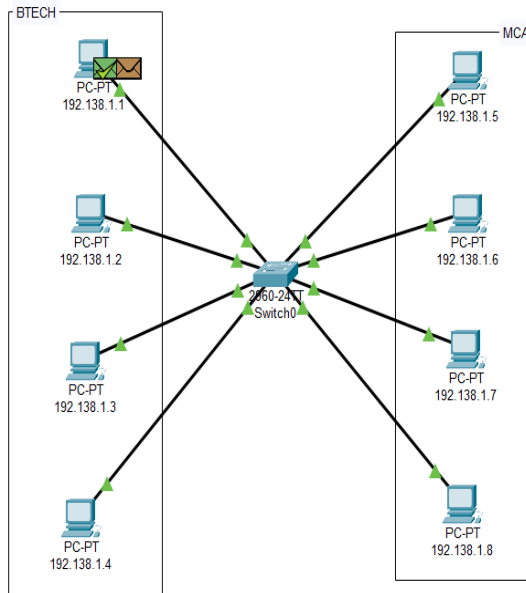
exit

3. Mention IP address of each pc as label.

- IP Address: 192.138.1.1

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4. Ping command or PDU screenshot between two VLANs.



PDU Information at Device: 192.138.1.1

OSI Model [Inbound PDU Details](#)

PDU Formats

EthernetII			
Bytes			
PREAMBLE: 101010..10		SF D	DEST ADDR: 0001.C96C.8D0B
SRC ADDR: 000C.8566.B197		TYPE: 0x0806	FCS: 0x00000000

Arp		
Bits		
HARDWARE TYPE: 0x0001		PROTOCOL TYPE: 0x0800
HLLEN: 0x06	PLEN: 0x04	OPCODE: 0x0002
SOURCE MAC: 000C.8566.B197		
SOURCE IP: 192.138.1.4		
TARGET MAC: 0001.C96C.8D0B		
TARGET IP: 192.138.1.1		