WEEK 9

To construct a VLAN and make a pc communicate among VLAN.

OBSERVATION:

- Next Select the switches under 2nd interface which has interface 0/3 & 0/4. click on each of them and Set VLAN number 2.
- Go to router → config tab and select VLAN Database and enter the name vlan & no. 2 created.
- Go to router → CLI and type the following commands.

  Step 1: config T

  Step 2: interface fa 0/0

  Step 3: IP address 192.168.1.1 255.255.255.0

  Step 4: No shut

  Step 5: Exit.

  Step 6: config T

  Step 7: interface fa 0/0.1

  Step 8: encapsulation dot1q 2

  Step 9: ip address 192.168.20.1 255.255.255.0

  Step 10: No shut.

  Step 11: Exit

- Ping message from PC to another VLAN PC.

PING OUTPUT:

Packet Tracer PC command line 1.0

PC> Ping 192.168.20.3

Pinging 192.168.20.3 with 32 bytes of data:

Request timed out.

Reply from 192.168.20.3 : bytes = 32 time = 0ms , TTL = 127

Reply from 192.168.20.3 : bytes = 32 time = 5ms TTL = 127

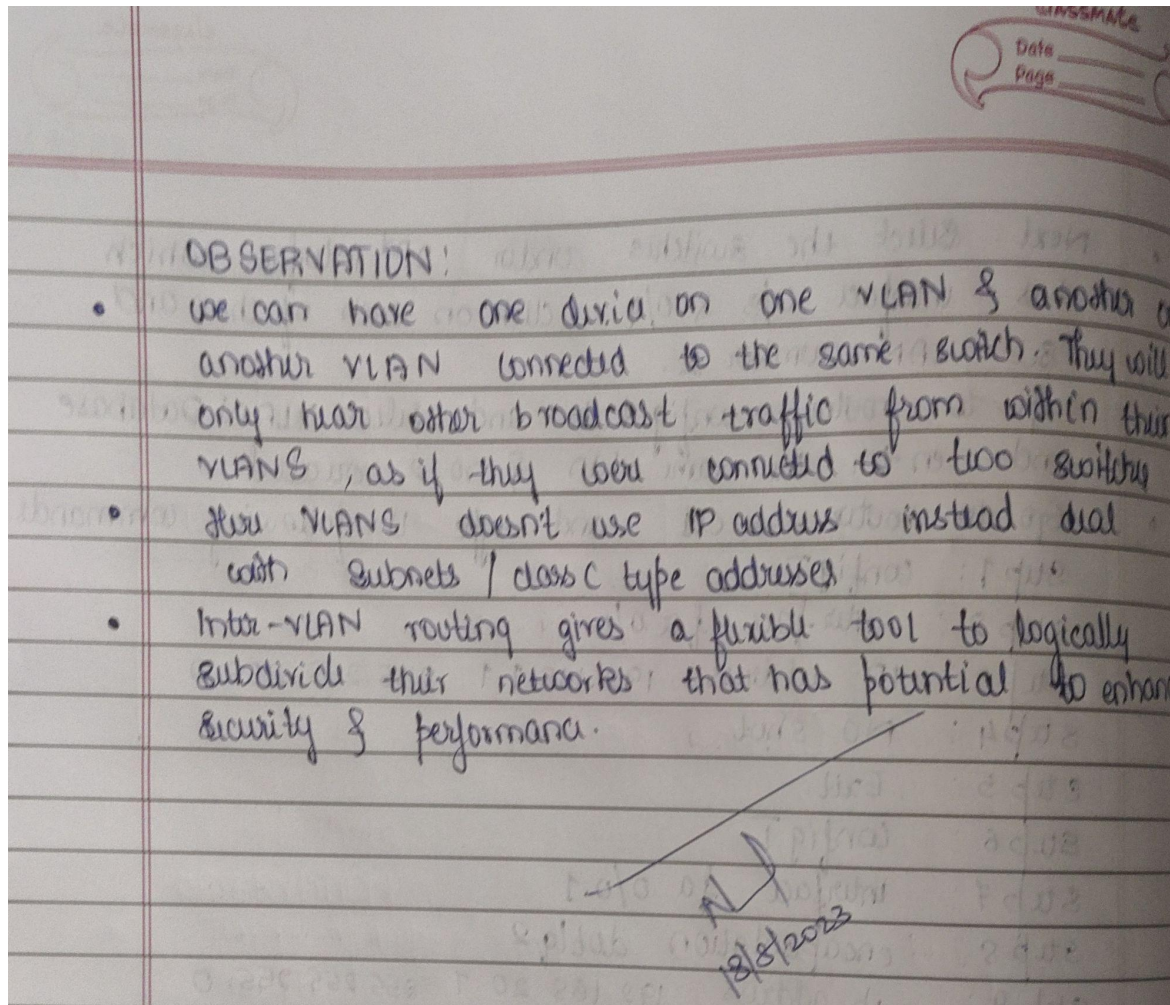Reply from 192.168.20.3 : bytes = 32 time = 6ms TTL = 127

Ping statistics for 192.168.20.3:

Packets : Sent = 4, Received = 3, Lost = 1 (25% loss),

Approximate round trip times in milliseconds:

Minimum = 0ms, Maximum = 5ms, Average = 1ms

OBSERVATION:

- we can have one device on one VLAN & another on another VLAN connected to the same switch. They will only hear other broadcast traffic from within their VLANs, as if they were connected to two switches.
- these VLANS doesn't use IP address instead deal with Subnets / class C type addresses
- Inter-VLAN routing gives a flexible tool to logically subdivide their networks that has potential to enhance security & performance.

18/8/2023

TOPOLOGY:

OUTPUT:

Command Prompt

Packet Tracer PC Command Line 1.0
PC>ping 192.168.20.3

Pinging 192.168.20.3 with 32 bytes of data:

Request timed out.
Reply from 192.168.20.3: bytes=32 time=0ms TTL=127
Reply from 192.168.20.3: bytes=32 time=5ms TTL=127
Reply from 192.168.20.3: bytes=32 time=0ms TTL=127

Ping statistics for 192.168.20.3:
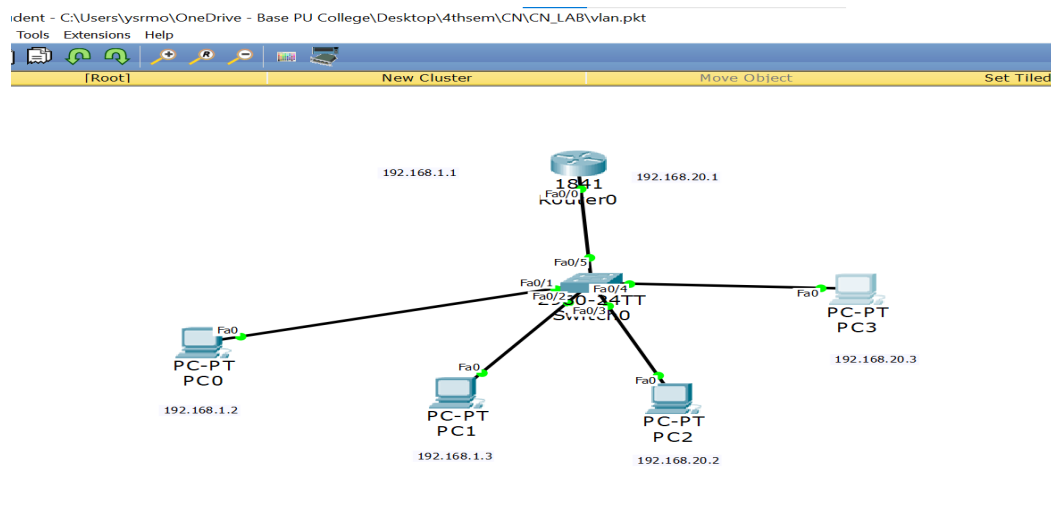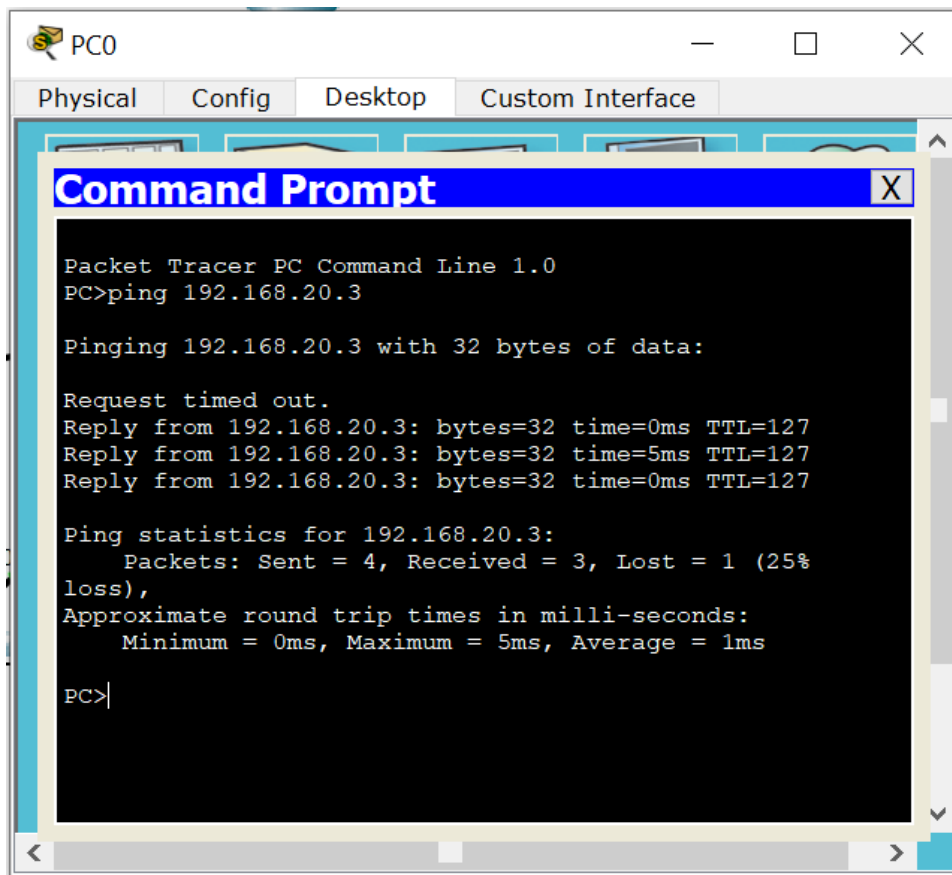   Packets: Sent = 4, Received = 3, Lost = 1 (25%
loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 5ms, Average = 1ms

PC>