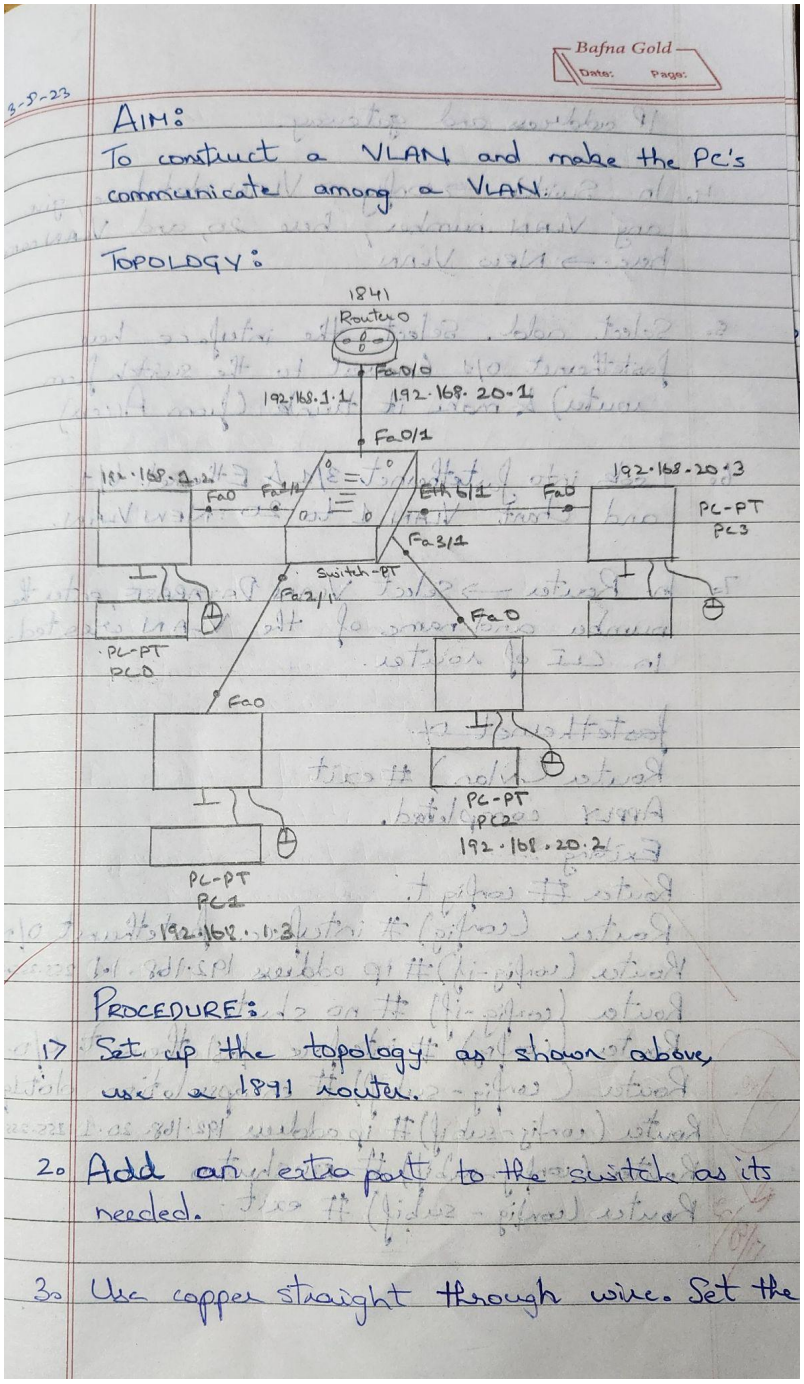
EXPERIMENT 11

AIM:

To construct a VLAN and make the PC's communicate among a VLAN.

OBSERVATION:



IP address and gateway.

4. In Switch → config → VLAN database, give any VLAN number, here 20, and VLAN name here → NEW VLAN

5. Select add. Select the interface here fastethernet 0/1 (nearest to the switch from router) & make it trunk (from Access)

6. Look into fastethernet 3/1 & Ethernet 6/1 and chant VLAN 1 to 20 : NEW VLAN.

7. In Router → Select VLAN DATABASE, enter the number and name of the VLAN created. In CLI of router.

~~fastethernet 0/~~
Router (vlan) #exit
APPLY completed.
Exiting ....
Router # config t
Router (config) # interface fastethernet 0/0
Router (config-if) # ip address 192.168.1.1 255.255.255.0
Router (config-if) # no shut
Router (config) # interface fastethernet 0/0.1
Router (config-subif) # encapsulation dot1q 20
Router (config-subif) # ip address 192.168.20.1 255.255.255.0
Router (config-subif) # no shut
Router (config-subif) # exit.

17/8/23

Bafna Gold
Date: Page:

RESULT: (in PC0)

PC > ping 192.168.10.3

Pinging 192.168.1.3 with 32 bytes of data:

Reply from 192.168.1.3: bytes = 32 time = 1ms TTL = 120
Reply from 192.168.1.3: bytes = 32 time = 0ms TTL = 128
Reply from 192.168.1.3: bytes = 32 time = 0ms TTL = 128
Reply from 192.168.1.3: bytes = 32 time = 0ms TTL = 128

Ping statistics for 192.168.1.3:
Packets: Sent = 4, Received = 4, Lost = 0 (0% Loss)
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms.

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 = 1ms TTL = 127
Reply from 192.168.20.3: bytes = 32 time = 0ms TTL = 127
Reply from 192.168.20.3: bytes = 32 time = 0ms TTL = 127

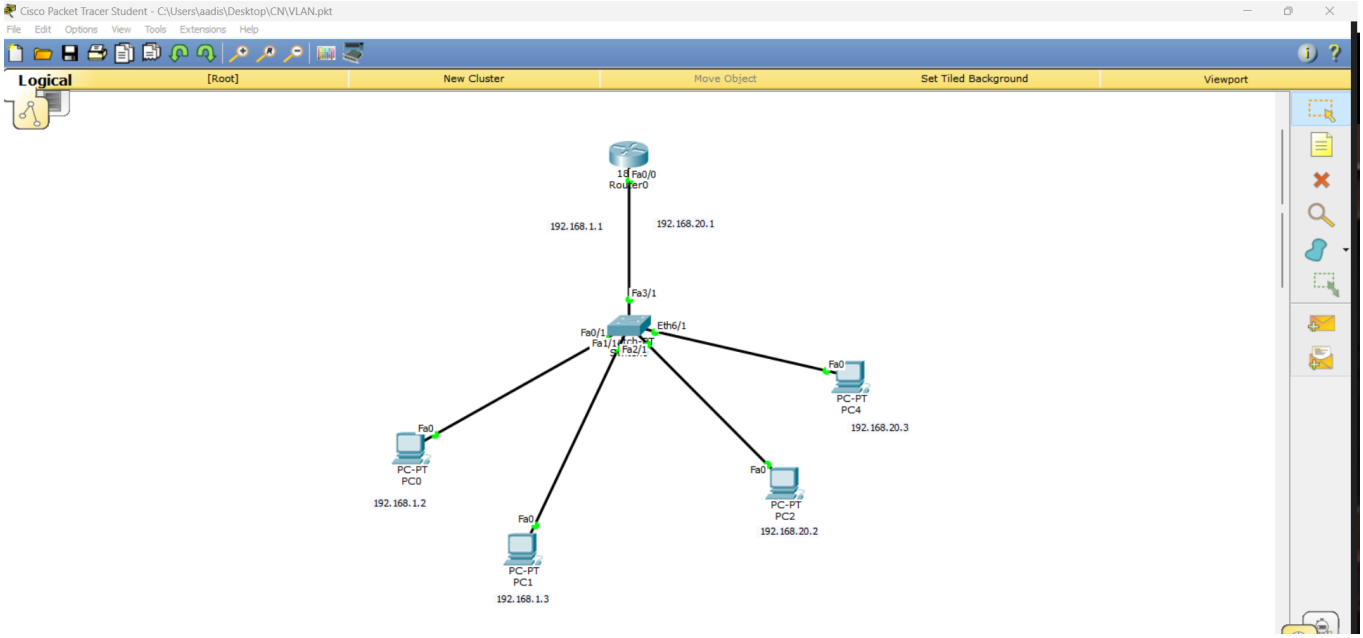
Ping statistics for 192.168.20.3:
Packets: Sent = 4, Received = 3, Lost = 1
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms

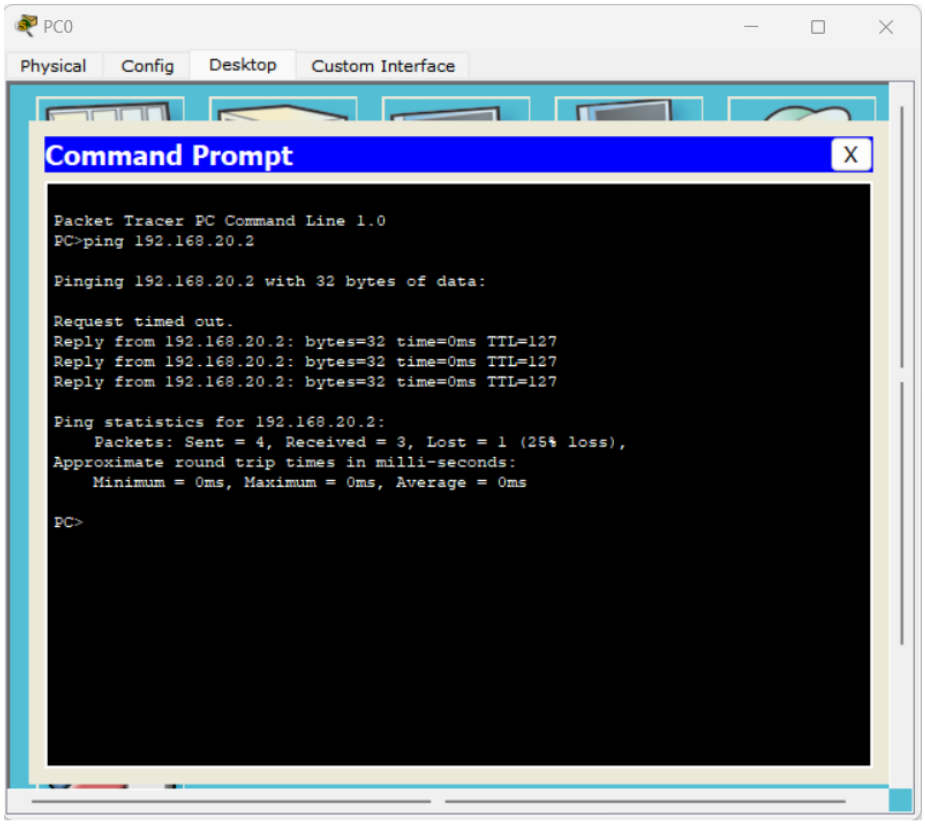
OBSERVATIONS:

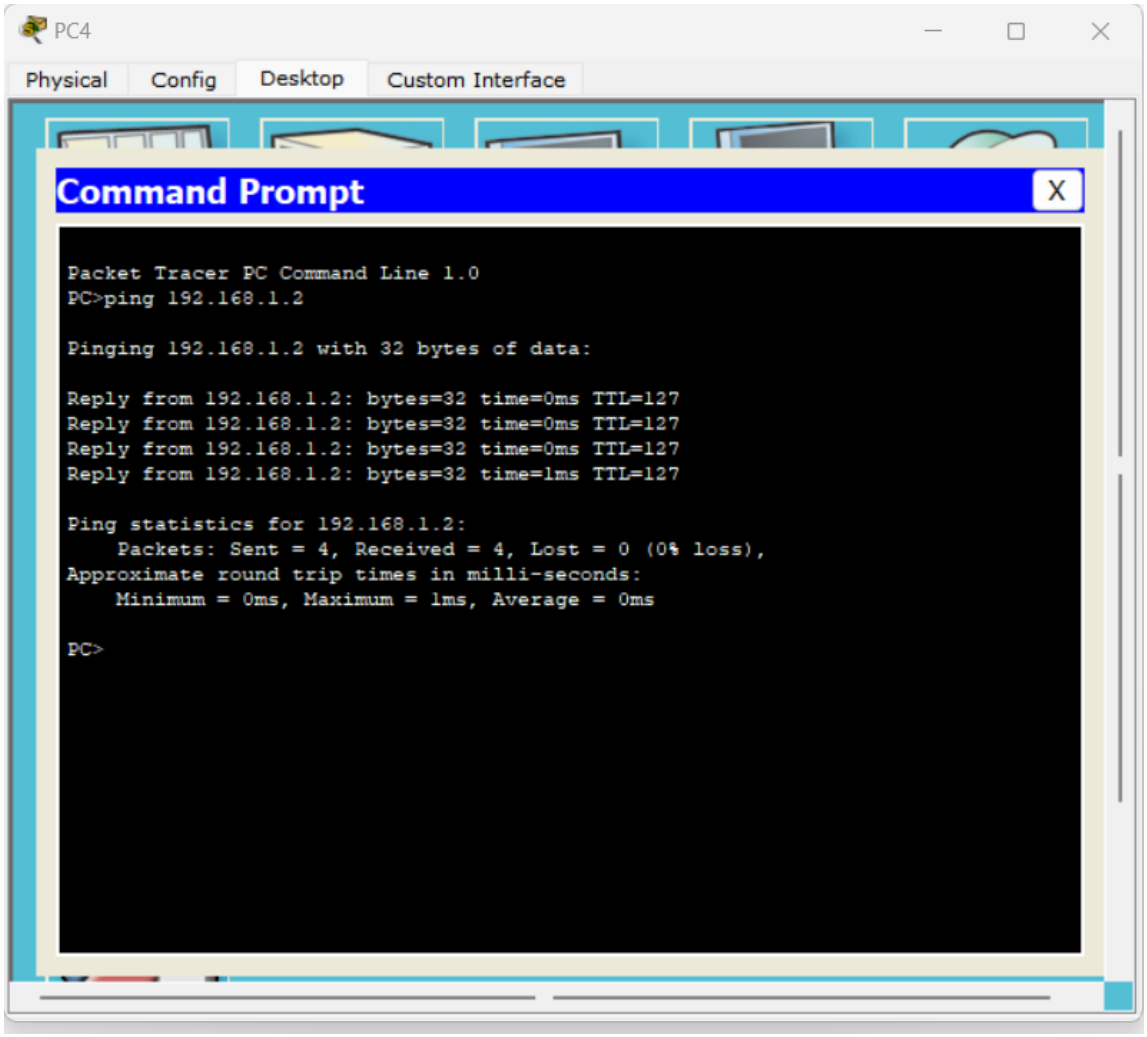
1. VLAN → Virtual Local Area Network is any broadcast domain that is partitioned and isolated in a computed network at the data link layer.

2. It is a virtualized connection that connects multiple devices and network nodes from different LAN's into one logical network.

Result:


Cisco Packet Tracer Student - C:\Users\aadis\Desktop\CN\VLAN.pkt
File Edit Options View Tools Extensions Help
Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
Fa0/0
Router0
192.168.1.1
192.168.20.1
Fa3/1
Fa0/1
Fa1/1
Eth6/1
Fa2/1
Fa0
PC-PT
PC4
192.168.20.3
Fa0
PC-PT
PC0
192.168.1.2
Fa0
PC-PT
PC2
192.168.20.2
Fa0
PC-PT
PC1
192.168.1.3


PC0
Physical
Config
Desktop
Custom Interface
Command Prompt
X
Packet Tracer PC Command Line 1.0
PC>ping 192.168.20.2
Pinging 192.168.20.2 with 32 bytes of data:
Request timed out.
Reply from 192.168.20.2: bytes=32 time=0ms TTL=127
Reply from 192.168.20.2: bytes=32 time=0ms TTL=127
Reply from 192.168.20.2: bytes=32 time=0ms TTL=127
Ping statistics for 192.168.20.2:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
PC>


PC4
Physical
Config
Desktop
Custom Interface
Command Prompt
X
Packet Tracer PC Command Line 1.0
PC>ping 192.168.1.2
Pinging 192.168.1.2 with 32 bytes of data:
Reply from 192.168.1.2: bytes=32 time=0ms TTL=127
Reply from 192.168.1.2: bytes=32 time=0ms TTL=127
Reply from 192.168.1.2: bytes=32 time=0ms TTL=127
Reply from 192.168.1.2: bytes=32 time=1ms TTL=127
Ping statistics for 192.168.1.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
PC>