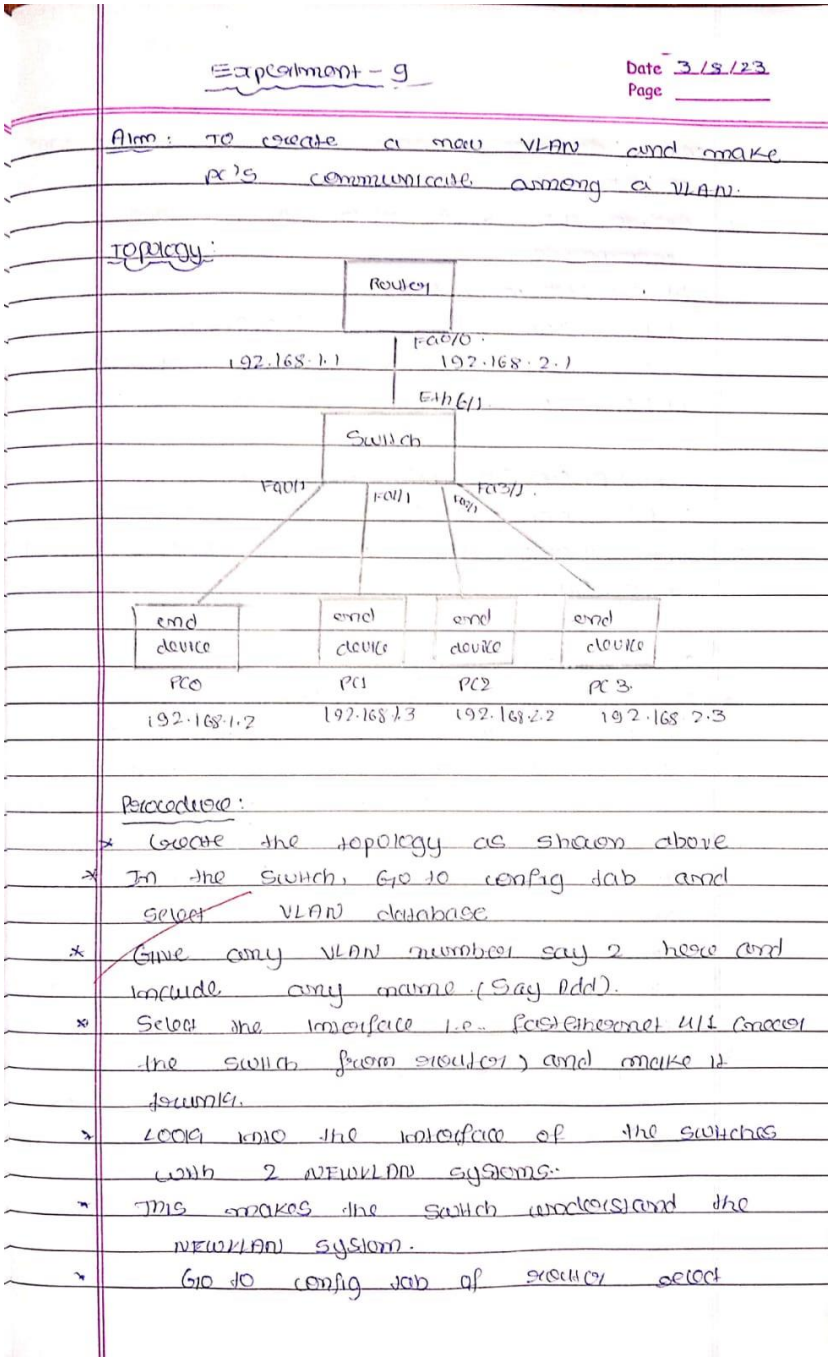
WEEK 9

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

OBSERVATION:



Experiment - 9

Date 3/8/23
Page

Aim: To create a new VLAN and make PC's communicate among a VLAN.

Topology:

Procedure:

* Create the topology as shown above
* In the switch, Go to config tab and select VLAN database
* Give any VLAN number say 2 here and include any name (Say Add).
* Select the interface i.e. fastethernet 1/1 connect the switch from switch) and make it dynamic.
* Look into the interface of the switches with 2 NEWVLAN systems.
* This makes the switch understand the NEWVLAN system.
* Go to config tab of router select

VLAN database enter the number and name of the VLAN created.

* Go to CLI and enter the following commands:

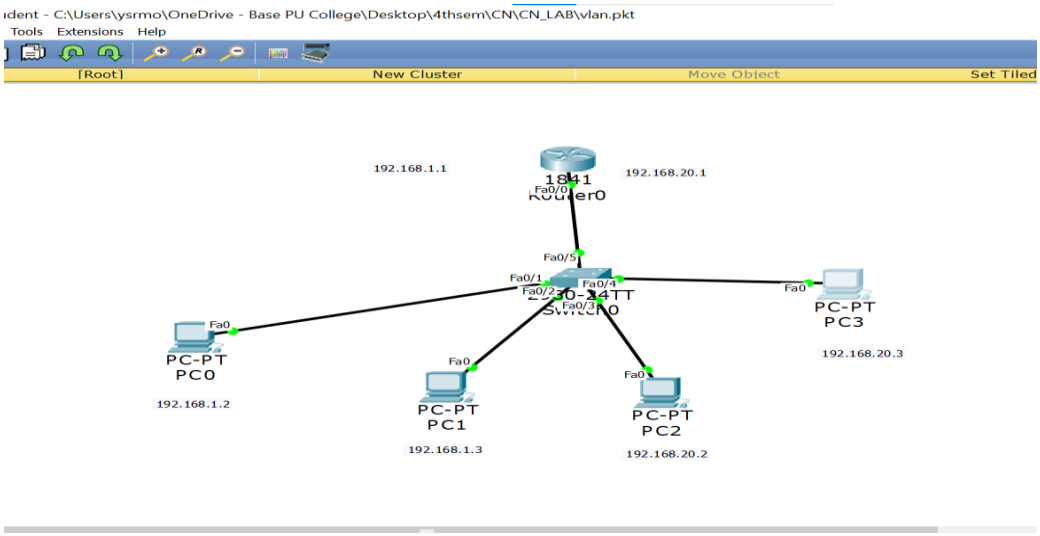
1] Router# config t
2] Router(config)# interface fa0/0.1
3] Router(config-subif)# encapsulation dot 1q 2
4] Router(config-subif)# ip address 192.168.2.1 255.255.255.0
5] Router(config-subif)# no shut
6] Router(config-subif)# exit

* This makes the router understand about new VLAN

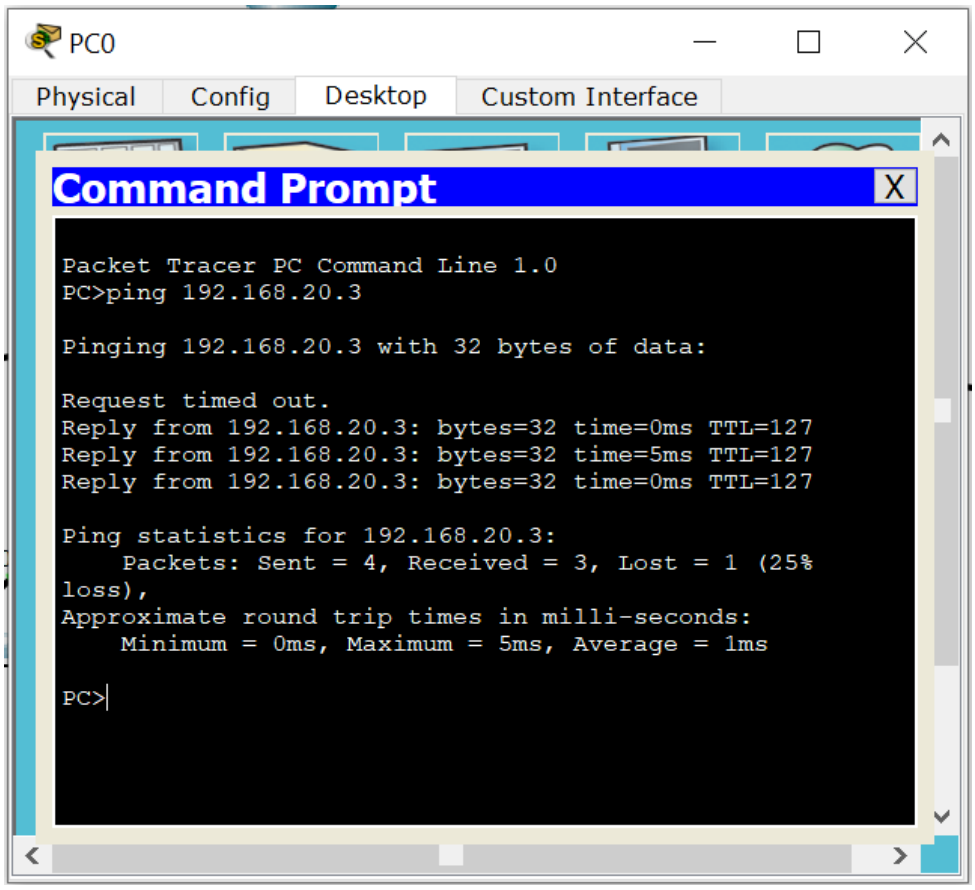
Observation:

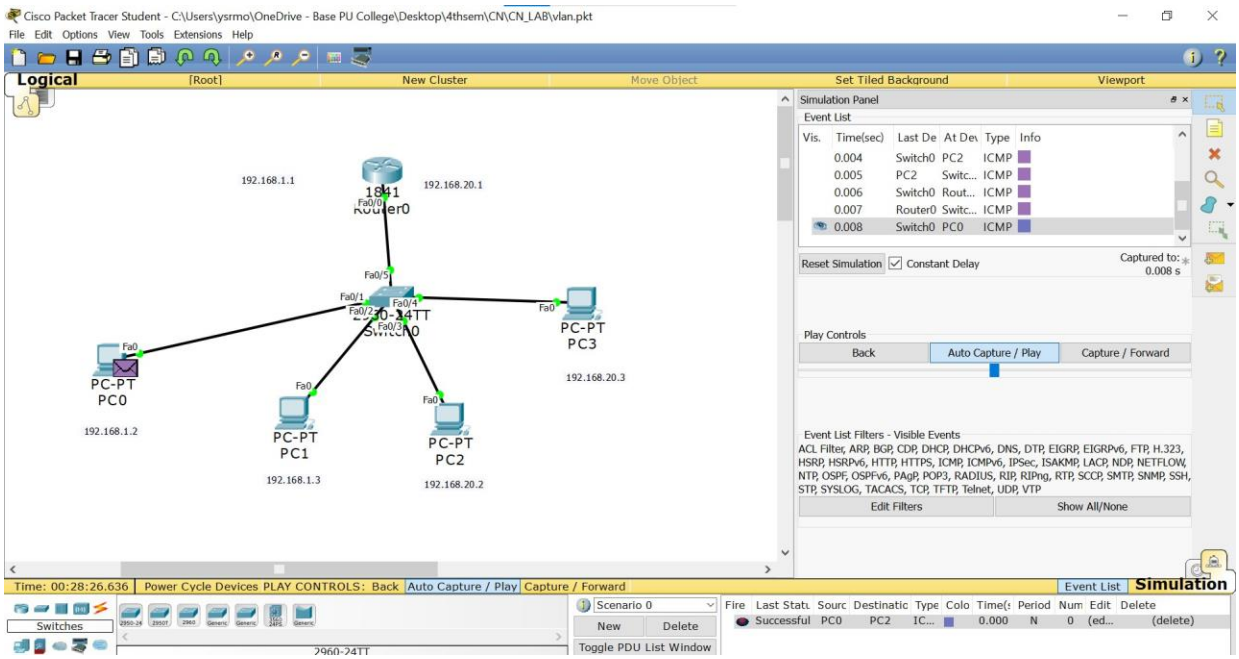
* VLAN stands for virtual local area network.
* VLAN is a custom network which is created from one or more local area networks. It enables a group of devices available in multiple networks to be combined into one logical network. The result becomes a virtual LAN that is administered exactly like a physical VLAN. It is a virtual extension of LAN.
* encapsulation dot1q is the networking standard that supports virtual LANs on an IEEE 802.3 Ethernet network.

TOPOLOGY:


ident - C:\Users\ysrmo\OneDrive - Base PU College\Desktop\4thsem\CN\CN_LAB\vlan.pkt
Tools Extensions Help
[Root]
New Cluster
Move Object
Set Tiled
192.168.1.1
1841
Router0
Fa0/0
192.168.20.1
Fa0/5
Fa0/1
Fa0/4
Fa0/3
Fa0
PC-PT
PC0
192.168.1.2
Fa0
PC-PT
PC1
192.168.1.3
Fa0
PC-PT
PC2
192.168.20.2
Fa0
PC-PT
PC3
192.168.20.3

OUTPUT:


PC0
Physical
Config
Desktop
Custom Interface
Command Prompt
X
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>


Logical
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
192.168.1.1
192.168.20.1
192.168.1.2
192.168.1.3
192.168.20.2
192.168.20.3
Simulation Panel
Event List
Play Controls
Back
Auto Capture / Play
Capture / Forward
Simulation