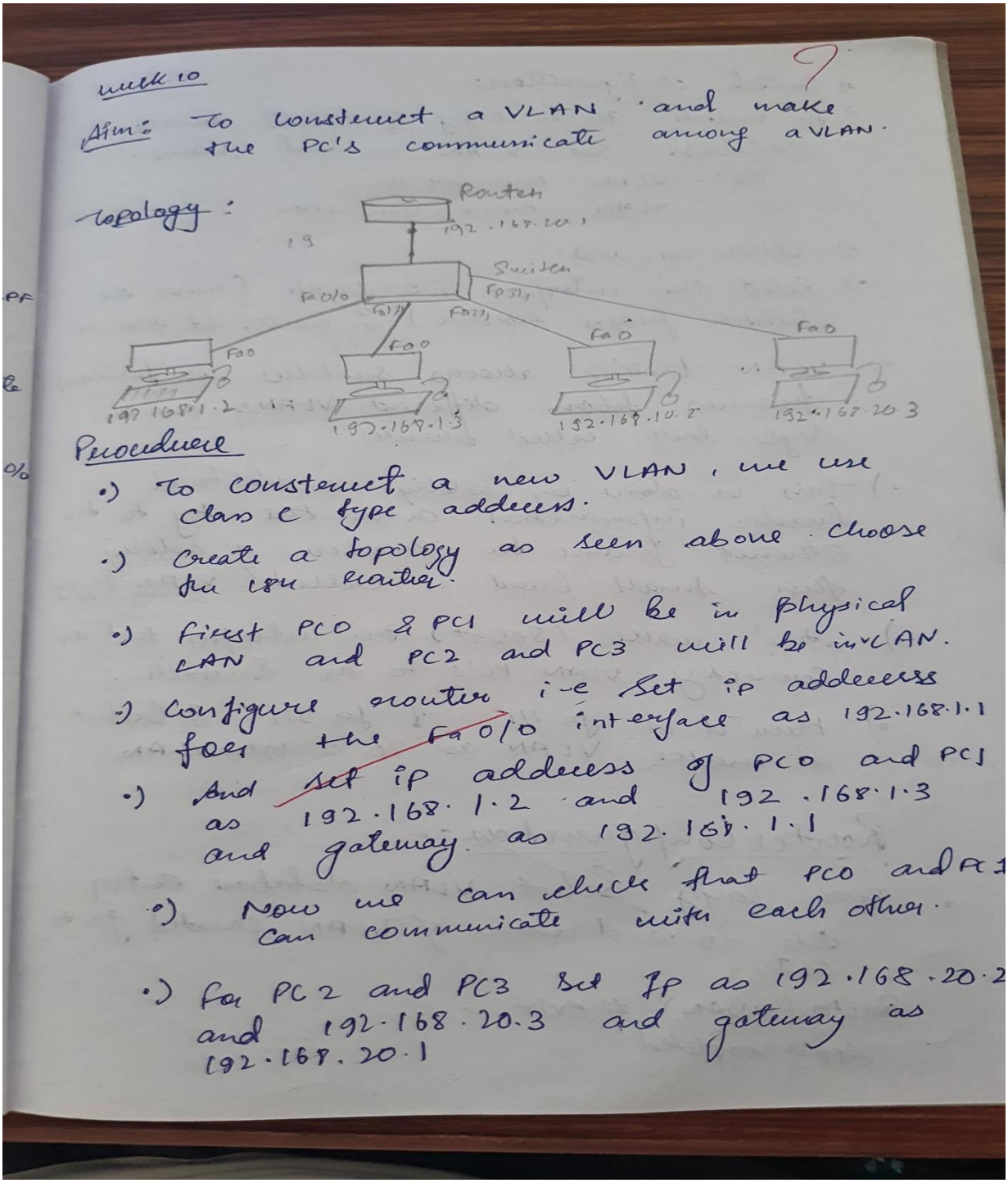
CN LAB 11

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

OBSERVATION:



•) Switch configuration:-

•) In Switch go to config & Select VLAN database. Set VLAN no and name.

Ex:- VLAN Number 20
VLAN Name New VLAN

•) Click on add.

•) Select the interface i.e fa 0/1 (near the Switch from router) & make it trunk.

•) VLAN trunking allows Switches to forward frames from different VLANs over a single link called trunk.

•) This is done by adding an additional header information called the tag to the ethernet frame the process of adding this small head is called VLAN tagging

•) And make (Select) the interface that as connecting VLAN PC's to the Switch.

•) Here it is fa 2/1 & fa 3/1 . & Select & make VLAN as 20 : new VLAN

Router Configuration :-

• Open config Select VLAN database enter the no and name of VLAN created go to CLI

Router (VLAN) # exit
Apply completed.

existing
Routing #config t
Router (config) #interface fa0/0
Router (config-subif) # encapsulation dot1q 2
Route (config-subif) # ip address 192.168.20.1
255.255.255.0
Router (config-subif) # no shutdown.

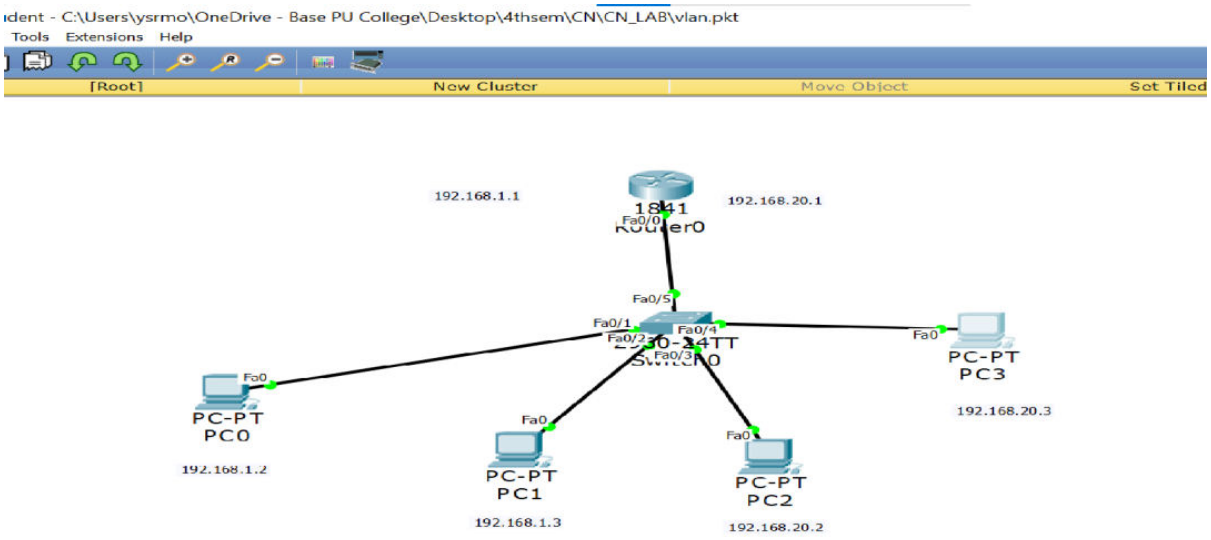
→ Now ping
from PC0 to PC3
→ Ping 192.168.20.3
You will get a successful transmission from PC0 to PC3.

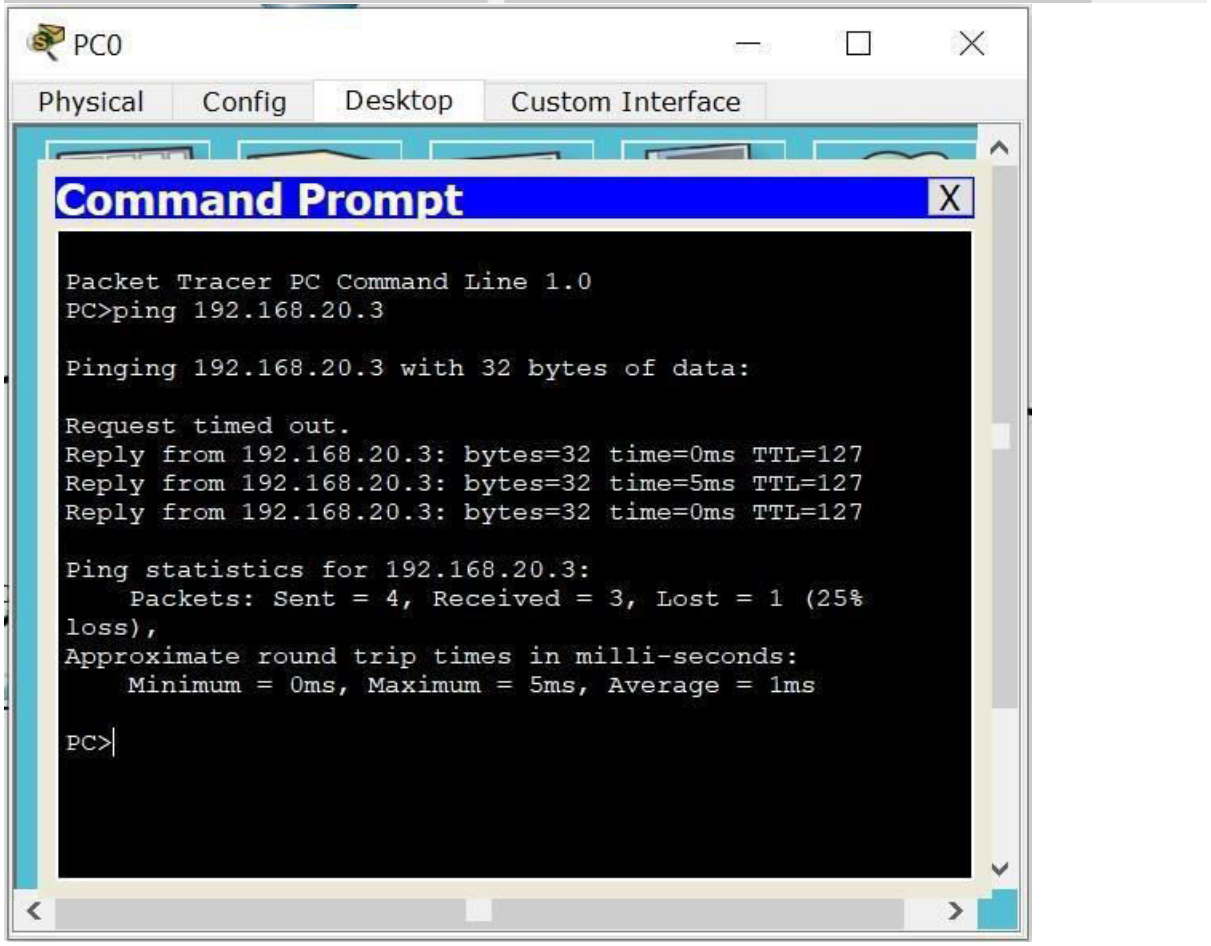
Observation

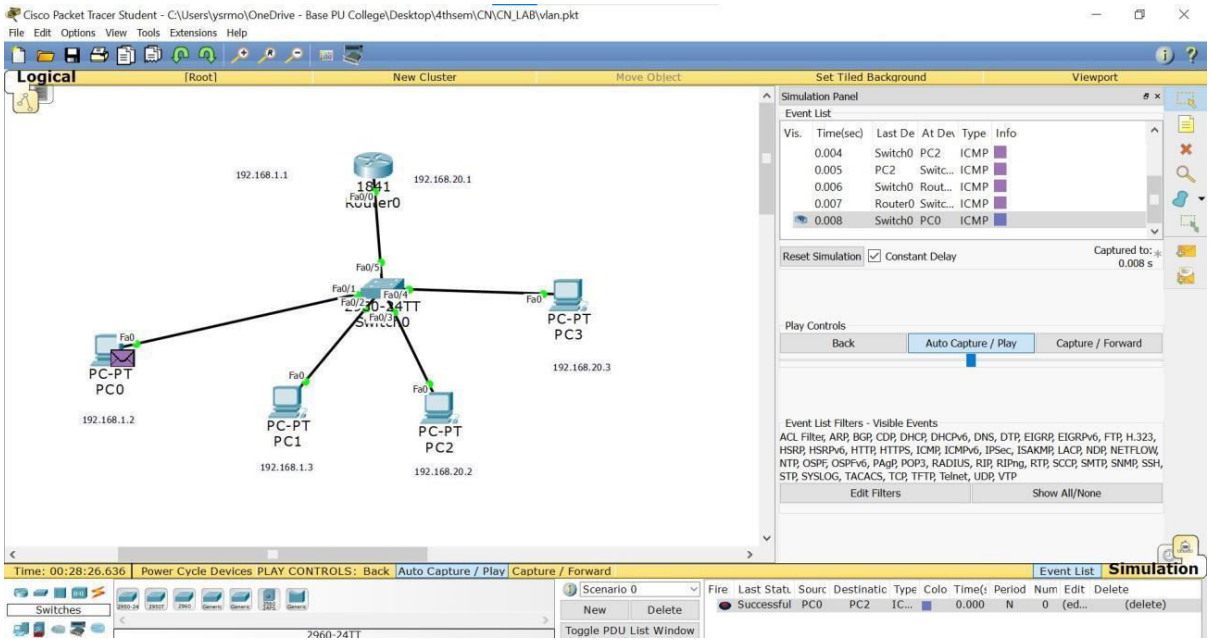
Even though we are using a single router we can use multiple different networks And those networks will work as virtual networks. And we can communicate from physical LAN to VLAN and vice versa.

9/9/23

SCREENSHOTS:






Cisco Packet Tracer Student - C:\Users\ysrmo\OneDrive - Base PU College\Desktop\4thsem\CN\CN_LAB\vlan.pkt
File Edit Options View Tools Extensions Help
Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
192.168.1.1
192.168.20.1
Fa0/0
Fa0/5
Fa0/1
Fa0/4
Fa0/2
Fa0/3
Fa0
PC-PT
PC0
192.168.1.2
PC-PT
PC1
192.168.1.3
PC-PT
PC2
192.168.20.2
PC-PT
PC3
192.168.20.3
Simulation Panel
Event List
Vis. Time(sec) Last De At De Type Info
0.004 Switch0 PC2 ICMP
0.005 PC2 Switc... ICMP
0.006 Switch0 Rout... ICMP
0.007 Router0 Switc... ICMP
0.008 Switch0 PC0 ICMP
Reset Simulation
Constant Delay
Captured to:
0.008 s
Play Controls
Back
Auto Capture / Play
Capture / Forward
Event List Filters - Visible Events
ACL Filter, ARP, BGP, CDP, DHCP, DHCPv6, DNS, DTP, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, LACP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, RADIUS, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, VTP
Edit Filters
Show All/None
Time: 00:28:26.636
Power Cycle Devices PLAY CONTROLS: Back
Auto Capture / Play
Capture / Forward
Event List
Simulation
Switches
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Stat Sourc Destinatic Type Colo Time(s Period Num Edit Delete
Successful PC0 PC2 IC... 0.000 N 0 (ed... (delete)