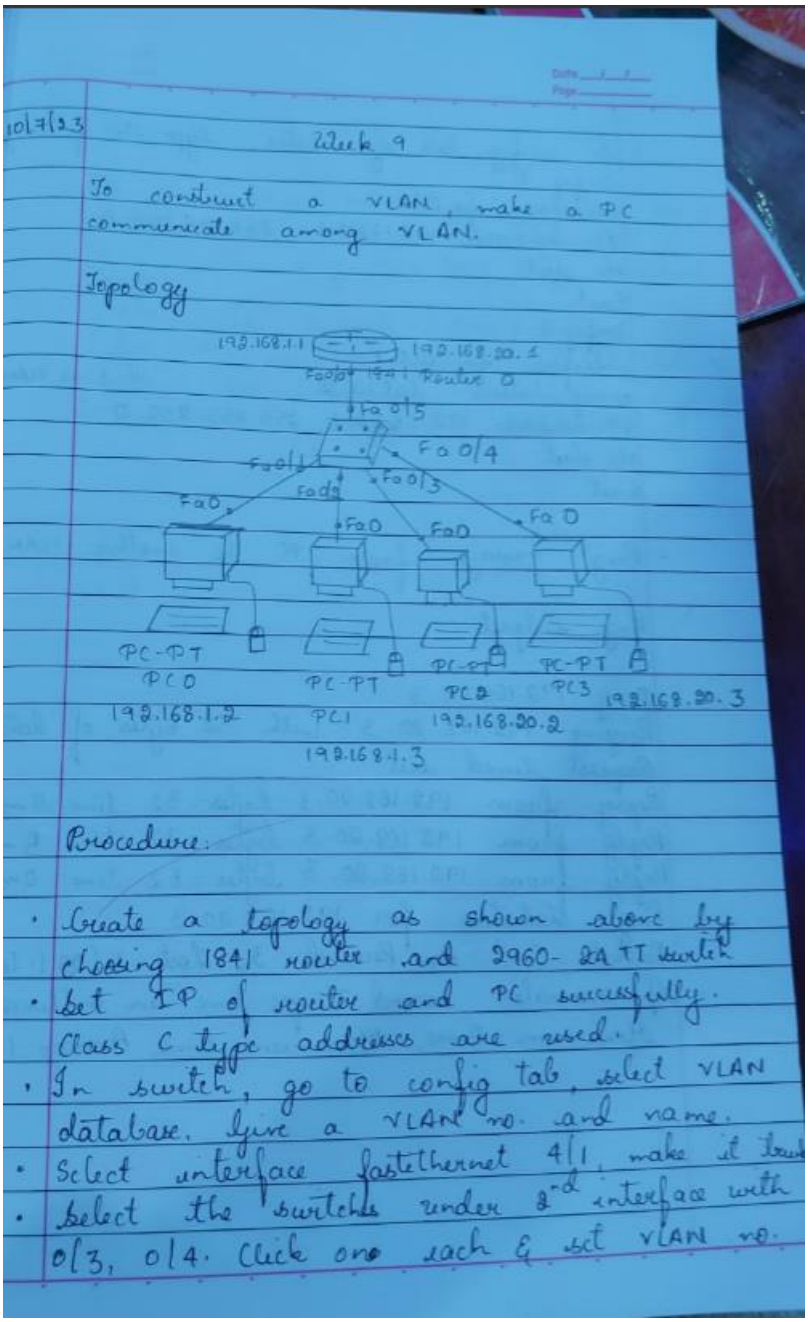
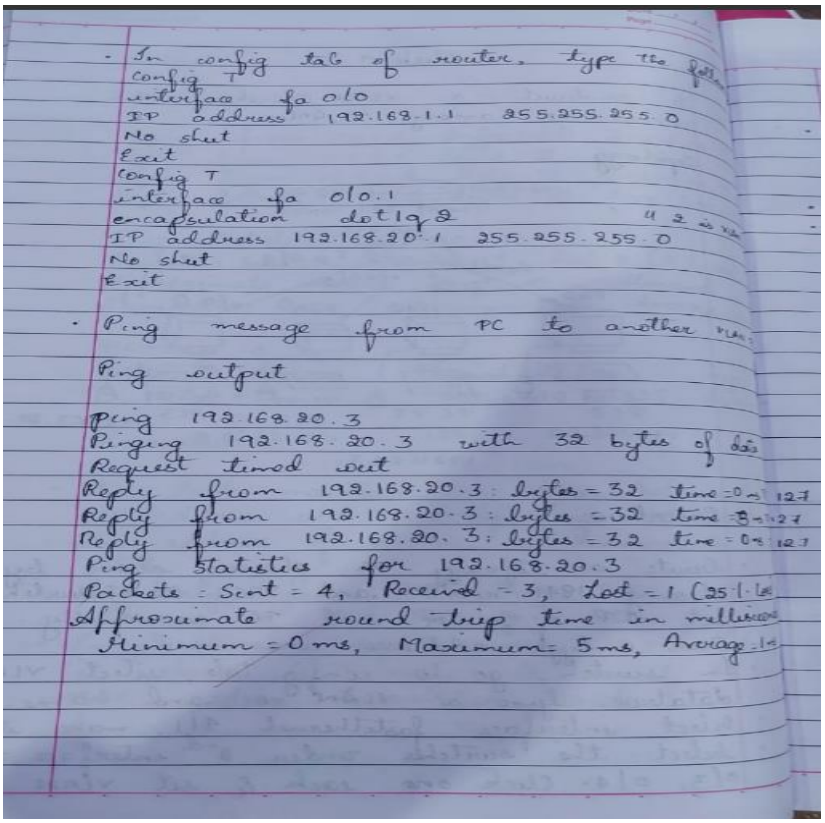
WEEK 9

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

OBSERVATION:



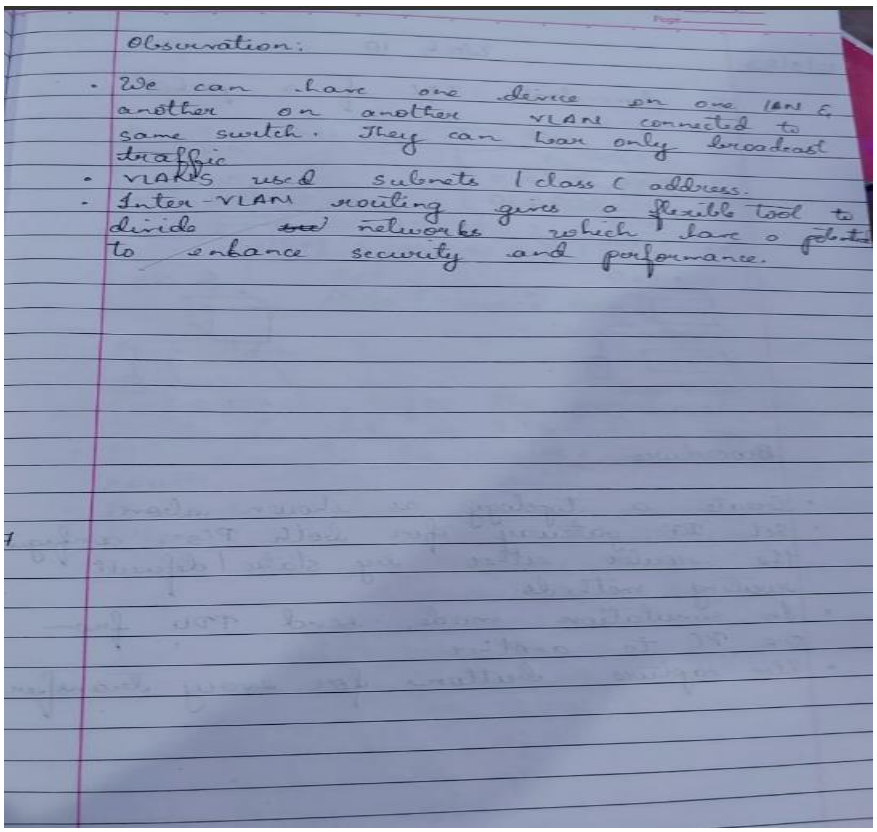


- In config tab of router, type the following
  config T
  interface fa 0/0
  IP address 192.168.1.1 255.255.255.0
  No shut
  Exit
  Config T
  interface fa 0/0.1
  encapsulation dot1q 2 (2 is VLAN)
  IP address 192.168.20.1 255.255.255.0
  No shut
  Exit

- Ping message from PC to another VLAN:

  Ping output

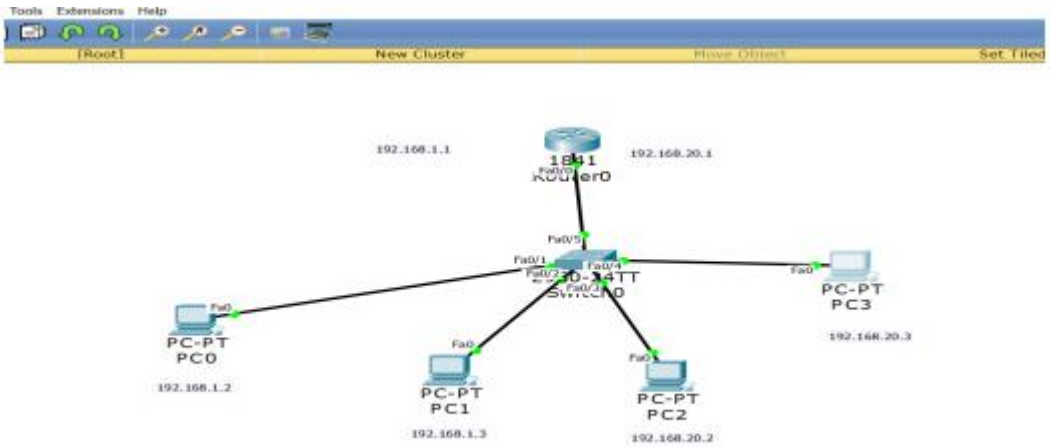
  Ping 192.168.20.3
  Pinging 192.168.20.3 with 32 bytes of data:
  Request timed out
  Reply from 192.168.20.3: bytes = 32 time = 0ms TTL=127
  Reply from 192.168.20.3: bytes = 32 time = 0ms TTL=127
  Reply from 192.168.20.3: bytes = 32 time = 0ms TTL=127
  Ping statistics for 192.168.20.3
  Packets: Sent = 4, Received = 3, Lost = 1 (25% loss)
  Approximate round trip time in milliseconds:
  Minimum = 0ms, Maximum = 5ms, Average = 1ms



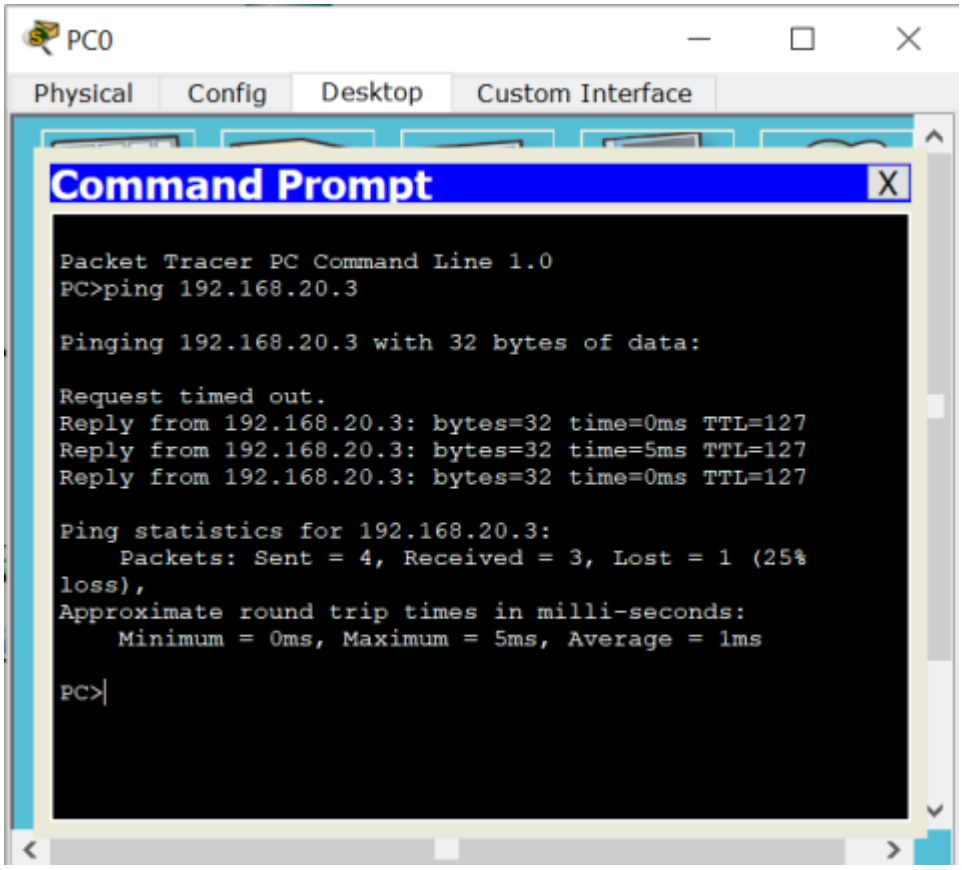
Observation:

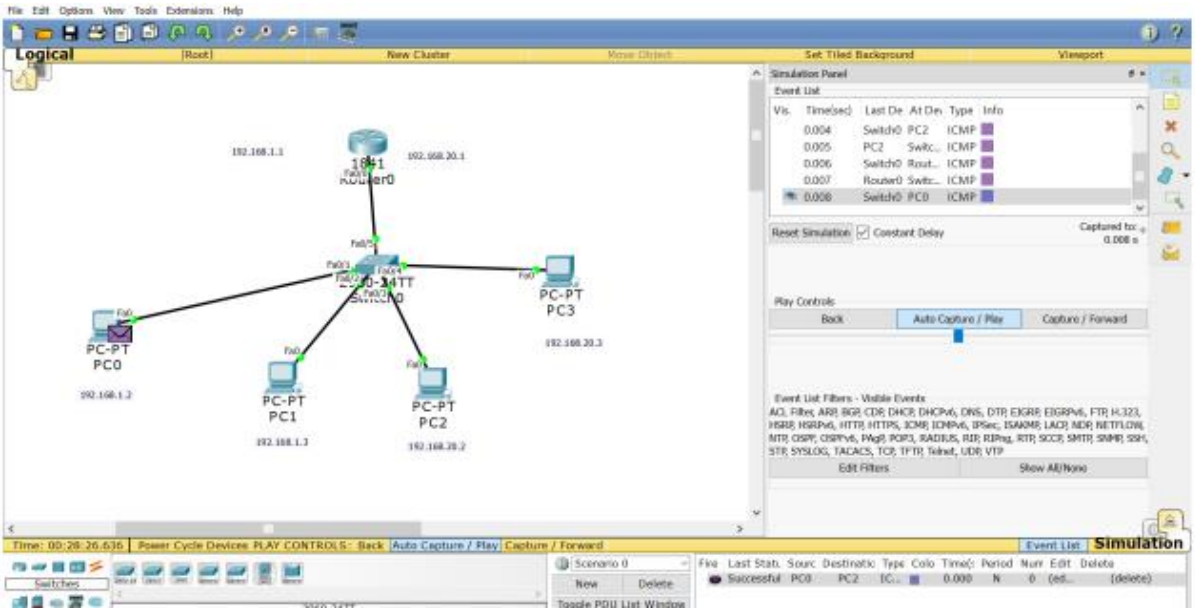
- We can have one device on one VLAN & another on another VLAN connected to same switch. They can have only broadcast traffic
- VLANS used subnets I class C address.
- Inter-VLAN routing gives a flexible tool to divide networks which have a ~~flexible~~ to enhance security and performance.

Topology :



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
Simulation