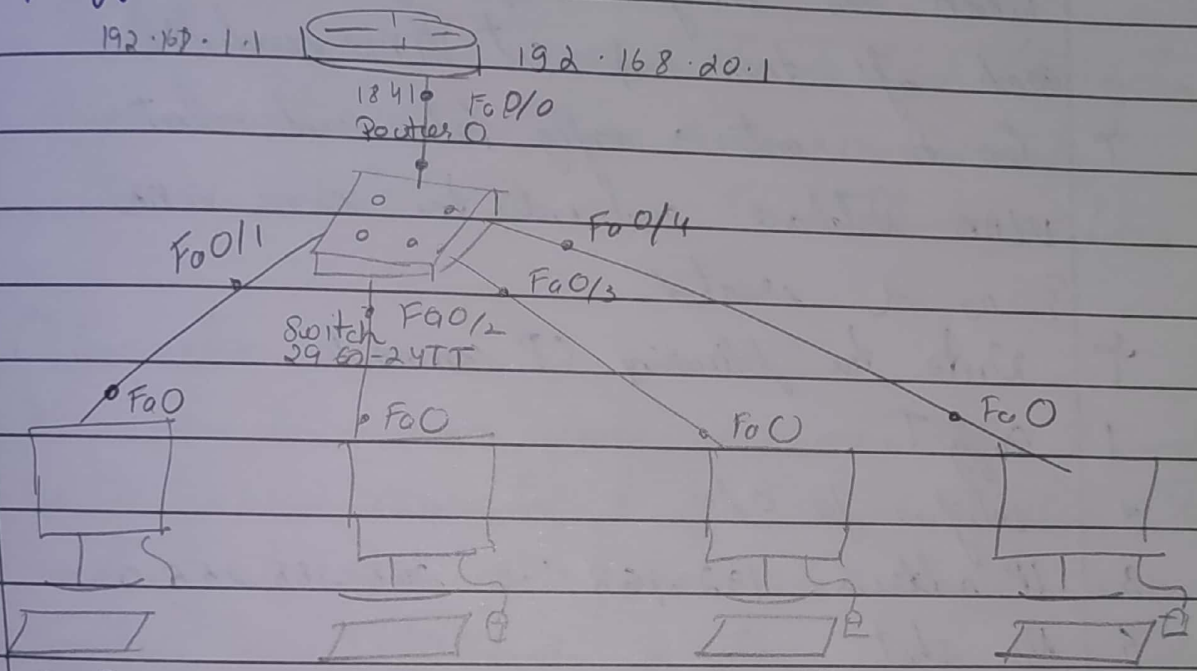
Date :

LAB 9

Aim - To construct a VLAN and make a PC communicate among VLAN

Topology



PROCEDURE :

- Create a topology as shown choose 1841 router and 2960-24TT switch from
- Set the IP address of the router and 4PC's respectively, we use class C type addresses also set gateways
- In switch, go config tab and select VLAN database

Give any VLAN no like 2 and name as VLAN

- Select the interface fast ethernet 4/1 and make it trunk
- 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.
- Write the following CP commands

1. Config T
2. interface fa 0/0
3. IP address 192.168.1.1 255.255.255.0
4. No shut
5. Exit
6. Config T
7. interface fa 0/0.1
8. encapsulation dot1q 2
9. ip address 192.168.20.7 255.255.255.0
10. No shut
11. Exit

- Ping means
Packet Tracer PC command line 1.0
PC> Ping 192.168.20.3

Date :

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

Observation:

- We can have one device one one VLAN & another on a VLAN connected to the same switch. They will only hear other broadcast traffic from within their VLANs as if they were connected to 2 switches
- Inter VLAN routing gives a flexible & logical subdivide their networks that has potential to enhance security & performance.