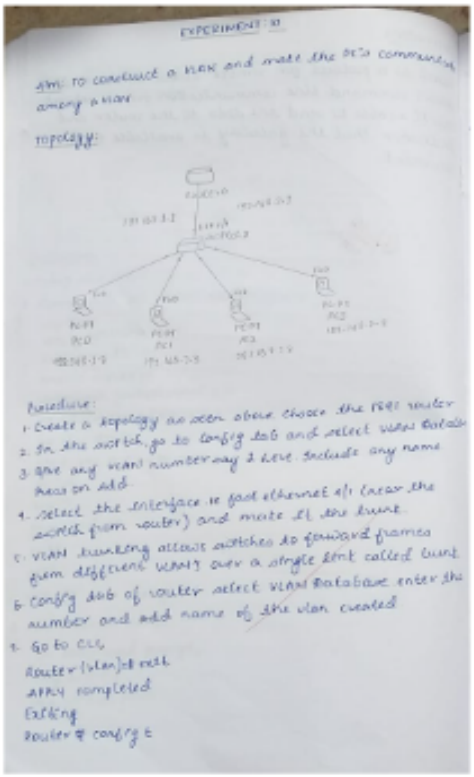
EXPERIMENT-11

Question 11:

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

Observation:



EXPERIMENT 10

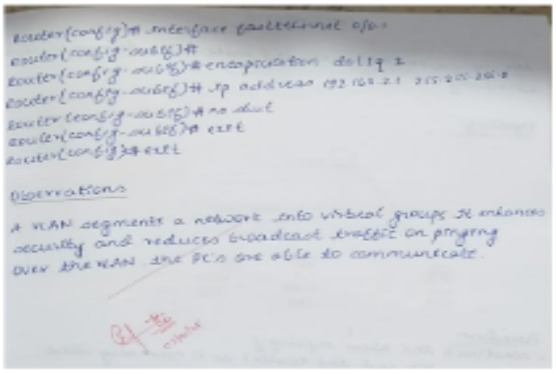
Aim: To construct a VLAN and make the PC's communicate among a VLAN

Topology:

Procedure:

1. Create a topology as seen above choose the 1841 router
2. In the switch, go to config tab and select VLAN Database
3. Give any vlan number say 2 here. Include any name then on add
4. Select the interface as fast ethernet 0/1 (near the switch from router) and make it the trunk.
5. VLAN trunking allows switches to forward frames from different VLANS over a single link called trunk
6. Config tab of router select VLAN Database enter the number and add name of the vlan created
7. Go to CLI,

Router(vlan)# exit
APPLY completed
Exiting
Router# config t

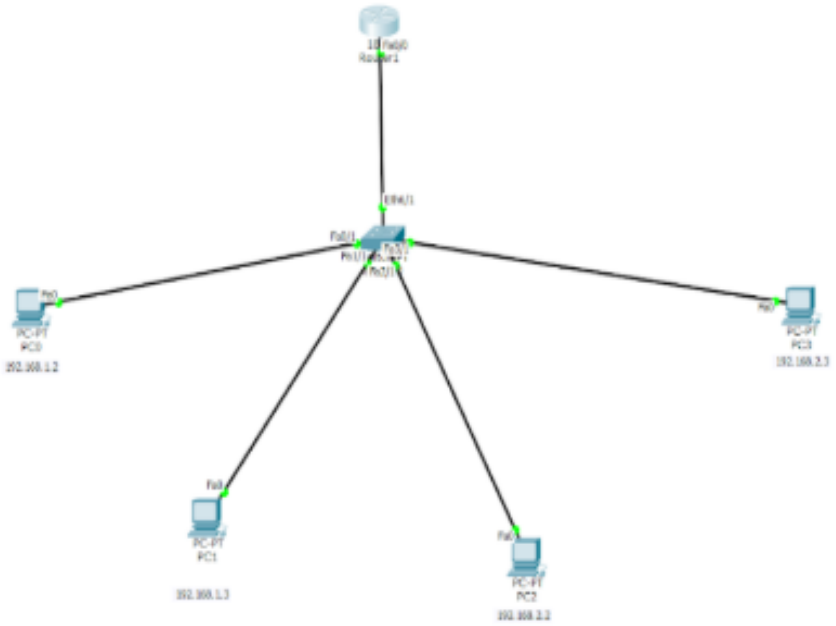


Router(config)# interface fastethernet 0/0.1
Router(config-subif)#
Router(config-subif)# encapsulation dot1q 2
Router(config-subif)# ip address 192.168.2.1 255.255.255.0
Router(config-subif)# no shut
Router(config-subif)# exit
Router(config)# exit

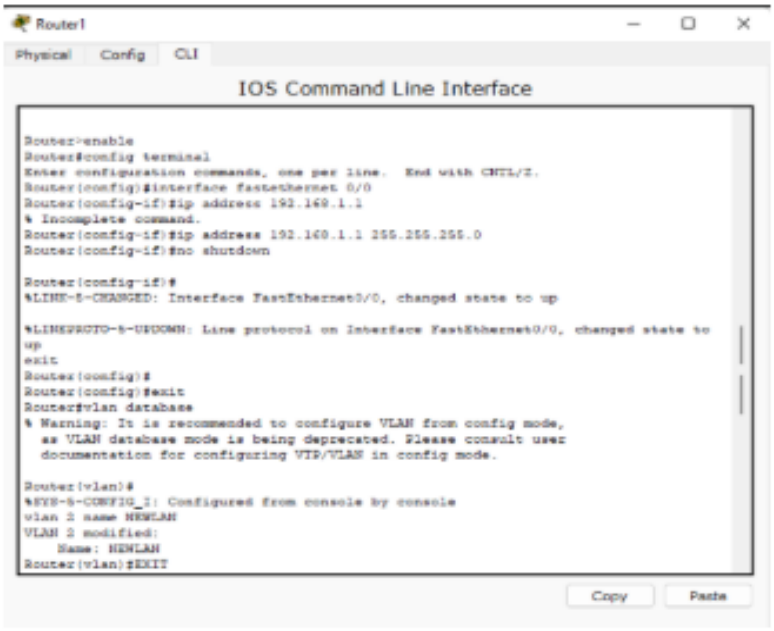
Observations

A VLAN segments a network into virtual groups to enhance security and reduces broadcast traffic on grouping over the VLAN the PC's are able to communicate.

Screenshot of the topology:



Screenshot of the output:




```
PC>ping 192.168.1.3

Pinging 192.168.1.3 with 32 bytes of data:

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=3ms 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 = 3ms, Average = 0ms
```