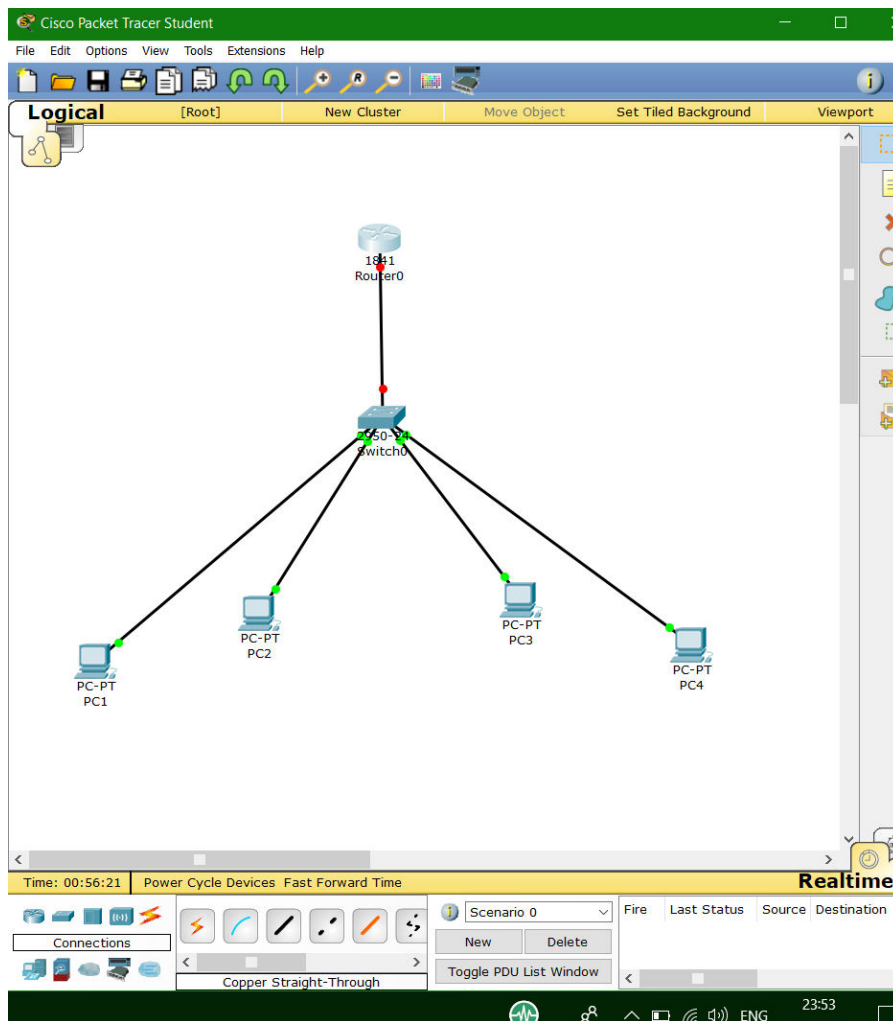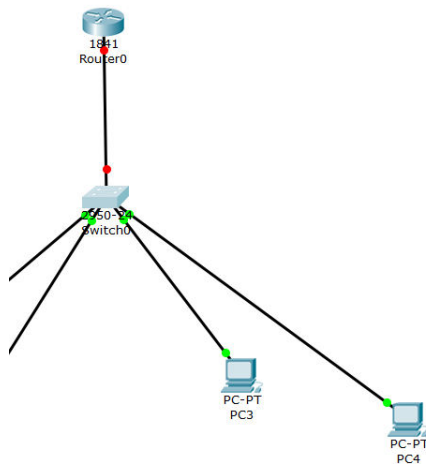# Network Analysis Project

TOPIC- Creating VLANs

by Saurav Panigrahi

Steps

1. We set up a router.

2. We set up a switch(2950,24 ports)

3. We set up 4 PCs.

4. PC 1 and PC 2 belong to one VLAN while the PC 3 and PC 4 belong to the other.

5. All the devices are wired up.

6. ios CLI for switch



```
Switch#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#vlan x
                ^
% Invalid input detected at '^' marker.

Switch(config)#vlan 1
Switch(config-vlan)#exit
Switch(config)#vlan 2
Switch(config-vlan)#exit
Switch(config)#int
% Incomplete command.
Switch(config)#interface range fastethernet 0/2-1
Switch(config-if-range)#switchport access vlan 1
Switch(config-if-range)#interface range fastethernet 0/2-10
Switch(config-if-range)#switchport access vlan 1
Switch(config-if-range)#interface range fastethernet 0/11-20
Switch(config-if-range)#switchport access vlan 2
Switch(config-if-range)#interface fastethernet 0/1
Switch(config-if)#switchport mode trunk
Switch(config-if)#exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

7. 2 Virtual Ports have been created.

8. Assigning IP address to the computers

9. ios CLi for Router
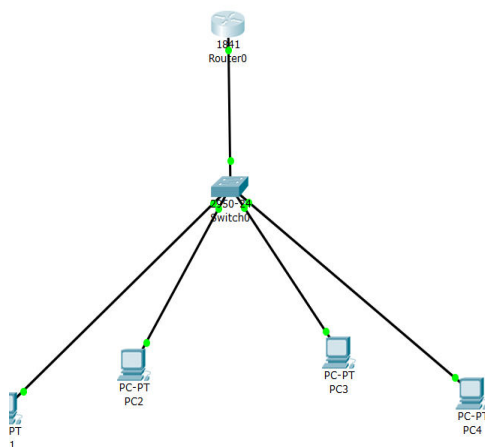

```
Router(config)#interface fastethernet 0/0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed
state to up

Router(config-if)#interface fastethernet 0/0.1
Router(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.1,
changed state to up

Router(config-subif)#encapsulation Dot1q 1
Router(config-subif)#ip address 10.0.0.1 255.0.0.0
Router(config-subif)#exit
Router(config)#interface fastethernet 0/0.2
Router(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.2,
changed state to up
```
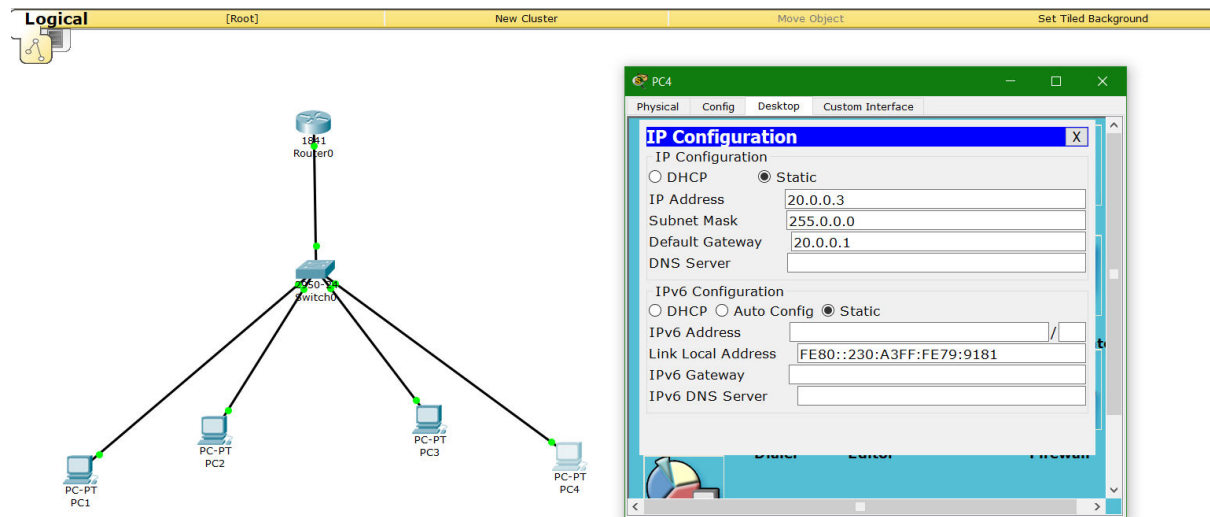
10. Assigning IP address to each PCs
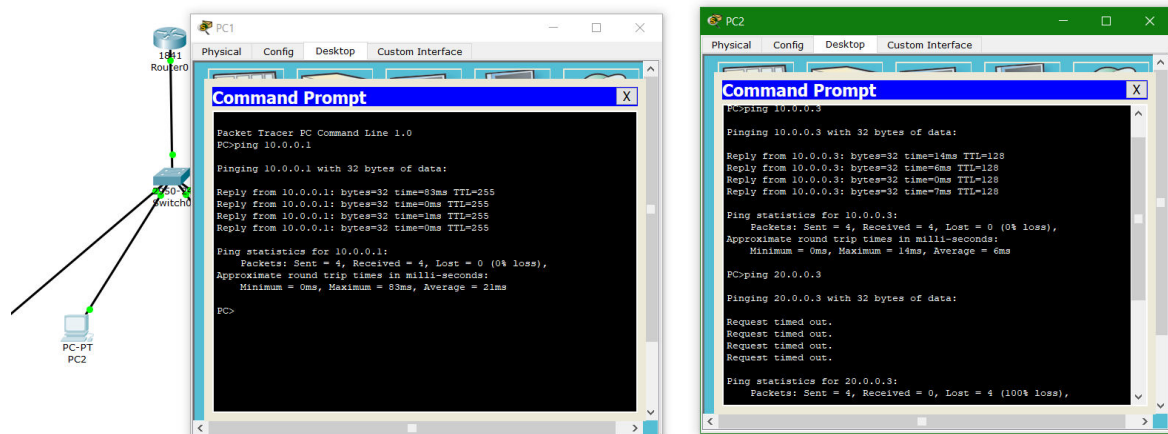
PC 1- 10.0.0.2

PC 2- 10.0.0.3

PC 3- 20.0.0.2

PC 4- 20.0.0.3

Default VLAN 1 ip - 10.0.0.1

Default VLAN 2 ip - 20.0.0.1

11. Checking the connections by testing the ping

There is req timeout in PC2 second case because it is searching route to VLAN 2.

12. Visualising in Simulation Mode