



# CISCO

## VLAN Assignment

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**SEC: O**

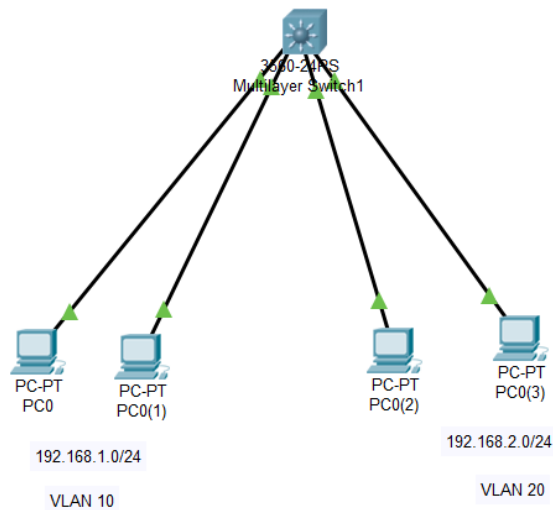
**ROLL: 28**

**AIM:**

1. Inter VLAN Routing

## **STEP 1: Set up the network topology**

**a.** Create a topology as shown below

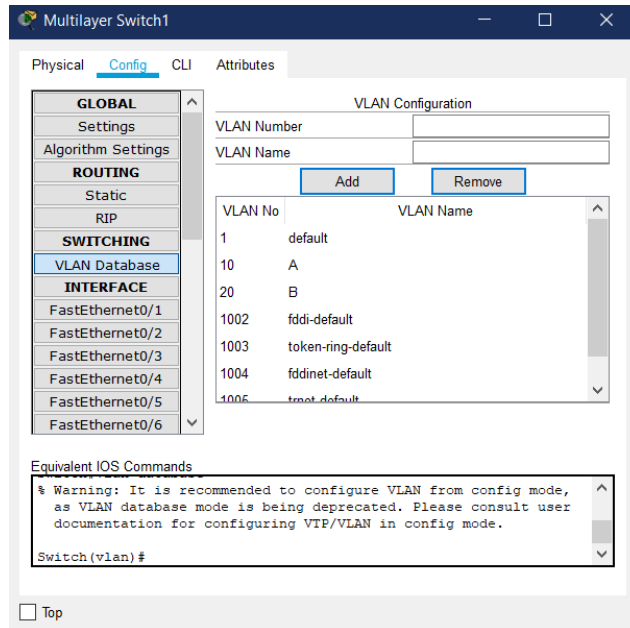


**b.** Assign static Ips to every device

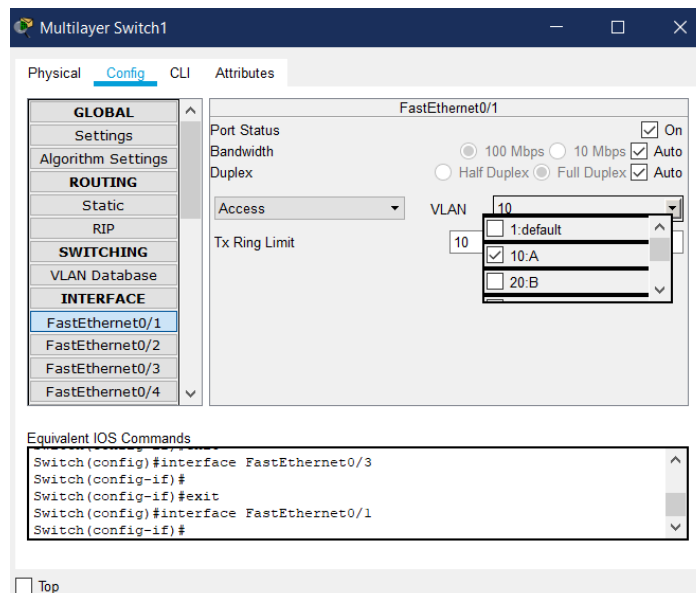
The screenshot shows the configuration window for PC0, specifically the IP Configuration tab. The interface is divided into several sections:

- IP Configuration:** The **Static** radio button is selected. The IP Address is set to 192.168.1.1, the Subnet Mask is 255.255.255.0, the Default Gateway is 0.0.0.0, and the DNS Server is 0.0.0.0.
- IPv6 Configuration:** The **Static** radio button is selected. The IPv6 Address is empty, the Link Local Address is FE80::2D0:BCFF:FE06:620B, the IPv6 Gateway is empty, and the IPv6 DNS Server is empty.
- 802.1X:** The **Use 802.1X Security** checkbox is unchecked. The Authentication is set to MD5, and the Username and Password fields are empty.

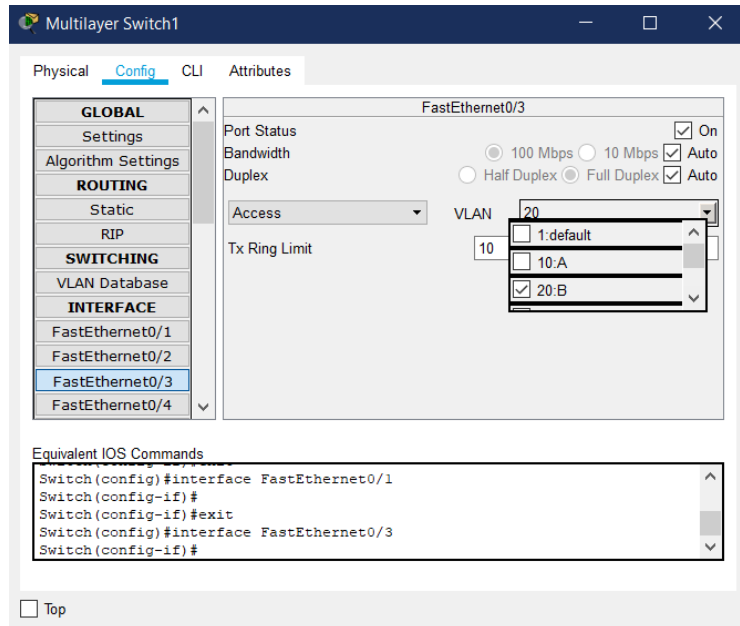
**d.** Double Click on the switch, in order to add two new VLANs 10 and VLANs 20 as shown



**e.** Assign FastEthernet0/1 and FastEthernet0/2 with vlan= 10:A



**f. Assign FastEthernet0/3 and FastEthernet0/4 with  
vlan= 10:B**



**g. As we are done with topology so  
now we'll do switch configuration**

```
Physical Config CLI Attributes

Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int vlan 10
Switch(config-if)#
%LINK-5-CHANGED: Interface Vlan10, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan10, changed state to up

Switch(config-if)#ip address 192.168.1.100 255.255.255.0
Switch(config-if)#no sh
Switch(config-if)#no shutdown
Switch(config-if)#exit
Switch(config)#int vlan 20
Switch(config-if)#
%LINK-5-CHANGED: Interface Vlan20, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan20, changed state to up

Switch(config-if)#ip address 192.168.2.100 255.255.255.0
Switch(config-if)#no shutdown
Switch(config-if)#exit
Switch(config)#exit
Switch#
```

## h. Now check configuration by following command

```
Multilayer Switch1
Physical Config CLI Attributes

Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#show ip interface brief
Interface IP-Address OK? Method Status Protocol
FastEthernet0/1 unassigned YES unset up up
FastEthernet0/2 unassigned YES unset up up
FastEthernet0/3 unassigned YES unset up up
FastEthernet0/4 unassigned YES unset up up
FastEthernet0/5 unassigned YES unset down down
FastEthernet0/6 unassigned YES unset down down
FastEthernet0/7 unassigned YES unset down down
FastEthernet0/8 unassigned YES unset down down
FastEthernet0/9 unassigned YES unset down down
FastEthernet0/10 unassigned YES unset down down
FastEthernet0/11 unassigned YES unset down down
FastEthernet0/12 unassigned YES unset down down
FastEthernet0/13 unassigned YES unset down down
FastEthernet0/14 unassigned YES unset down down
FastEthernet0/15 unassigned YES unset down down
FastEthernet0/16 unassigned YES unset down down
FastEthernet0/17 unassigned YES unset down down
FastEthernet0/18 unassigned YES unset down down
FastEthernet0/19 unassigned YES unset down down
FastEthernet0/20 unassigned YES unset down down
FastEthernet0/21 unassigned YES unset down down
FastEthernet0/22 unassigned YES unset down down
FastEthernet0/23 unassigned YES unset down down
FastEthernet0/24 unassigned YES unset down down
GigabitEthernet0/1 unassigned YES unset down down
GigabitEthernet0/2 unassigned YES unset down down
Vlan1 unassigned YES unset administratively down down
Vlan10 192.168.1.100 YES manual up up
Vlan20 192.168.2.100 YES manual up up

Switch#ip routing
^
% Invalid input detected at '^' marker.

Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#ip routing
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#exit
```

## STEP 2: Checking the INTER VLAN ROUTING

a. \_By sending simple PDU or by PING

