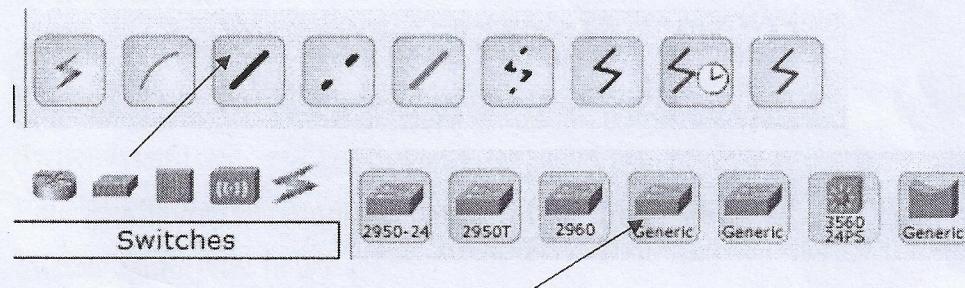
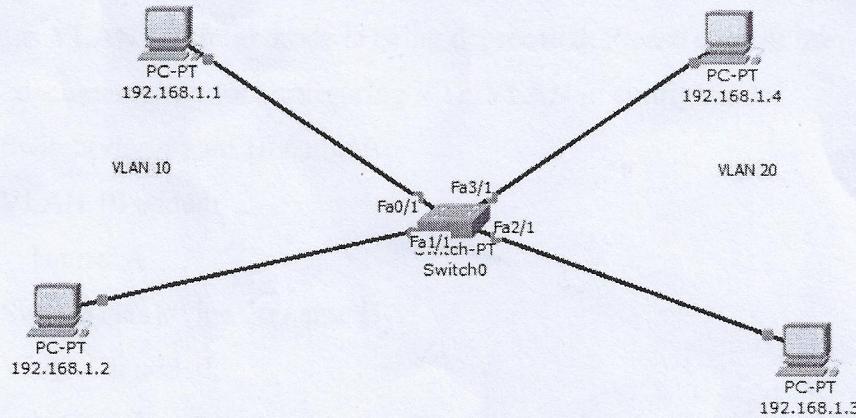


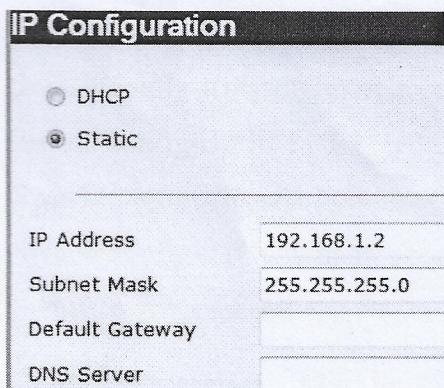
Configuration of VLAN

Here we have two PCs of IP 192.168.1.1 and 192.168.1.2 are connected to the switch at port Fa 0/1 and Fa 1/1 respectively form VLAN 10 named A. Another two PCs of IP 192.168.1.3 and 192.168.1.4 are connected to the switch at port Fa 2/1 and Fa 3/1 respectively form VLAN 20 named B. Now communication is possible only between PCs under the same LAN.

Procedure:

1. Let us implement the network like below and configure the PCs with corresponding IP address. Here we do not need default gateway address for any PC.





2. Configure the switch on CLI like below:

Switch>en

Switch#vlan database

% Warning: It is recommended to configure VLAN from config mode,
as VLAN database mode is being deprecated. Please consult user
documentation for configuring VTP/VLAN in config mode.

Switch(vlan)#vlan 10 name A

VLAN 10 added:

Name: A

Switch(vlan)#vlan 20 name B

VLAN 20 added:

Name: B

Switch(vlan)#exit

APPLY completed.

Exiting....

Switch#conf t

Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#int fa 0/1

Switch(config-if)#switchport mode access

Switch(config-if)#switchport access vlan 10

Switch(config-if)#int fa 1/1

Switch(config-if)#switchport mode access

Switch(config-if)#switchport access vlan 10

Switch(config-if)#int fa 2/1

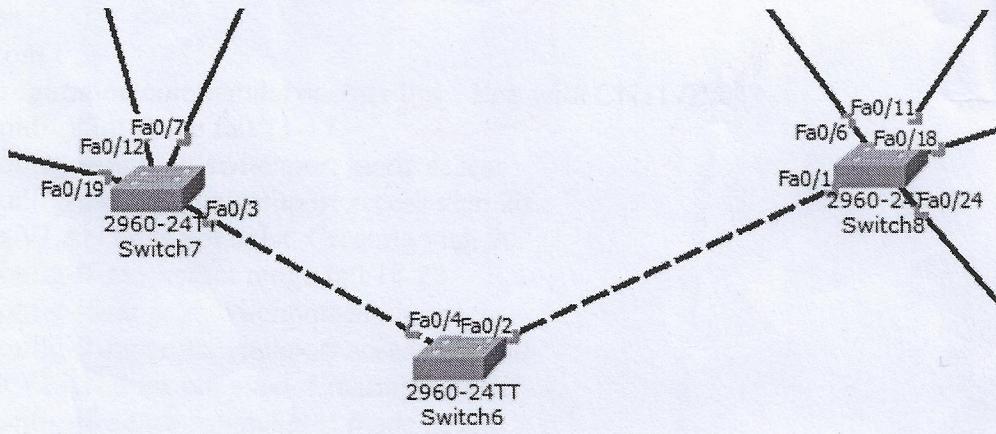
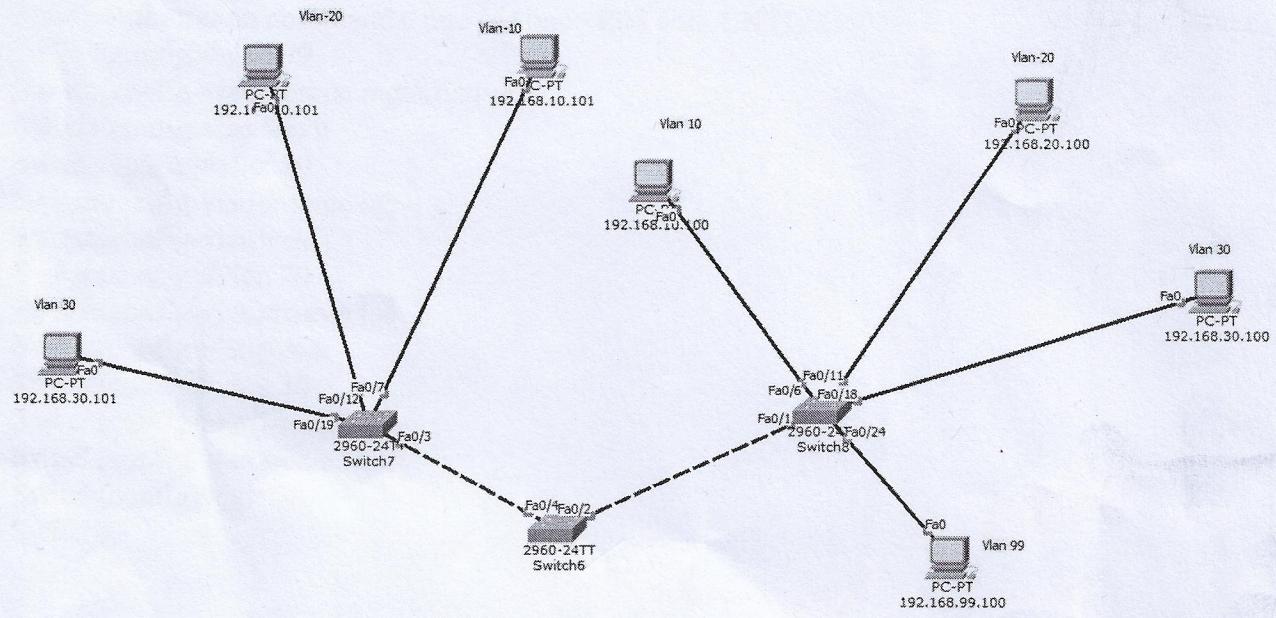
```

Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#int fa 3/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console
Switch#sh vlan brief
VLAN Name          Status Ports
-----
1   default        active  Fa4/1, Fa5/1
10  A              active  Fa0/1, Fa1/1
20  B              active  Fa2/1, Fa3/1
1002 fddi-default active
1003 token-ring-default active
1004 fddinet-default active
1005 trnet-default active
Switch#

```

3. Verify the flow of ICMP packet between 2 PCs of VLAN 10 and VLAN 20. Try to do the job between one PC of VLAN 10 and the other of VLAN 20. Comment on the result.

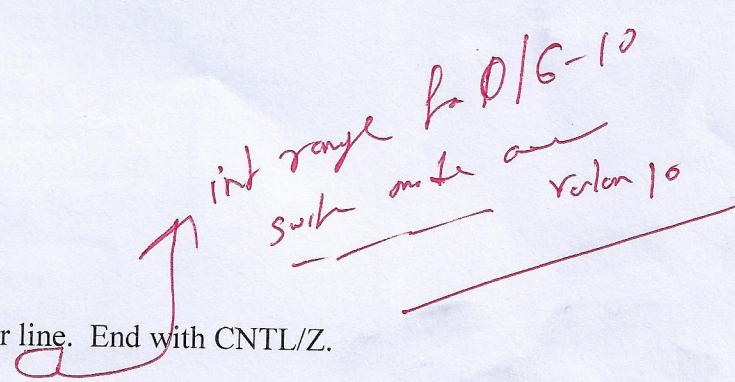
Saad



Core switch

```
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 99
Switch(config-vlan)#name mgt&native
Switch(config-vlan)#exit
Switch(config)#vlan 10
Switch(config-vlan)#name lab-1
Switch(config-vlan)#exit
Switch(config)#vlan 20
Switch(config-vlan)#name lab-2
Switch(config-vlan)#exit
Switch(config)#vlan 30
Switch(config-vlan)#name lab-3
Switch(config-vlan)#exit
Switch(config)#exit
Switch#
```

Left Switch

```
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int range fa0/11-17
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 20
% Access VLAN does not exist. Creating vlan 20
Switch(config-if-range)#int range fa0/18-23
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 30
% Access VLAN does not exist. Creating vlan 30
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#int fa0/24
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 99
% Access VLAN does not exist. Creating vlan 99
Switch(config-if)#int fa0/3
Switch(config-if)#switchport mode trunk
Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up
Switch(config-if)#switchport trunk native vlan 99
Switch(config-if)#

```

%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/3 (99), with Switch FastEthernet0/4 (1).

Switch(config-if)#end

Switch#

Right Switch

Switch>en

Switch#conf t

Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#int range fa0/6-10

Switch(config-if-range)#switchport mode access

Switch(config-if-range)#switchport access vlan 10

% Access VLAN does not exist. Creating vlan 10

Switch(config-if-range)#int range fa0/11-17

Switch(config-if-range)#switchport mode access

Switch(config-if-range)#switchport access vlan 20

% Access VLAN does not exist. Creating vlan 20

Switch(config-if-range)#int range fa0/18-13~~23~~

Switch(config-if-range)#switchport mode access

Switch(config-if-range)#switchport access vlan 30

% Access VLAN does not exist. Creating vlan 30

Switch(config-if-range)#int fa0/24

Switch(config-if)#switchport mode access

Switch(config-if)#switchport access vlan 99

% Access VLAN does not exist. Creating vlan 99

Switch(config-if)#int fa0/1

Switch(config-if)#switchport mode trunk

Switch(config-if)#

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

Switch(config-if)# switchport trunk native vlan 99

Switch(config-if)#