**Configure Vlan (For 3 pc in 1 switch , using vlan 10 & 20)**

Enable

Configure terminal

Hostname ClassRoom

Vlan 10

Name Students

Exit

Vlan 20

Name Teachers

Exit

Interface fastethernet 0/1

Switchport mode access

Switchport acess vlan 10

Exit

Interface fastethernet 0/3

Switchport access vlan 10

Exit

Interface fastethernet 0/2

Switchport mode access

Switchport access vlan 20

Exit

Do write memory

Exit

This command will apply just switch0 . Then if we pass the packet we can see that same vlan can share packet but different vlan can’t share packet . Then we will copy whole interface and paste that. And here switch name will be switch1.. And off course provide new Ip address in three pc/laptop

Now needed to configure trunk …..

**For Configure trunk:**

**In switch0:**

Interface Fastethernet 0/5

Switchport mode trunk

Switchport trunk allowed vlan 10,20

Exit

**In switch1:**

Enable

Configure terminal

Interface Fastethernet 0/5

Switchport mode trunk

Switchport trunk allowed vlan 10,20

Exit

**Configure Router**

Here we will use two switch . switch1 pc will one network and switch two pc will another network .

**This code is just for Router**

Enable

Configure terminal

Interface gigabitethernet 0/1

Ip Address 192.168.5.1 255.255.255.0

No Shutdown

Exit

Interface gigabitethernet 0/2

Ip Address 192.168.10.1 255.255.255.0

No Shutdown

Exit

Exit

**Static Router Configuration**

Ip Route Means

**ip route [Destination Network] [Subnet Mask] [Next Hop IP Address or Exit Interface]**

**Here [Subnet Musk] will be of Destination Network**

**Router-1**

Enable

Configure Terminal

Interface GigabitEthernet 0/0

Ip Address 192.168.1.1 255.255.255.0

No Shutdown

Exit

Interface GigabitEthernet 0/1

Ip Address 10.0.0.1 255.255.255.252

No shutdown

Exit

Ip Route 192.168.3.0 255.255.255.0 10.0.0.2

**Router-2**

Enable

Configure Terminal

Interface GigabitEthernet 0/0

Ip Address 10.0.0.2 255.255.255.252

No Shutdown

Exit

Interface GigabitEthernet 0/1

Ip Address 10.0.0.5 255.255.255.252

No Shutdown

Exit

Ip Route 192.168.3.0 255.255.255.0 10.0.0.6

Ip Route 192.168.1.0 255.255.255.0 10.0.0.1

**Router-3**

Enable

Configure Terminal

Interface GigabitEthernet 0/0

Ip Address 10.0.0.6 255.255.255.252

No Shutdown

Exit

Interface GigabitEthernet 0/0

Ip Address 192.168.3.1 255.255.255.0

No Shutdown

Exit

Ip Route 192.168.1.0 255.255.255.0 10.0.0.5

**Inter vlan Routing**

**Switch-1**

Enable

Configure terminal

Vlan 10

Name Group-A

Exit

Vlan 20

Name Group-B

Exit

Vlan 30

Name Group-C

Exit

Interface fastethernet 0/1

Switchport mode access

Switchport access vlan 10

Exit

Interface fastethernet 0/2

Switchport mode access

Switchport access vlan 20

Exit

Interface fastethernet 0/3

Switchport mode access

Switchport access vlan 30

Exit

Interface fastethernet 0/5

Switchport mode trunk

Switchport trunk allowed vlan all

Now copy that and paste 2 times . All pc/Laptop Ip address will changed but will be same network . That’swhy Gateway address will not changed .

**Switch-2 :**

Enable

Configure terminal

Interface fastethernet 0/6

Switchport mode trunk

Switchport trunk allowed vlan all

**Setup vlan in switch-2**

Interface FastEthernet 0/11

Switchport mode access

Switchport access vlan 10

Exit

Interface FastEthernet 0/12

Switchport mode access

Switchport access vlan 20

Exit

Interface FastEthernet 0/13

Switchport mode access

Switchport access vlan 30

Exit

**Router :**

Enable

Configure Terminal

Interface GigabitEthernet 0/0

Ip Address 192.168.10.1 255.255.255.0

No Shutdown

Exit

Interface GigabitEthernet 0/1

Ip Address 192.168.20.1 255.255.255.0

No Shutdown

Exit

Interface GigabitEthernet 0/2

Ip Address 192.168.30.1 255.255.255.0

No Shutdown

Exit

**For seeing vlan :**

Show Vlan brief

**For seeing trunk port :**

Show interfaces trunk

**For seeing Ip:**

Show ip interfaces breif

**IP Remove Command :**

interface FastEthernet 0/1

no ip address

**Ip Route remove command:**

No Ip Route 192.168.1.0 255.255.255.0 10.0.0.5