1841
Router0
10.10.100.2

10.10.100.0/30

10.10.100.1

3560-24PS
Multilayer Switch0

2960-24TT
Switch0

Laptop-PT
Laptop0
192.168.1.1
VLAN 100

Laptop-PT
Laptop1
192.168.2.1
VLAN 200

Laptop-PT
Laptop3
192.168.1.2
VLAN 100

Laptop-PT
Laptop2
192.168.2.2
VLAN 200

//SET static IPs to PCs as shown:

SW01(config)   #vlan 100
                #name HR
                #vlan 200
                #name SALES

SW01(config)   #interface fa 0/2
                #switchport mode access
                #switchport access vlan 100
SW01(config)   #interface fa 0/3
                #switchport mode access
                #switchport access vlan 200

//SIMILAR CONFIGURATION ON SW02

//Now, configure trunk ports on both switches at fa 0/1

SW01(config)   #interface fa 0/1
                #switchport trunk encapsulation dot1Q // required in older versions of L3 switch
                #switchport mode trunk

```
                    #switchport trunk allowed vlan 100,200
                    #do wr


SW02(config)    #interface fa 0/1
                    #switchport mode trunk
                    #switchport trunk allowed vlan 100,200
                    #do wr
```

//Now, create SVIs in L3 switch
```
SW01(config)    #interface vlan 100
                    #ip address 192.168.1.254 255.255.255.0
                    #no shutdown
                    #exit
SW02(config)    #interface vlan 200
                    #ip address 192.168.2.254 255.255.255.0
                    #no shutdown
                    #exit
```

//Now, enable IP routing in L3 switch
```
SW01(config)    #ip routing
                    #do wr
```

Now, different VLANs must be PINGable.
Again to make traffic routable to RTR01, configure interface fa 0/24 of SW01 and interface fa 0/0 of RTR01 and provide route [static route in this case].

```
RTR01(config)   #interface fa 0/0
                    #ip address 10.10.100.2 255.255.255.252
                    #description Connection To/From SVI
                    #no shutdown


SW01(config)    #interface fa 0/24
                    #ip ?
```
//There is no option for address. Why is that?? Becoz this interface is still in layer 2 mode. Let's put it in layer 3 mode.
```
                    #no switchport
                    #ip ?
```
//Now, we have address option, along with other options
```
                    #ip address 10.10.100.1 255.255.255.252
                    #exit
```

//Now, configure default route on switch
```
SW01(config)    #ip routing
                    #ip route 0.0.0.0 0.0.0.0 10.10.100.2
```

//Also, static route on RTR01

```
RTR01(config)    #ip route 0.0.0.0 0.0.0.0 10.10.100.1
                 #exit
                 #wr
```

NOW, Router should be PINGable from PC.