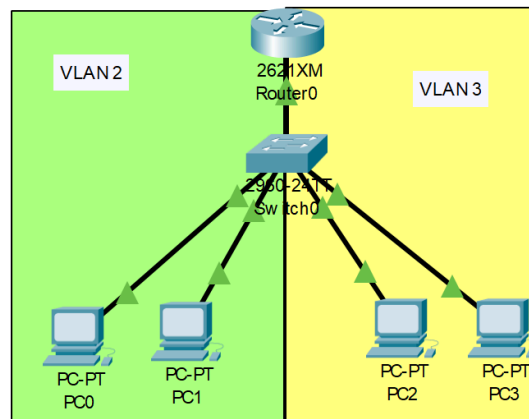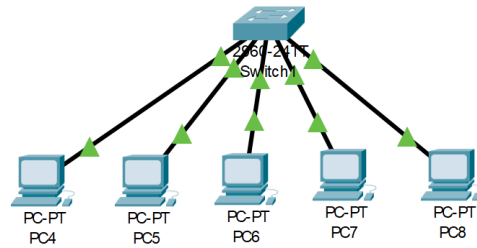# Router on Stick (InterVLAN Communication)


```
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 2
Switch(config-vlan)#name HR_dept
Switch(config-vlan)#vlan 3
Switch(config-vlan)#name sales_dept
Switch(config-vlan)#exit
Switch(config)#int range fa0/1-2
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 2
Switch(config-if-range)#int range fa0/3-4
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 3
Switch(config-if-range)#exit
Switch(config)#fa 0/24
Switch(config)#int fa 0/24
Switch(config-if)#switchport mode trunk
Switch(config-if)#^Z

Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa0/0.1
Router(config-subif)#encapsulation dot1q 2
Router(config-subif)#ip address 192.168.1.1 255.255.255.0
Router(config-subif)#exit
Router(config)#int fa0/0.2
Router(config-subif)#encapsulation dot1q 3
Router(config-subif)#ip address 192.168.2.1 255.255.255.0
Router(config-subif)#exit
Router(config)#int fa 0/0
Router(config-if)#no sh
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#ip dhcp pool test
Switch(dhcp-config)#network 192.168.1.0 255.255.255.0
Switch(dhcp-config)#default-router 192.168.1.1
Switch(dhcp-config)#exit
Switch(config)#int vlan 1
Switch(config-if)#ip add 192.168.1.2 255.255.255.0
Switch(config-if)#no sh
```

DHCP SERVER ON Switch


```
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#ip dhcp pool test
Switch(dhcp-config)#network 192.168.1.0 255.255.255.0
Switch(config)#ip dhcp excluded-address 192.168.1.1
Switch(dhcp-config)#default-router 192.168.1.1
Switch(dhcp-config)#exit
Switch(config)#int vlan 1
Switch(config-if)#ip add 192.168.1.2 255.255.255.0
Switch(config-if)#no sh
```

ROUTING INFORMATION PROTOCOL (RIP)

https://www.geeksforgeeks.org/routing-information-protocol-rip/