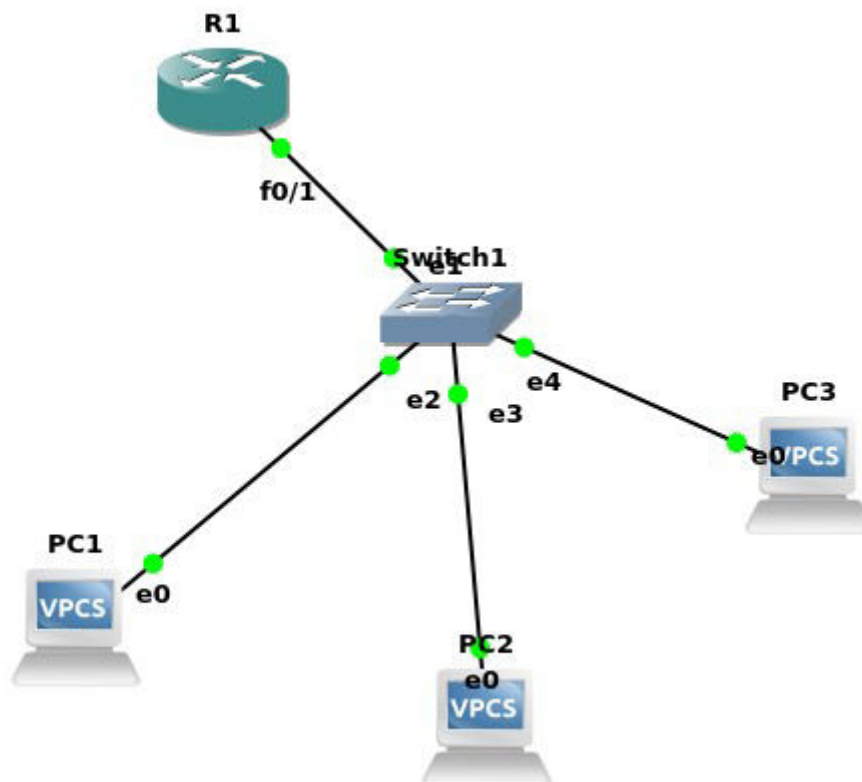


Pratham U-210905407

Lab9 :Design of VLANs Using GNS3

LAB EXERCISE



Setting up PC:

```
pratham-pc1> ip 192.168.1.66
Checking for duplicate address...
pratham-pc1 : 192.168.1.66 255.255.255.0
```

```
pratham-pc2> ip 192.168.1.67
Checking for duplicate address...
pratham-pc2 : 192.168.1.67 255.255.255.0
```

```
pratham-pc3> ip 192.168.1.130
Checking for duplicate address...
pratham-pc3 : 192.168.1.130 255.255.255.0
```

Port	VLAN	Type
0	1	access
1	1	dot1q
2	2	dot1q
3	2	dot1q
4	10	dot1q

Ping :

PC1 to PC2

PC1 to PC3

```
pratham-pc1> ping 192.168.1.67

84 bytes from 192.168.1.67 icmp_seq=1 ttl=64 time=0.341 ms
84 bytes from 192.168.1.67 icmp_seq=2 ttl=64 time=0.535 ms
84 bytes from 192.168.1.67 icmp_seq=3 ttl=64 time=0.664 ms
84 bytes from 192.168.1.67 icmp_seq=4 ttl=64 time=1.171 ms
84 bytes from 192.168.1.67 icmp_seq=5 ttl=64 time=0.403 ms

pratham-pc1> ping 192.168.1.130

host (192.168.1.130) not reachable
```

Adding Router :

Config router:

```
R1(config)#hostname pratham-1
pratham-1(config)#int f0/1
pratham-1(config-if)#no shut
pratham-1(config-if)#
*Mar  1 00:01:43.015: %LINK-3-UPDOWN: Interface FastEthernet0/1, changed state to up
*Mar  1 00:01:44.015: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
pratham-1(config-if)#int f0/1.2
pratham-1(config-subif)#encapsulation dot1q 2
pratham-1(config-subif)#ip
*Mar  1 00:02:15.935: %LINK-3-UPDOWN: Interface FastEthernet0/1, changed state to up

pratham-1(config-subif)#ip addr 192.168.1.65 255.255.255.192
pratham-1(config-subif)#int f0/1.10
pratham-1(config-subif)#encapsulation dot1q 10
pratham-1(config-subif)#ip addr 192.168.1.129 255.255.255.224
pratham-1(config-subif)#end
pratham-1#
*Mar  1 00:04:23.119: %SYS-5-CONFIG_I: Configured from console by console
```

Setting default gateway:

```
pratham-pc1> ip 192.168.1.66 192.168.1.65
Checking for duplicate address...
pratham-pc1 : 192.168.1.66 255.255.255.0 gateway 192.168.1.65
```

```
pratham-pc2> ip 192.168.1.67 192.168.1.65
Checking for duplicate address...
pratham-pc2 : 192.168.1.67 255.255.255.0 gateway 192.168.1.65
```

```
pratham-pc3> ip 192.168.1.130 192.168.1.129
Checking for duplicate address...
pratham-pc3 : 192.168.1.130 255.255.255.0 gateway 192.168.1.129
```

Ping : PC1 to PC2

```
pratham-pc1> ping 192.168.1.67

84 bytes from 192.168.1.67 icmp_seq=1 ttl=64 time=0.303 ms
84 bytes from 192.168.1.67 icmp_seq=2 ttl=64 time=0.468 ms
84 bytes from 192.168.1.67 icmp_seq=3 ttl=64 time=0.416 ms
84 bytes from 192.168.1.67 icmp_seq=4 ttl=64 time=0.483 ms
84 bytes from 192.168.1.67 icmp_seq=5 ttl=64 time=0.492 ms
```

PC1 to PC3

```
pratham-pc1> ping 192.168.1.130

84 bytes from 192.168.1.130 icmp_seq=1 ttl=63 time=10.778 ms
84 bytes from 192.168.1.130 icmp_seq=2 ttl=63 time=12.780 ms
84 bytes from 192.168.1.130 icmp_seq=3 ttl=63 time=19.107 ms
84 bytes from 192.168.1.130 icmp_seq=4 ttl=63 time=20.284 ms
84 bytes from 192.168.1.130 icmp_seq=5 ttl=63 time=18.424 ms
```

PC3 to PC1

```
pratham-pc3> ping 192.168.1.66

84 bytes from 192.168.1.66 icmp_seq=1 ttl=63 time=19.791 ms
84 bytes from 192.168.1.66 icmp_seq=2 ttl=63 time=18.904 ms
84 bytes from 192.168.1.66 icmp_seq=3 ttl=63 time=11.679 ms
84 bytes from 192.168.1.66 icmp_seq=4 ttl=63 time=11.764 ms
84 bytes from 192.168.1.66 icmp_seq=5 ttl=63 time=12.212 ms
```

PC3 to PC2

```
pratham-pc3> ping 192.168.1.67

192.168.1.67 icmp_seq=1 timeout
84 bytes from 192.168.1.67 icmp_seq=2 ttl=63 time=20.636 ms
84 bytes from 192.168.1.67 icmp_seq=3 ttl=63 time=16.168 ms
84 bytes from 192.168.1.67 icmp_seq=4 ttl=63 time=16.172 ms
84 bytes from 192.168.1.67 icmp_seq=5 ttl=63 time=13.581 ms
```