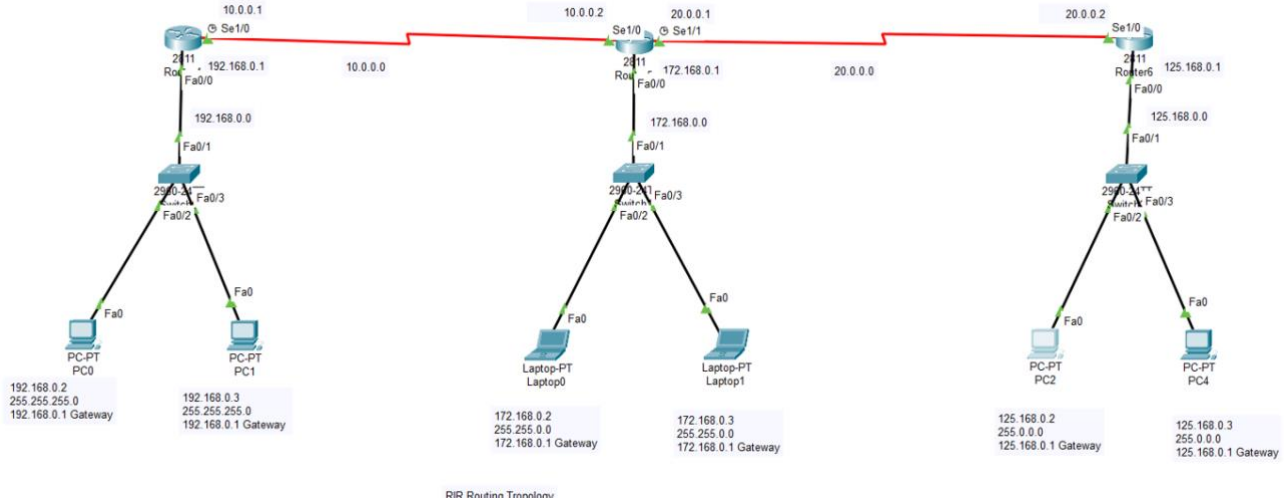
CCNA

1. Static Routing

Topology



Enable Interface of R3, R3 And R3 (Serial and Fast Ethernet)

Router 1

```
Router>Enable
Router# Configure Terminal
Router (Config)#hostname R1
R1 (Config)# interface Se1/0
R1 (Config-if)# ip address 10.0.0.1 255.0.0.0
R1 (Config-if)# clock rate 64000
R1 (Config-if)# bandwidth 64
R1 (Config-if)# no shutdown
R1 (Config-if)# int fa0/0
R1 (Config-if)# ip add 192.168.0.1 255.255.255.0
R1 (Config-if)# no sh
R1 (Config-if)# do show ip interface brief
R1 (Config-if)# ctrl + z
R1#
```

Router 2

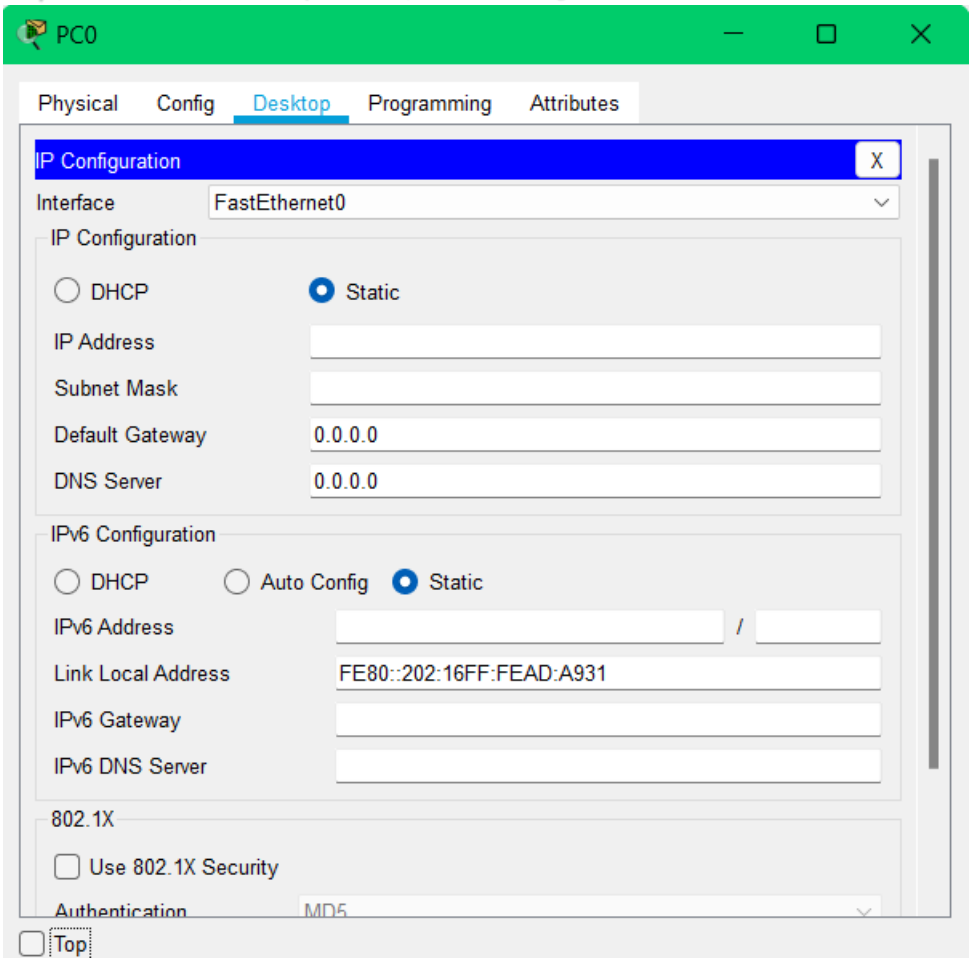
```
Router>Enable
Router# Conf t
Router (Config)#hostname R2
R2 (Config)#int se1/0
R2 (Config)#ip add 10.0.0.2 255.0.0.0
R2 (Config)#no sh
R2 (Config-if)#int se1/1
R2 (Config-if)#ip add 20.0.0.1 255.0.0.0
R2 (Config-if)#clock rate 64000
R2 (Config-if)#bandwidth 64
R2 (Config-if)#no sh
R2 (Config-if)#int fa0/0
R2 (Config-if)#ip add 172.168.0.1 255.255.0.0
R2 (Config-if)#no sh
R2 (Config-if) #^Z
R2#
```

Router 3

```
Router>Enable
Router# Configure Terminal
Router (Config)#hostname R3
R3 (Config)# interface Se1/0
R3 (Config-if)# ip address 20.0.0.2 255.0.0.0
R3 (Config-if)#no sh
R3 (Config-if)#int fa0/0
R3 (Config-if)#ip add 125.168.0.1 255.0.0.0
R3 (Config-if)#no sh
R3 (Config-if)#do show ip int br
R3 (Config-if)#^Z
```

Assign IP Address in All PC

Step 1 **Click on PC , Go to Desktop and click , Click on IP configuration**



R1

PC 1		**PC 2**	
Ip address	**192.168.0.2**	**Ip address**	**192.168.0.3**
Subnet Mark	**255.255.255.0**	**Subnet Mark**	**255.255.255.0**
Default Gateway	**192.168.0.1**	**Default Gateway**	**192.168.0.1**

R2

PC 3		**PC 4**	
Ip address	**172.168.0.2**	**Ip address**	**172.168.0.3**
Subnet Mark	**255.255.0.0**	**Subnet Mark**	**255.255.0.0**
Default Gateway	**172.168.0.1**	**Default Gateway**	**172.168.0.1**

R3

PC 5		**PC 6**	
Ip address	**125.168.0.2**	**Ip address**	**125.168.0.3**
Subnet Mark	**255.0.0.0**	**Subnet Mark**	**255.0.0.0**
Default Gateway	**125.168.0.1**	**Default Gateway**	**125.168.0.1**

Enable or Configure static Router

R3

Syntax :- IP route <remote network> <subnet mark> next hop IP

```
R1>enable
R1#conf t
R1(config)#ip route 172.168.0.0 255.255.0.0 10.0.0.2
R1(config)#ip route 20.0.0.0 255.255.0.0 10.0.0.2
R1(config)#ip route 125.168.0.0 255.0.0.0 10.0.0.2
R1(config)#^Z
```

```
R1#
write
Building configuration...
[OK]
R1#
```

R2

```
R2>enable
R2#conf t
R2(config)#ip route 192.168.0.0 255.255.255.0 10.0.0.1
R2(config)#ip route 125.168.0.0 255.0.0.0 20.0.0.2
R2(config)#^Z
R2#
write
Building configuration...
[OK]
R2#
```

R3

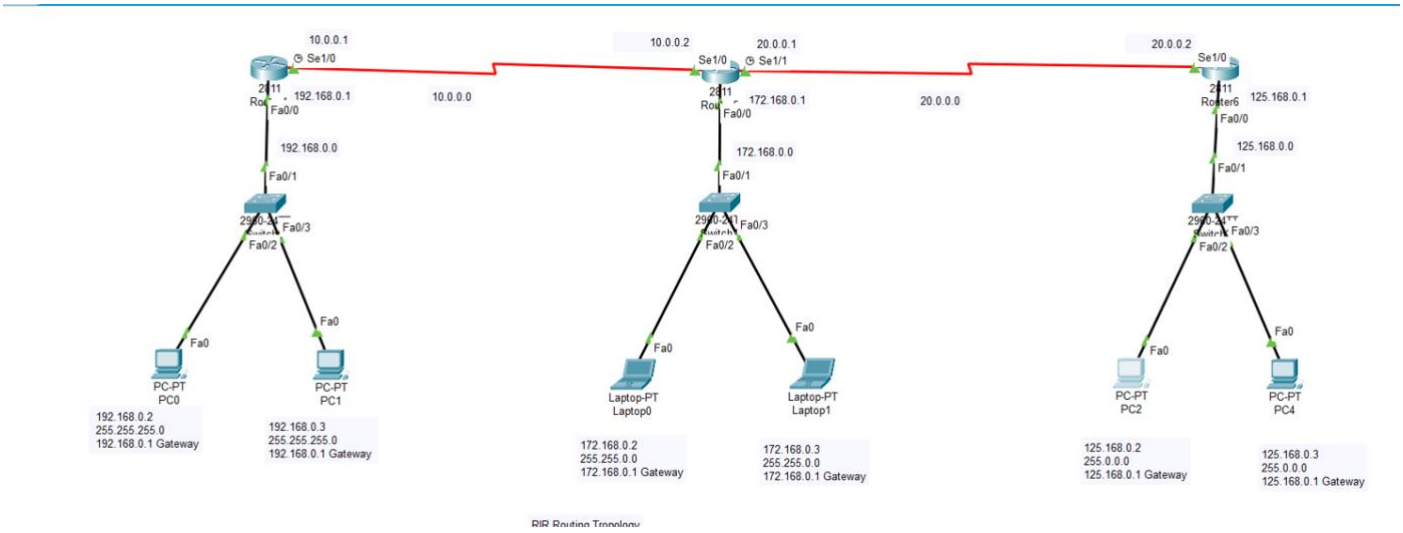
```
R3>enable
R3#conf t
R3(config)#ip route 172.168.0.0 255.255.0.0 20.0.0.1
R3(config)#ip route 192.168.0.0 255.255.255.0 20.0.0.1
R3(config)#ip route 10.0.0.0 255.0.0.0 20.0.0.1
R3(config)#^Z
R3#
write
Building configuration...
[OK]
R3#
```

2. RIP Routing

- **Stand for Routing Information Protocol It is enteres and Distance vector Routing Protocol**
  Maximum hop count limit is 15 Hop (16 Hop will unreadable)
- ***Routing Information Protocol* (RIP) is a distance-vector routing protocol. Routers running the distance-vector protocol send all or a portion of their routing tables in routing-update messages to their neighbors.**
- **AD value of RIP is 12**
- **RIP is an intra-domain routing protocol used within an autonomous system.**
- **IT calculate best route to send information (Hop matrix use)**
- **<u>RIPV1</u> Stands for only classful IP address.**
- **<u>RIPV2</u> Support both classful & classless IP address**

<u>Rip Timers</u>

Route Update Time :- 30 second
Route invalid Time :- 180 second
Route Hold down Time :- 180 second
Route Flush Time :- 240 second



RIP Router Topology.

Enable Interface of R3, R3 And R3 (Serial and Fast Ethernet)

Router 1

```
Router>Enable
Router# Configure Terminal
Router (Config)#hostname R1
R1 (Config)# interface Se1/0
R1 (Config-if)# ip address 10.0.0.1 255.0.0.0
R1 (Config-if)# clock rate 64000
R1 (Config-if)# bandwidth 64
R1 (Config-if)# no shutdown
R1 (Config-if)# int fa0/0
R1 (Config-if)# ip add 192.168.0.1 255.255.255.0
R1 (Config-if)# no sh
R1 (Config-if)# do show ip interface brief
R1 (Config-if)# ctrl + z
R1#
```

Router 2

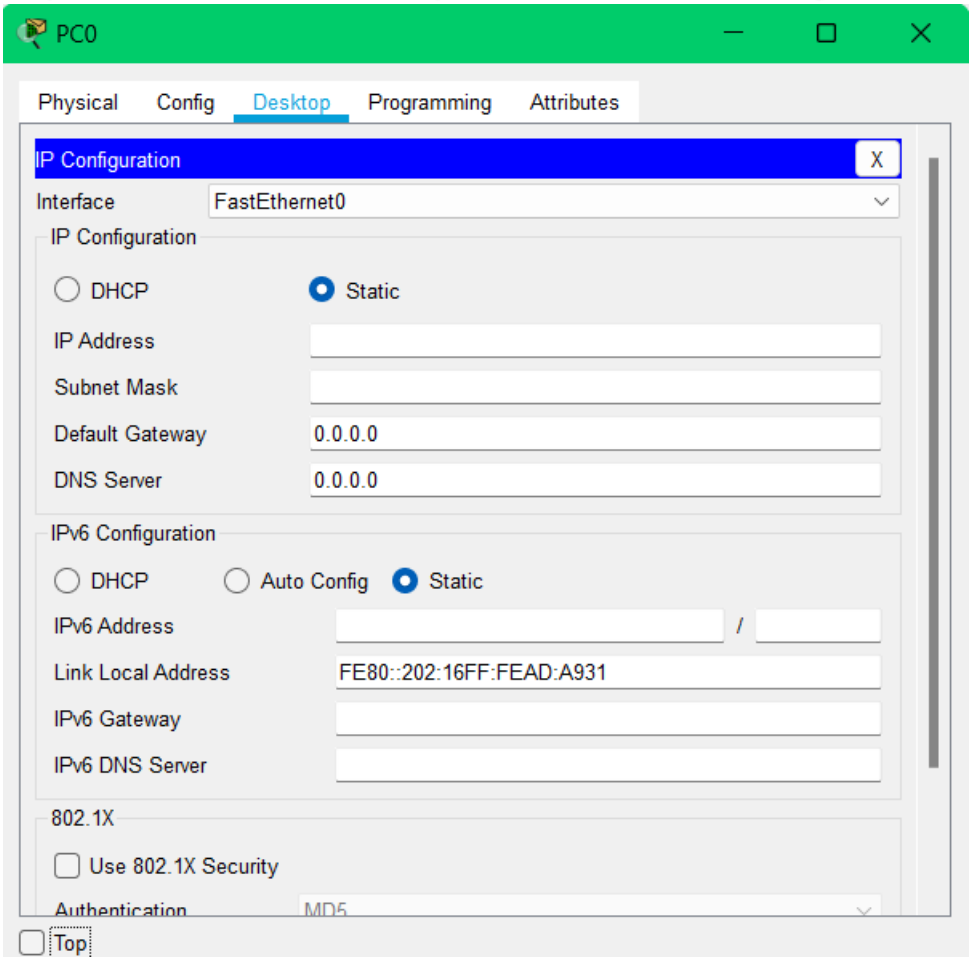
```
Router>Enable
Router# Conf t
Router (Config)#hostname R2
R2 (Config)#int se1/0
R2 (Config)#ip add 10.0.0.2 255.0.0.0
R2 (Config)#no sh
R2 (Config-if)#int se1/1
R2 (Config-if)#ip add 20.0.0.1 255.0.0.0
R2 (Config-if)#clock rate 64000
R2 (Config-if)#bandwidth 64
R2 (Config-if)#no sh
R2 (Config-if)#int fa0/0
R2 (Config-if)#ip add 172.168.0.1 255.255.0.0
R2 (Config-if)#no sh
R2 (Config-if) #^Z
R2#
```

Router 3

```
Router>Enable
Router# Configure Terminal
Router (Config)#hostname R3
R3 (Config)# interface Se1/0
R3 (Config-if)# ip address 20.0.0.2 255.0.0.0
R3 (Config-if)#no sh
R3 (Config-if)#int fa0/0
R3 (Config-if)#ip add 125.168.0.1 255.0.0.0
R3 (Config-if)#no sh
R3 (Config-if)#do show ip int br
R3 (Config-if)#^Z
```

Assign IP Address in All PC

Step 1 Click on PC , Go to Desktop and click , Click on IP configuration



R1

PC 1		**PC 2**	
Ip address	**192.168.0.2**	**Ip address**	**192.168.0.3**
Subnet Mark	**255.255.255.0**	**Subnet Mark**	**255.255.255.0**
Default Gateway	**192.168.0.1**	**Default Gateway**	**192.168.0.1**

R2

PC 3		**PC 4**	
Ip address	**172.168.0.2**	**Ip address**	**172.168.0.3**
Subnet Mark	**255.255.0.0**	**Subnet Mark**	**255.255.0.0**
Default Gateway	**172.168.0.1**	**Default Gateway**	**172.168.0.1**

R3

PC 5		**PC 6**	
Ip address	**125.168.0.2**	**Ip address**	**125.168.0.3**
Subnet Mark	**255.0.0.0**	**Subnet Mark**	**255.0.0.0**
Default Gateway	**125.168.0.1**	**Default Gateway**	**125.168.0.1**

Enable Router \R1

R1>en

R1#conf t

R1(config)#router rip

R1**(**config-router)#Network 192.168.0.0

R1**(**config-router)#Net 10.0.0.0

R1**(**config-router)# ctrl+z

write

R2

R2>en

R2#conf t

R2(config)#router rip

R2**(**config-router)#Network 10.0.0.0

R2**(**config-router)#Net 172.168.0.0

R2**(**config-router)#Net 20.0.0.0

R2**(**config-router) #^Z

write

R3

R3>en

R3#conf t

R3(config)#router rip

R3**(**config-router)#Network 20.0.0.0

R3**(**config-router)#Net 125.168.0.0

R3**(**config-router) #^Z

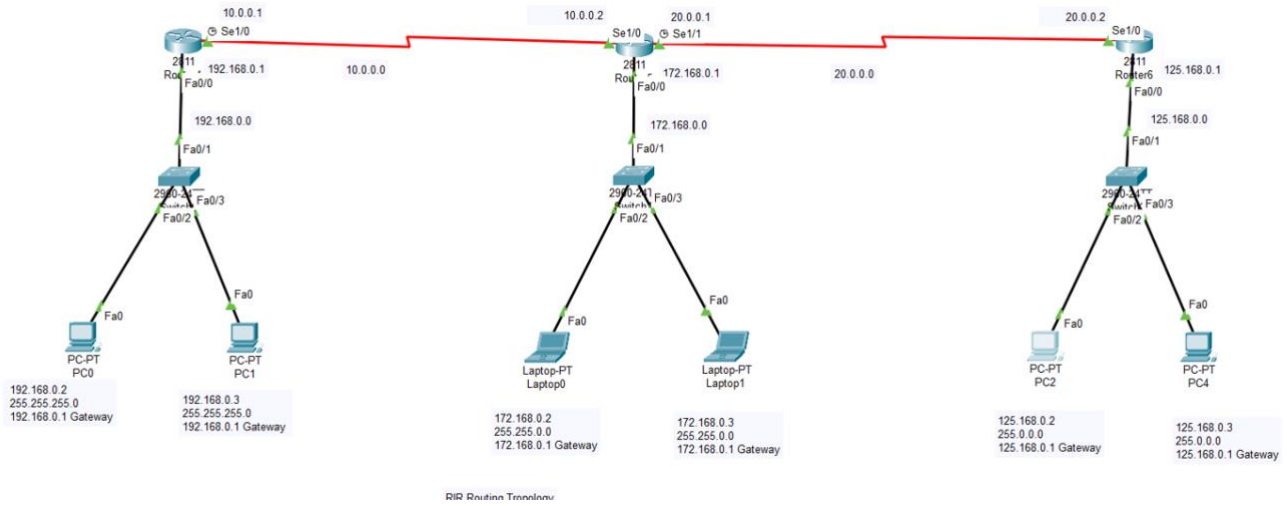
Write

1.EIGRP Routing

- EIGRP Stands for Enhanced Interior Gateway Router Protocol.
- EIGRP is a CISCO Proprietary Protocol which means only on cisco routers.
- EIRGP is also called a distance vector or hybrid routing protocol.
- EIGRP is classless protocol
- IT support both classful and classless IP address.
- All EIGRP will form neighbor relationship with objects router in the same autonomous system (AS)
- EIRGP uses AS number range is (1-65535)
- EIRGP routers uses multicast address 224.0.0.0 to exchange route information.
- It matrix bandwidth, delay, loud and reliability.
- AD value of EIRGP is (90).

Perform EIGRP.

EIGRP Topology.



Enable Interface of R3, R3 And R3 (Serial and Fast Ethernet)

Router 1

```
Router>Enable
Router# Configure Terminal
Router (Config)#hostname R1
R1 (Config)# interface Se1/0
R1 (Config-if)# ip address 10.0.0.1 255.0.0.0
R1 (Config-if)# clock rate 64000
R1 (Config-if)# bandwidth 64
R1 (Config-if)# no shutdown
R1 (Config-if)# int fa0/0
R1 (Config-if)# ip add 192.168.0.1 255.255.255.0
R1 (Config-if)# no sh
R1 (Config-if)# do show ip interface brief
R1 (Config-if)# ctrl + z
R1#
```

Router 2

```
Router>Enable
Router# Conf t
Router (Config)#hostname R2
R2 (Config)#int se1/0
R2 (Config)#ip add 10.0.0.2 255.0.0.0
R2 (Config)#no sh
R2 (Config-if)#int se1/1
R2 (Config-if)#ip add 20.0.0.1 255.0.0.0
R2 (Config-if)#clock rate 64000
R2 (Config-if)#bandwidth 64
R2 (Config-if)#no sh
R2 (Config-if)#int fa0/0
R2 (Config-if)#ip add 172.168.0.1 255.255.0.0
R2 (Config-if)#no sh
R2 (Config-if) #^Z
R2#
```

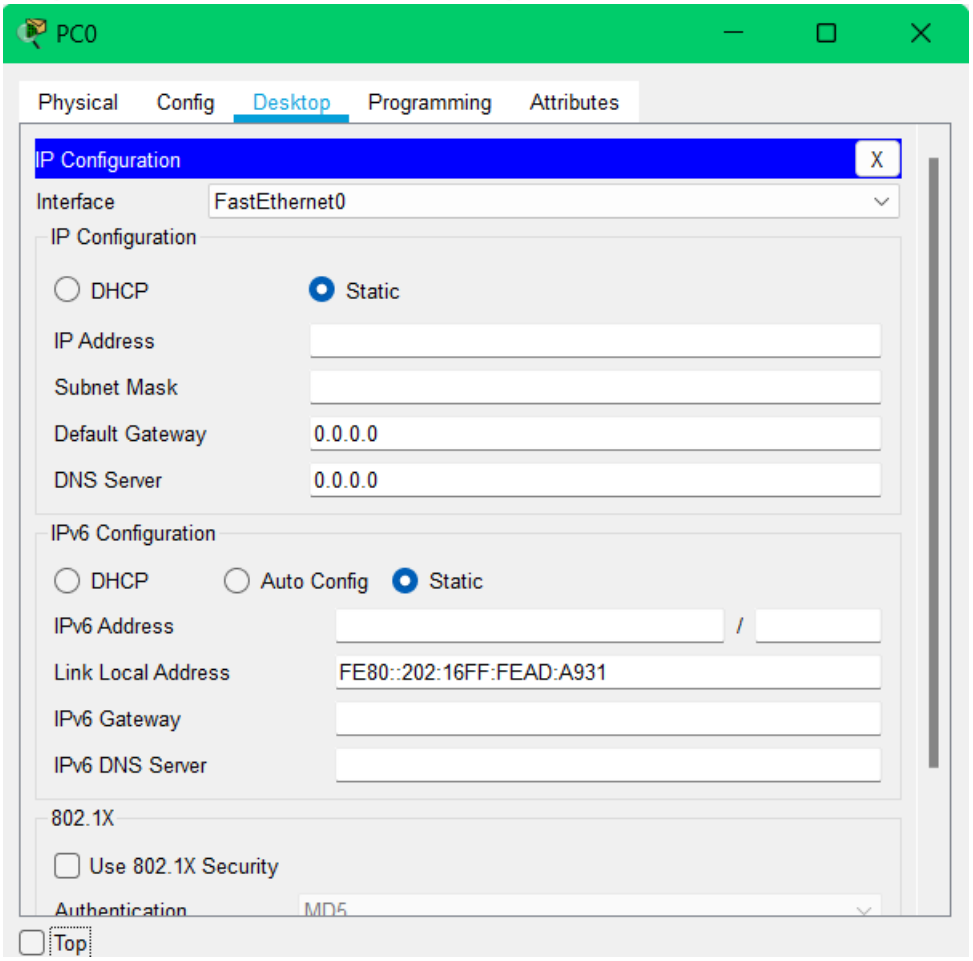
Router 3

```
Router>Enable
Router# Configure Terminal
Router (Config)#hostname R3
R3 (Config)# interface Se1/0
R3 (Config-if)# ip address 20.0.0.2 255.0.0.0
R3 (Config-if)#no sh
R3 (Config-if)#int fa0/0
```

R3 (Config-if)#ip add 125.168.0.1 255.0.0.0
R3 (Config-if)#no sh
R3 (Config-if)#do show ip int br
R3 (Config-if)#^Z

Assign IP Address in All PC

Step 1 Click on PC , Go to Desktop and click , Click on IP configuration



R1

PC 1		**PC 2**	
Ip address	**192.168.0.2**	**Ip address**	**192.168.0.3**
Subnet Mark	**255.255.255.0**	**Subnet Mark**	**255.255.255.0**
Default Gateway	**192.168.0.1**	**Default Gateway**	**192.168.0.1**

R2

PC 3		**PC 4**	
Ip address	**172.168.0.2**	**Ip address**	**172.168.0.3**
Subnet Mark	**255.255.0.0**	**Subnet Mark**	**255.255.0.0**
Default Gateway	**172.168.0.1**	**Default Gateway**	**172.168.0.1**

R3

PC 5		**PC 6**	
Ip address	**125.168.0.2**	**Ip address**	**125.168.0.3**
Subnet Mark	**255.0.0.0**	**Subnet Mark**	**255.0.0.0**
Default Gateway	**125.168.0.1**	**Default Gateway**	**125.168.0.1**

Enable EIGRP Routing.

R1

```
Router#en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#ho R1
R1(config)#router eigrp 10
R1(config-router)#network 192.168.0.0
R1(config-router)#net 10.0.0.0
R1(config-router)#^Z
R1# write
Building configuration...
[OK]
R1#
```

R2

```
Router#en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#ho R2
R2(config)#router eigrp 10
R2(config-router)#network 10.0.0.0
R2(config-router)#net 172.168.0.0
R2(config-router)#net 20.0.0.0
R2(config-router)#^Z
R2# write
Building configuration...
[OK]
R2#
```

R3

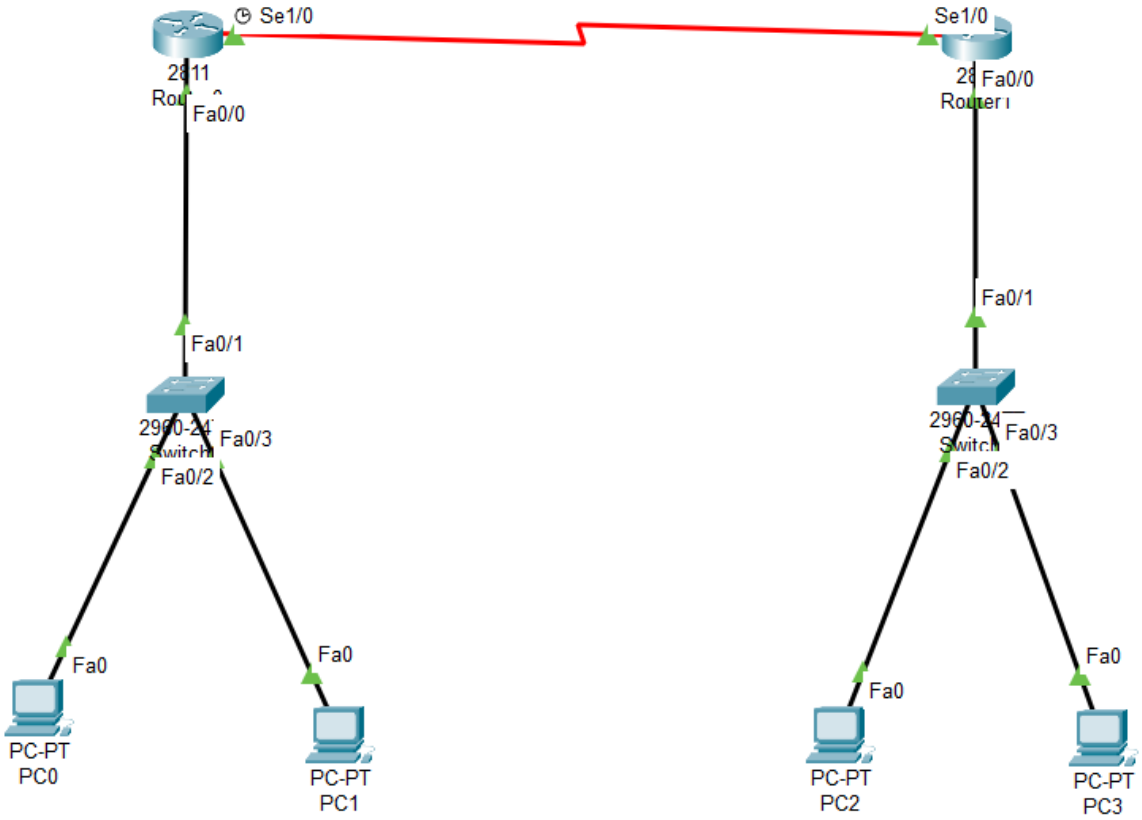
```
Router#en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R3(config)#ho R3
R3(config)#router eigrp 10
R3(config-router)#network 20.0.0.0
R3(config-router)#net 125.168.0.0
R3(config-router)#^Z
R3# write
Building configuration...
[OK]
R3#
```

5. BGP Routing

*** BGP Stands for Border Gateway Protocol.**

*** It is an exterior Routing Protocol that work between to different AS network.**

*** BGP Saver all destination path in forwarding table and best path from forwarding table saved in routing table.**



Enable Interface of R3 And R2 (Serial and Fast Ethernet)

Router 1

Router>Enable

Router# Configure Terminal

Router (Config)#hostname R1

R1 (Config)# interface Se1/0

R1 (Config-if)# ip address 10.0.0.1 255.0.0.0

R1 (Config-if)# clock rate 64000

R1 (Config-if)# bandwidth 64

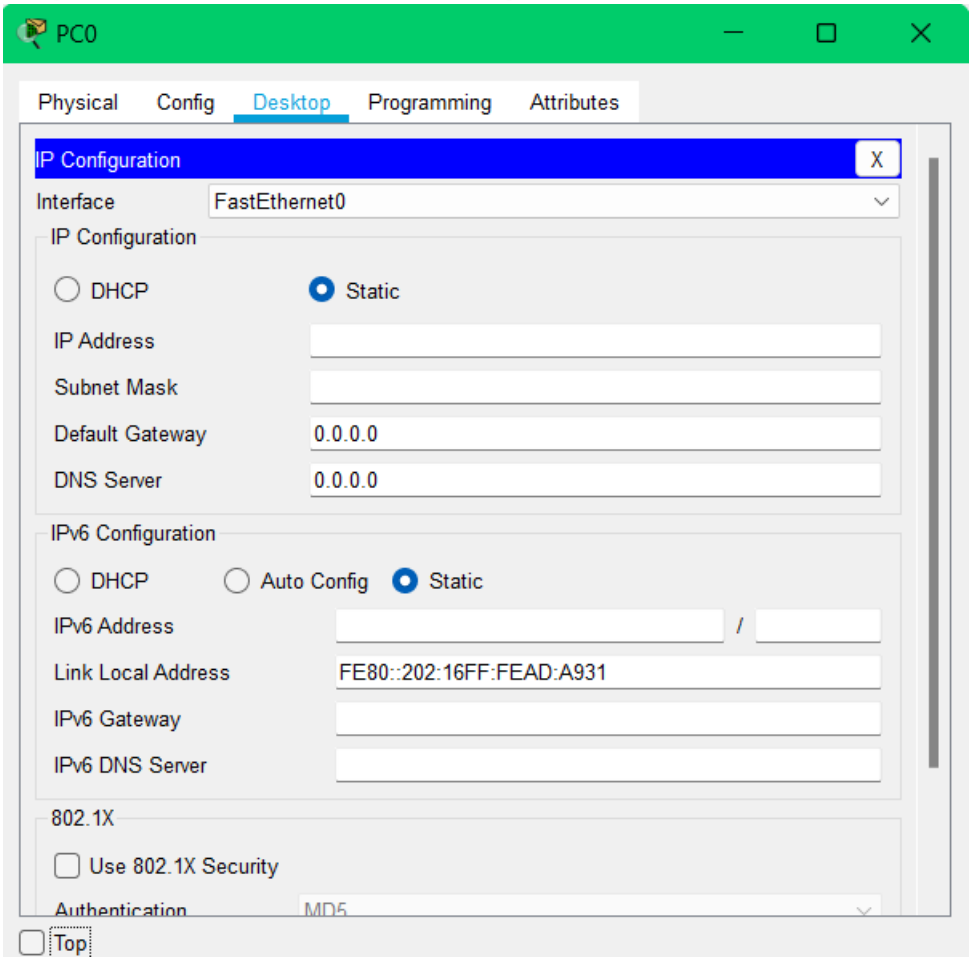
R1 (Config-if)# no shutdown

R1 (Config-if)# int fa0/0

R1 (Config-if)# ip add 192.168.0.1 255.255.255.0
R1 (Config-if)# no sh
R1 (Config-if)# do show ip interface brief
R1 (Config-if)# ctrl + z
R1#
Router 2
Router>Enable
Router# Conf t
Router (Config)#hostname R2
R2 (Config)#int se1/0
R2 (Config)#ip add 10.0.0.2 255.0.0.0
R2 (Config)#no sh

Assign IP Address in All PC

Step 1 Click on PC , Go to Desktop and click , Click on IP configuration



R3

PC 1		**PC 2**	
Ip address	**192.168.0.2**	**Ip address**	**192.168.0.3**
Subnet Mark	**255.255.255.0**	**Subnet Mark**	**255.255.255.0**
Default Gateway	**192.168.0.1**	**Default Gateway**	**192.168.0.1**

R3

PC 3	**PC 4**

Ip address	172.168.0.2	Ip address	172.168.0.3
Subnet Mark	255.255.0.0	Subnet Mark	255.255.0.0
Default Gateway	172.168.0.1	Default Gateway	172.168.0.1

Enable BGP Routing.

R1

```
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#
Router(config)#router BGP 10
Router(config-router)#net 10.0.0.0 mask 255.0.0.0
Router(config-router)#net 192.168.0.0 mask 255.255.255.0
Router(config-router)#neighbor 10.0.0.2 remote-as 20
Router(config-router)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
write
Building configuration...
[OK]
```

R2

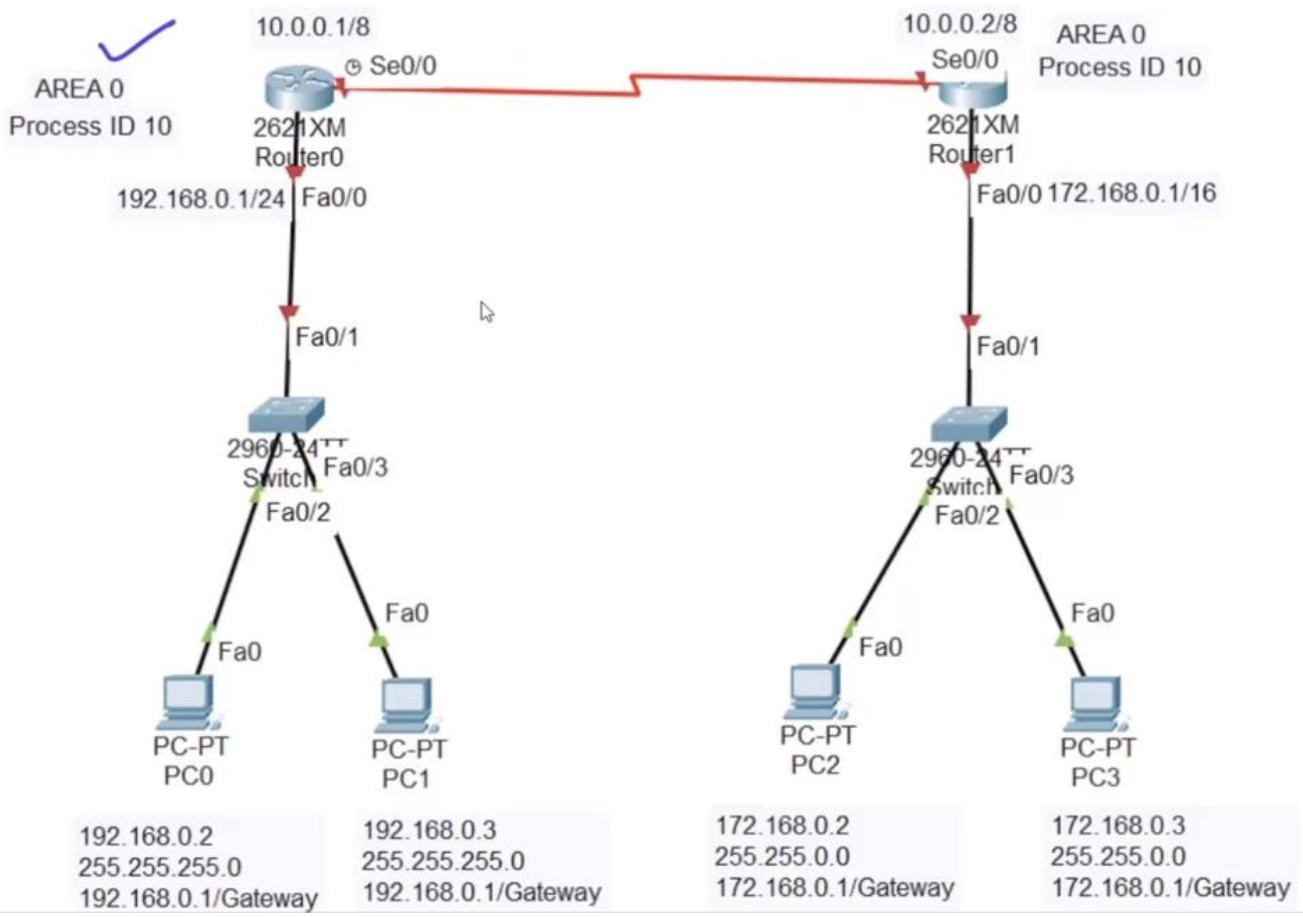
```
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#
Router(config)#router BGP 20
Router(config-router)#net 10.0.0.0 mask 255.0.0.0
Router(config-router)#net 172.168.0.0 mask 255.255.0.0
Router(config-router)#neighbor 10.0.0.1 remote-as 10
Router(config-router)#%BGP-5-ADJCHANGE: neighbor 10.0.0.1 Up
^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
write
Building configuration...
[OK]
Router#
```

6. OSPF Routing

- OSPF Stand for Open shortest Path First.
- It is a Interior router Protocol that work in a single AS (Process ID)
- AD value of OSPF is 110
- It user Dijkstra Algorithm
- OSPF send only change & send triggred update
- Default matric if ospf is Bandwidth & delay but it work on 4 matric bandwidth delay , Reliability MTU & Load.

- There is no hop count limit.
- IT support both classful & classless IP Address
- Multicast address is 224.0.0.5 and 224.0.0.6

Configure IPv4 using ospf Routing Protocol



R1

Router>
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.

```
Router(config)#int fa0/0
Router(config-if)#ip add 192.168.0.1 255.255.255.0
Router(config-if)#no shutdown
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-if)#int se1/0
Router(config-if)#ip add 10.0.0.1 255.0.0.0
Router(config-if)#clo
Router(config-if)#clock rate 64000
Router(config-if)#bandwidth 64
Router(config-if)#no sh

%LINK-5-CHANGED: Interface Serial1/0, changed state to down
Router(config-if)#ex
Router(config)#router ospf 10
Router(config-router)#network 192.168.0.0 0.0.0.255 area 0
Router(config-router)#network 10.0.0.0 0.255.255.255 area 0
Router(config-router)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
write
Building configuration...
[OK]
```

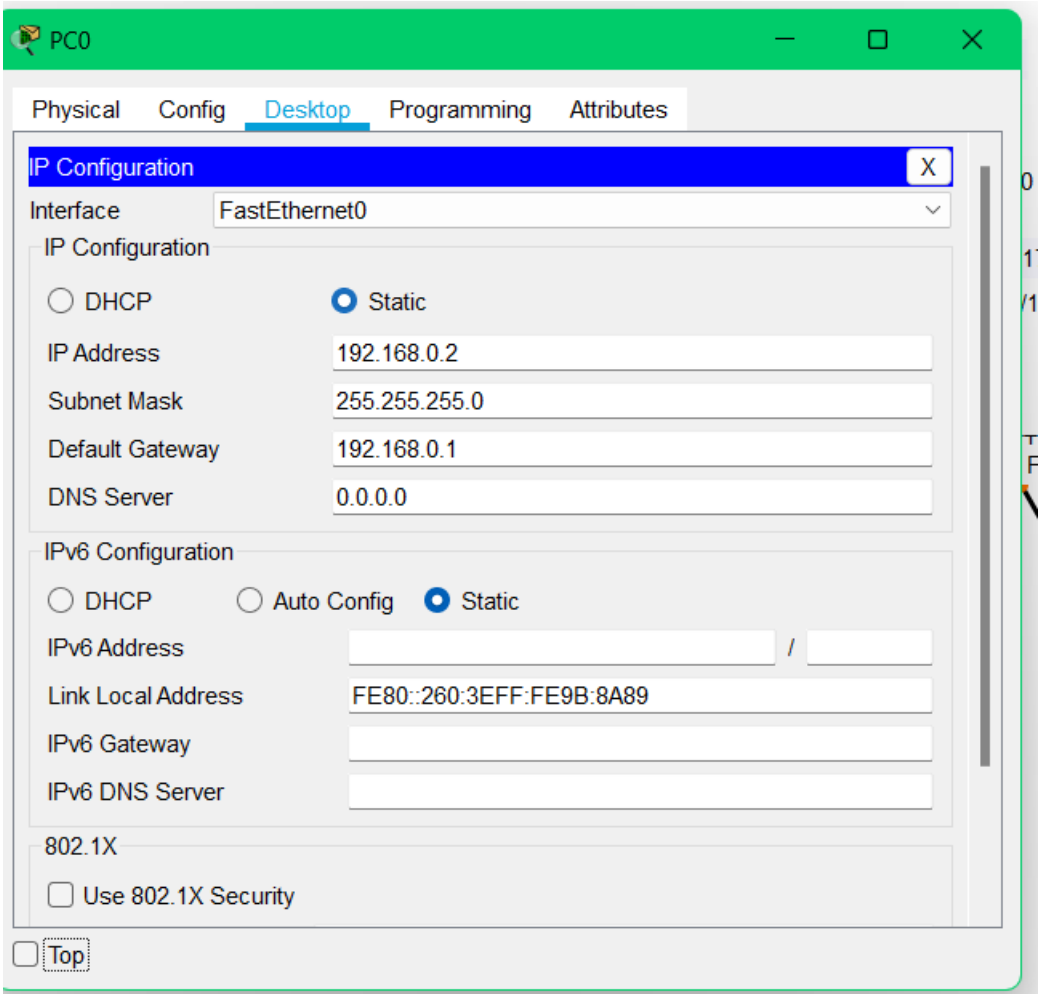
R2

```
Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#int se1/0
Router(config-if)#ip add 10.0.0.2 255.255.255.0
Router(config-if)#clock rate 64000
This command applies only to DCE interfaces
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface Serial1/0, changed state to up

Router(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/0, changed state to up
Router(config-if)#int fa0/0
Router(config-if)#ip add 172.168.0.1 255.255.0.0
Router(config-if)#no sh
Router(config-if)#no shutdown
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
```

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
Router(config-if)#ex
Router(config)#router ospf 10
Router(config-router)#network 172.168.0.0 0.0.0.255 area 0
Router(config-router)#network 10.0.0.0 0.255.255.255 area 0
Router(config-router)#^Z
Router#
%SYS-5-CONFIG_I: Configured from console by console
write
Building configuration...
[OK]

Assign IP Address in All PC

Step 1 Click on PC , Go to Desktop and click , Click on IP configuration



PC 1		PC 2	
Ip address	192.168.0.2	Ip address	192.168.0.3
Subnet Mark	255.255.255.0	Subnet Mark	255.255.255.0
Default Gateway	192.168.0.1	Default Gateway	192.168.0.1

R3

PC 3		PC 4	
Ip address	172.168.0.2	Ip address	172.168.0.3

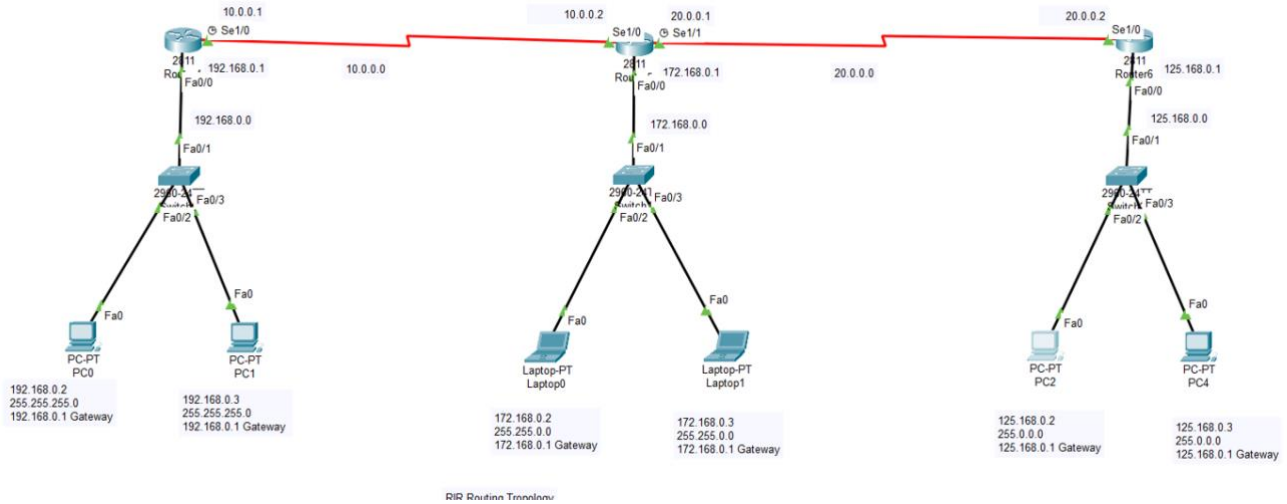
Subnet Mark 255.255.0.0 **Subnet Mark 255.255.0.0**
Default Gateway 172.168.0.1 **Default Gateway 172.168.0.1**

4. Telnet Routing

* Telnet is a command line utility that allow us to login remotely.
* Port No for TELNET is TCP 23

Perform EIGRP.

TELNET Topology.



Enable Interface of R3, R3 And R3 (Serial and Fast Ethernet)

Router 1

Router>Enable
Router# Configure Terminal
Router (Config)#hostname R1
R1 (Config)# interface Se1/0
R1 (Config-if)# ip address 10.0.0.1 255.0.0.0
R1 (Config-if)# clock rate 64000
R1 (Config-if)# bandwidth 64
R1 (Config-if)# no shutdown
R1 (Config-if)# int fa0/0
R1 (Config-if)# ip add 192.168.0.1 255.255.255.0

R1 (Config-if)# no sh
R1 (Config-if)# do show ip interface brief
R1 (Config-if)# ctrl + z
R1#

Router 2

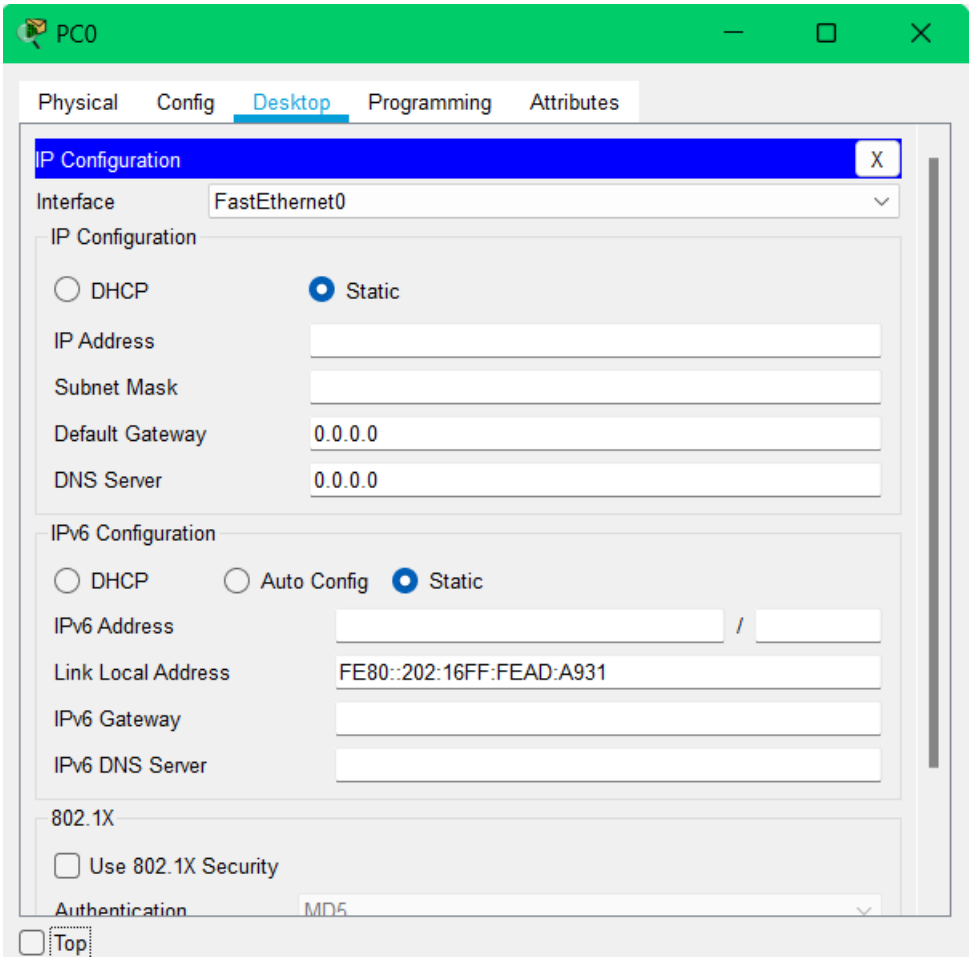
Router>Enable
Router# Conf t
Router (Config)#hostname R2
R2 (Config)#int se1/0
R2 (Config)#ip add 10.0.0.2 255.0.0.0
R2 (Config)#no sh
R2 (Config-if)#int se1/1
R2 (Config-if)#ip add 20.0.0.1 255.0.0.0
R2 (Config-if)#clock rate 64000
R2 (Config-if)#bandwidth 64
R2 (Config-if)#no sh
R2 (Config-if)#int fa0/0
R2 (Config-if)#ip add 172.168.0.1 255.255.0.0
R2 (Config-if)#no sh
R2 (Config-if) #^Z
R2#

Router 3

Router>Enable
Router# Configure Terminal
Router (Config)#hostname R3
R3 (Config)# interface Se1/0
R3 (Config-if)# ip address 20.0.0.2 255.0.0.0
R3 (Config-if)#no sh
R3 (Config-if)#int fa0/0
R3 (Config-if)#ip add 125.168.0.1 255.0.0.0
R3 (Config-if)#no sh
R3 (Config-if)#do show ip int br
R3 (Config-if)#^Z

Assign IP Address in All PC

Step 1 Click on PC , Go to Desktop and click , Click on IP configuration



R3

PC 1		**PC 2**	
Ip address	**192.168.0.2**	**Ip address**	**192.168.0.3**
Subnet Mark	**255.255.255.0**	**Subnet Mark**	**255.255.255.0**
Default Gateway	**192.168.0.1**	**Default Gateway**	**192.168.0.1**

R3

PC 3		**PC 4**	
Ip address	**172.168.0.2**	**Ip address**	**172.168.0.3**
Subnet Mark	**255.255.0.0**	**Subnet Mark**	**255.255.0.0**
Default Gateway	**172.168.0.1**	**Default Gateway**	**172.168.0.1**

R3

PC 5		PC 6	
Ip address	125.168.0.2	Ip address	125.168.0.3
Subnet Mark	255.0.0.0	Subnet Mark	255.0.0.0
Default Gateway	125.168.0.1	Default Gateway	125.168.0.1

Enable EIGRP Routing.

R1

```
Router#en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#ho R1
R1(config)#router eigrp 10
R1(config-router)#network 192.168.0.0
R1(config-router)#net 10.0.0.0
R1(config-router)#^Z
R1# write
Building configuration...
[OK]
R1#
```

R2

```
Router#en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#ho R2
R2(config)#router eigrp 10
R2(config-router)#network 10.0.0.0
R2(config-router)#net 172.168.0.0
R2(config-router)#net 20.0.0.0
R2(config-router)#^Z
R2# write
Building configuration...
[OK]
R2#
```

R3

```
Router#en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R3(config)#ho R3
R3(config)#router eigrp 10
R3(config-router)#network 20.0.0.0
R3(config-router)#net 125.168.0.0
R3(config-router)#^Z
R3# write
Building configuration...
[OK]
R3#
```

Enable TELNET configuration on Router 3 (R3)

```
Router>en
Router#conf t
```

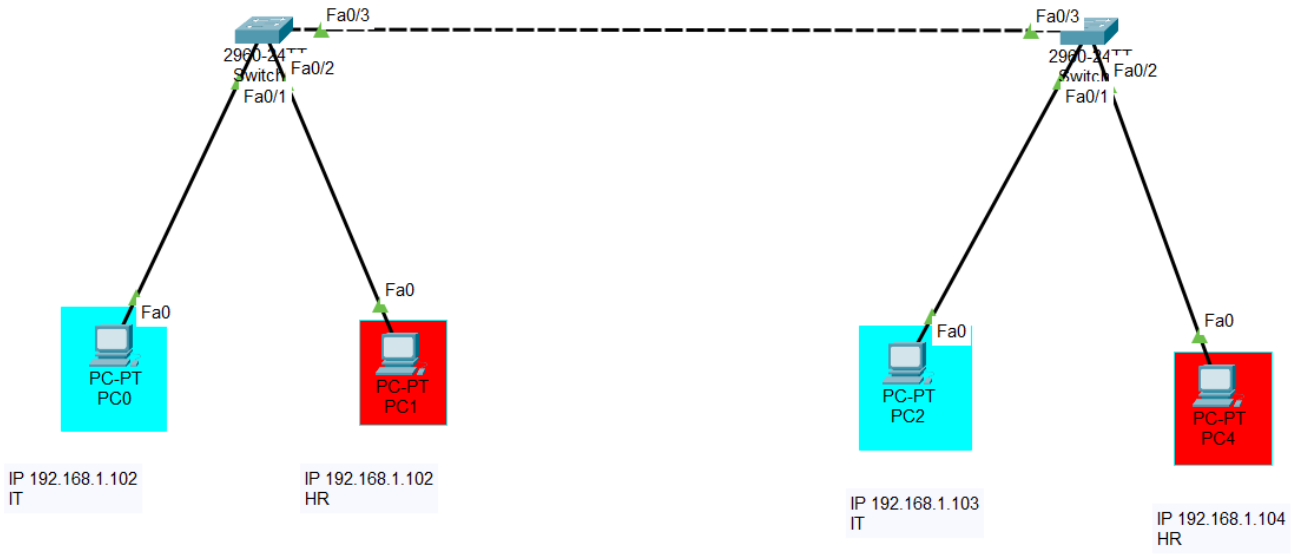
```
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#line vty 0 15
Router(config-line)#password telnet123
Router(config-line)#exit
Router(config)#enable secret 123
Router(config)#^Z
Router# write
Building configuration...
[OK]
Router#
```

5.VLAN With Trunk Link

- VLAN Stand for Virtual Local Area Network
- It is a features of Switch that allow to group divide logically based on department.

Advantage of VLAN

It increase network performance by reducing broadcast domain.
Network security by divide one department to another



Switch No. 1

```
Switch#config t
Switch(config)#int f0/1
Switch(config)#vlan 2
Switch(config-vlan)#Name IT
Switch(config-vlan)#vlan 3
Switch(config-vlan)#name HR
Switch(config-vlan)#so show vlan

Switch(config-vlan)#exit
Switch(config)#int f0/1
Switch(config-if)#switchpo
Switch(config-if)#switchport access vlan 2
Switch(config-if)#int f0/2
Switch(config-if)#switchport access vlan 3
```

Switch No. 2

```
Switch(vlan)#vlan 2 name HR
VLAN 2 added:
Name: HR
Switch(vlan)#vlan 2 name IT
VLAN 2 modified:
Name: IT
Switch(vlan)#vlan 3 name HR
```

VLAN 3 added:
Name: HR
Switch(vlan)#
Switch(vlan)#exit

Switch(config)#interface f0/1
Switch(config-if)#switch
Switch(config-if)#switchport acc
Switch(config-if)#switchport access vlan 2
Switch(config-if)#int f0/2
Switch(config-if)#switchport access vlan 3

Switch No. 1 or 2 Enabled Trunk Link 1

Switch#config t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int f0/3
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