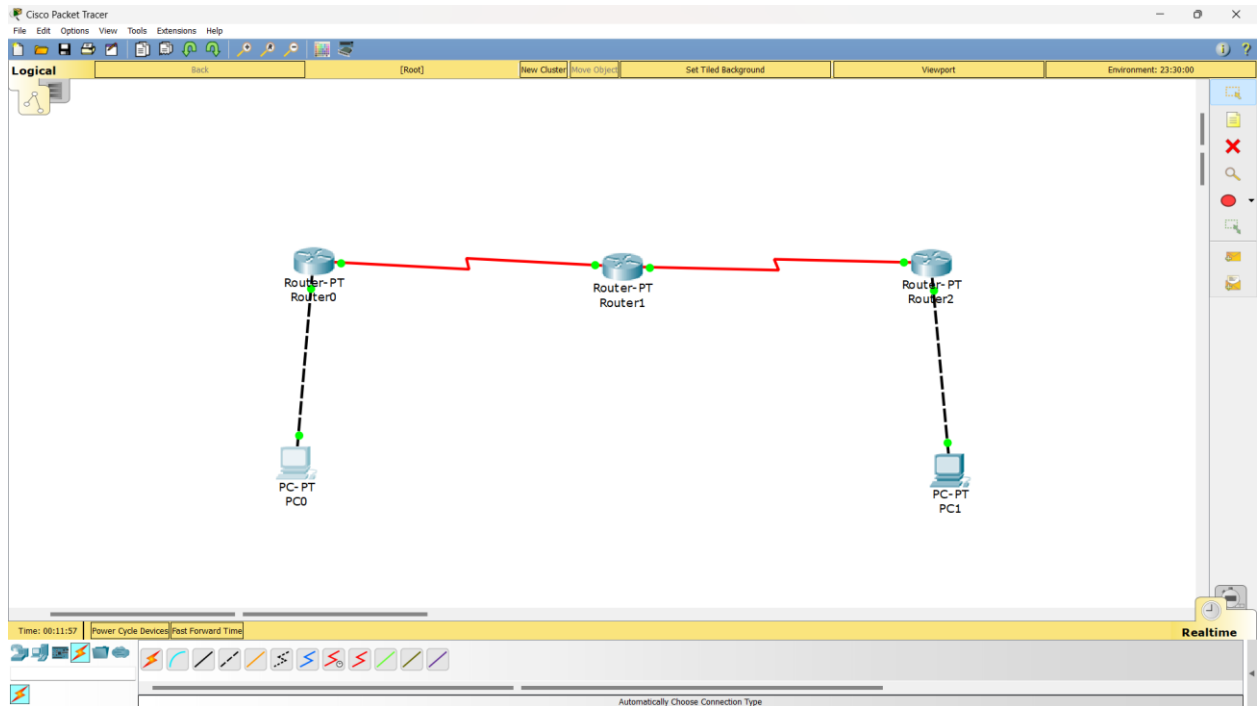


# LAB 6

## Aim of the program

Configuring RIP Routing Protocol in Routers

## Topology



## Procedure

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 10.0.0.10 255.0.0.0
Router(config-if)#no shutdown

Router(config-if)#
%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)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#ip address 30.0.0.1 255.0.0.0
Router(config-if)#encapsulation ppp
Router(config-if)#exit
Router(config)#router rip
Router(config-router)#network 10.0.0.0
Router(config-router)#network 30.0.0.0
Router(config-router)#exit
Router(config)#
Router(config)#interface Serial2/0
Router(config-if)#no shutdown

Router(config-if)#
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Serial2/0
Router(config-if)#ip address 30.0.0.2 255.0.0.0
Router(config-if)#encapsulation ppp
Router(config-if)#clock rate 64000
This command applies only to DCE interfaces
Router(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial2/0, changed state to down
Router(config-if)#
Router(config-if)#exit
Router(config)#interface serial3/0
Router(config-if)#ip address 20.0.0.2 255.0.0.0
Router(config-if)#encapsulation ppp
Router(config-if)#clock rate 64000
Router(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial3/0, changed state to down
Router(config-if)#
Router(config-if)#exit
Router(config)#router rip
Router(config-router)#network 30.0.0.0
Router(config-router)#network 20.0.0.0
Router(config-router)#exit
Router(config)#
%LINK-5-CHANGED: Interface Serial3/0, changed state to up

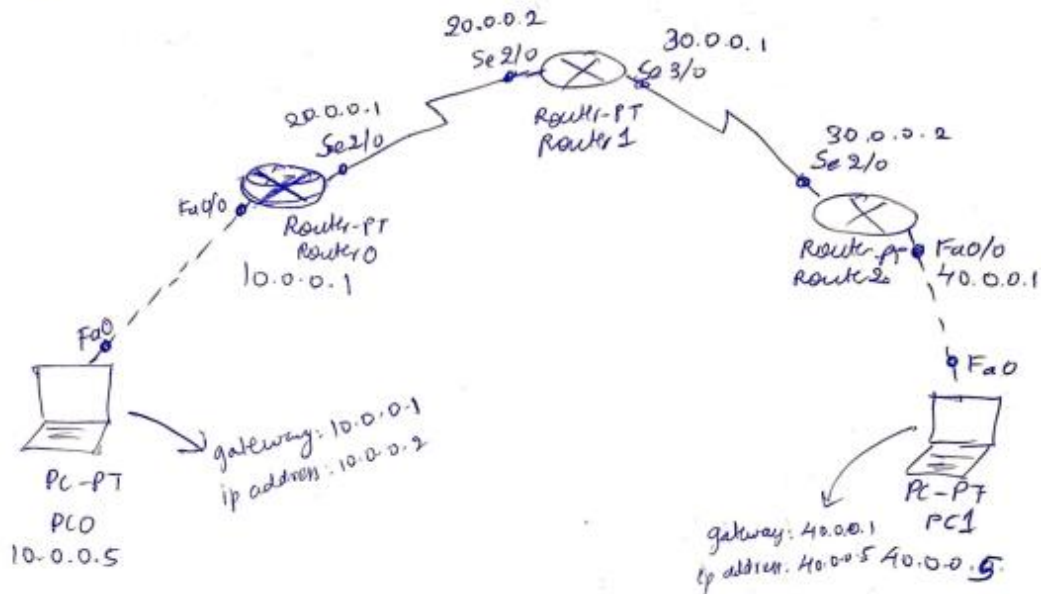
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed state to up
```

## Lab-7

15-12-22

Dynamic Routing R.I.P:

topology



Router 0

enable

config terminal

interface fastEthernet 0/0

ip address 10.0.0.1 255.0.0.0

no shutdown

exit

~~interface~~ serial 2/0

ip address 20.0.0.1 255.0.0.0

encapsulation ppp

no shutdown

exit

### Router 1

```
enable
config terminal
interface serial 3/0
ip address 20.0.0.2 255.0.0.0
encapsulation ppp
clock rate 64000
no shutdown
exit
```

```
config terminal
interface serial 3/0
ip address 30.0.0.1 255.0.0.0
encapsulation ppp
clock rate 64000
no shutdown
exit
```

### Router 2

```
enable
config terminal
interface fastEthernet 0/0
ip address 40.0.0.1 255.0.0.0
no shutdown
exit
interface serial 2/0
ip address 30.0.0.2 255.0.0.0
encapsulation ppp
no shutdown
exit
```

### Router 0

```
router rip
network 10.0.0.0
network 20.0.0.0
exit
```

### Router 1

```
router rip
network 20.0.0.0
network 30.0.0.0
exit
```

### Router 2

```
router rip
network 30.0.0.0
network 40.0.0.0
exit
```

PC > ping 40.0.0.5

Pinging 40.0.0.5 with 32 bytes of data:

Reply from 40.0.0.5: bytes=32 time=28ms TTL=125

Reply from " : bytes=32 time=9ms TTL=125

Reply from " : bytes=32 time=2ms TTL=125

Reply from " : bytes=32 time=12ms TTL=125

Ping statistics for 40.0.0.5:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 2ms, Maximum = 28ms, Average = 11ms

## Output:

```
C:\>ping 40.0.0.1

Pinging 40.0.0.1 with 32 bytes of data:

Request timed out.
Reply from 40.0.0.1: bytes=32 time=4ms TTL=125
Reply from 40.0.0.1: bytes=32 time=3ms TTL=125
Reply from 40.0.0.1: bytes=32 time=4ms TTL=125

Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 3ms, Maximum = 4ms, Average = 3ms

C:\>
```