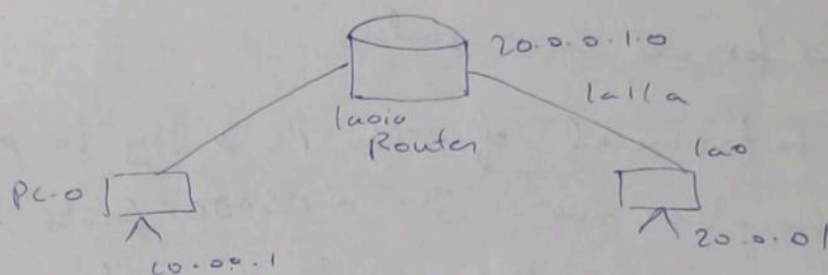


## Exp-2

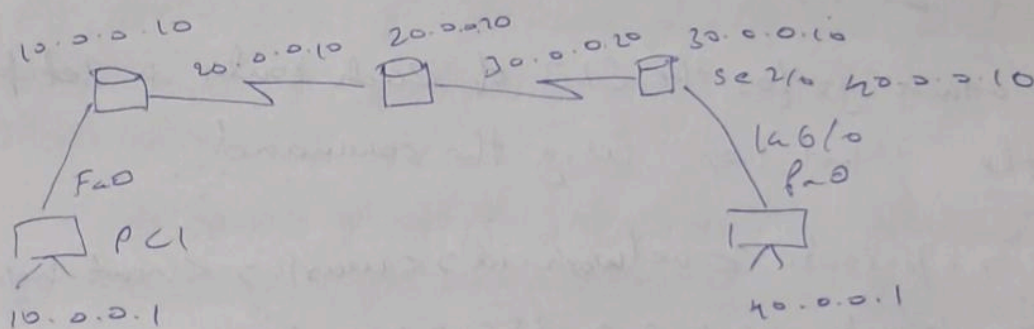
### Aim

Configure IP Address to routers in packet tracer.  
Explore the fail messages ping responses, destination unreachable, request timed out etc.

### Topology



### 3) Router topology.



### Procedure

Take 2 PC & Place them as show in the topology.  
2 diff IP address as they belong to 2 diff IP  
address as they belong to networks Place 2 routers  
belonging to these 2 networks by their  
gateways & place the 3rd router in b/w to  
connect the 2 networks. Set gateways for 2 PC's.  
& then going to the C.I interface for each router  
specifying the IP router for file to transfer using  
the commands.

Router > enable.

Router > # config terminal  
Router config; interface <port>  
Router config if : IP address <IP> 28 sub net mask  
Router (config): no shut

Do this for all three routers

then go to terminal of either PC & try to ping  
to the other one. The message fails to  
deliver due to not setting up network static route  
& next hop

we again go for the CLI of each router & setup  
the "next hop" using the command.

> ip route <network.id> <mask> <next.hop>  
> ip route 40.0.0.0 255.0.0.0 20.0.0.20.  
(for router 1)

This is done so that router recognizes which  
pathway to take when packet is received for  
particular destination

Result

i) > ping 20.0.0.1

Pinging 20.0.0.1 with 32 byte of data

Reply from 10.0.0.10: Destination host unreachable.

Reply from 10.0.0.10: Destination host unreachable

Reply from 10.0.0.10: Destination host unreachable

Reply from 10.0.0.10: Destination host unreachable.



### Ping statistics

Packets sent = 4; Received = 0; loss = 100% (100% loss)

u) > ping 10.0.0.1

ping 10.0.0.1 with 32 bytes of data.

Request timed out.

Reply from 10.0.0.10: bytes = 32 time = 2ms TTL

Reply from 10.0.0.10: bytes = 32 time = 2ms TTL

Reply from 10.0.0.10: bytes = 32 time = 2ms TTL

### Ping statistics

Packets sent = 4; Received = 1; loss = 75% (75% loss)

### Observation -

The Router connects LAN to the internet.

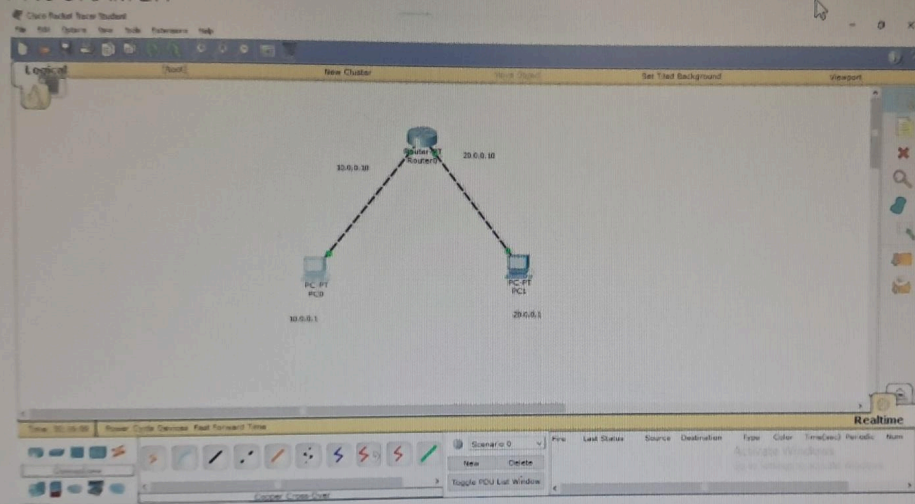
It connects diff networks with diff loss.

Packets are forwarded to the dest through network hopping.

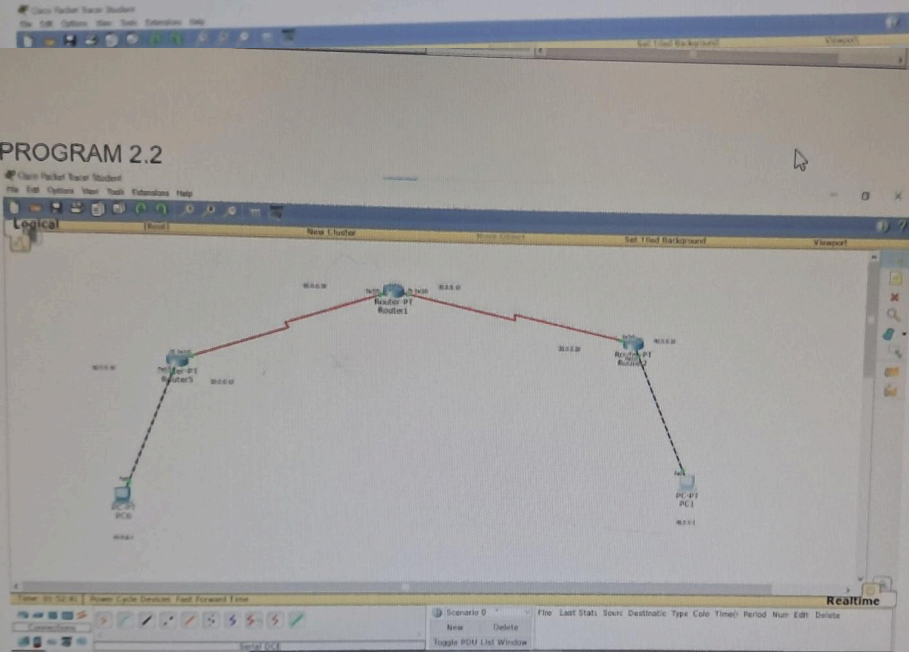
Serial ports are used to connect 2 routers the connecting cables.

Lee  
13/7/23

## PROGRAM 2.1



## PROGRAM 2.2



OUTPUT:

## PROGRAM 2.1

```

PC0
Physical Config Desktop Custom Interface
Command Prompt
Packet Tracer PC Command Line 1.0
PC>ping 20.0.0.1

Pinging 20.0.0.1 with 32 bytes of data:

Request timed out.
Reply from 20.0.0.1: bytes=32 time=0ms TTL=127
Reply from 20.0.0.1: bytes=32 time=0ms TTL=127
Reply from 20.0.0.1: bytes=32 time=10ms TTL=127

Ping statistics for 20.0.0.1:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 10ms, Average = 3ms

PC>
    
```



