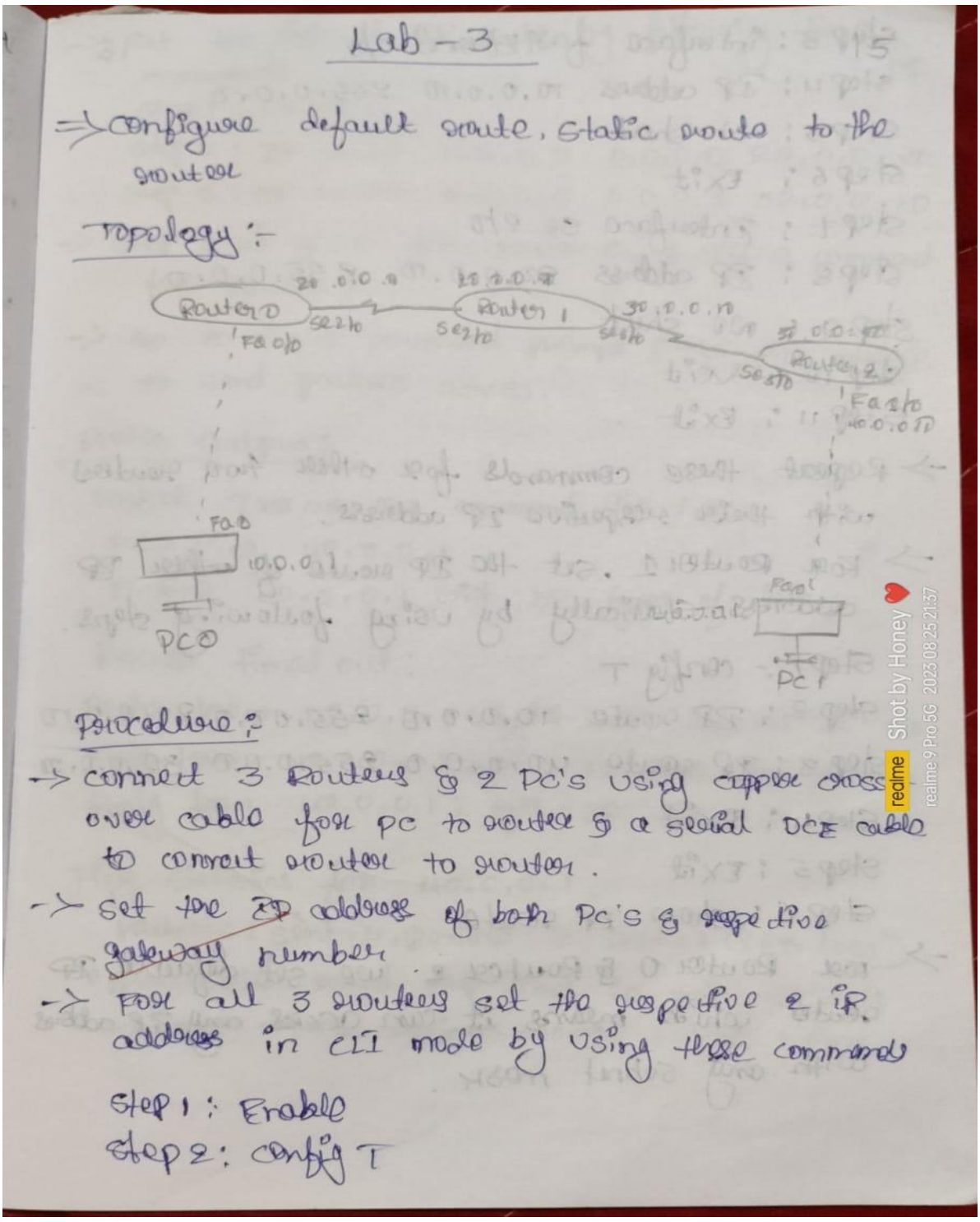
LAB 3

Configure default route to the Router.

OBSERVATION:



step 3 : interface fastEthernet 0/0
step 4 : IP address 10.0.0.10 255.0.0.0
step 5 : No shut
step 6 : Exit
step 7 : Interface se 2/0
step 8 : IP address 20.0.0.10 255.0.0.0
step 9 : no shut
step 10 : Exit
step 11 : Exit

-> Repeat these commands for other two routers with their respective IP address.

-> For Router 1, set the IP route of other IP address statically by using following steps.

Step 1 :- config T
step 2 : IP route 10.0.0.0 255.0.0.0 20.0.0.0
step 3 : IP route 40.0.0.0 255.0.0.0 30.0.0.0
Step 4 : Exit.
step 5 : Exit
step 6 : show IP route

-> For Router 0 & Router 2 we set default IP route which means it can access any IP addres with any subnet mask.

-> Set the default IP route by following these commands

Step 1 : config T

Step 2 : IP route 0.0.0.0 0.0.0.0 20.0.0.20

Step 3 : IP route 0.0.0.0 0.0.0.0 30.0.0.10

-> step 2 is given for Router 0 & step 3 command for Router 1

-> Go to PC's command prompt & type ping message to send packets across.

PING Output :-

Packet Tracer PC command Line 1.0

PC> 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 = 8ms TTL = 125

Reply from 40.0.0.1 : bytes = 32 time = 16ms TTL = 125

Reply from 40.0.0.1 : bytes = 32 time = 2ms TTL = 125

Ping statistics for 40.0.0.1 :

Packets : sent = 4, Recived = 3 Lost = 1 (25% Loss)

Approximate round trip times in milli-seconds

minimum = 2ms, maximum = 16ms, Average = 6ms

Observation:

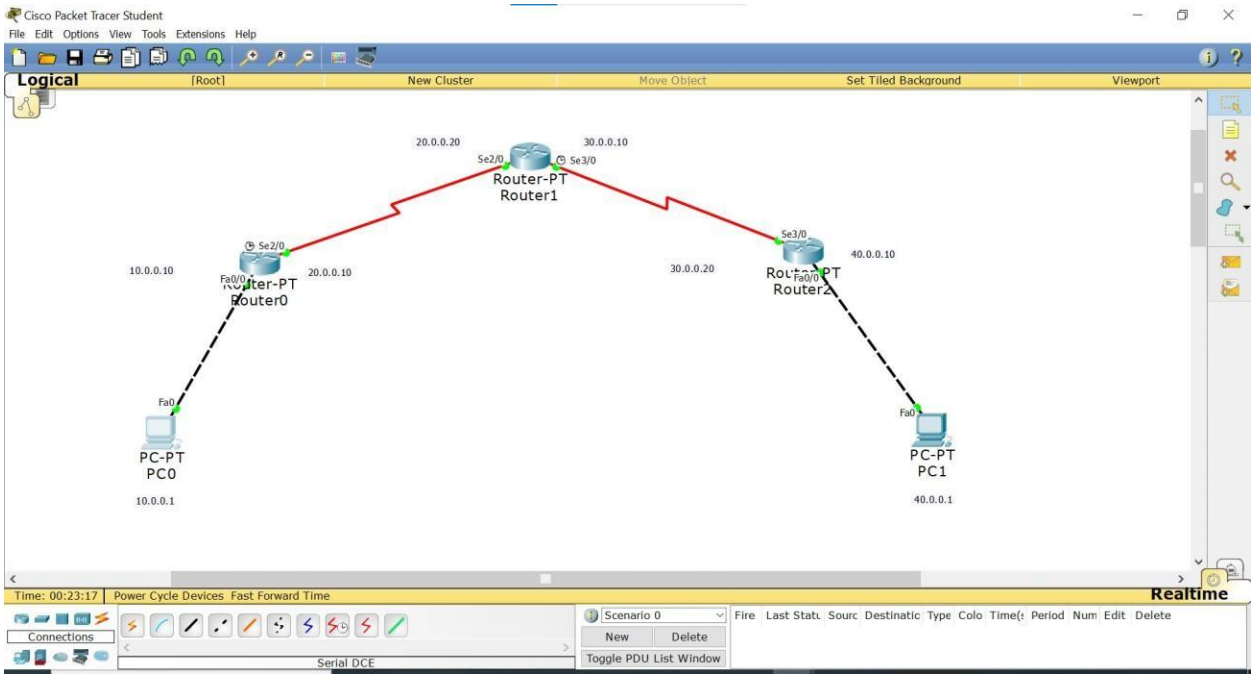
-> A default route is the route which takes effect when no other route is available for an IP address destination.

-> If a packet is received, the devices first checks the IP destination address, if the destination address is not local the device checks its routing table

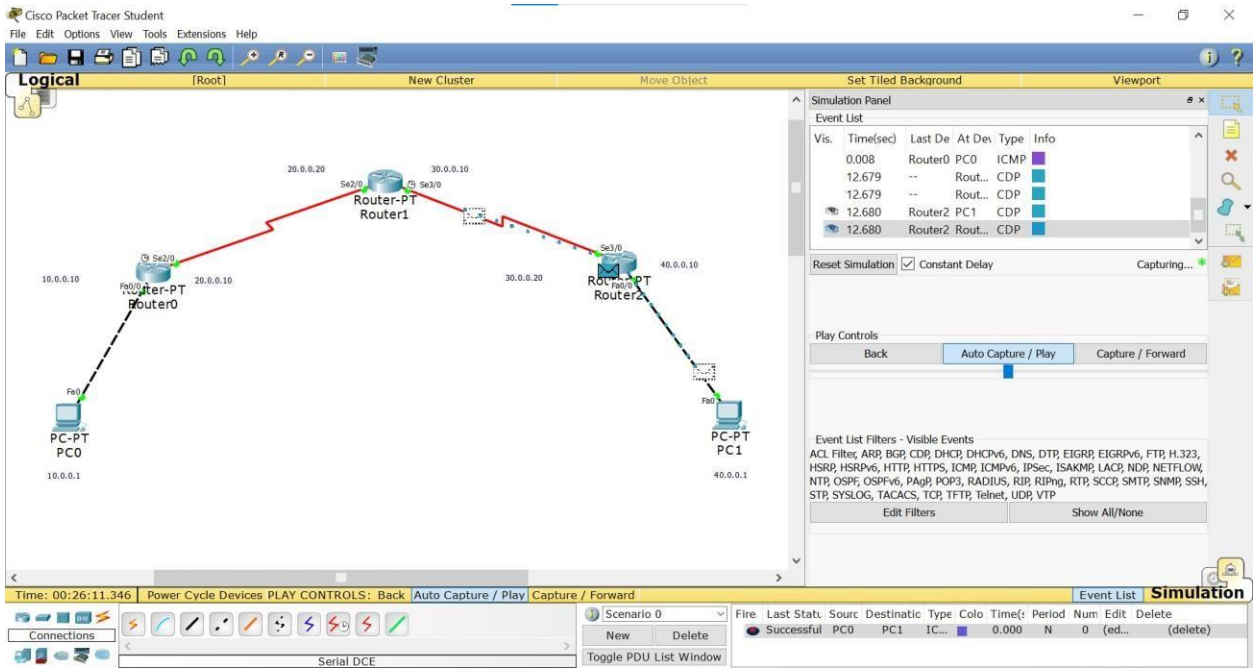
-> If the remote destination subnet is not listed then the packet is forwarded to the next hop toward the destination using the default route

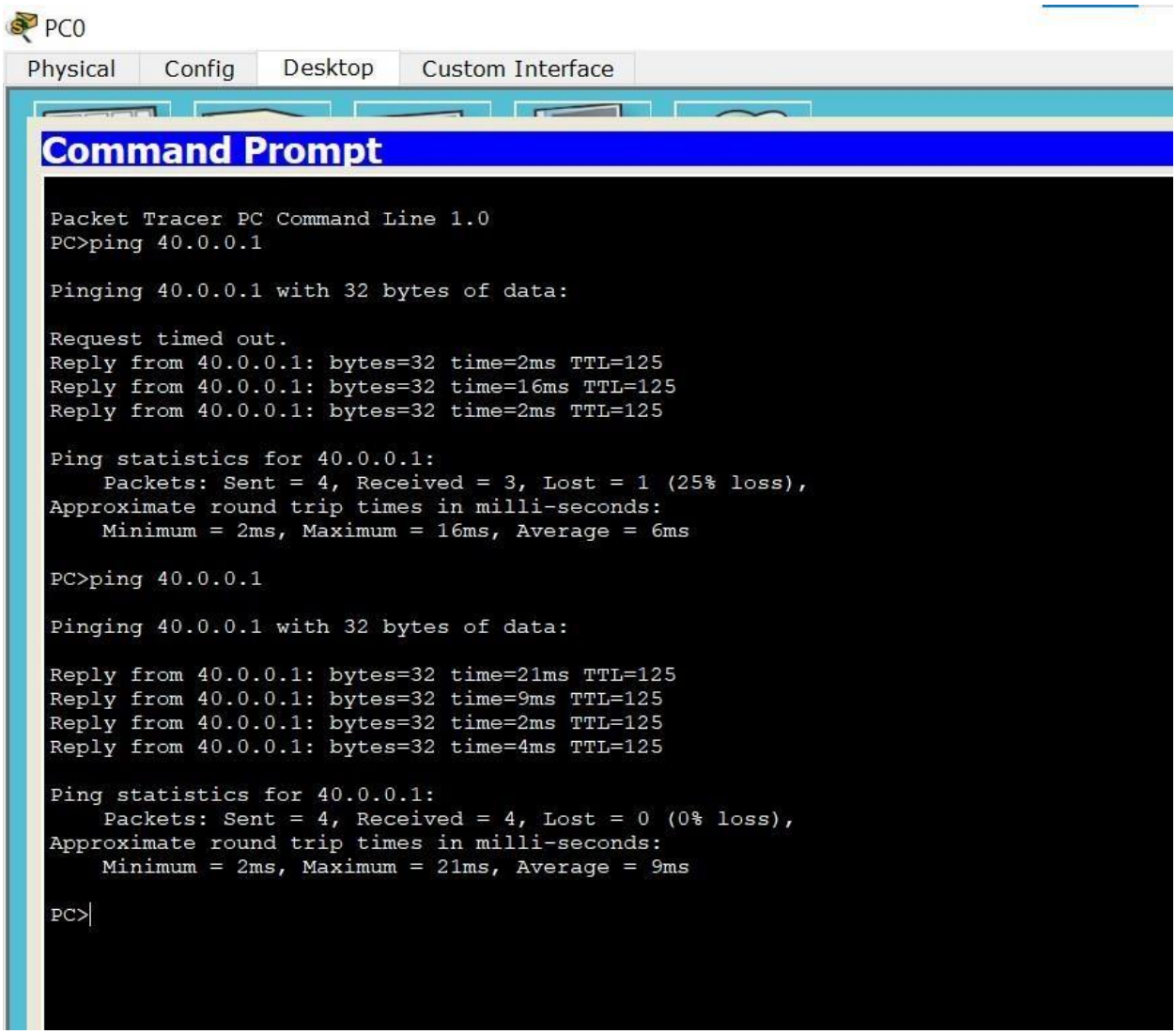
-> the process repeats until the packet is delivered.

TOPOLOGY:



OUTPUT:




PC0
Physical
Config
Desktop
Custom Interface
Command Prompt
Packet Tracer PC Command Line 1.0
PC>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=2ms TTL=125
Reply from 40.0.0.1: bytes=32 time=16ms TTL=125
Reply from 40.0.0.1: bytes=32 time=2ms 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 = 2ms, Maximum = 16ms, Average = 6ms
PC>ping 40.0.0.1
Pinging 40.0.0.1 with 32 bytes of data:
Reply from 40.0.0.1: bytes=32 time=21ms TTL=125
Reply from 40.0.0.1: bytes=32 time=9ms TTL=125
Reply from 40.0.0.1: bytes=32 time=2ms 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 = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 2ms, Maximum = 21ms, Average = 9ms
PC>