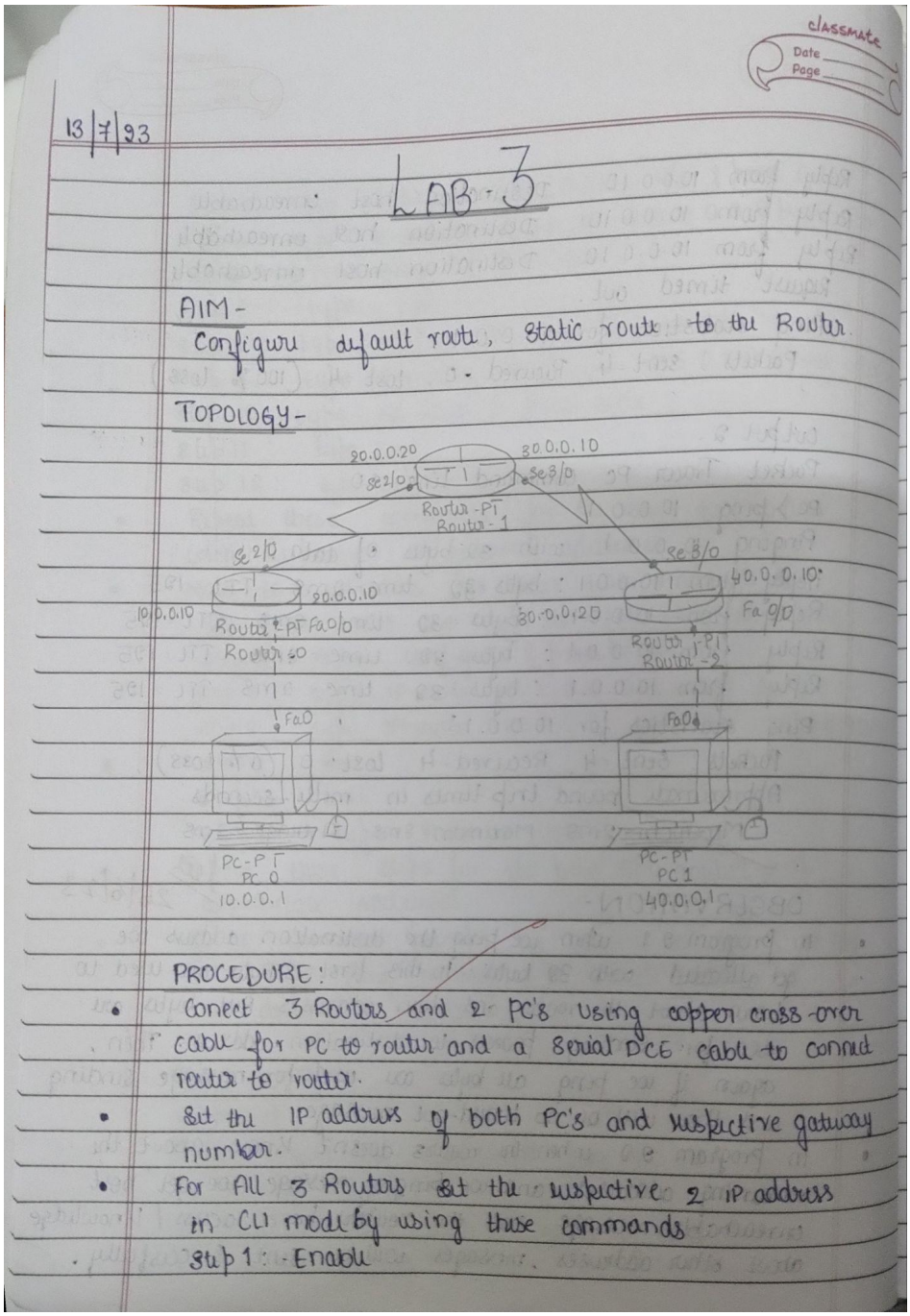
WEEK 3

Configure default route, static route to the Router.

OBSERVATION:



13/7/23

LAB-3

AIM-

Configure default route, static route to the Router.

TOPOLOGY-

PROCEDURE:

- Conect 3 Routers and 2 PC's using copper cross-over cable for PC to router and a serial DCE cable to connect router to router.
- Set the IP address of both PC's and respective gateway number.
- For All 3 Routers set the respective 2 IP address in CLI mode by using these commands

Step 1: Enable

Step 2: Config T
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 addresses.
- For Router 1, set the IP route of other IP addresses statically by using following steps
  Step 1: Config T
  Step 2: IP route 10.0.0.0 255.0.0.0 20.0.0.10
  Step 3: IP route 40.0.0.0 255.0.0.0 30.0.0.20
  Step 4: Exit
  Step 5: Exit
  Step 6: Show IP route.
- For Router 0 & Router 2 we set defaults IP routes which means it can access any IP address 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 and 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:

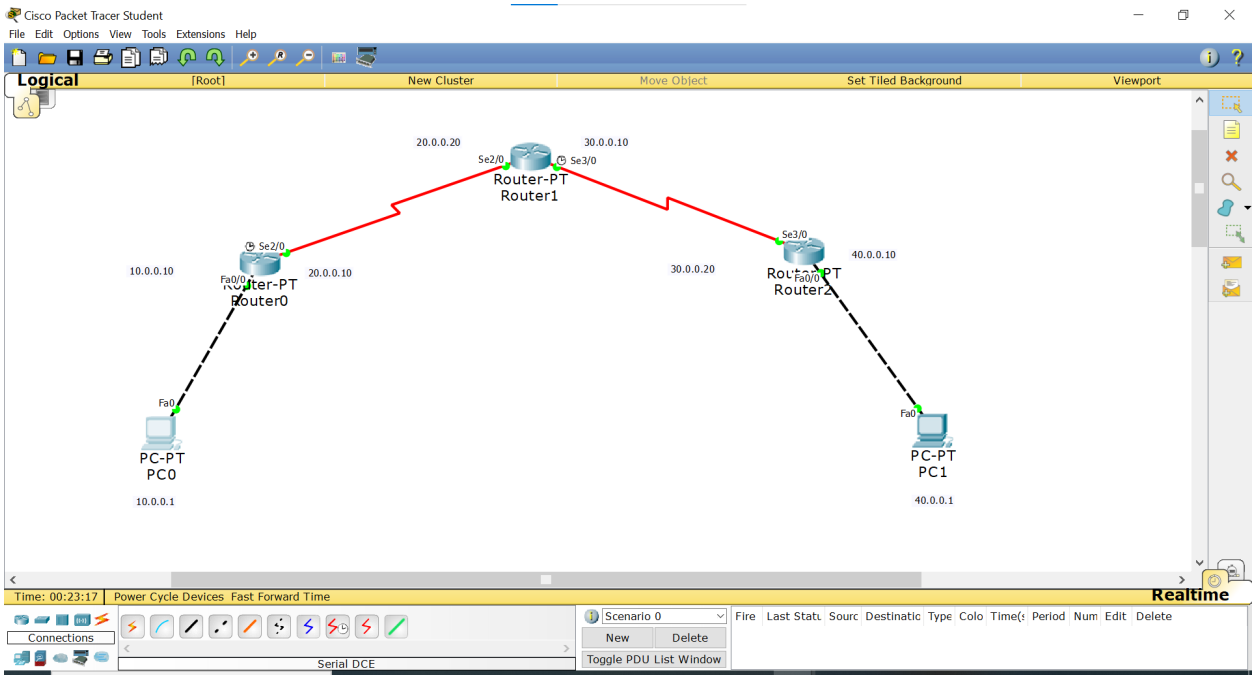
Request timed out.
Reply from 40.0.0.1 : bytes = 32 time = 2ms TTL = 125
Reply from 40.0.0.1 : bytes = 32 time = 16ms TTL = 125
Reply from 40.0.0.1 : bytes = 32 time = 2 ms TTL = 125

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

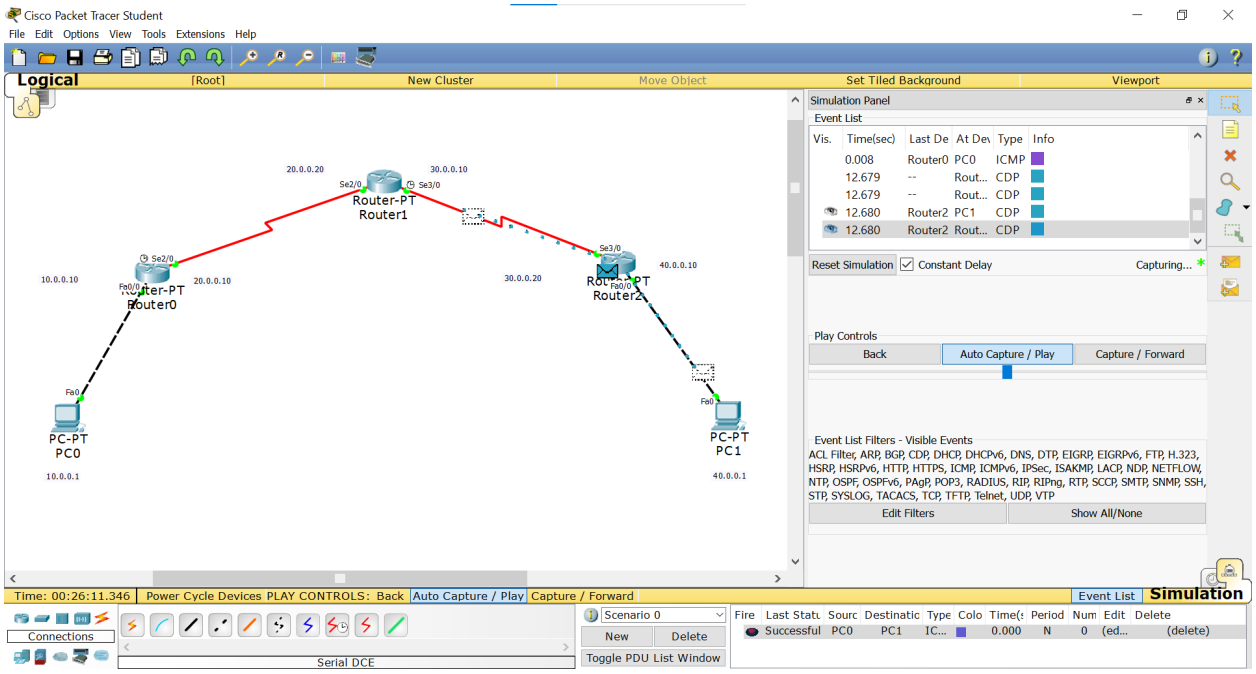
OBSERVATION:

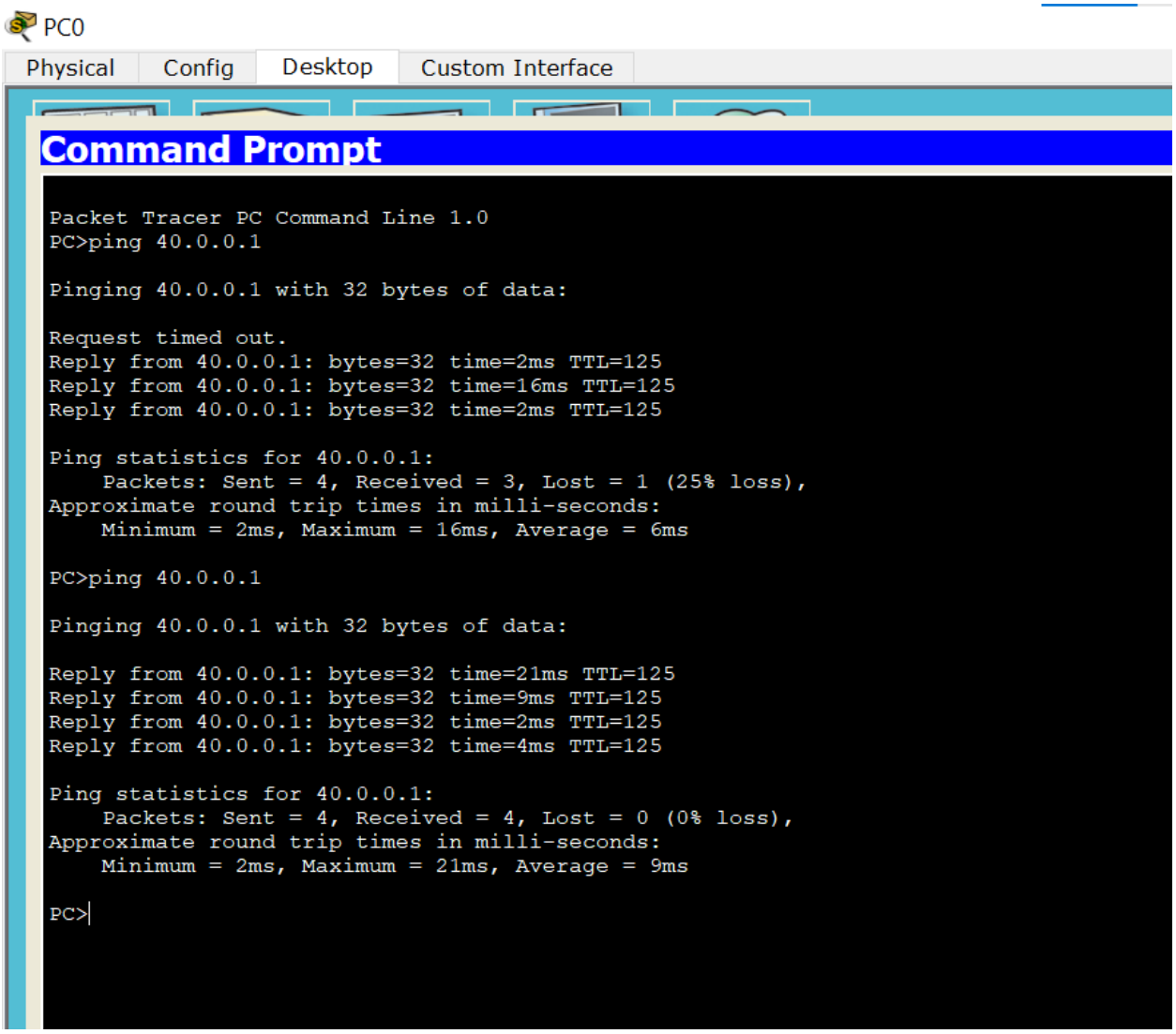
- A default route is the route which takes effect when no other route is available for an IP address destination.
- If a packet is recived, the device first checks the IP destination address, if the IP destination address is not local the device checks its routing table.
- If the remote destination subnet 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>