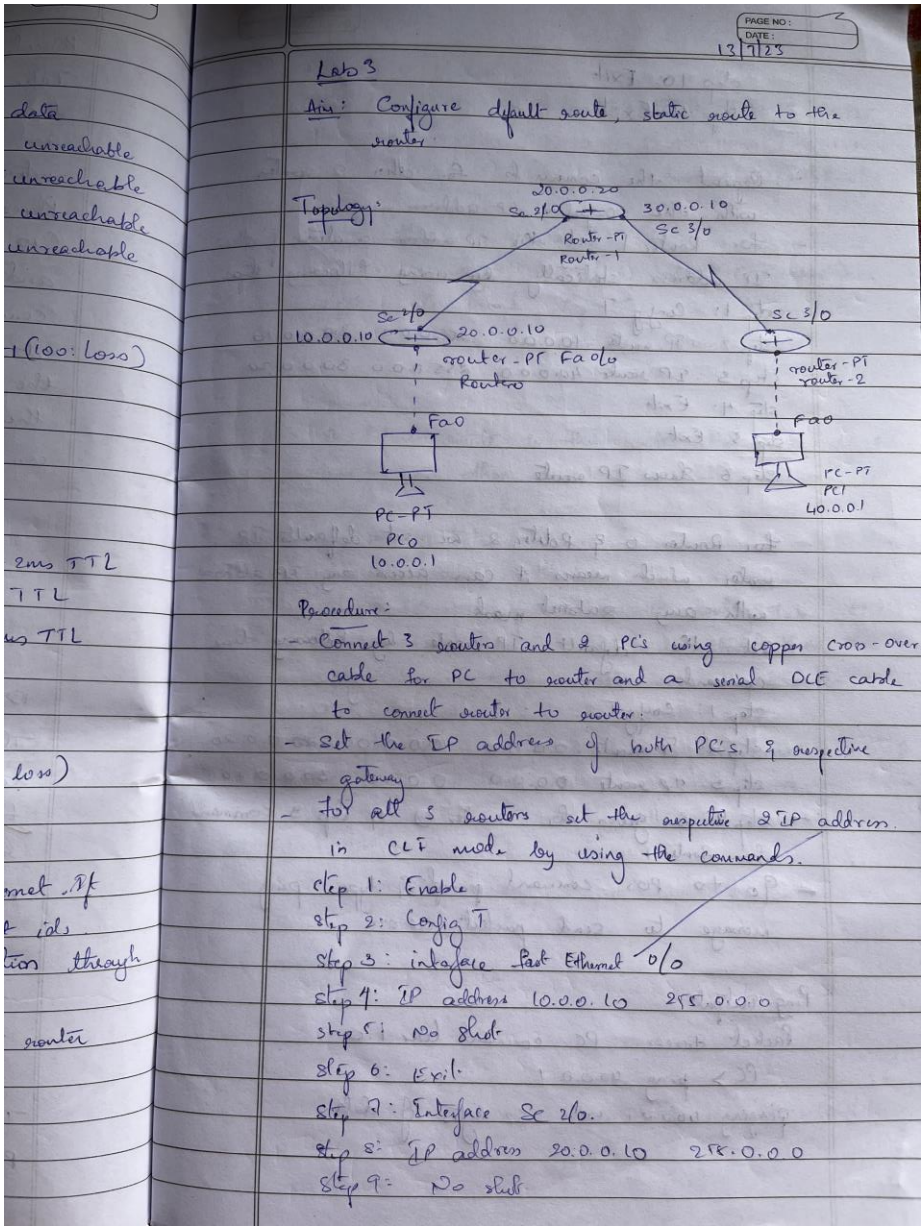
LAB 3

Configure default route, static route to the Router.

OBSERVATION:



step 10: Exit
step 11: Exit

- Repeat the commands for other 2 routers with the respective IP address
- for Router 1, set the IP ~~address~~ router 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 20.0.0.10
  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 default IP router 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 & type ping message to send packet across

Ping output:
Packet tracer PC command line 1.0
PC > ping 40.0.0.1
pinging 40.

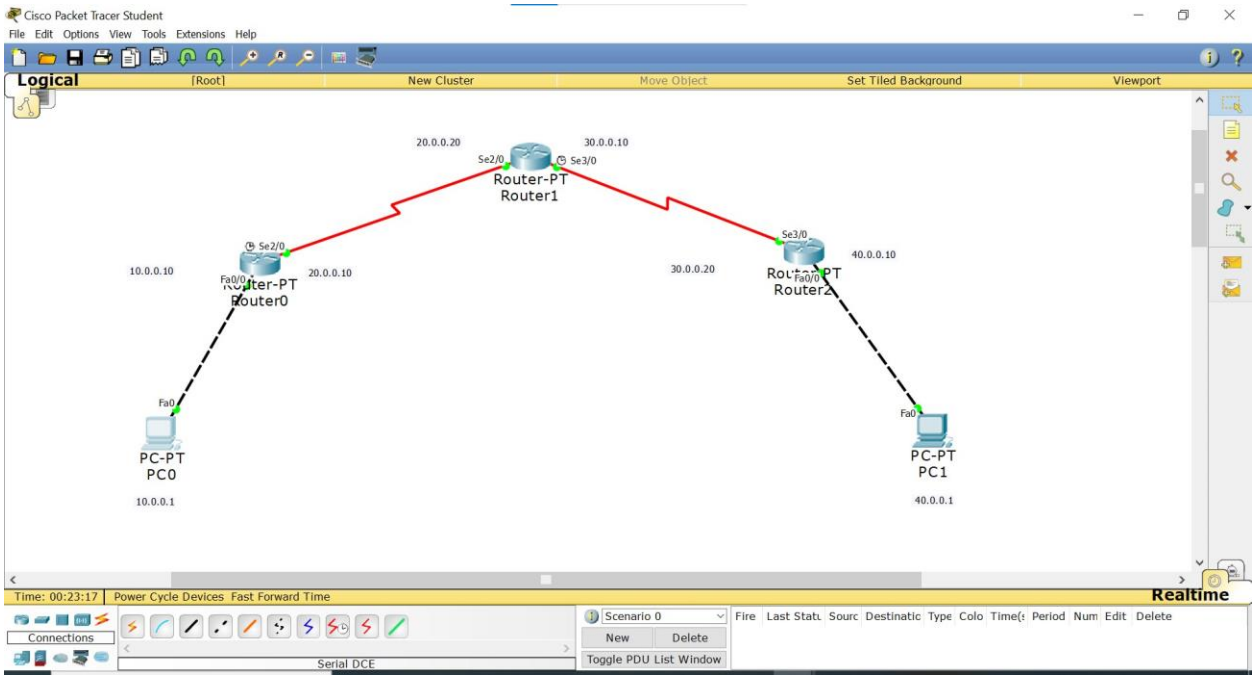
Request timed out
Reply from 40.0.0.1 : bytes = 32 time = 2ms TTL = 125
Reply from 40.0.0.1 : bytes = 32 time = 16ms TTL = 125
Reply from 40.0.0.1 : bytes = 32 time = 2ms TTL = 125

Ping statistics for 40.0.0.1
packets : sent = 4, received = 3, lost = 1 (25% loss)
Approximate round trip times in milliseconds :
Minimum = 2ms, Maximum = 16ms, Average = 6ms.

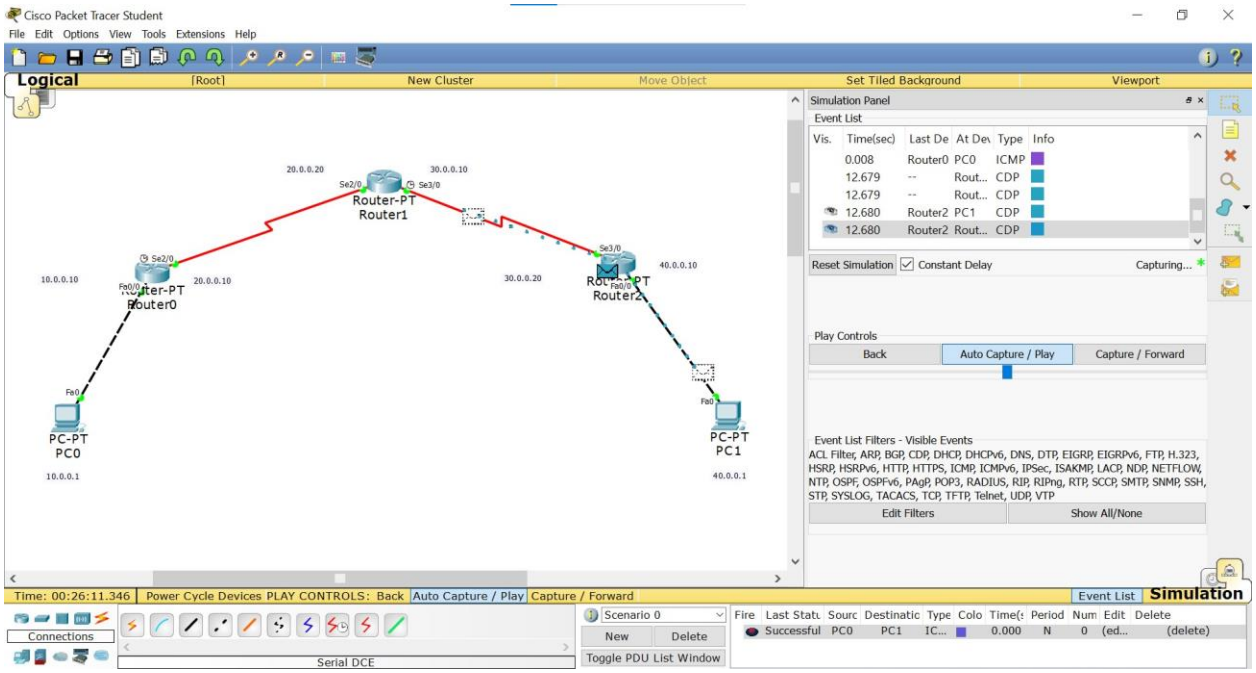
Observations:
- A default route is the route which takes effect when no other route is available for an IP address destination.
- If a packet is recieved the device first checks the destination address if the IP destination address is not local the device checks its routing table if the remote destination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

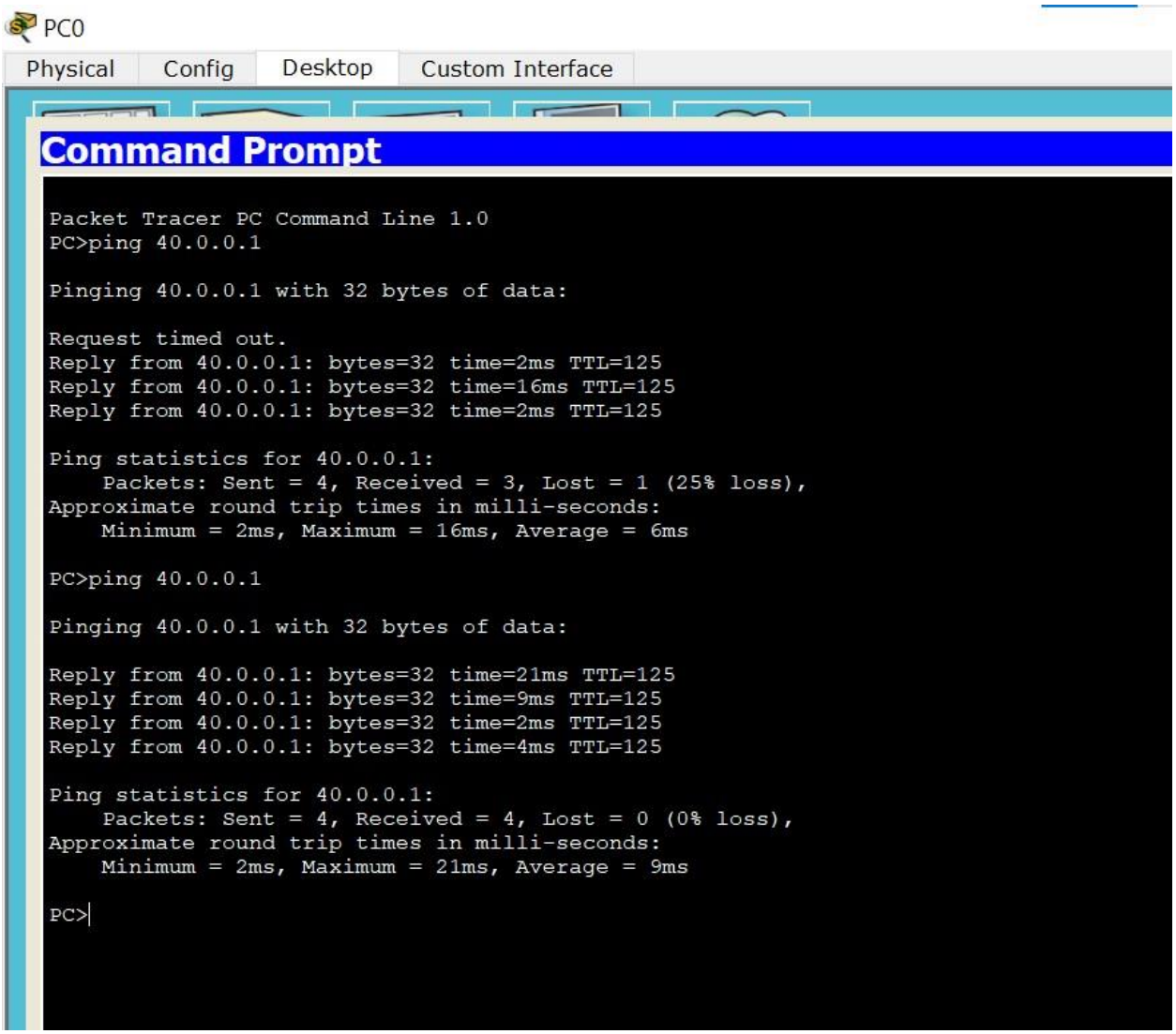
31/8/2023

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>