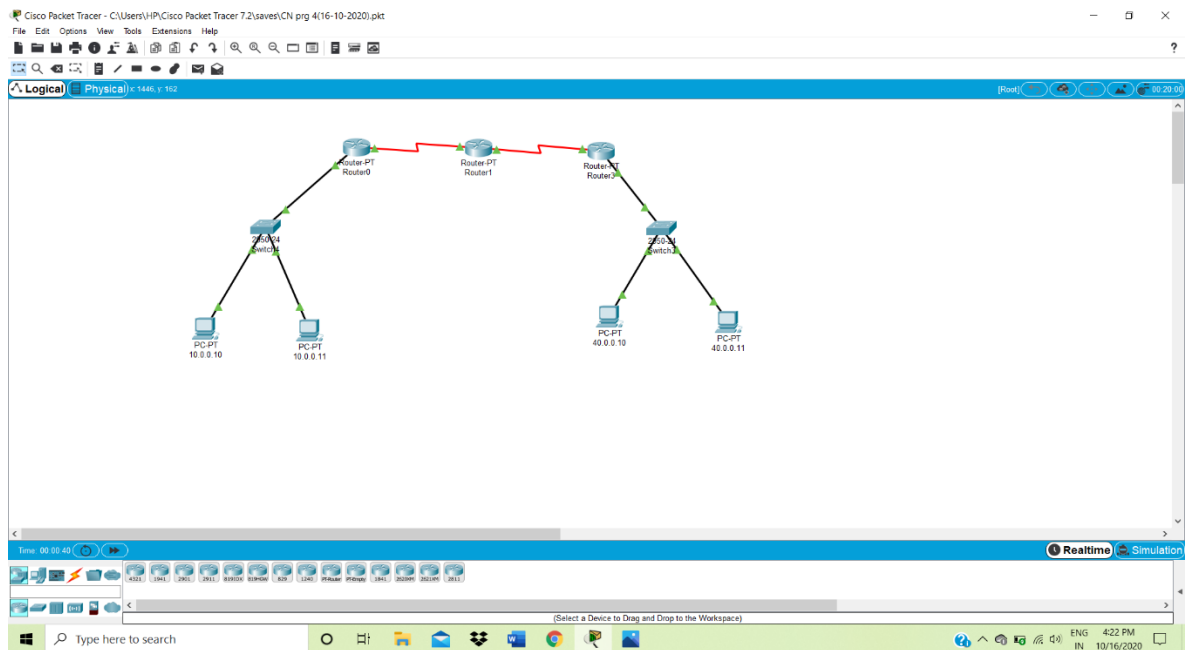


Lab Program 4:

Configure the default router in the router.

Steps:

- 1) Construct topology
- 2) Give IP address to each of the PC's .
- 3) Configure the all routers to all interfaces.
- 4) Statically connect only Router2 to the interface 10.0.0.0 and 40.0.0.0
- 5) Set default route to the Router1 and Router 3 using the given format
ip route 0.0.0.0 0.0.0.0 <next hop address> .



Before setting default route to the Router1 and Router3 if we try to ping, it will show as below as the router is not directly connected to the destination.

```
Command Prompt

Ping statistics for 30.0.0.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 40.0.0.10

Pinging 40.0.0.10 with 32 bytes of data:

Reply from 10.0.0.1: Destination host unreachable.
Reply from 10.0.0.1: Destination host unreachable.
Reply from 10.0.0.1: Destination host unreachable.
Reply from 10.0.0.1: Destination host unreachable.

Ping statistics for 40.0.0.10:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 40.0.0.11

Pinging 40.0.0.11 with 32 bytes of data:

Reply from 10.0.0.1: Destination host unreachable.
Request timed out.
Reply from 10.0.0.1: Destination host unreachable.
Reply from 10.0.0.1: Destination host unreachable.

Ping statistics for 40.0.0.11:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
C:\>ping 40.0.0.10

Pinging 40.0.0.10 with 32 bytes of data:

Request timed out.
Reply from 40.0.0.10: bytes=32 time=2ms TTL=125
```

After setting the default route to the router, we will get the reply from the destination .

Ping message is normally used in order to know whether the pinged destination is currently active or not.

```
Command Prompt

C:\>ping 40.0.0.1

Pinging 40.0.0.1 with 32 bytes of data:

Reply from 40.0.0.1: bytes=32 time=3ms TTL=253
Reply from 40.0.0.1: bytes=32 time=5ms TTL=253
Reply from 40.0.0.1: bytes=32 time=2ms TTL=253
Reply from 40.0.0.1: bytes=32 time=3ms TTL=253

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 = 5ms, Average = 3ms

C:\>ping 40.0.0.11

Pinging 40.0.0.11 with 32 bytes of data:

Reply from 40.0.0.11: bytes=32 time=3ms TTL=125
Reply from 40.0.0.11: bytes=32 time=12ms TTL=125
Reply from 40.0.0.11: bytes=32 time=2ms TTL=125
Reply from 40.0.0.11: bytes=32 time=2ms TTL=125

Ping statistics for 40.0.0.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 12ms, Average = 4ms
```

