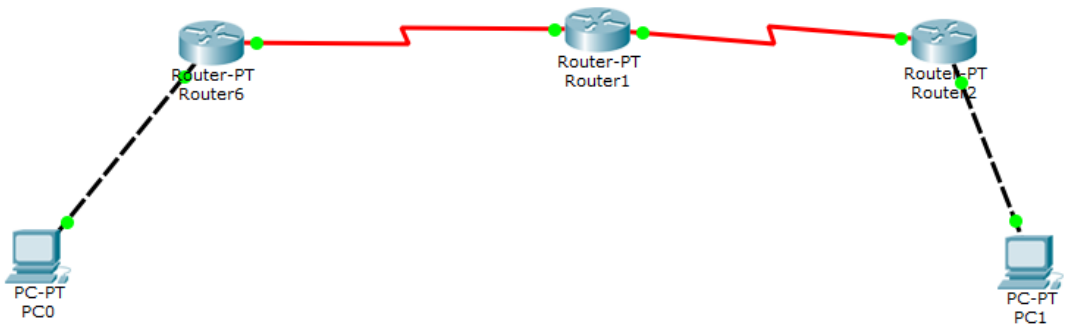
Experiment 3:

Aim: Construct a topology consisting of four networks using three routers through Static routing.

Topology:



Before the gateway is setup:

```
PC>ping 40.0.0.2

Pinging 40.0.0.2 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 40.0.0.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

After the gateway is setup and routes not established:

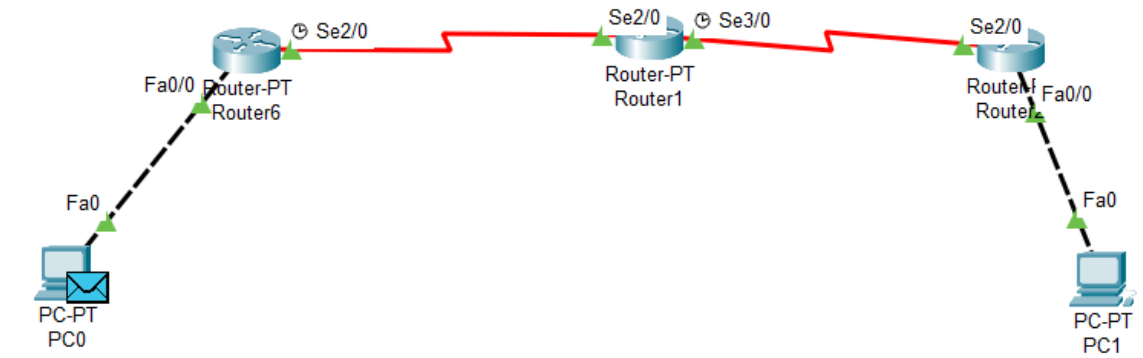
```
PC>ping 40.0.0.2

Pinging 40.0.0.2 with 32 bytes of data:

Reply from 10.0.0.10: Destination host unreachable.
Request timed out.
Reply from 10.0.0.10: Destination host unreachable.
Request timed out.

Ping statistics for 40.0.0.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

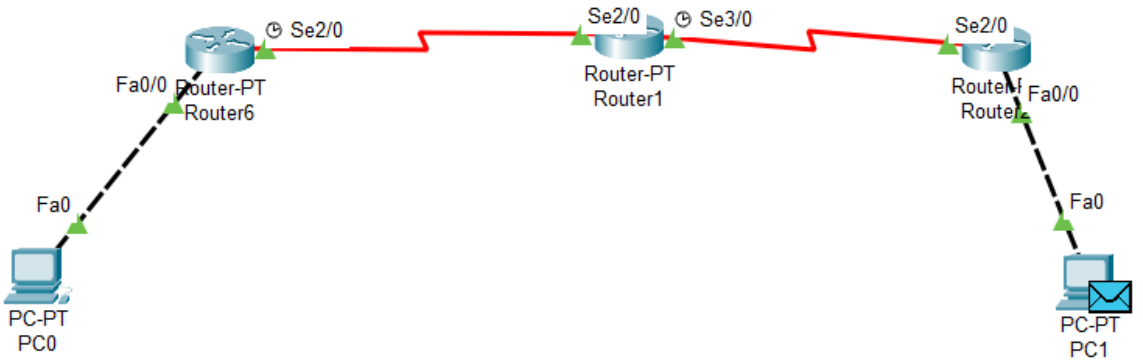
After the routes are established

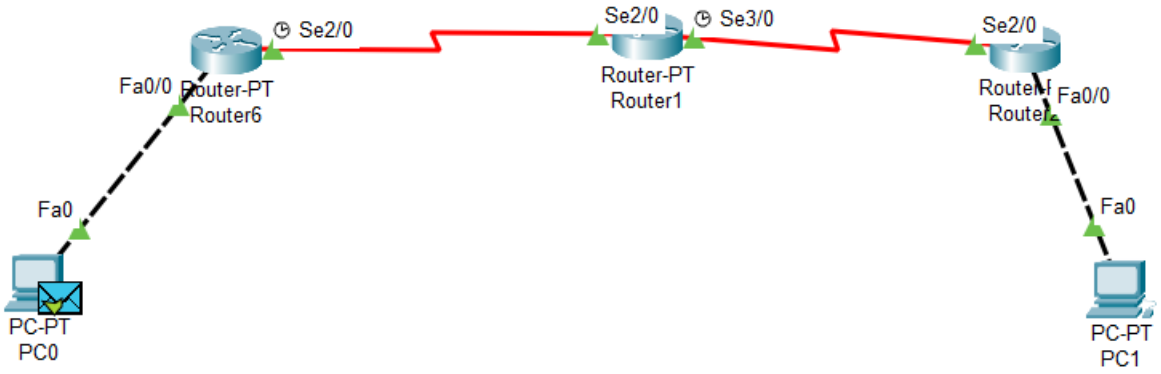
```
PC>ping 40.0.0.2

Pinging 40.0.0.2 with 32 bytes of data:

Request timed out.
Reply from 40.0.0.2: bytes=32 time=4ms TTL=125
Reply from 40.0.0.2: bytes=32 time=4ms TTL=125
Reply from 40.0.0.2: bytes=32 time=2ms TTL=125

Ping statistics for 40.0.0.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 4ms, Average = 3ms
```

Output:

Send a simple PDU from PC0 to PC1







Ping output for the PDU:

```
C:\>ping 40.0.0.2

Pinging 40.0.0.2 with 32 bytes of data:

Reply from 40.0.0.2: bytes=32 time=42ms TTL=125
Reply from 40.0.0.2: bytes=32 time=22ms TTL=125
Reply from 40.0.0.2: bytes=32 time=28ms TTL=125
Reply from 40.0.0.2: bytes=32 time=31ms TTL=125

Ping statistics for 40.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 22ms, Maximum = 42ms, Average = 30ms
```