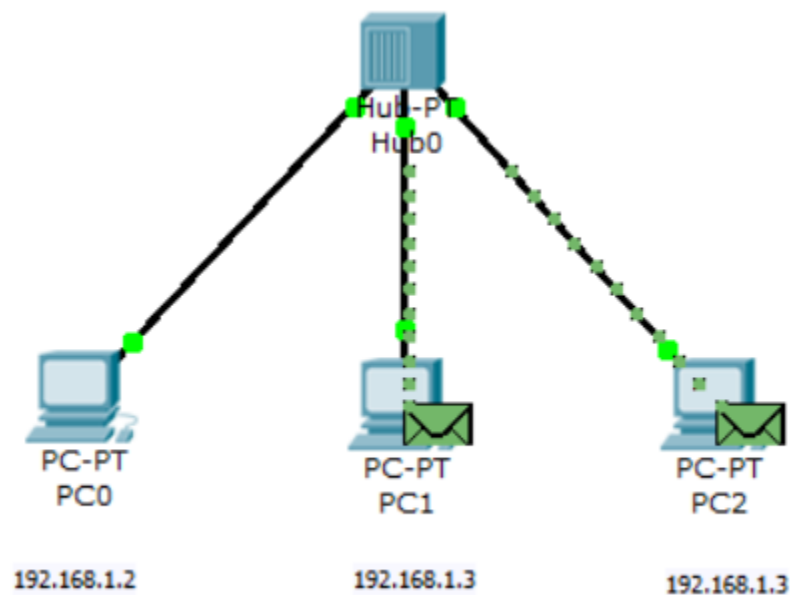


OUTPUT :

Form a single network using a Hub. Ping any 2 machines. Simulate using packet flow :

1. Network topology :



2. Output of ping :

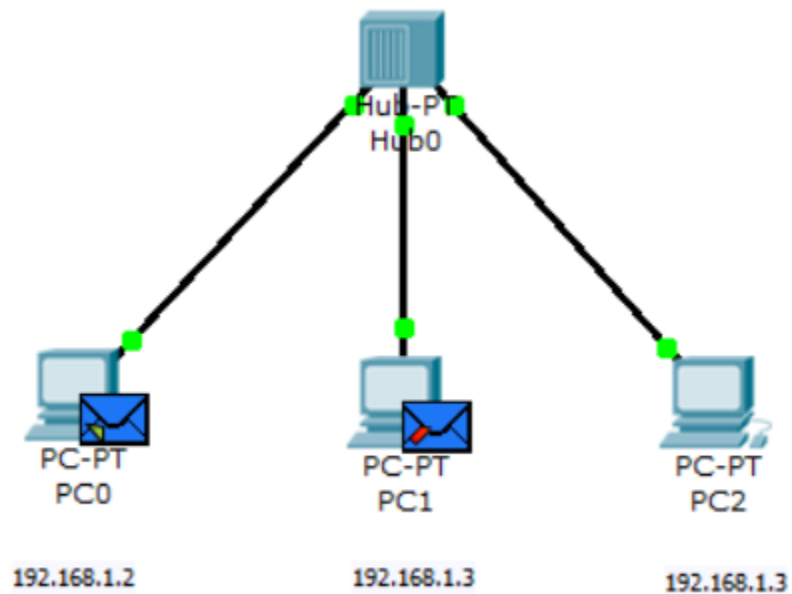
```
PC>ping 192.168.1.3

Pinging 192.168.1.3 with 32 bytes of data:

Reply from 192.168.1.3: bytes=32 time=51ms TTL=128
Reply from 192.168.1.3: bytes=32 time=24ms TTL=128
Reply from 192.168.1.3: bytes=32 time=24ms TTL=128
Reply from 192.168.1.3: bytes=32 time=25ms TTL=128

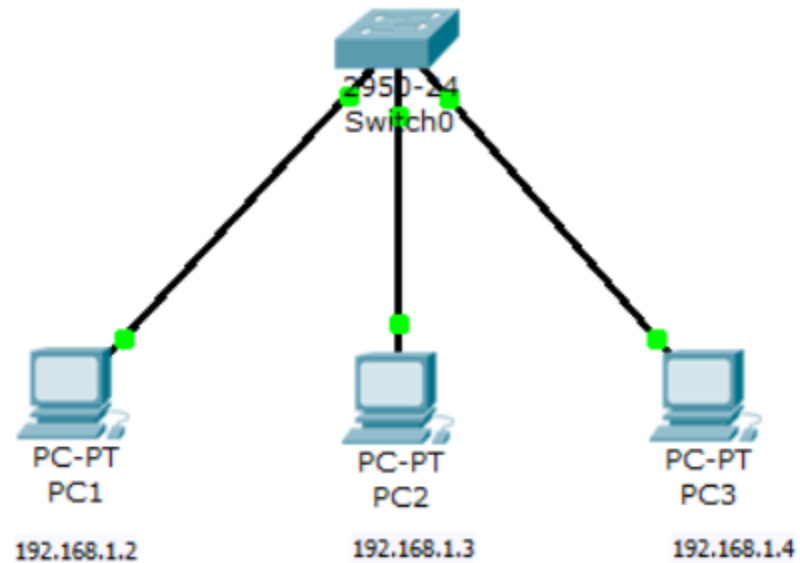
Ping statistics for 192.168.1.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 24ms, Maximum = 51ms, Average = 31ms
```

3. Packet Flow :



Form a single network using a switch. Ping any 2 machines. Simulate using packet flow :

1. Network topology :



2. Output of ping :

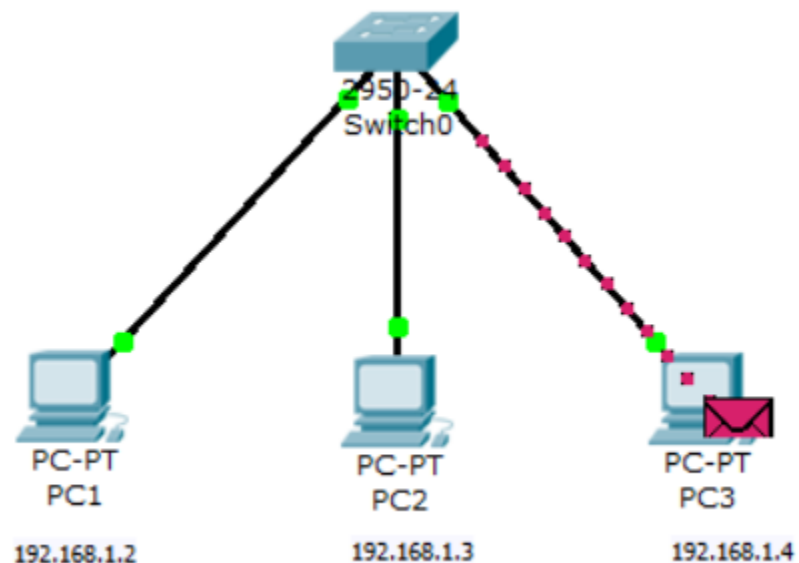
```
PC>ping 192.168.1.4

Pinging 192.168.1.4 with 32 bytes of data:

Reply from 192.168.1.4: bytes=32 time=57ms TTL=128
Reply from 192.168.1.4: bytes=32 time=33ms TTL=128
Reply from 192.168.1.4: bytes=32 time=33ms TTL=128
Reply from 192.168.1.4: bytes=32 time=33ms TTL=128

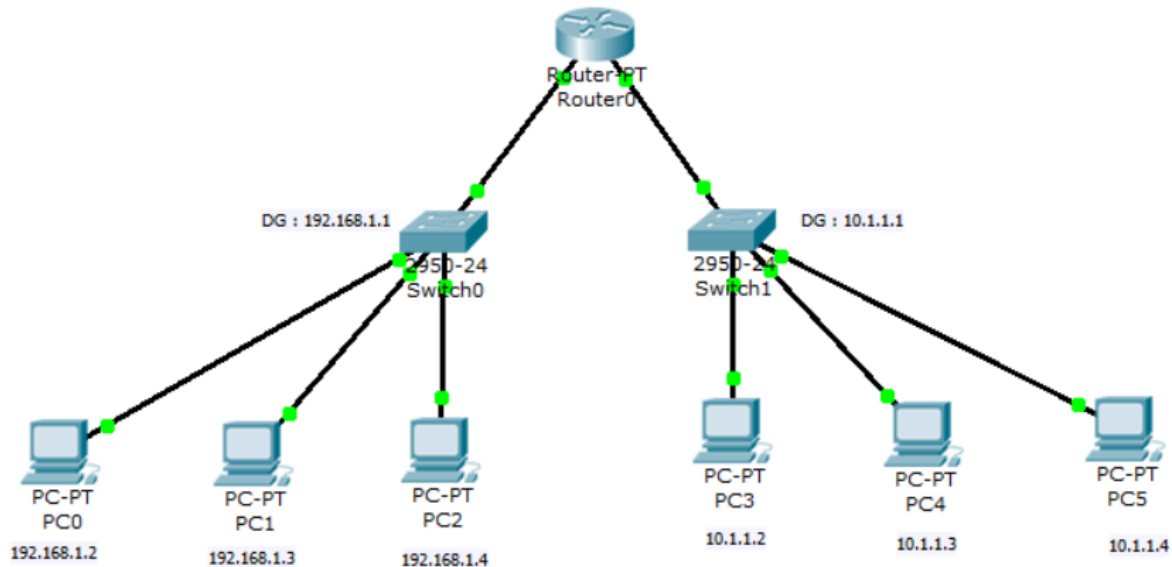
Ping statistics for 192.168.1.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 33ms, Maximum = 57ms, Average = 39ms
```

3. Packet Flow :



Connect 2 networks by making use of a router. Ping any 2 machines across the networks.
Simulate using packet flow :

1. Network topology :



2. Ping output :

```
PC>ping 10.1.1.4

Pinging 10.1.1.4 with 32 bytes of data:

Request timed out.
Reply from 10.1.1.4: bytes=32 time=66ms TTL=127
Reply from 10.1.1.4: bytes=32 time=66ms TTL=127
Reply from 10.1.1.4: bytes=32 time=68ms TTL=127

Ping statistics for 10.1.1.4:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 66ms, Maximum = 68ms, Average = 66ms
```

```
PC>ping 10.1.1.4

Pinging 10.1.1.4 with 32 bytes of data:

Reply from 10.1.1.4: bytes=32 time=60ms TTL=127
Reply from 10.1.1.4: bytes=32 time=64ms TTL=127
Reply from 10.1.1.4: bytes=32 time=72ms TTL=127
Reply from 10.1.1.4: bytes=32 time=58ms TTL=127

Ping statistics for 10.1.1.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 58ms, Maximum = 72ms, Average = 63ms
```

MODERN COMPUTER NETWORKS LAB EXPERIMENTS

