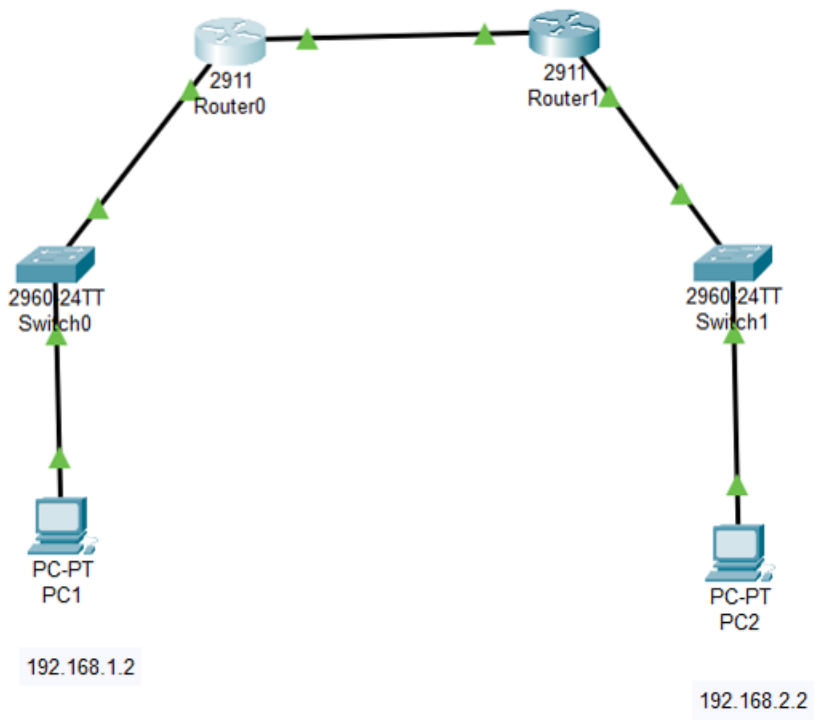
Q2. Manually configure static routes on a router to direct packets to different subnets. Use the ip route command and verify connectivity using ping and traceroute.

Simple network with two routers to enable communication between different subnets.



Router0 (Interfaces)

192.168.1.1/24 (Connected to PC1)

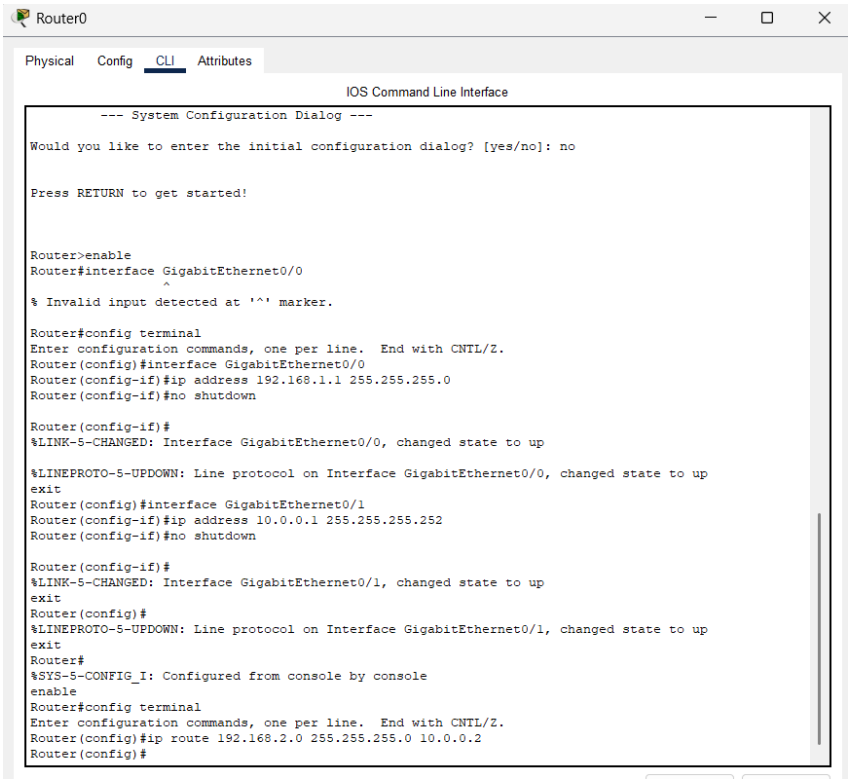
10.0.0.1/30 (Connected to Router1)

Router1 (Interfaces)

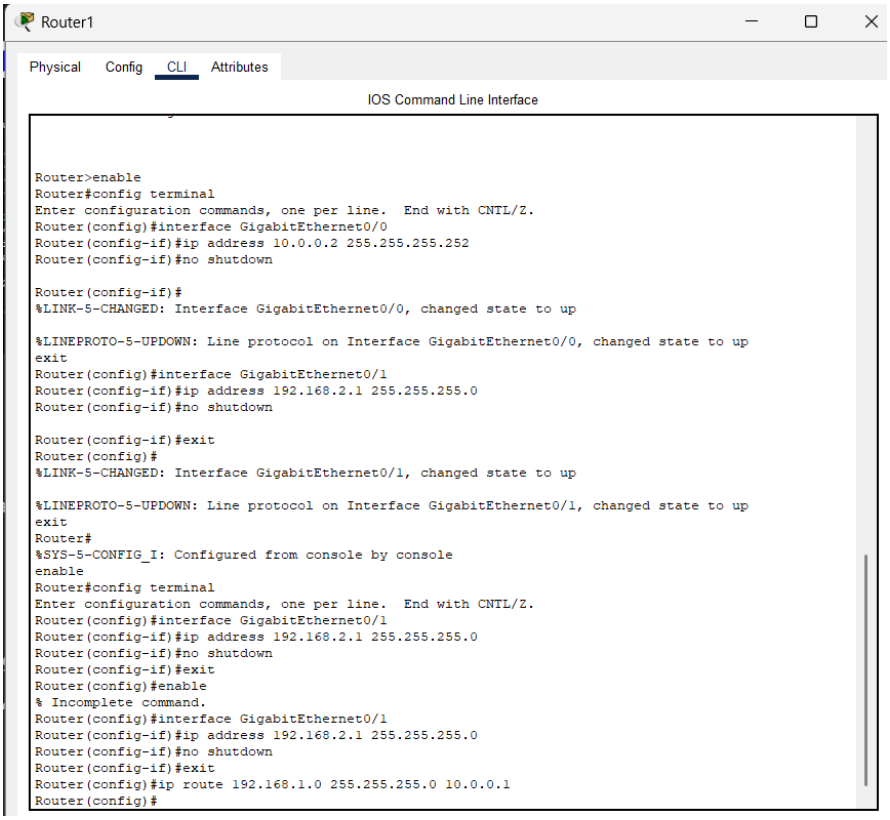
10.0.0.2/30 (Connected to Router0)

192.168.2.1/24 (Connected to PC2)

Router 0:



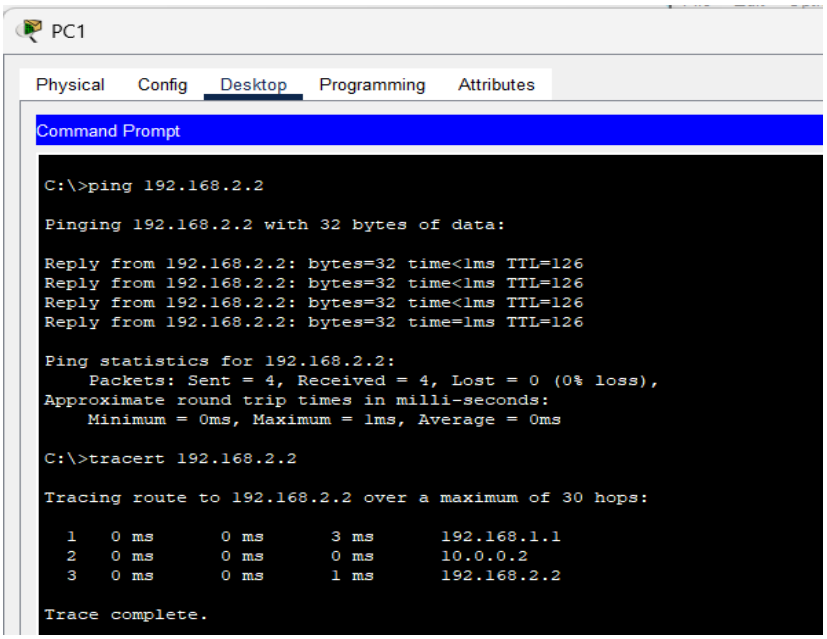
Router 1:

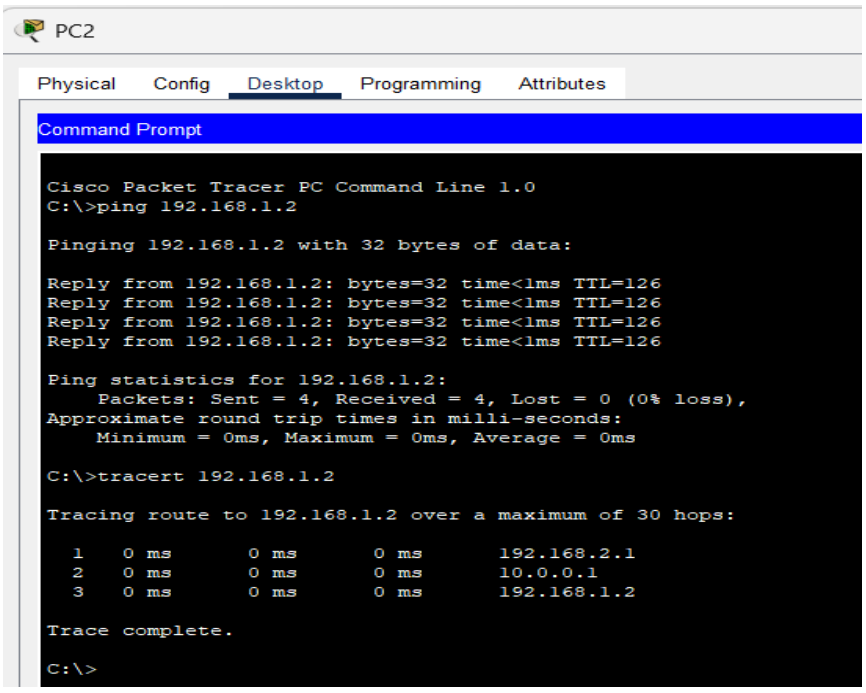


Since routers do not automatically know about each other's networks, we manually added static routes.

Router0: ip route 192.168.2.0 255.255.255.0 10.0.0.2

Router1: ip route 192.168.1.0 255.255.255.0 10.0.0.1





Static routing was successfully configured, allowing communication between two different subnets.

Ping and traceroute results confirm that packets travel correctly between the devices.