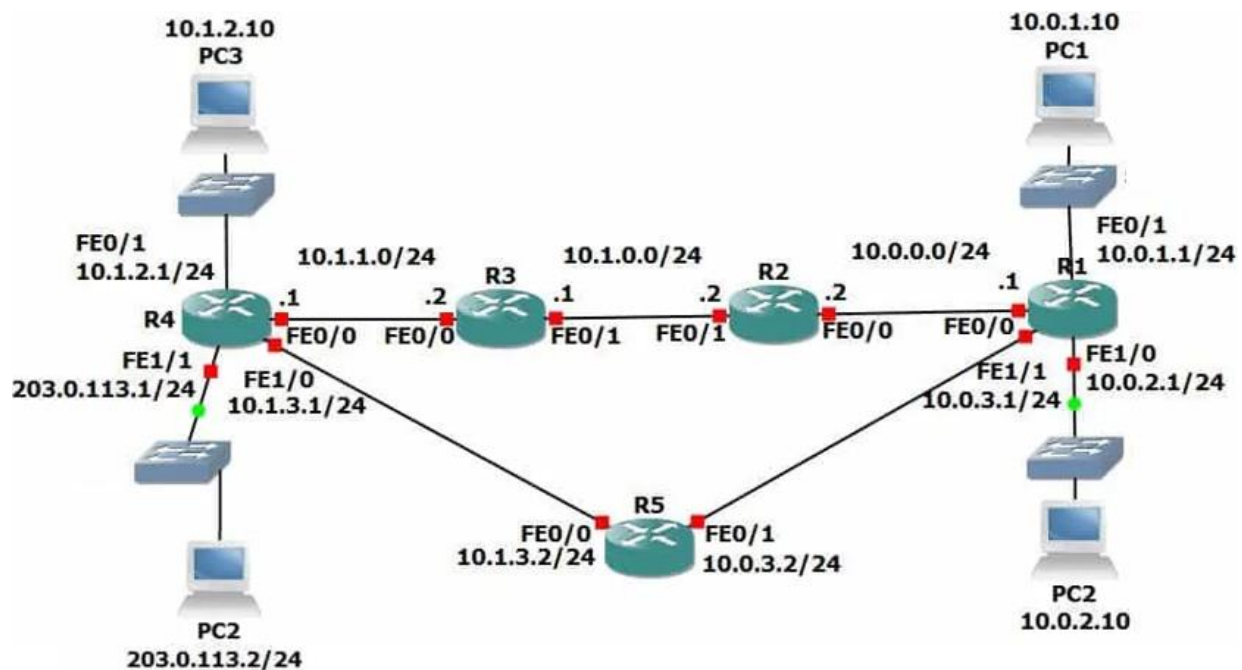


# Assignment

When a router needs to send traffic to a subnet that it's not directly connected to, it needs to know how to get there – it must have a matching route in its routing table. Configure the given topology where router R1 is directly connected to the 10.0.0.0/24, 10.0.1.0/24, 10.0.2.0/24, and 10.0.3.0/24 networks. It can route traffic directly to these networks by configuring the IP addresses. There is another network, 10.1.0.0/24, behind the router, and R2 and R1 don't know how to get there yet. Therefore, a static route must be added to the R1 routing table to reach the network. R2 is directly connected to 10.1.0.0/24 and 10.0.0.0/24, so it can send traffic to them directly as soon as the IP addresses are configured. However, R2 would still need the routes to the networks 10.0.1.0/24 and 10.0.2.0/24 behind router R1. R3 has routes to 10.1.1.0/24 and 10.1.0.0/24 networks, which are directly connected. Right now, it doesn't know how to get to the network 10.0.0.0/24 behind R2 and to the networks 10.0.1.0/24 and 10.0.2.0/24 behind R1, and the same for the R4.

Steps:

1. Configure IP addresses on all network devices (end +core) accordingly.
2. Add static routes in all routing tables for R1, R2, R3, and R4 so the packets can be forwarded to the required destination.
3. Verify the configuration.



Network Topology