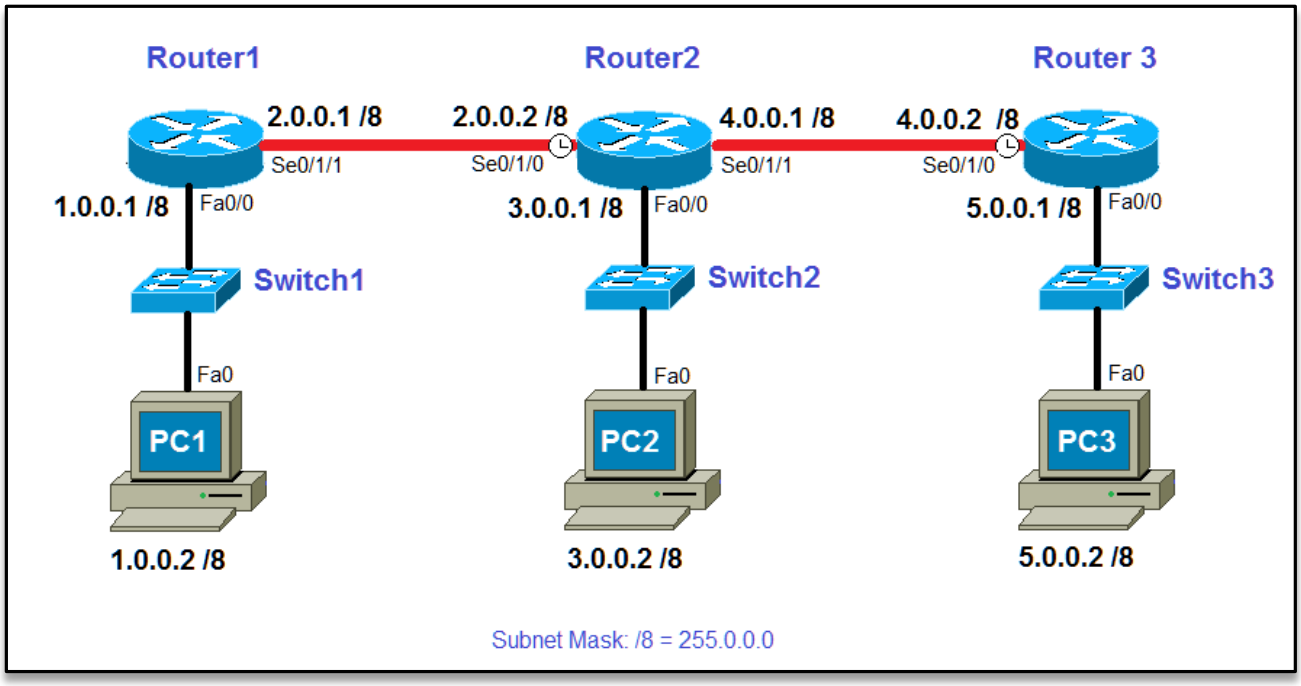
BIT102 Lab	Name

Packet Tracer Mini-Lab 12: Supplement
Setting Up RIP Routing Using 3 Routers

***CAVEAT**: THE LABS IN CC2-180 MAY NOT WORK ENTIRELY AS PLANNED. WE WILL BE UTILIZING BOTH A SERVER 2012 R2 HOST PC AND VIRTUAL MACHINES (VMs) ON THE HOST PC, IN WHICH CASE THERE MAY BE UNFORESEEN ISSUES. AS SUCH WE WILL LIKELY GET SOME UNEXPECTED 'REAL WORLD' TROUBLESHOOTING PRACTICE AND MAY EVEN HAVE TO "WING IT"*

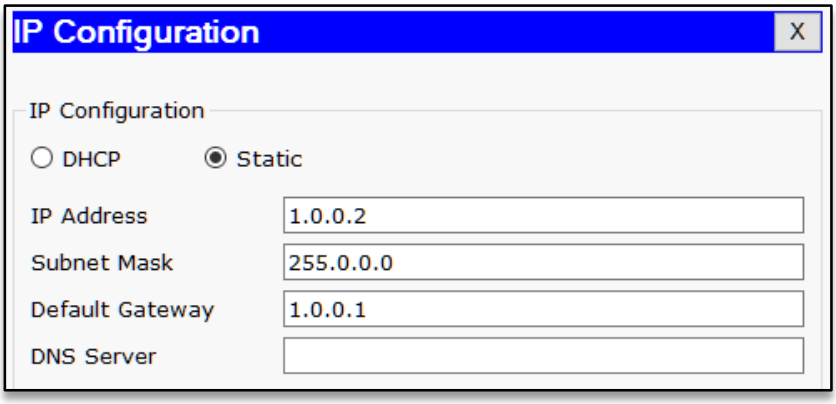
Mini-Lab 12 Objective

The lab provides further practice in a simulated environment using **Cisco's Packet Tracer** application.

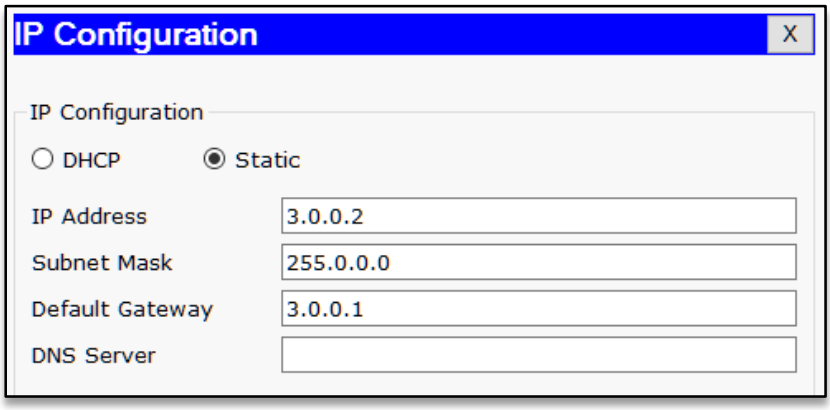


1. Create three small **networks** using **3 PC** hosts, **3 Switches**, and **3 Routers** connected with **6 copper straight-through** cables, and **2 serials cables** (DCE on the right-hand side). **WIC-2T** modules added to the routers for the serial connections. Router **host names** are to be set the same as the display names (**Router1**, **Router2**, **Router3**).

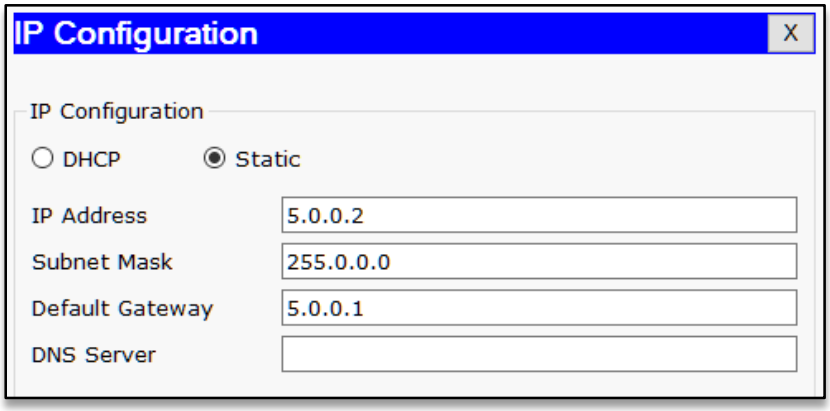
2. Select **PC1**, then **Desktop** tab, then **IP Configuration** and give it the following **address information**:



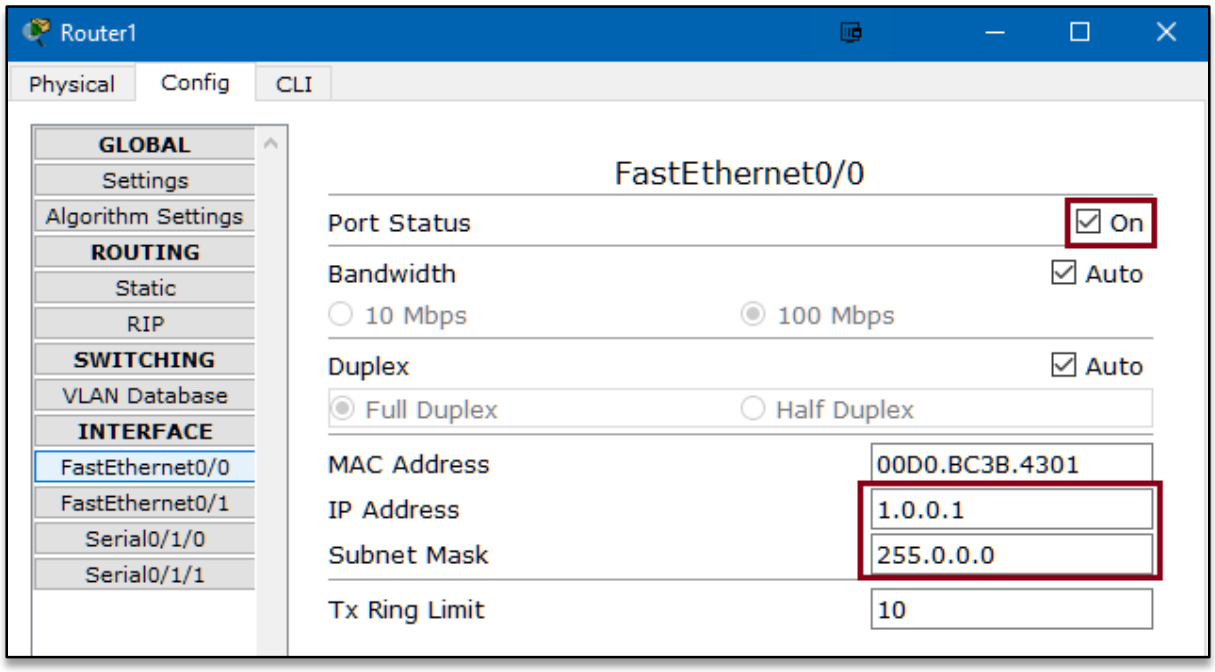
3. Select **PC2**, then **Desktop** tab, then **IP Configuration** and give it the following **address information**:



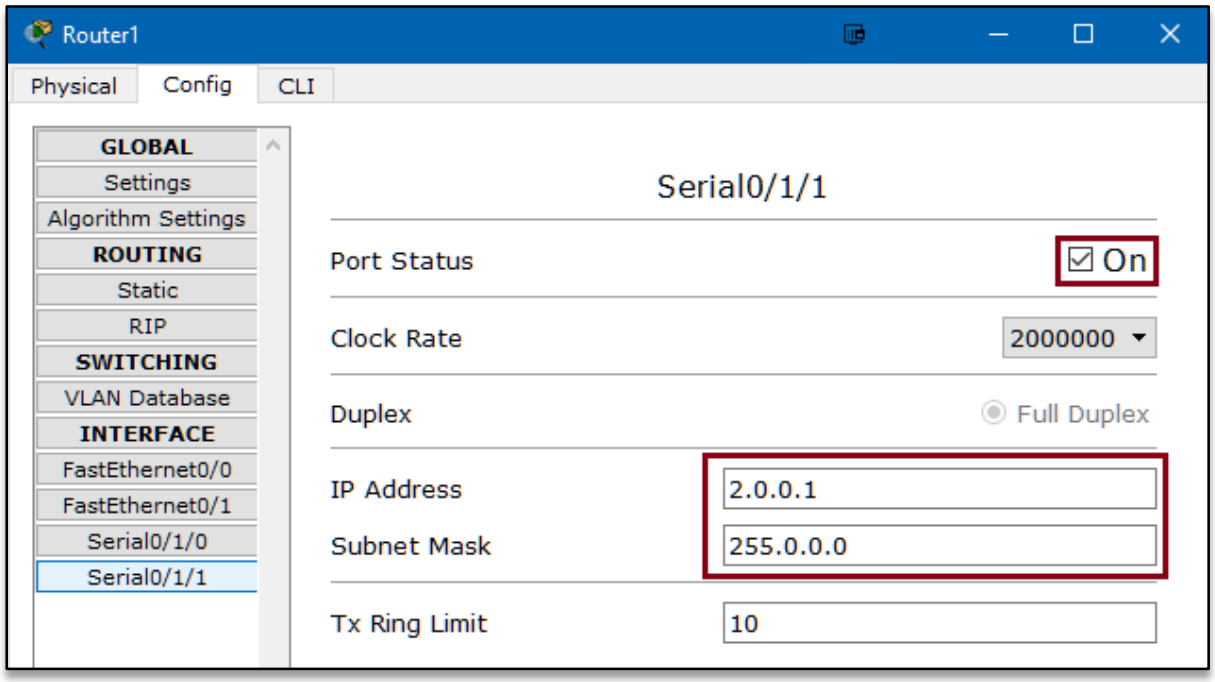
4. Select **PC3**, then **Desktop** tab, then **IP Configuration** and give it the following **address information**:



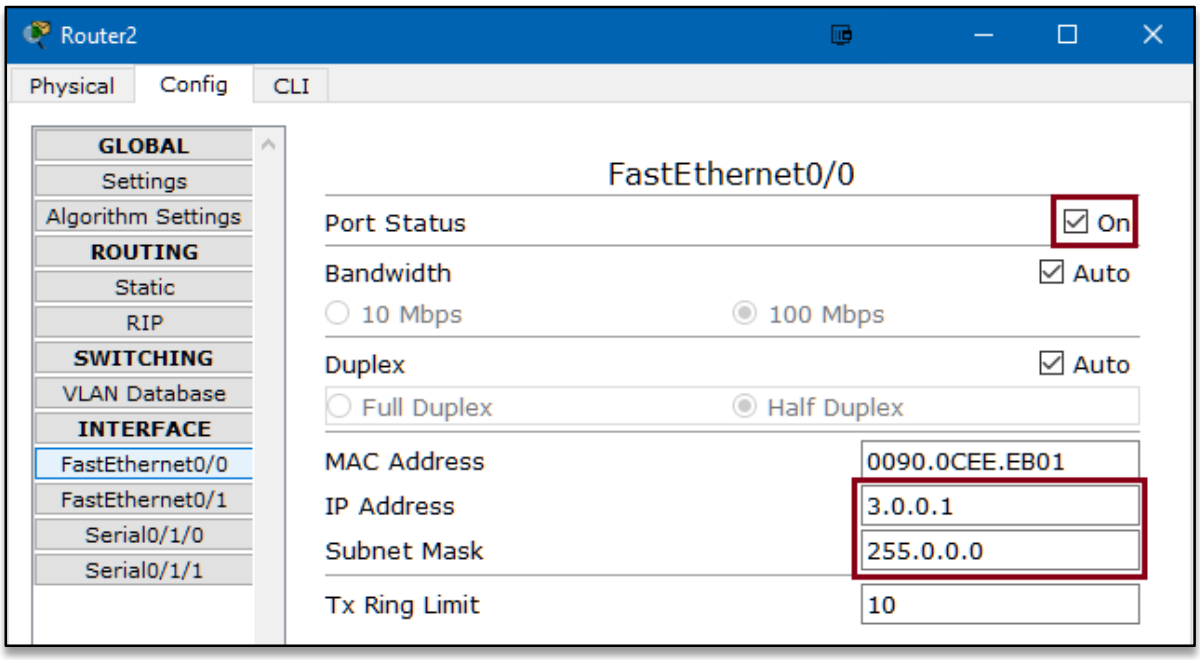
5. Select **Router1**, select **Config** tab, then **FastEthernet0/0** and set up as the following:



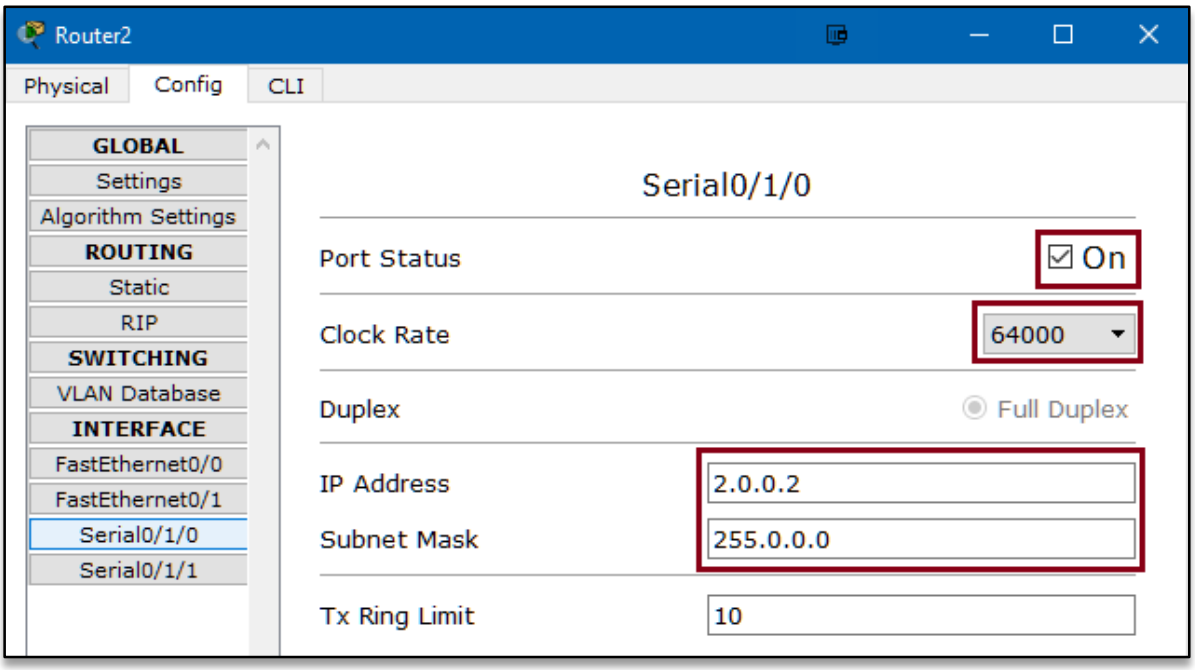
6. Next, select **Serial0/1/1** and set up as the following:



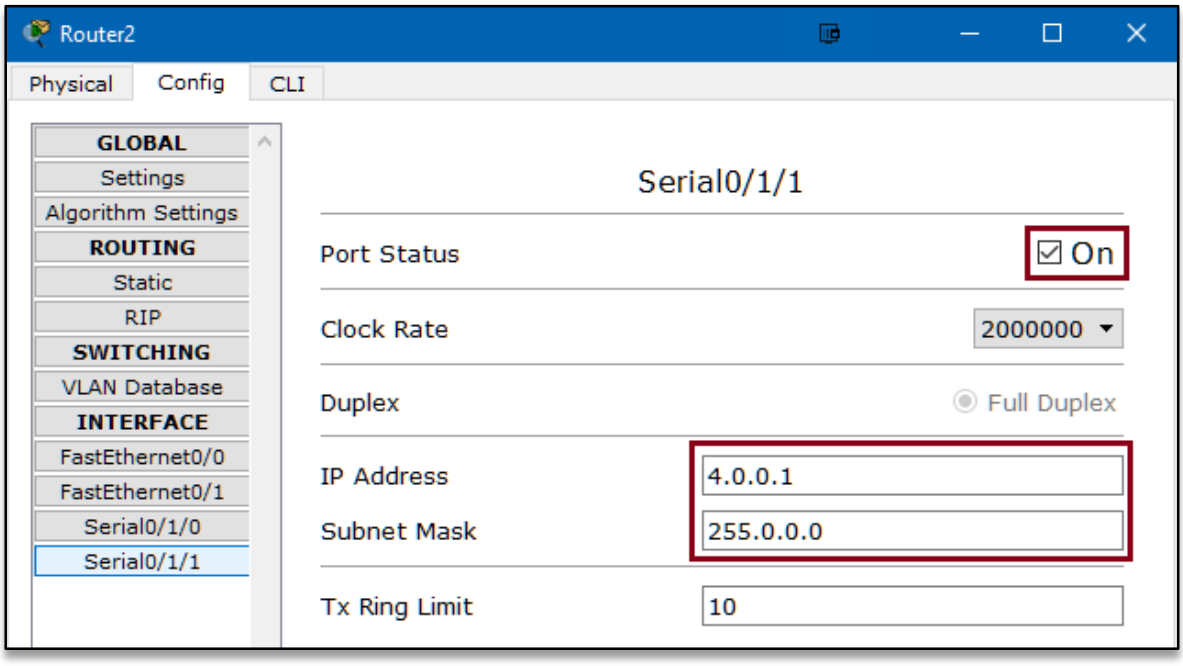
7. Select **Router2**, then the **Config** tab, then **FastEthernet0/0** and set up as the following:



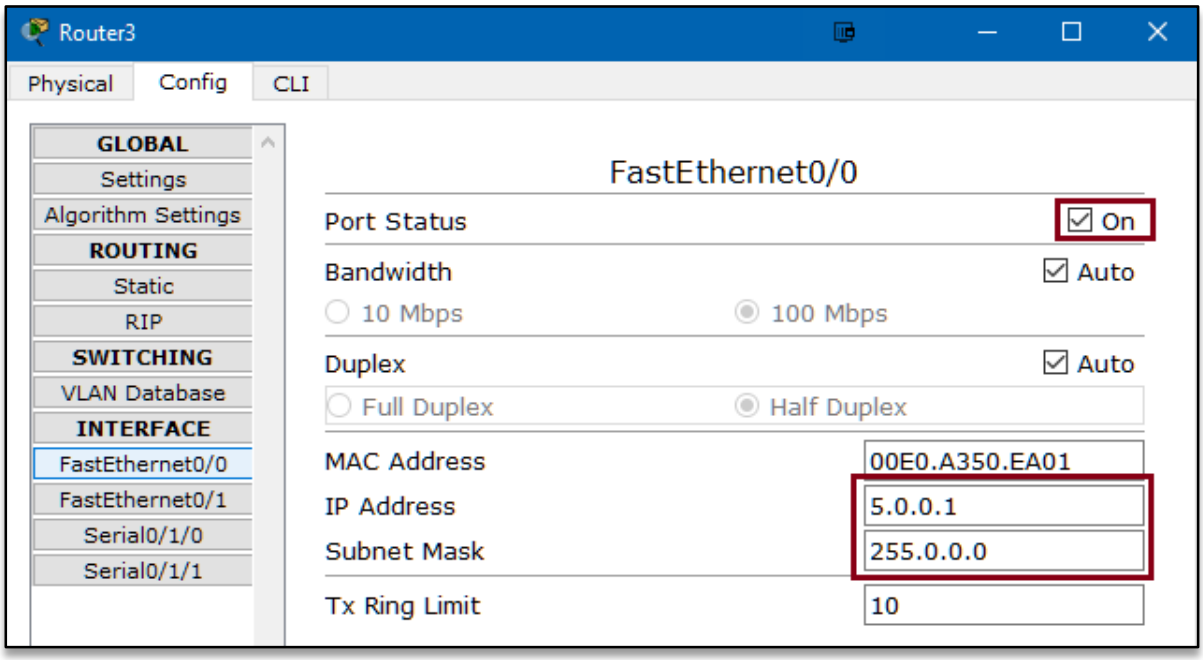
8. Next, select **Serial0/1/0** and set up as the following:



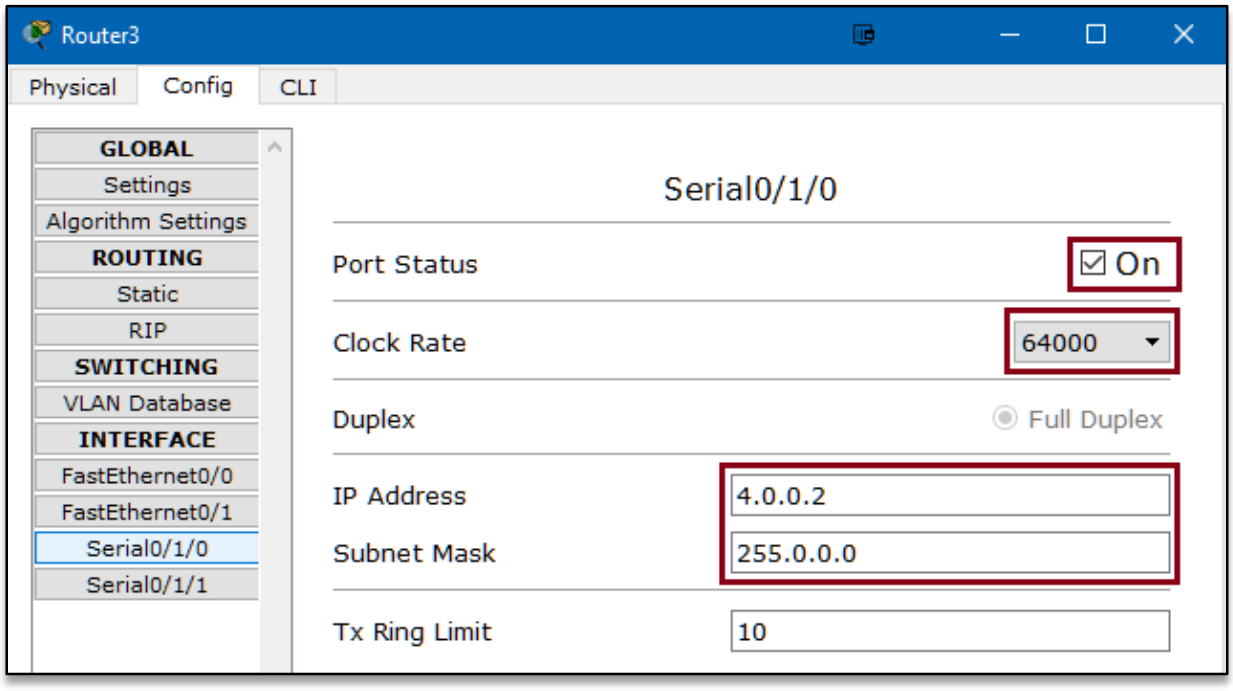
9. Next, select **Serial0/1/1** and set up as the following:



10. Select **Router3**, then the **Config** tab, then **FastEthernet0/0** and set up as the following:

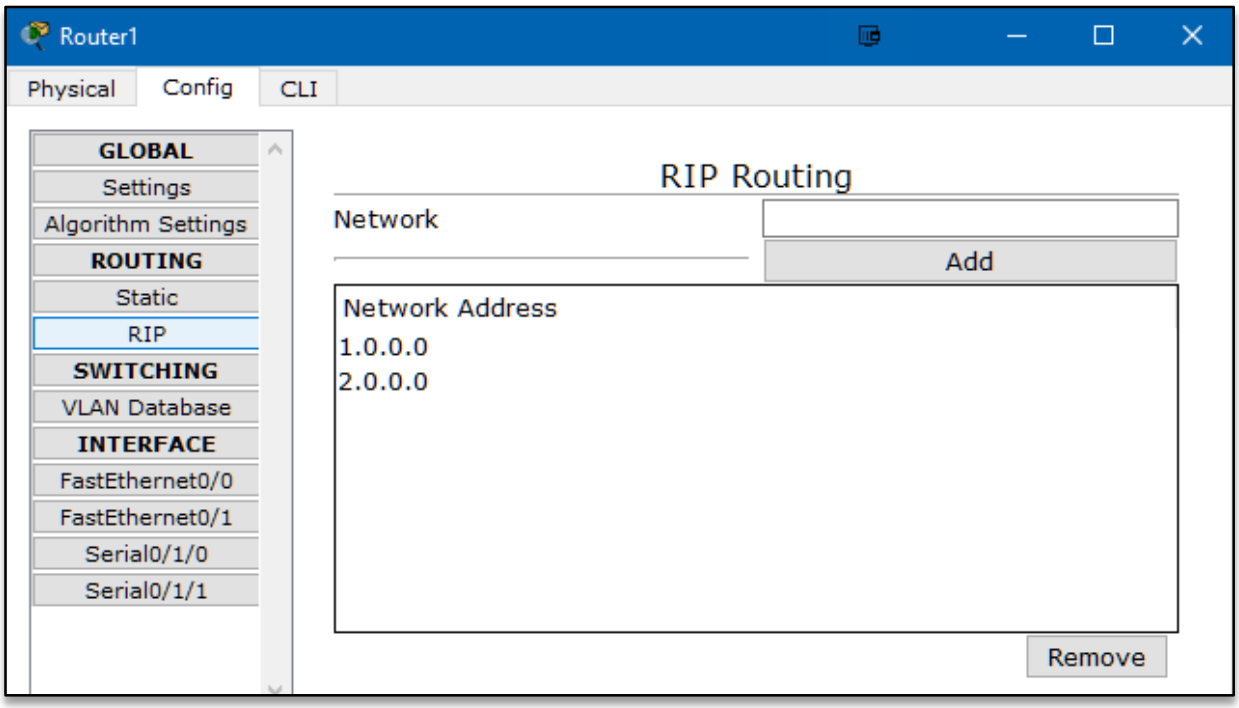


11. Next, select **Serial0/1/0** and set up as the following:

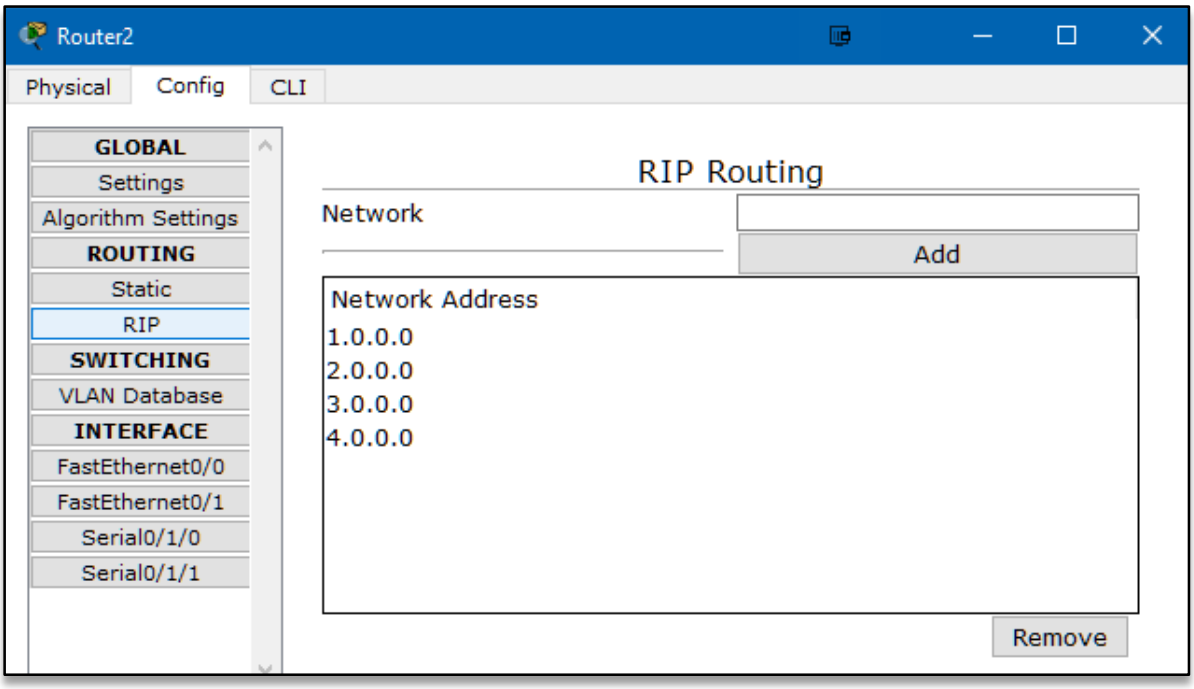


For setting up the routing routes, we can either use static routing or dynamic routing using a routing protocol. For this mini-lab, we're going to use the RIP routing protocol.

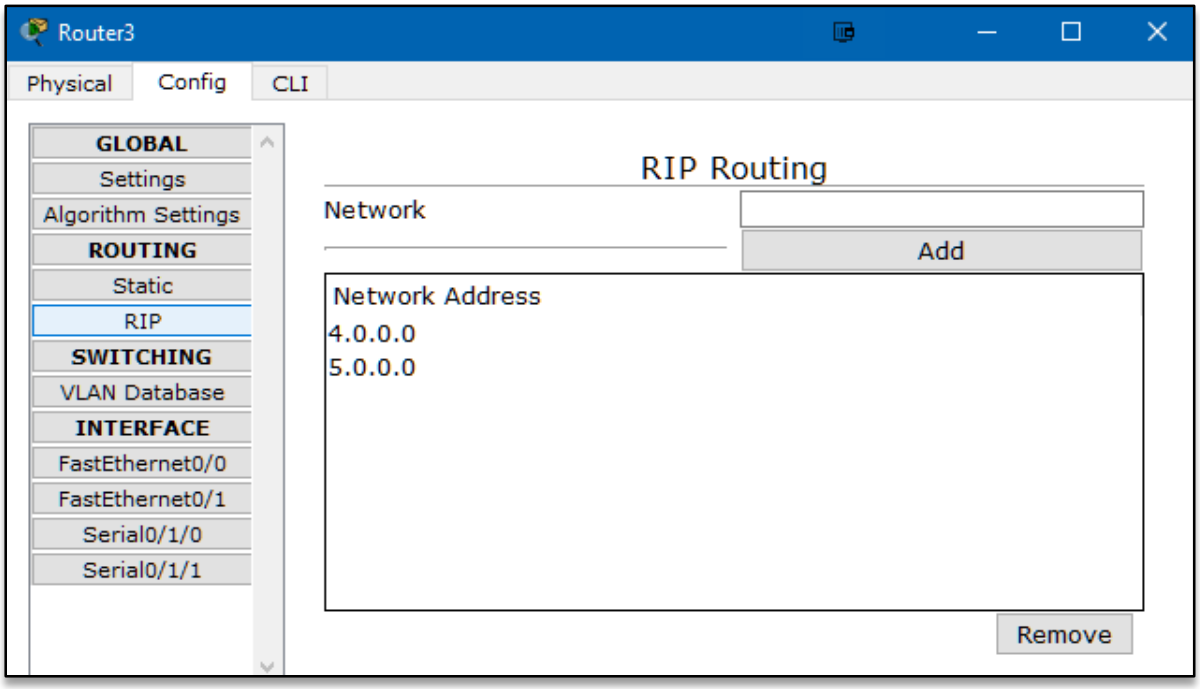
12. Select **Router1**, then **Config** tab, then under **ROUTING** select **RIP** and setup as the following:



13. Select **Router2**, then **Config** tab, then under **ROUTING** select **RIP** and setup as the following:



14. Select **Router3**, then **Config** tab, then under **ROUTING** select **RIP** and setup as the following:

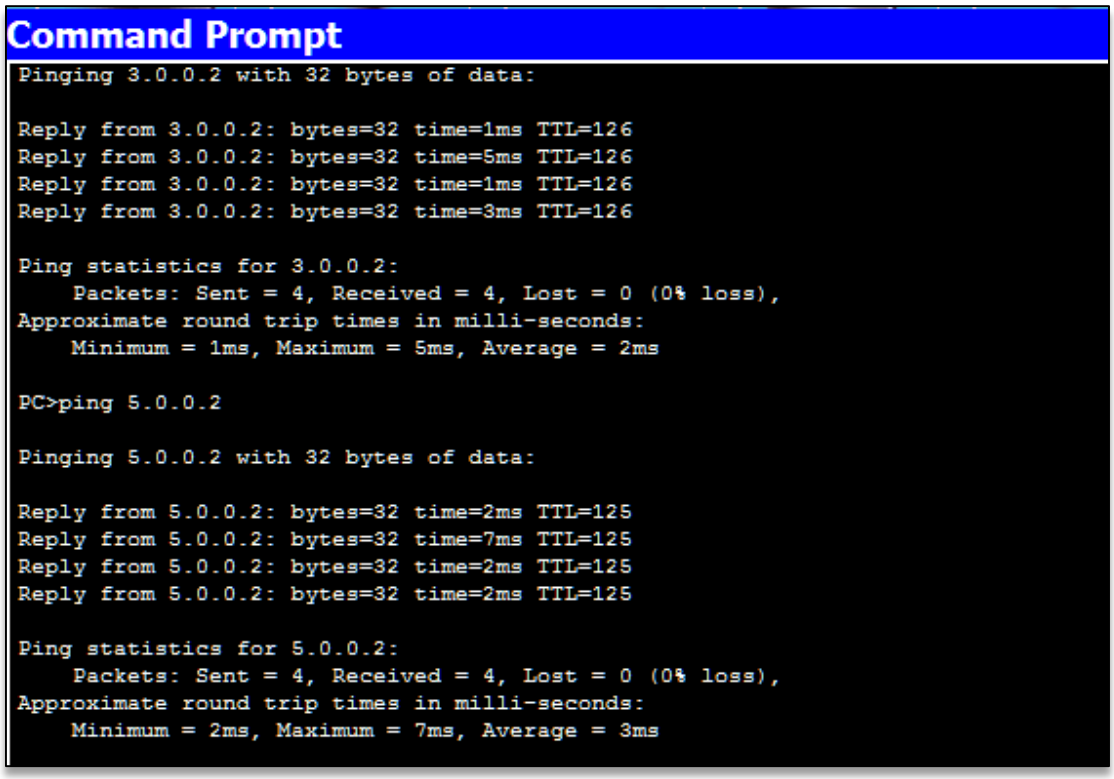


That's it, we're done! Now we should test the network environment by ping each of the devices in the network from devices on all sides of the network.

15. Click on **PC1**, and select the **Desktop** tab.

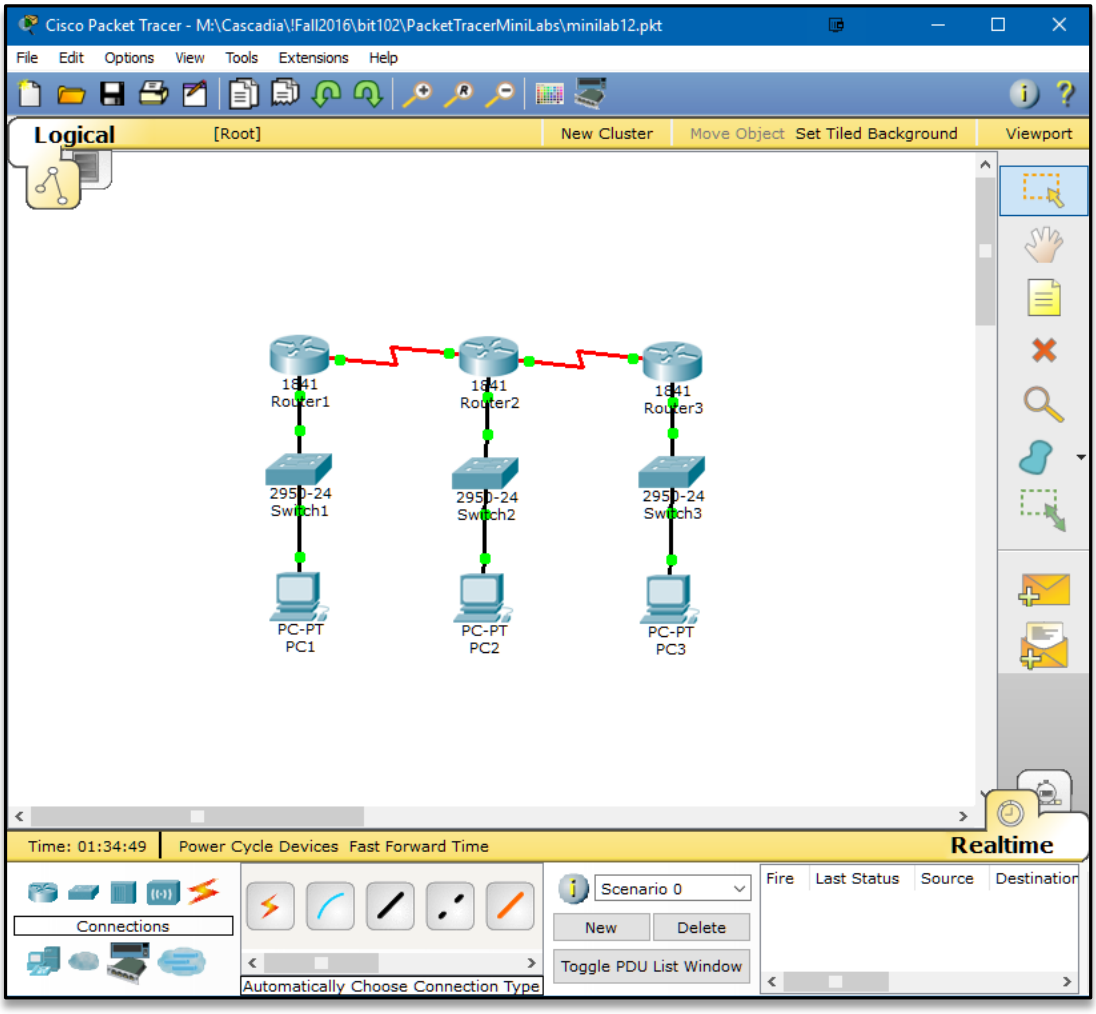
16. Select **Command Prompt**, and try pinging each of the following:

a. Ping 1.0.0.2	(PC1)
b. ping 1.0.0.1	(Router 1 fa0/0)
c. ping 2.0.0.1	(router 1 se0/1/1)
d. ping 2.0.0.2	(router 2 se0/1/0)
e. ping 3.0.0.1	(router 2 fa0/0)
f. ping 3.0.0.2	(PC2)
g. ping 4.0.0.1	(router 2 se0/1/1)
h. ping 4.0.0.2	(router 3 se0/1/0)
i. ping 5.0.0.1	(router 3 fa0/0)
j. ping 5.0.0.2	(PC3)



17. Next, from **PC2**, ping **PC1** and **PC3**

18. Next, from **PC3**, ping **PC2** and **PC1**



END OF MINI-LAB 12