COMPUTER NETWORKS

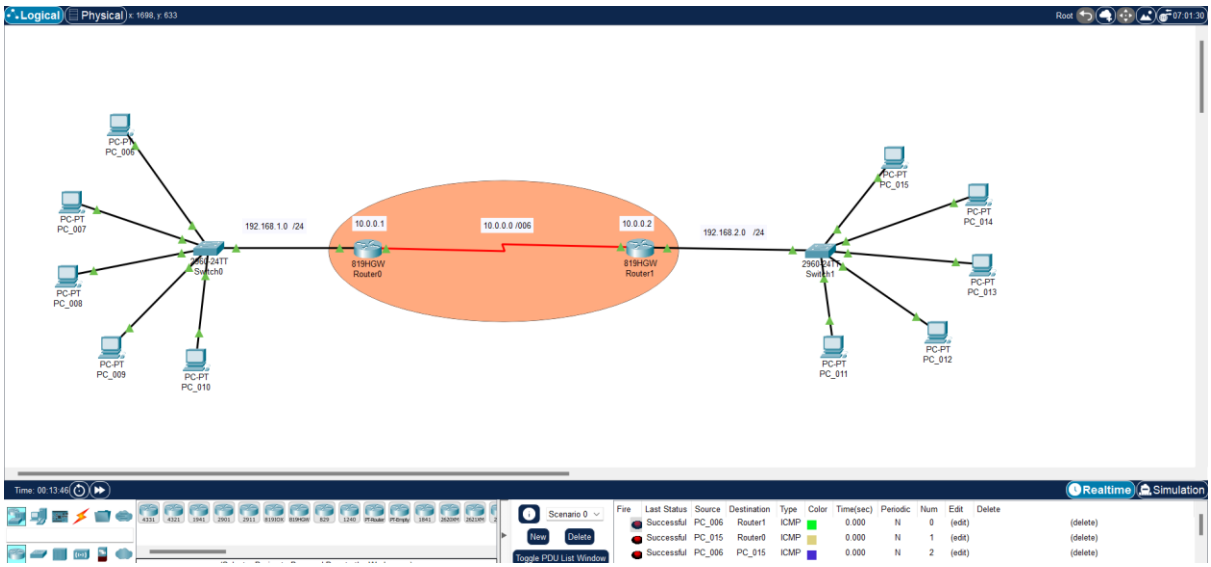
LAB EXAM 2

OBJECTIVE:

Set up and configure a network topology using RIP and OSPF routing protocols in Cisco Packet Tracer. Customize the network by assigning each computer a name and an IP address using the last three digits of your roll number.

STEPS TAKEN:

STEP 1:

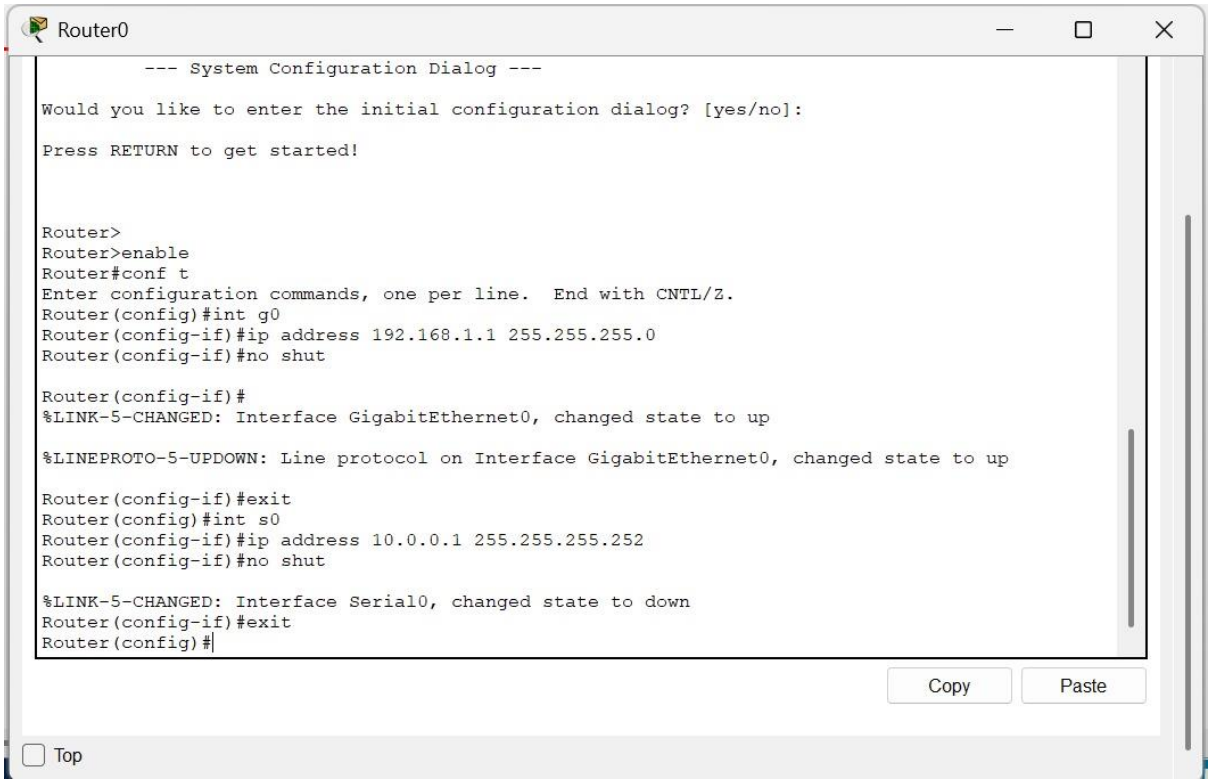


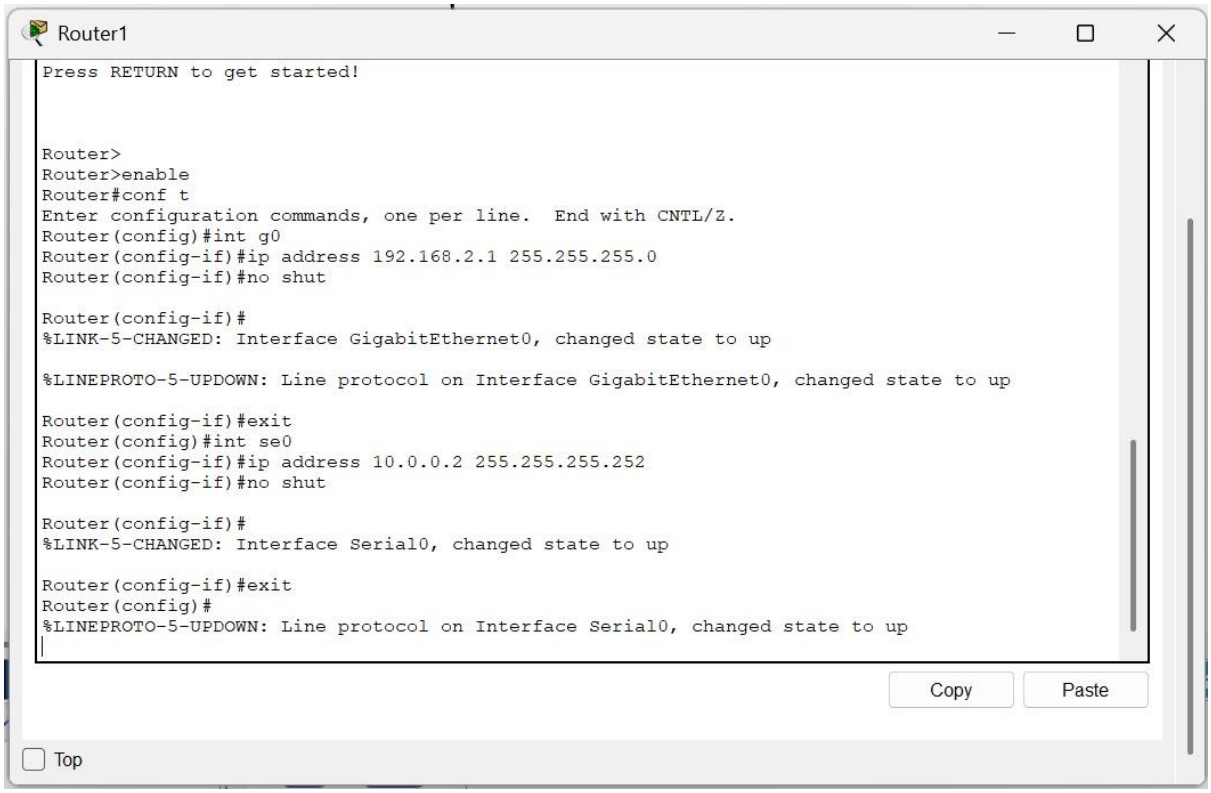
- Link the two routers with a Serial DCE-DTE cable.
- Connect the GigabitEthernet ports of R1 and R2 Routers to the Switch (SW0/SW1) ports with a straight-through cable.
- Connect PC_030 t0 PC_034 to SW1, PC_035 to PC_039 to SW2 with a straight cable.

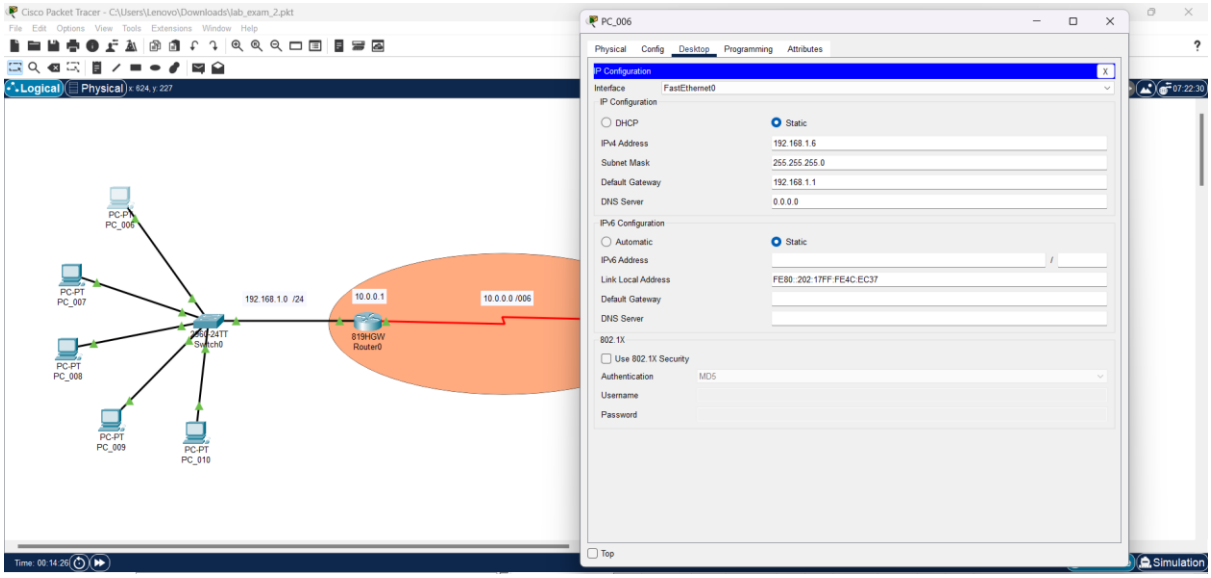
STEP 2:

After typing the below commands on the Router, the connection is successful indicated by the green triangles on the cables below.

Click on the R1 Router you made in the setup, and open the settings. After that, go to the CLI tab. Use the commands below to give IP addresses to R1's GigabitEthernet and Serial ports.



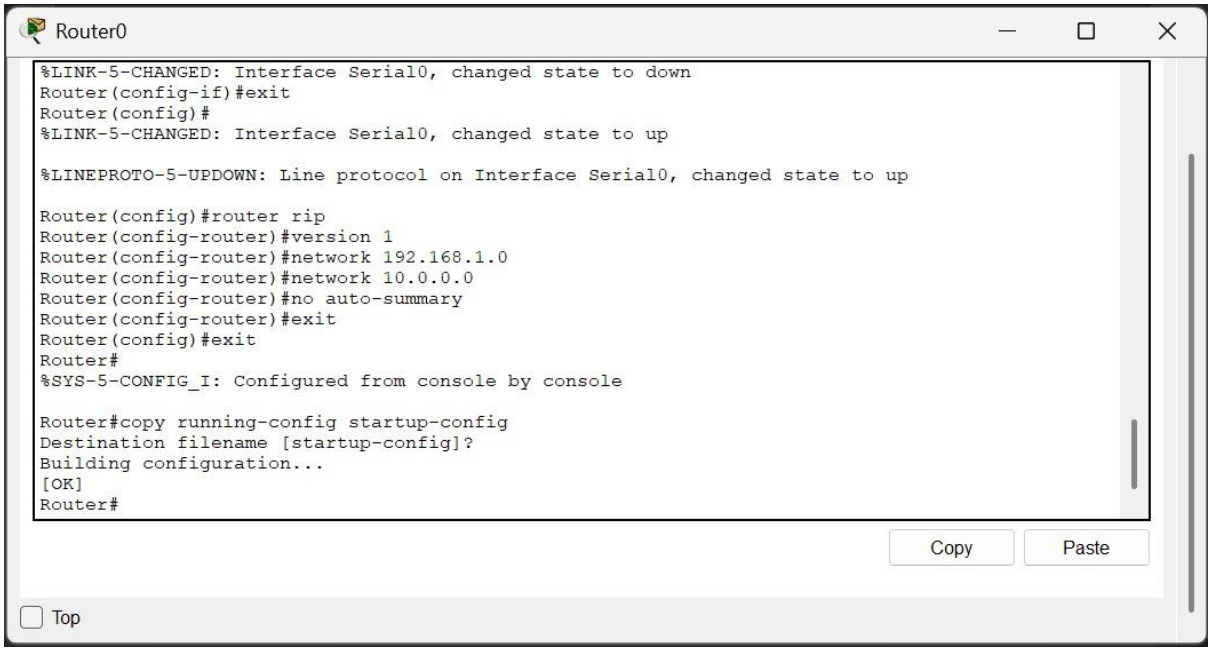

Router1
Press RETURN to get started!
Router>
Router>enable
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int g0
Router(config-if)#ip address 192.168.2.1 255.255.255.0
Router(config-if)#no shut
Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0, changed state to up
Router(config-if)#exit
Router(config)#int se0
Router(config-if)#ip address 10.0.0.2 255.255.255.252
Router(config-if)#no shut
Router(config-if)#
%LINK-5-CHANGED: Interface Serial0, changed state to up
Router(config-if)#exit
Router(config)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0, changed state to up
Copy
Paste
Top


Logical
Physical
PC_006
PC_007
PC_008
PC_009
PC_010
192.168.1.0 /24
10.0.0.1
10.0.0.0 /006
819HGW
Router0
PC_006
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
DHCP
Static
IPv4 Address
192.168.1.6
Subnet Mask
255.255.255.0
Default Gateway
192.168.1.1
DNS Server
0.0.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::202:17FF:FE4C:EC37
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password
Top
Simulation

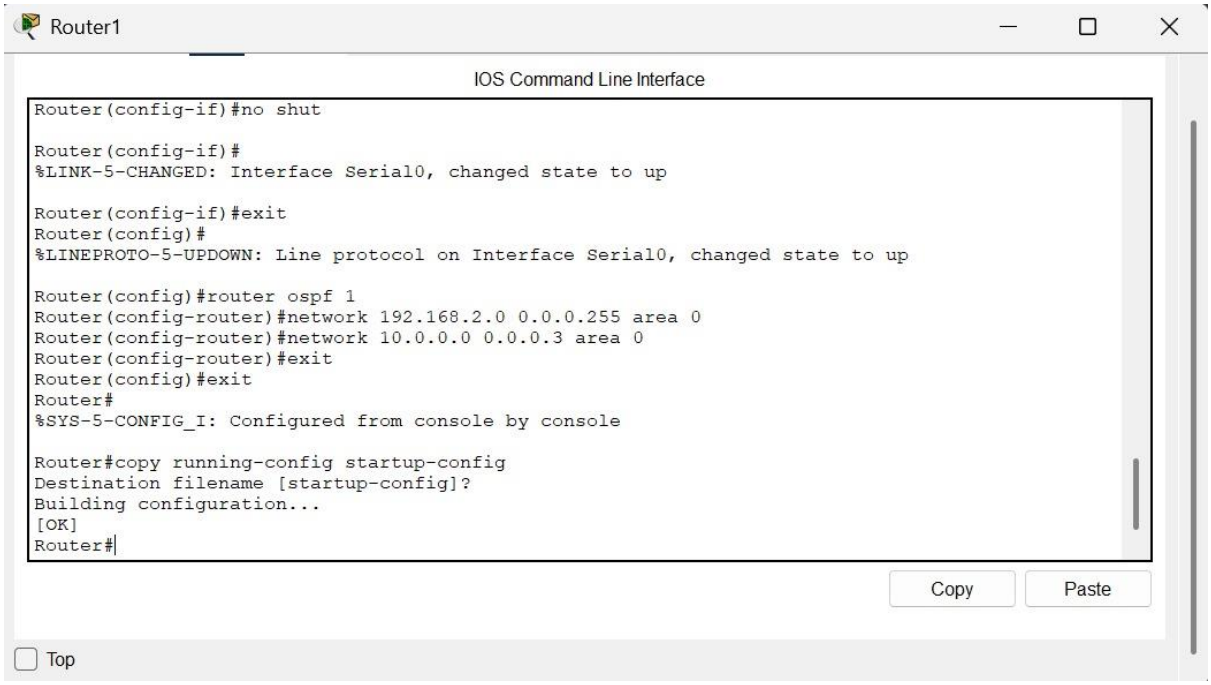
STEP 3:

Setting up RIP Protocol on Router 0

Enabling RIP Configuration



OSPF on Router 1



STEP 4:

Pinging to check the connectivity