CNP FISAC 1: Cisco Packet Tracer

RIP and BGP

Group Number: 3

Subject Code:

Subject Name:

Date: 25/03/2025

Names:

Yashvardhan Tomar (230953420)

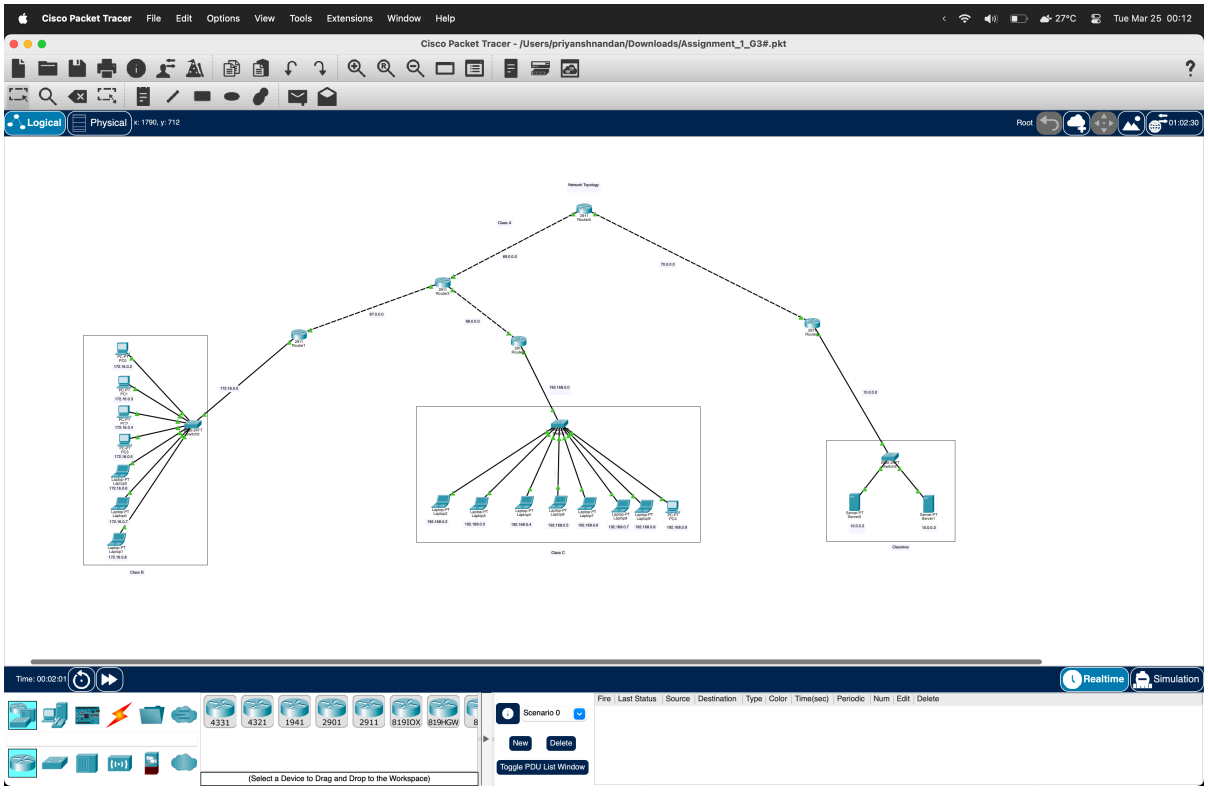
Hisham Adil (230953434)

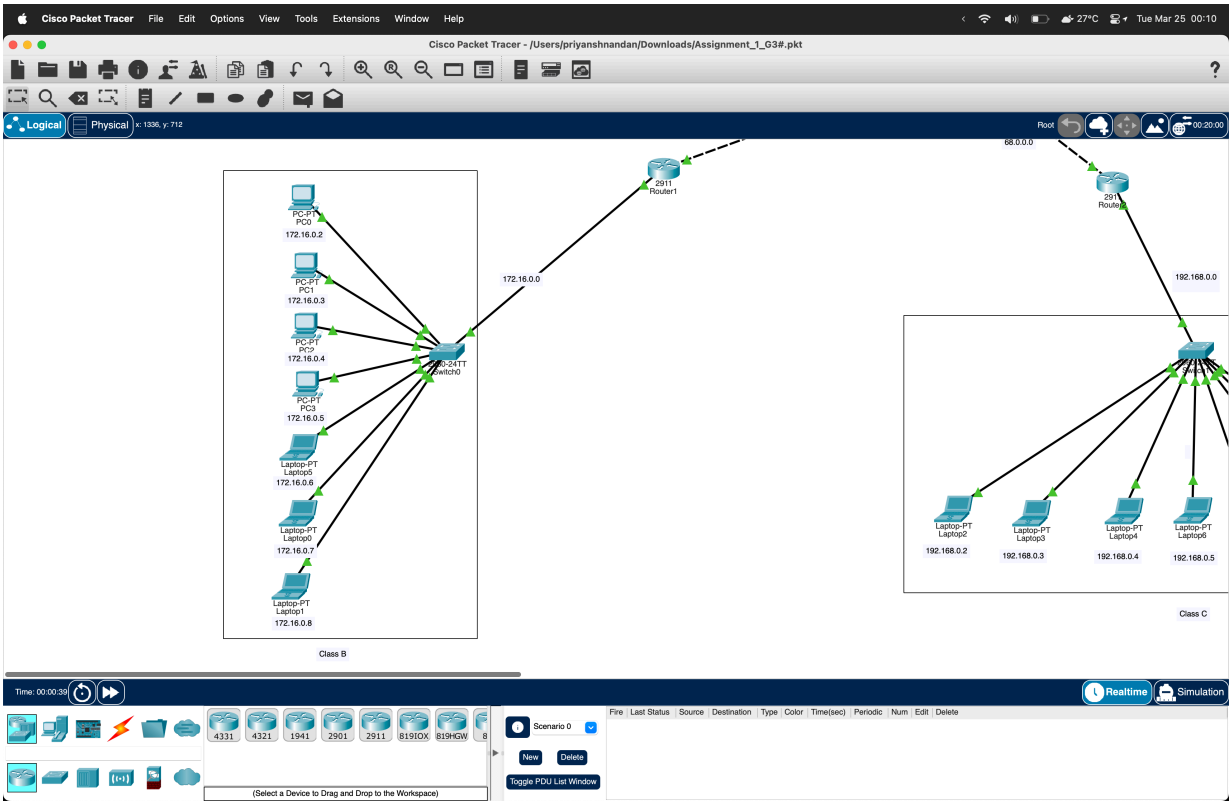
Ayrton Joseph (230953448)

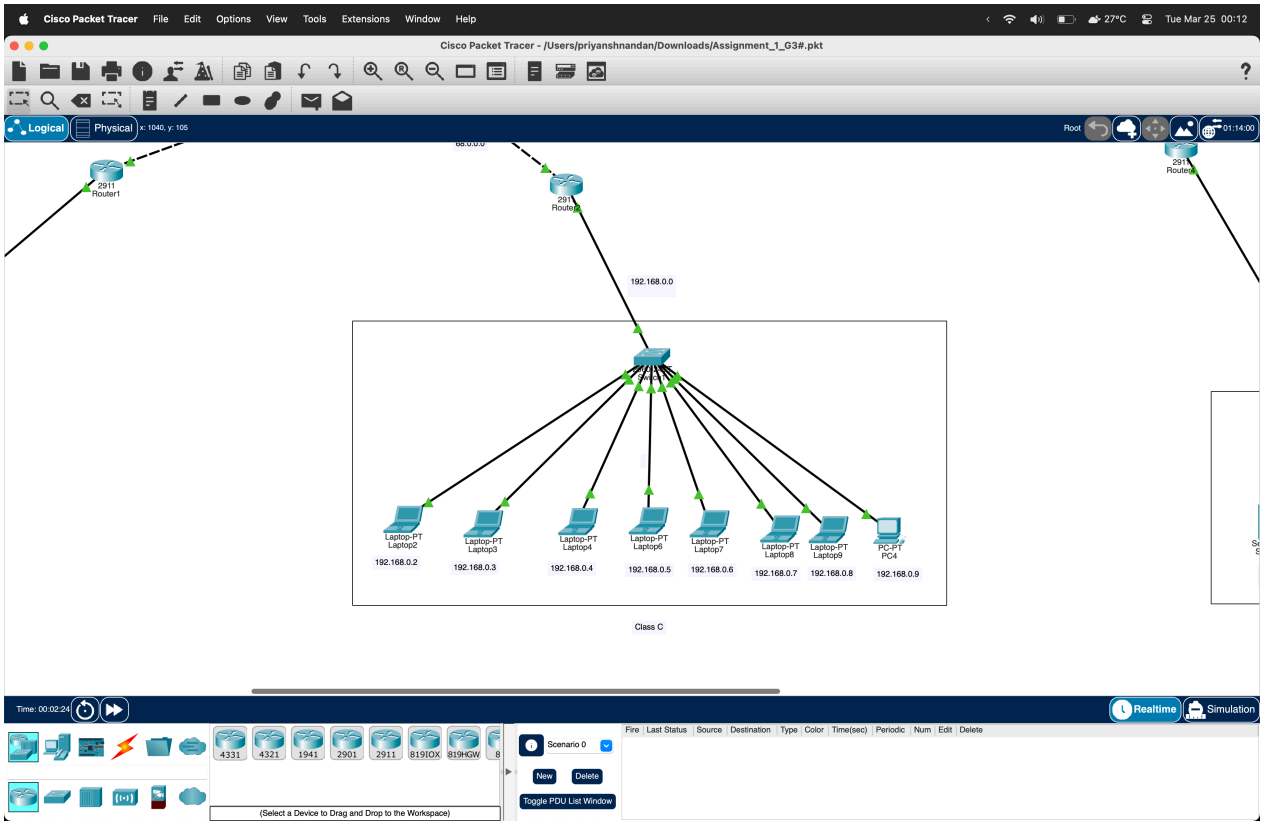
Priyansh Nandan (230953450)

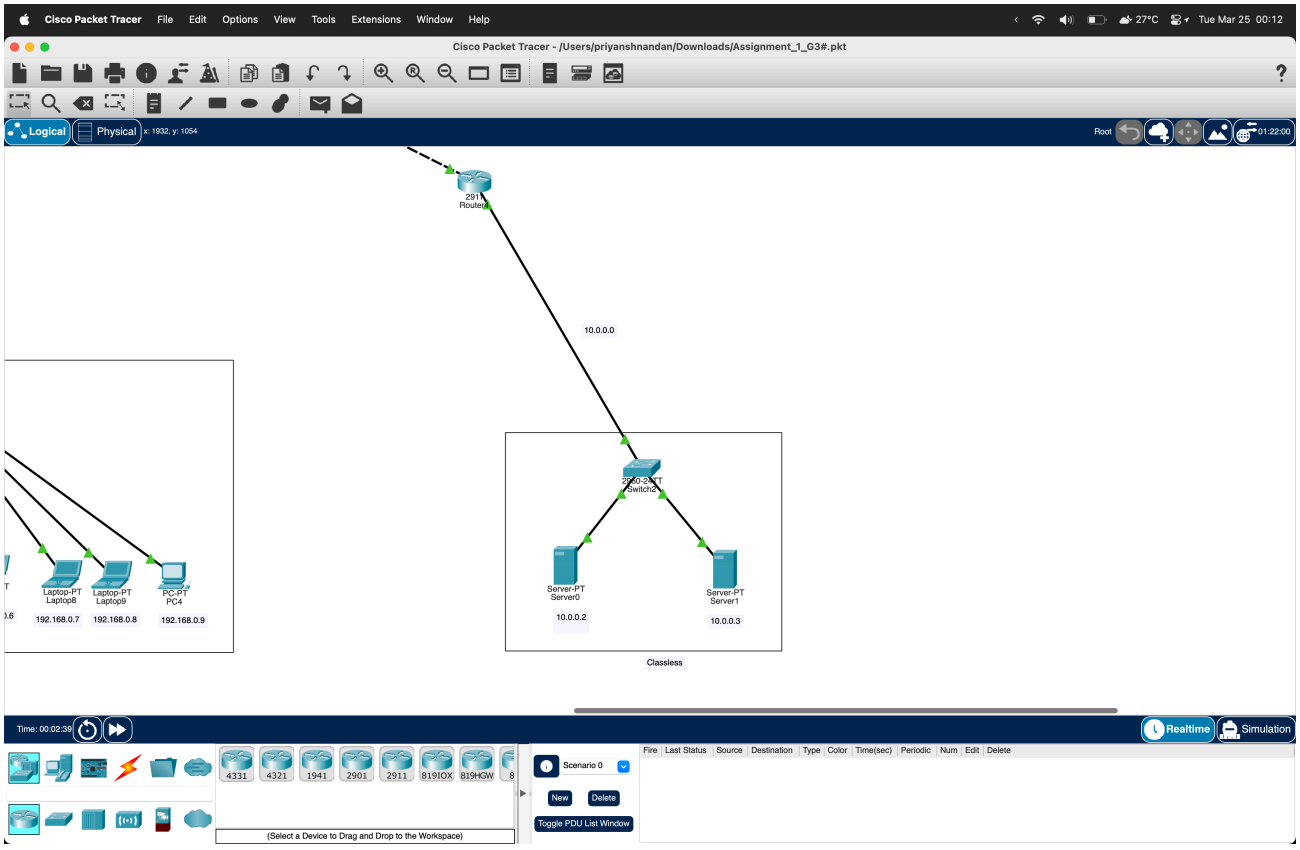
Section: CCE-D

Network Topology



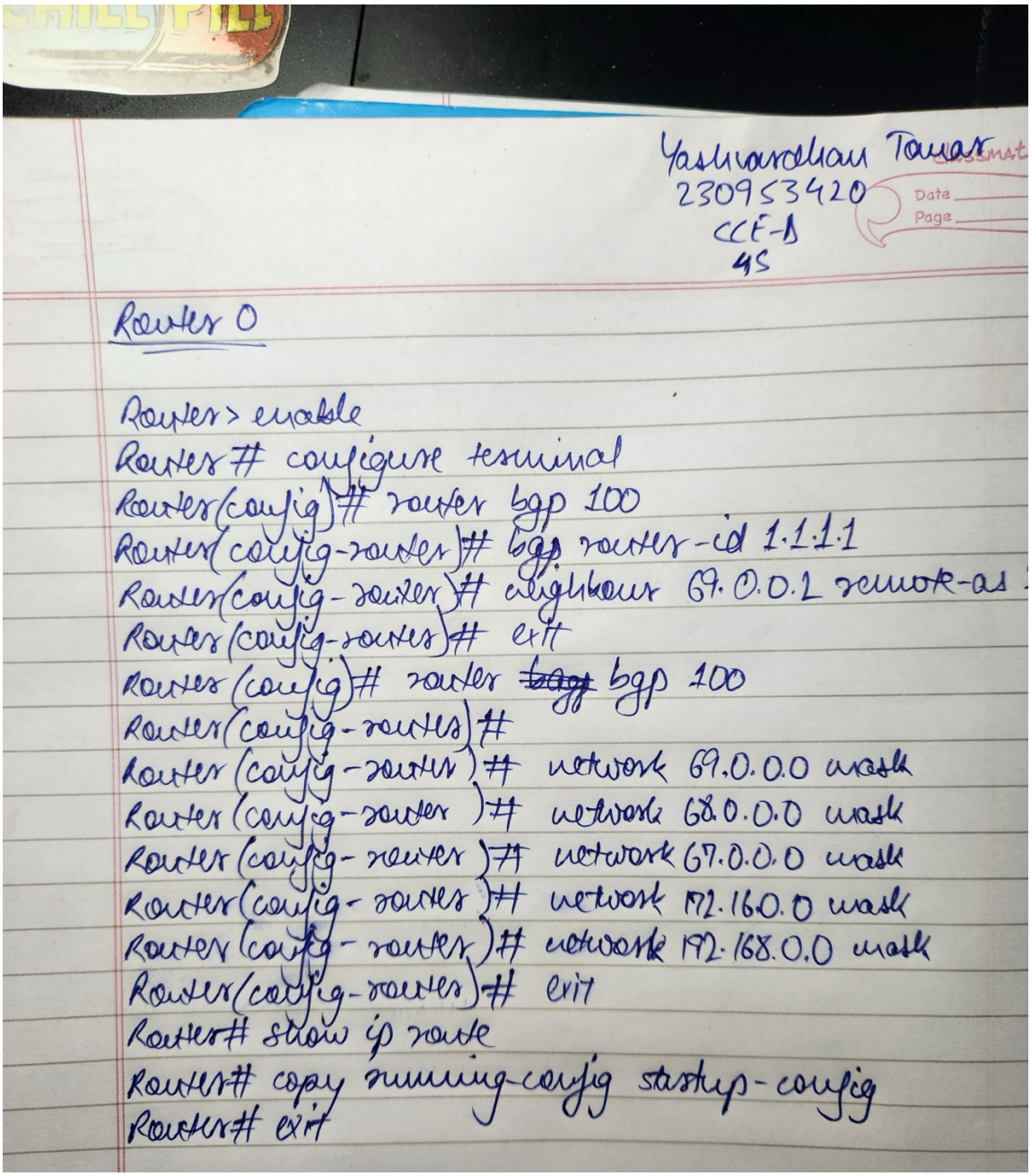



Cisco Packet Tracer File Edit Options View Tools Extensions Window Help
Cisco Packet Tracer - /Users/priyanshnandan/Downloads/Assignment_1_G3#.pkt
Logical
Physical
2911 Router1
2911 Router0
2911 Router2
192.168.0.0
Laptop-PT Laptop2
Laptop-PT Laptop3
Laptop-PT Laptop4
Laptop-PT Laptop6
Laptop-PT Laptop7
Laptop-PT Laptop8
Laptop-PT Laptop9
PC-PT PC4
192.168.0.2
192.168.0.3
192.168.0.4
192.168.0.5
192.168.0.6
192.168.0.7
192.168.0.8
192.168.0.9
Class C
Realtime
Simulation
(Select a Device to Drag and Drop to the Workspace)
Scenario 0
New
Delete
Toggle PDU List Window


Cisco Packet Tracer File Edit Options View Tools Extensions Window Help
Cisco Packet Tracer - /Users/priyanshnandan/Downloads/Assignment_1_G3#.pkt
Logical
Physical
2911 Router0
10.0.0.0
Laptop-PT Laptop8
Laptop-PT Laptop9
PC-PT PC4
192.168.0.7
192.168.0.8
192.168.0.9
Server-PT Server0
Server-PT Server1
10.0.0.2
10.0.0.3
Classless
Realtime
Simulation
(Select a Device to Drag and Drop to the Workspace)
Scenario 0
New
Delete
Toggle PDU List Window

IP Configuration

Router 0

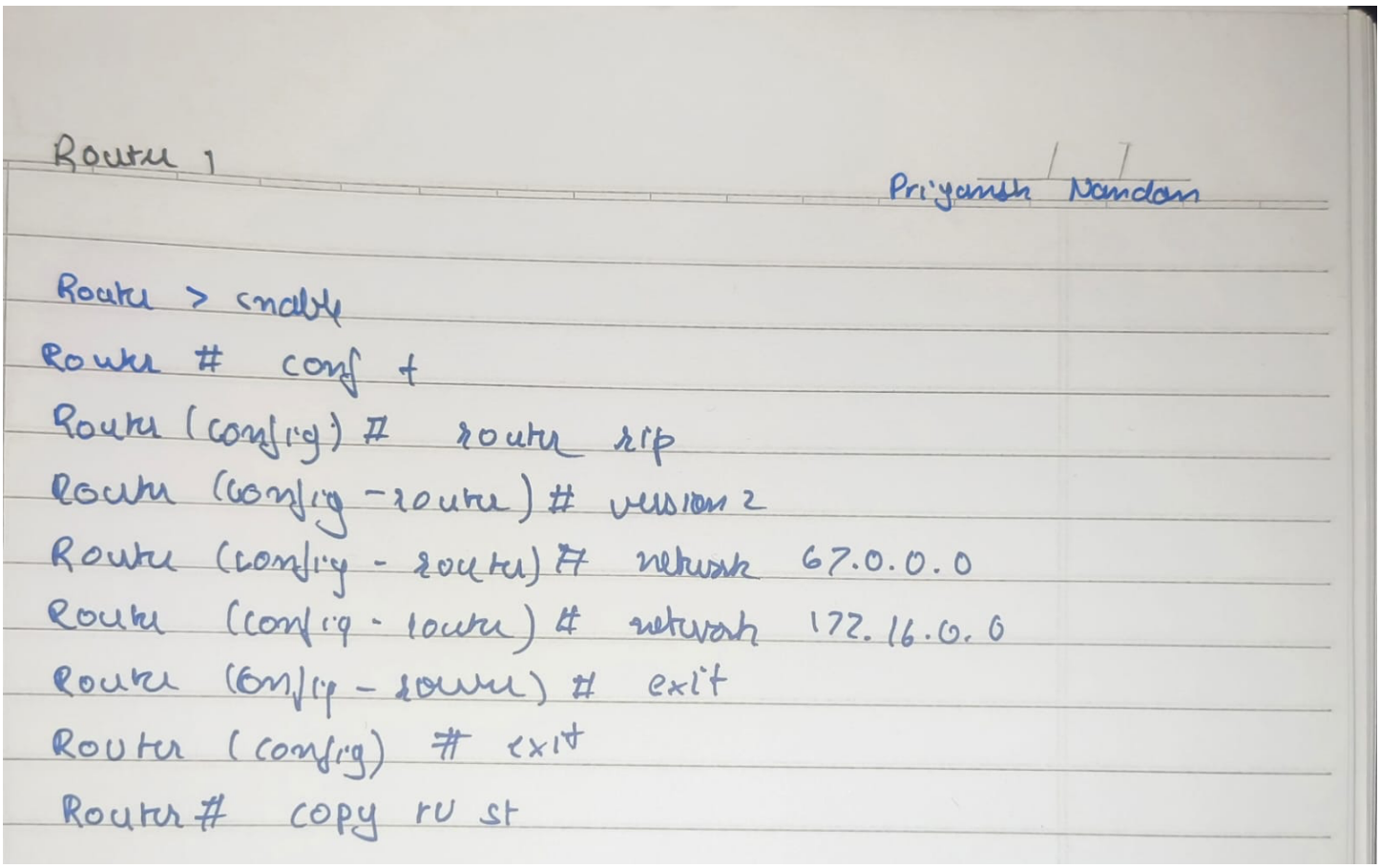


Yashwardhan Tomar
23095340
CCE-B
45

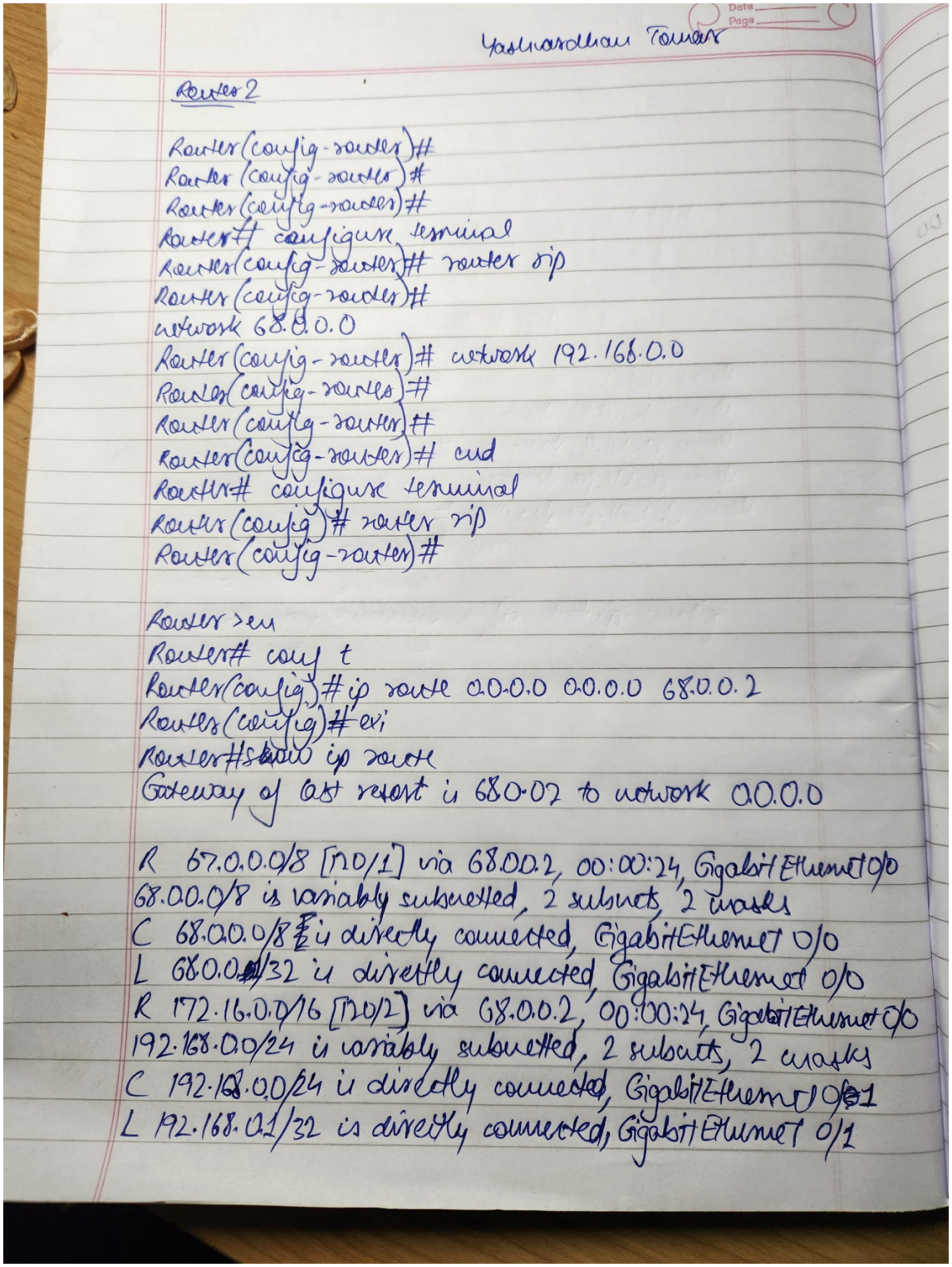
Router 0

```
Router> enable
Router# configure terminal
Router(config)# router bgp 100
Router(config-router)# bgp router-id 1.1.1.1
Router(config-router)# neighbour 69.0.0.2 remote-as
Router(config-router)# exit
Router(config)# router ~~bogp~~ bgp 100
Router(config-routes)#
Router(config-router)# network 69.0.0.0 mask
Router(config-router)# network 68.0.0.0 mask
Router(config-router)# network 67.0.0.0 mask
Router(config-router)# network 172.16.0.0 mask
Router(config-router)# network 192.168.0.0 mask
Router(config-routes)# exit
Router# show ip route
Router# copy running-config startup-config
Router# exit
```

Router 1


Router 1
Priyansh Nandan
Router > enable
Router # conf t
Router (config) # router rip
Router (config-router) # version 2
Router (config-router) # network 67.0.0.0
Router (config-router) # network 172.16.0.0
Router (config-router) # exit
Router (config) # exit
Router # copy ru st

Router 2



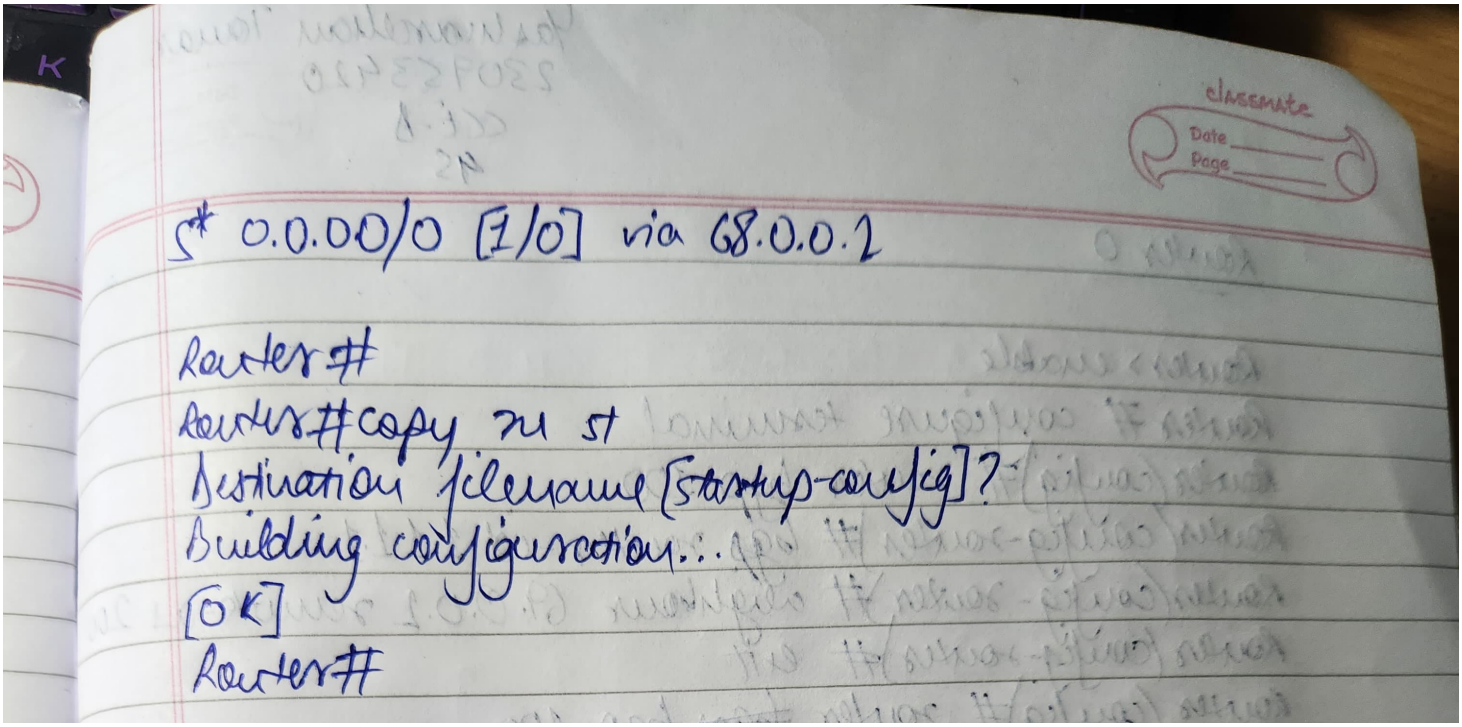
Yashwardhan Tomar

Router 2

Router(config-router)#
Router(config-router)#
Router(config-router)#
Router# configure terminal
Router(config-router)# router rip
Router(config-router)#
network 68.0.0.0
Router(config-router)# network 192.168.0.0
Router(config-router)#
Router(config-router)#
Router(config-router)# end
Router# configure terminal
Router(config)# router rip
Router(config-router)#

Router > en
Router# conf t
Router(config)# ip route 0.0.0.0 0.0.0.0 68.0.0.2
Router(config)# exit
Router# show ip route
Gateway of last resort is 68.0.0.2 to network 0.0.0.0

R 67.0.0.0/8 [120/1] via 68.0.0.2, 00:00:24, GigabitEthernet 0/0
68.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C 68.0.0.0/8 is directly connected, GigabitEthernet 0/0
L 68.0.0.1/32 is directly connected, GigabitEthernet 0/0
R 172.16.0.0/16 [120/2] via 68.0.0.2, 00:00:24, GigabitEthernet 0/0
192.168.0.0/24 is variably subnetted, 2 subnets, 2 masks
C 192.168.0.0/24 is directly connected, GigabitEthernet 0/1
L 192.168.0.1/32 is directly connected, GigabitEthernet 0/1



S* 0.0.00/0 [1/0] via 68.0.0.2

Router#
Router#copy ru st
Destination filename [startup-config]?
Building configuration...
[OK]
Router#

Router 3

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Router 3
Router> enable
Router# conf t

Router(config)# router bgp 100
Router(config-router)# bgp router-id 1.1.1.1

Router(config-router)# neighbour 69.0.0.2 remote-as 200
Router(config-router)# exit

Router(config)# router bgp 100
Router(config-router)# network 69.0.0.0 mask 255.0.0.0
Router(config-router)# network 68.0.0.0 mask 255.0.0.0
Router(config-router)# network 67.0.0.0 mask 255.0.0.0
Router(config-router)# network 172.16.0.0 mask 255.240.0.0
Router(config-router)# network 192.168.0.0 mask 255.255.255.0
Router(config-router)# exit

Router(config)# interface GigabitEthernet 0/0
Router(config-if)# exit

Router(config)# interface GigabitEthernet 0/1
Router(config-if)# exit

Router(config)# interface GigabitEthernet 0/2
Router(config-if)# exit
Router(config)# router rip
Router(config-router)# exit
Router(config)# router bgp 100
Router(config-router)# network 172.16.0.0 mask 255.255.240.0

AYRTON PULIKOTTIL
CCE-D-49 23095348

Router(config-router)#exit

Router# show ip route

Router# copy running-config startup-config

Router 4

Router 4 HISHAM ADIL

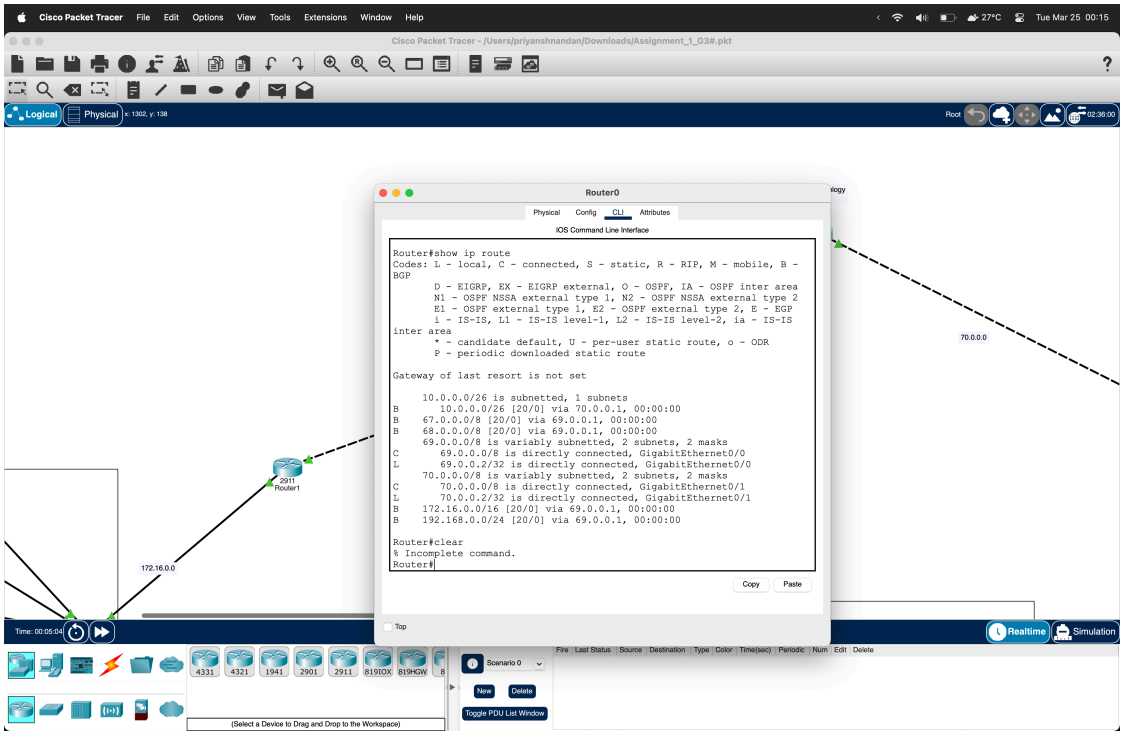
```
Router>enable
Router#configure terminal
Router(config)#interface
GigabitEthernet 0/1
Router(config-if)#exit
Router(config interface
Gigabit Ethernet 0/1
Router(config-if)#exit
Router(config)#interface
Gigabit Ethernet 0/0
Router(config-if)#ip adress 70.0.0.1
255.0.0.0
Router(config-if)#no shutdown

%.LINK-5-CHANGED: Interface
Gigabit Ethernet 0/0, changed state to up
%. LINEPROTO-5-UPDOWN:
Line protocol on Interface
Gigabit Ethernet 0/0 changed state to up

Router(config-if)#exit
Router(config)# router bgp 300
Router(config-Router)# bgp router-id
3.3.3.3
Router(config-router)# neighbor 70.00.2
remote-as 200
Router(config-router)#network
70.0.0.0 mark 255.0.0.0
Router(config-router)# network
10.0.0.0 mark 255.255.255.192
Router(config-router)#exit
Router(config)#ip route 0.0.0.0
70.0.0.2
```

HISHAM ADIL

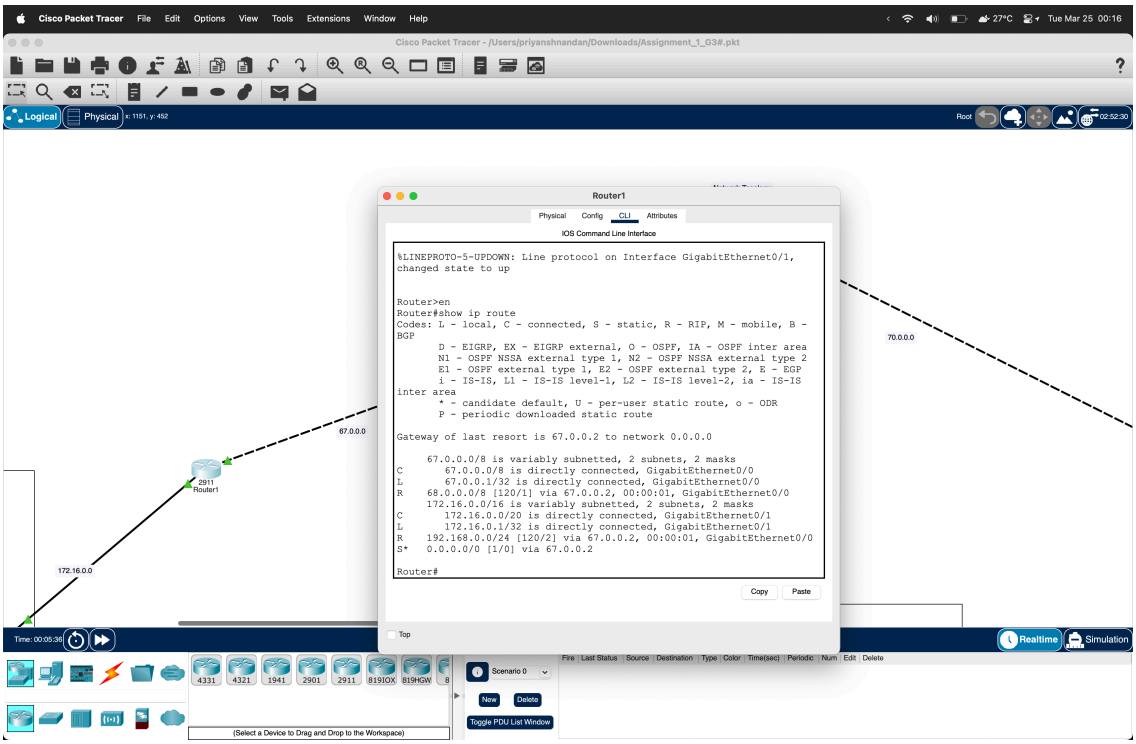
```
Router(config)#exit

%SYS-5-CONFIG_I: Configured from console
by console

Router# show ip route

Router# copy running-config
startup-config
Destination filename [startup-config]?
Building configuration...
[OK]

%BGP-3-NOTIFICATION: sent to n
neighbor 70.0.0.2 4/0 (hold time
expired) 0 bytes
%BGP-5-ADJCHANGE: neighbor
70.0.0.2 Up

Router#
```

Routing Tables

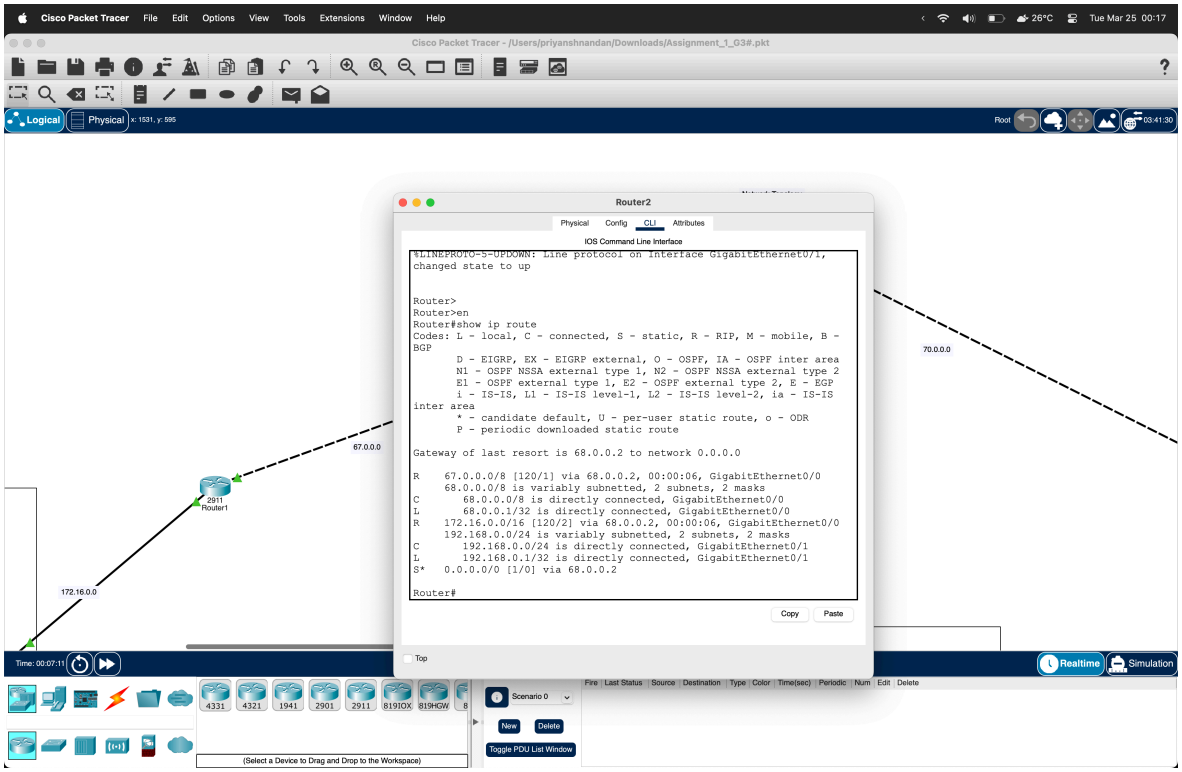
Router 0



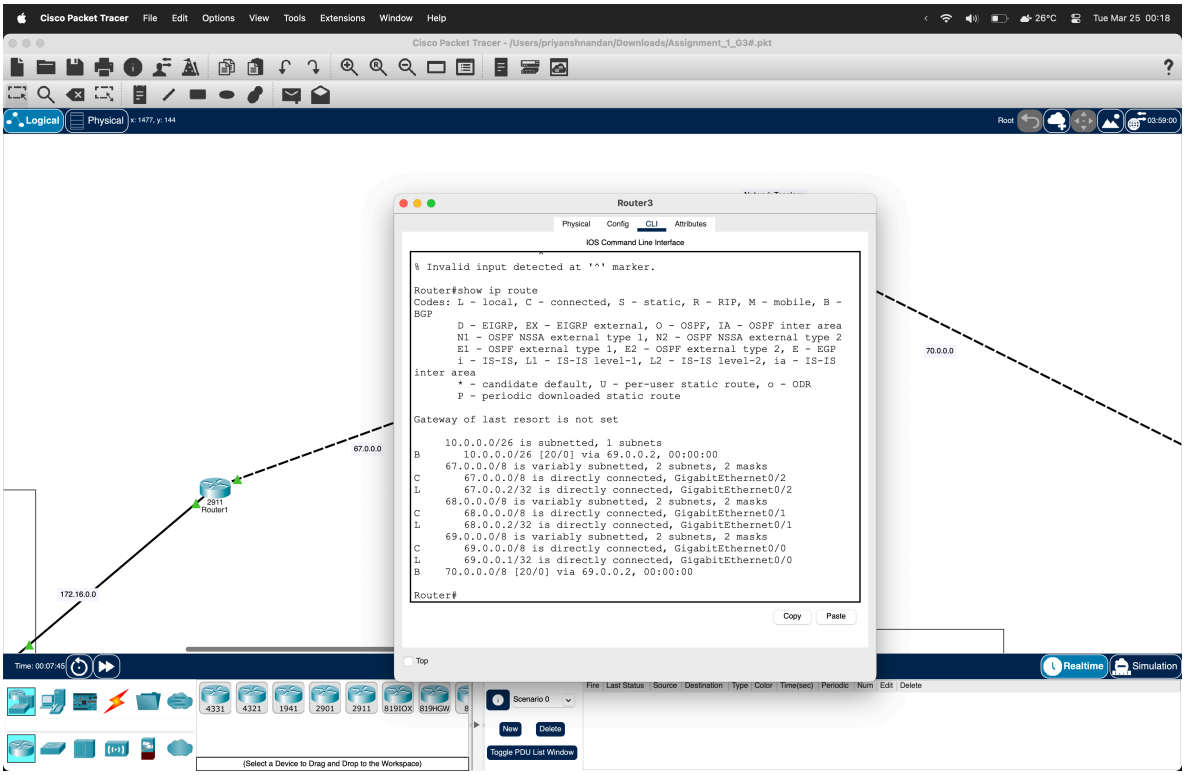
Router 1



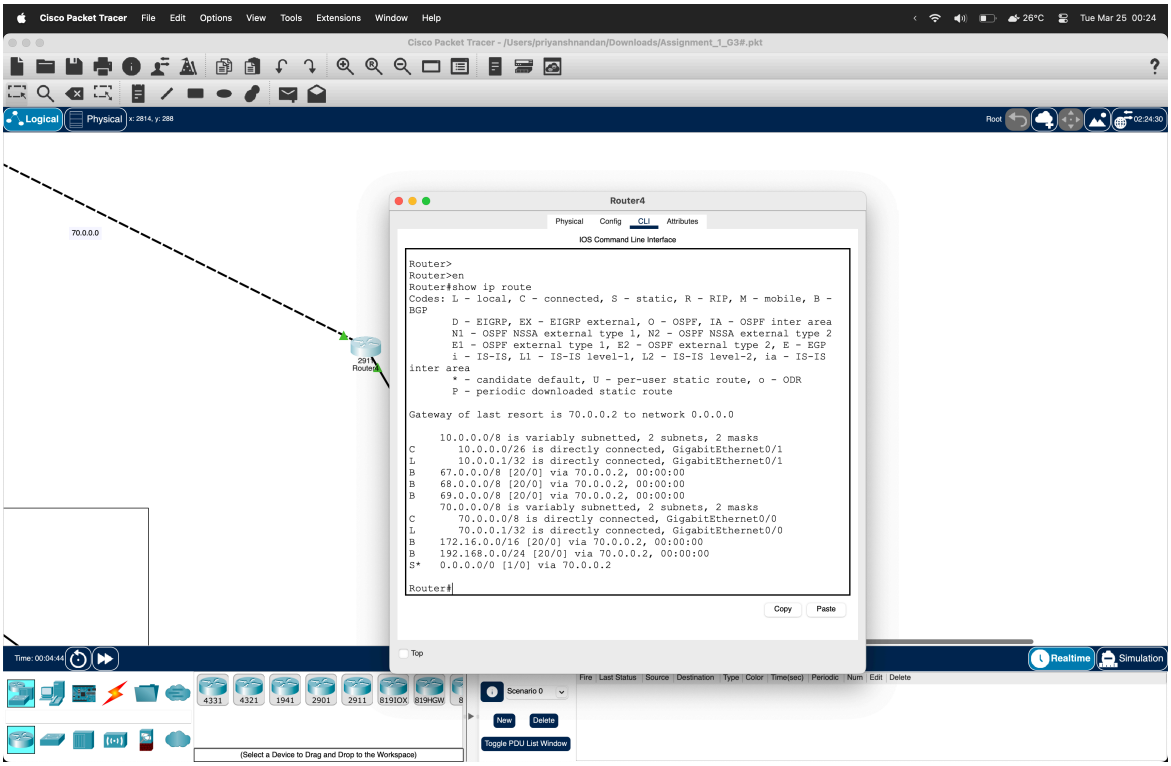
Router 2



Router 3



Router 4



Checking the Connectivity between PC0 and Server 0

Modified the HTML (index.html) page in server 0 under HTTP services, so that it displays “All the Best!!”.

In the **Web Browser** available under desktop section of **PC0**, type the IP address of Server0, this will load the HTML page, and we will get the display of “All the Best!!” message.

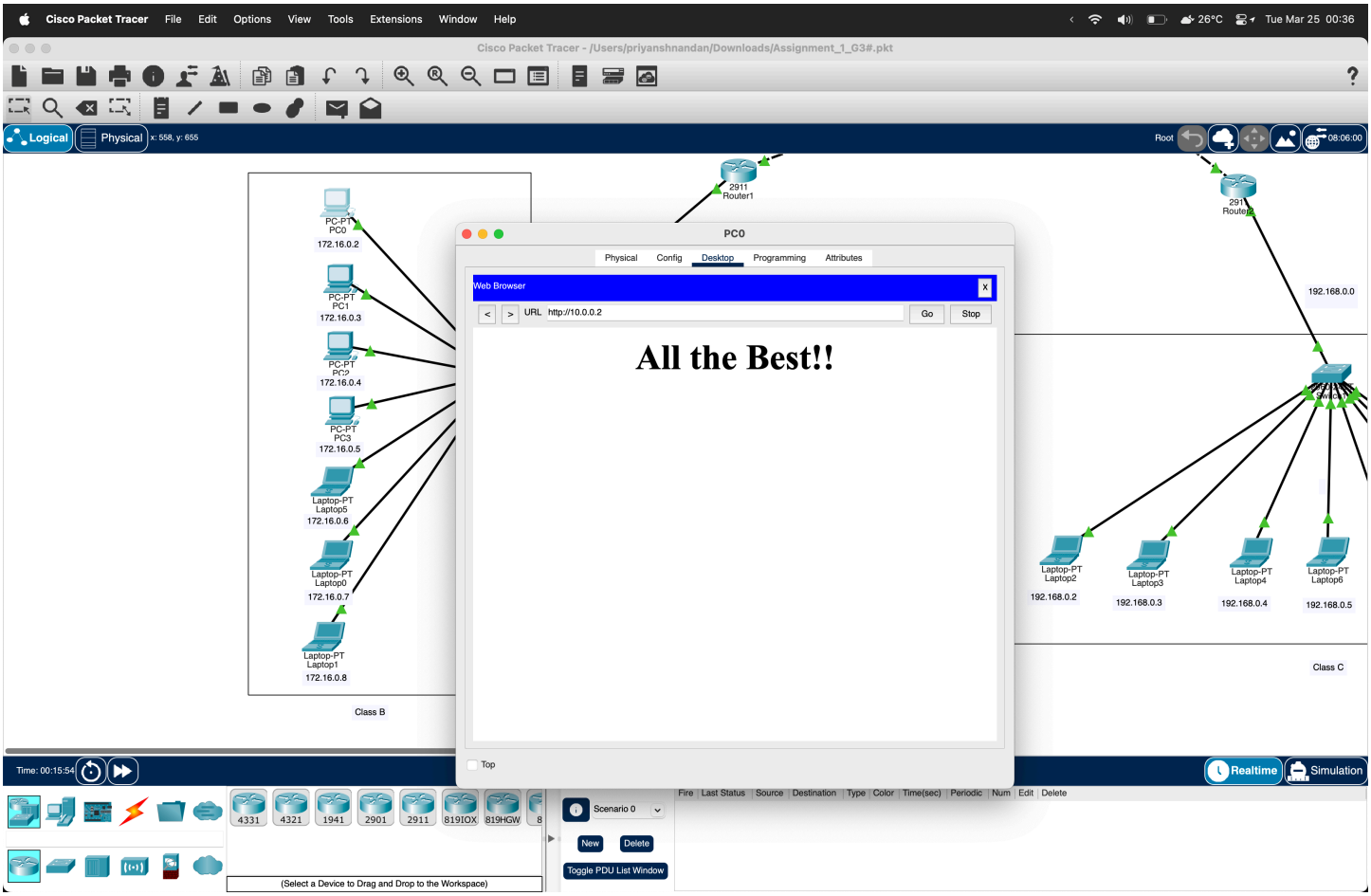
IP address for the Server 0 → 10.0.0.2

HTML page →

<HTML>

<BODY> <h1> All the Best!!</h1></BODY>

</HTML>


Cisco Packet Tracer File Edit Options View Tools Extensions Window Help
Cisco Packet Tracer - /Users/priyanshnandan/Downloads/Assignment_1_G3#.pkt
Logical
Physical
PC0
Physical Config Desktop Programming Attributes
Web Browser
URL http://10.0.0.2
Go
Stop
All the Best!!
2911 Router1
PC-PT PC0 172.16.0.2
PC-PT PC1 172.16.0.3
PC-PT PC2 172.16.0.4
PC-PT PC3 172.16.0.5
Laptop-PT Laptop5 172.16.0.6
Laptop-PT Laptop0 172.16.0.7
Laptop-PT Laptop1 172.16.0.8
Class B
192.168.0.0
Laptop-PT Laptop2 192.168.0.2
Laptop-PT Laptop3 192.168.0.3
Laptop-PT Laptop4 192.168.0.4
Laptop-PT Laptop6 192.168.0.5
Class C
Time: 00:15:54
Realtime
Simulation
4331 4321 1941 2901 2911 819IOX 819HGW
(Select a Device to Drag and Drop to the Workspace)
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete