Name - Deeksha
Class - MCA-1C
Student Id - 20712180

Q.1- There is an Organisation A with multiple department. Design a network for HR Department & the size of department is 10 users. Also show ~~the~~ Communication between user number 1 & user number 5.

This Connection is achieved by Switch. A Switch is a networking Device that Connect devices on a Computer Network to establish a local Area Network.

Steps 1:- Select the Switch.

Step 2: Select the End devices representing Each department of organisation.
~~Set~~

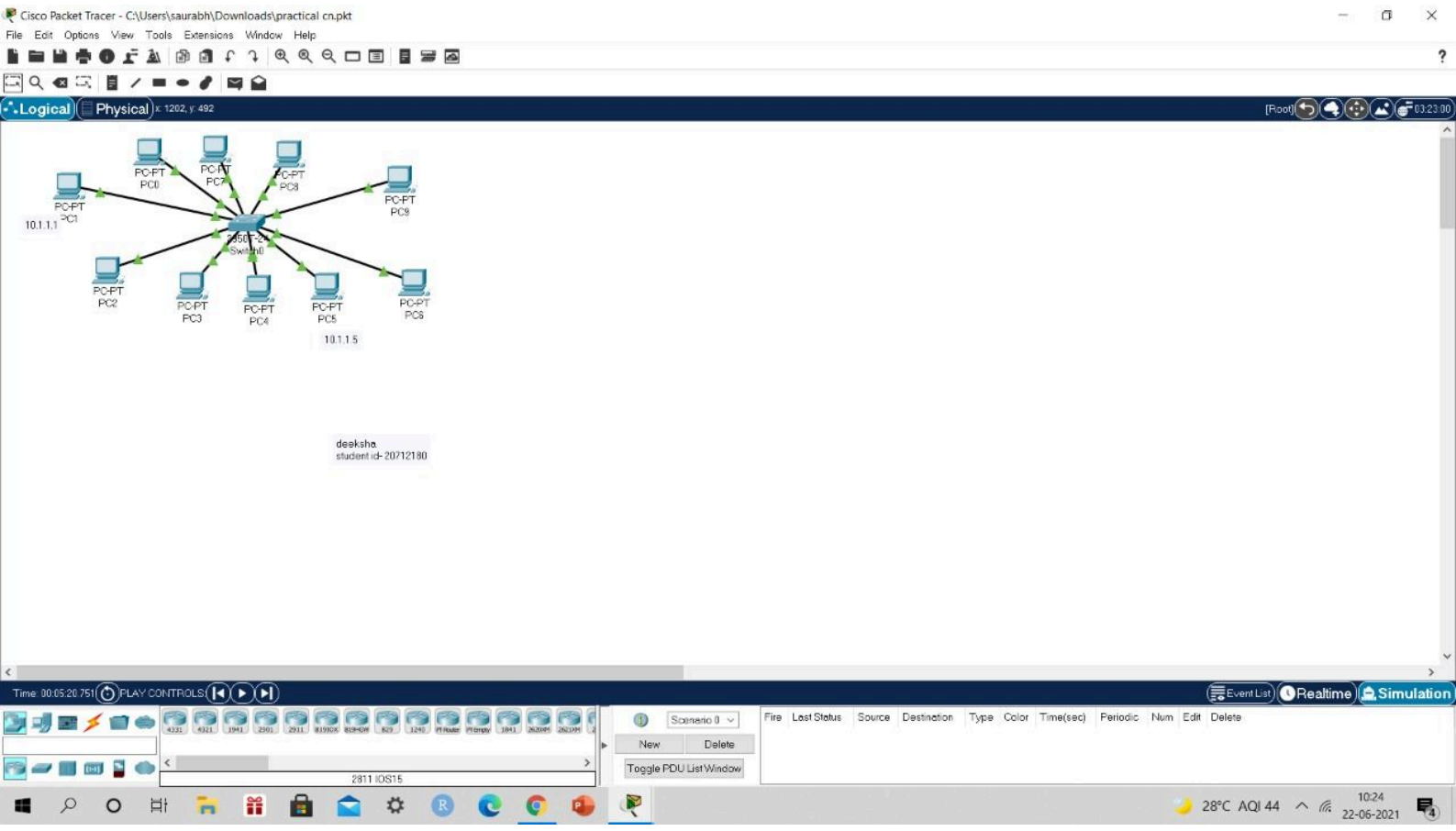
Step 3:- Make the Connection between each End device and Switch using straight Cables

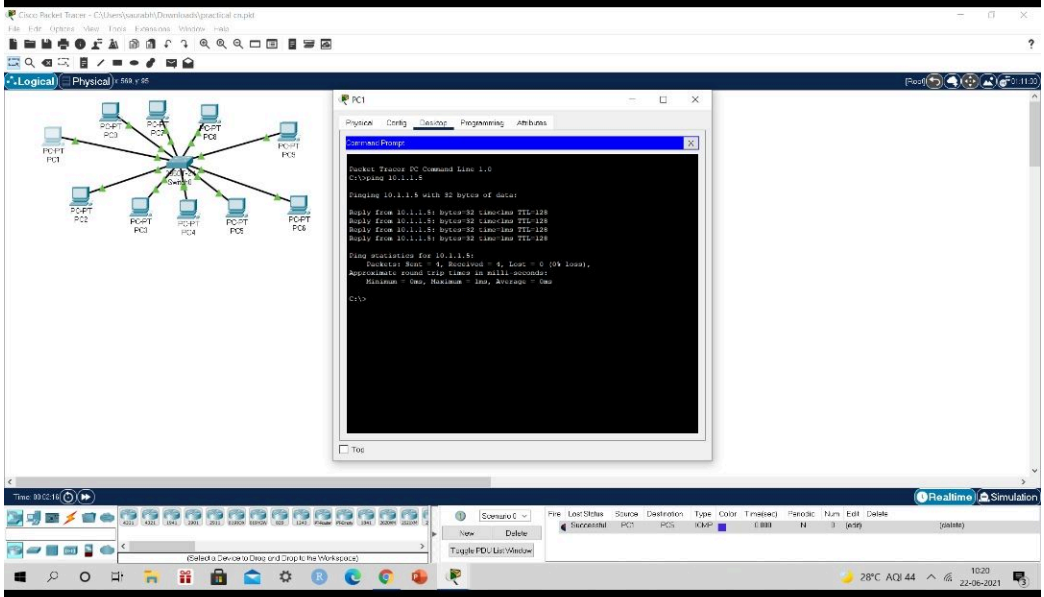
Step 4:- Set IP Address for each device.

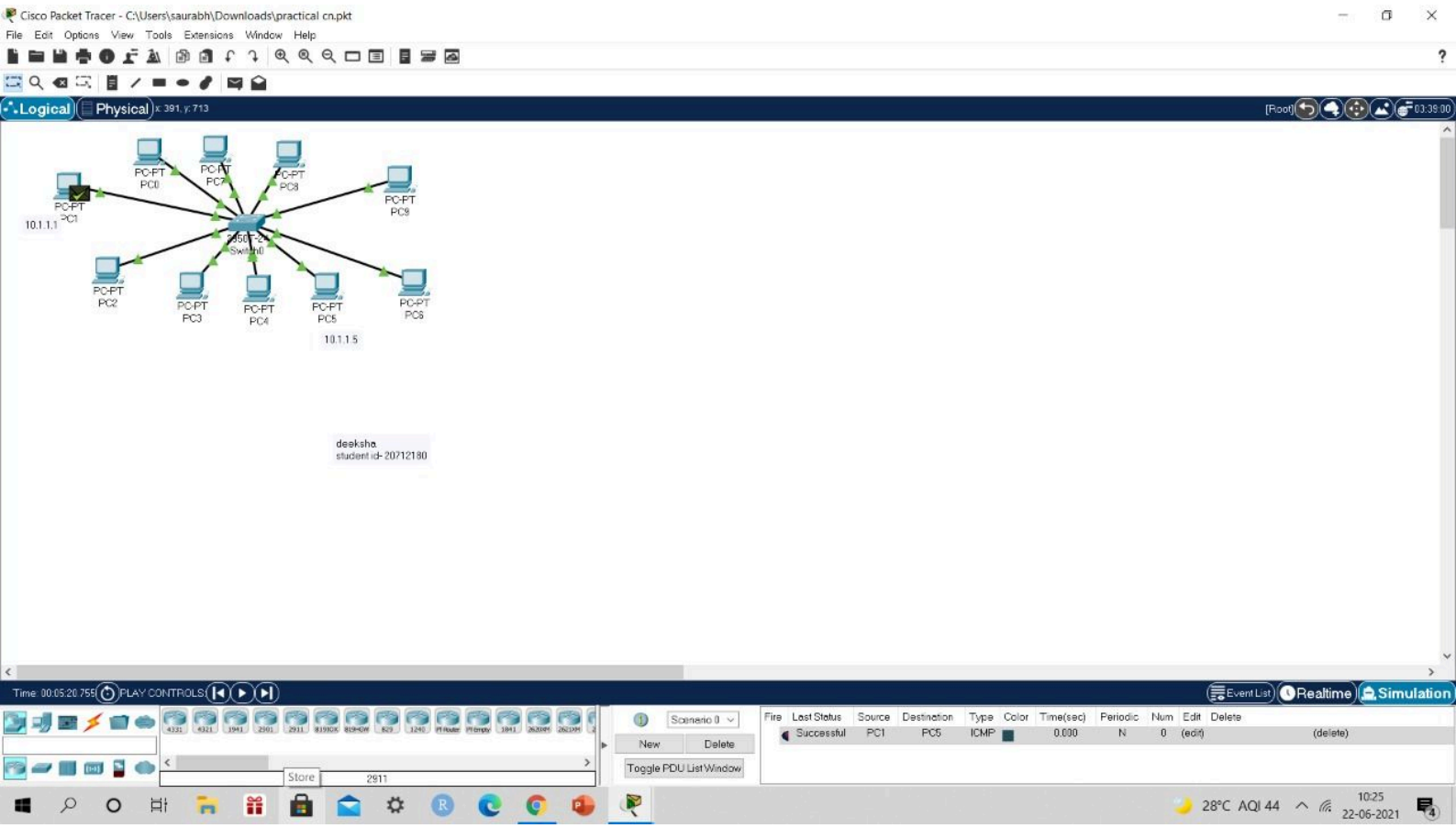
Step 5: Check if the Connection is made properly.

Step 6:- Send the message from one device to other & check for successful transmission.

Step 7: Can Also check by the ping Command in Command prompt.


Cisco Packet Tracer - C:\Users\saurabh\Downloads\practical cn.pkt
File Edit Options View Tools Extensions Window Help
Logical
Physical
x: 1202, y: 492
[Root]
03:23:00
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
PC-PT PC4
PC-PT PC5
PC-PT PC6
PC-PT PC7
PC-PT PC8
PC-PT PC9
10.1.1.1
10.1.1.5
deeksha
student id- 20712180
Time: 00:05:20.751
PLAY CONTROLS:
Event List
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num
Edit
Delete
2811 IOS15
28°C AQI 44
10:24
22-06-2021


Logical
Physical
PC1
Command Prompt
Packet Tracer PC Command Line 1.0
C:\>ping 10.1.1.5
Pinging 10.1.1.5 with 32 bytes of data:
Reply from 10.1.1.5: bytes=32 time<1ms TTL=128
Reply from 10.1.1.5: bytes=32 time<1ms TTL=128
Reply from 10.1.1.5: bytes=32 time<1ms TTL=128
Reply from 10.1.1.5: bytes=32 time<1ms TTL=128
Ping statistics for 10.1.1.5:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>
Realtime
Simulation


Cisco Packet Tracer - C:\Users\saurabh\Downloads\practical cn.pkt
File Edit Options View Tools Extensions Window Help
Logical
Physical
x: 391, y: 713
[Root]
03:39:00
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
PC-PT PC4
PC-PT PC5
PC-PT PC6
PC-PT PC7
PC-PT PC8
PC-PT PC9
10.1.1.1
10.1.1.5
deeksha
student id- 20712180
Time: 00:05:20.755
PLAY CONTROLS:
Event List
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete
Successful PC1 PC5 ICMP 0.000 N 0 (edit) (delete)
Store
2911
28°C AQI 44
10:25
22-06-2021

Name - Deeksha
Class - MCA - C
Student Id - 20712180

Q.2. There are two organisation in a City named GEU & GEHU, design a network between SOC department of GEU & GEHU. Also, show the Communication between user number 1 of GEU & user number 2 of GEHU.

This problem is of Connection two Local Area Network (LAN). This would be achieved by the Router. This is the Case of Inter-LAN Connection.

STEPS :-

(1) Create two local area network (GEU & GEHU) using switch & make the Connections between the End devices & that switch.

(2) ~~Connect~~ the Connect the both the switches to the Router.

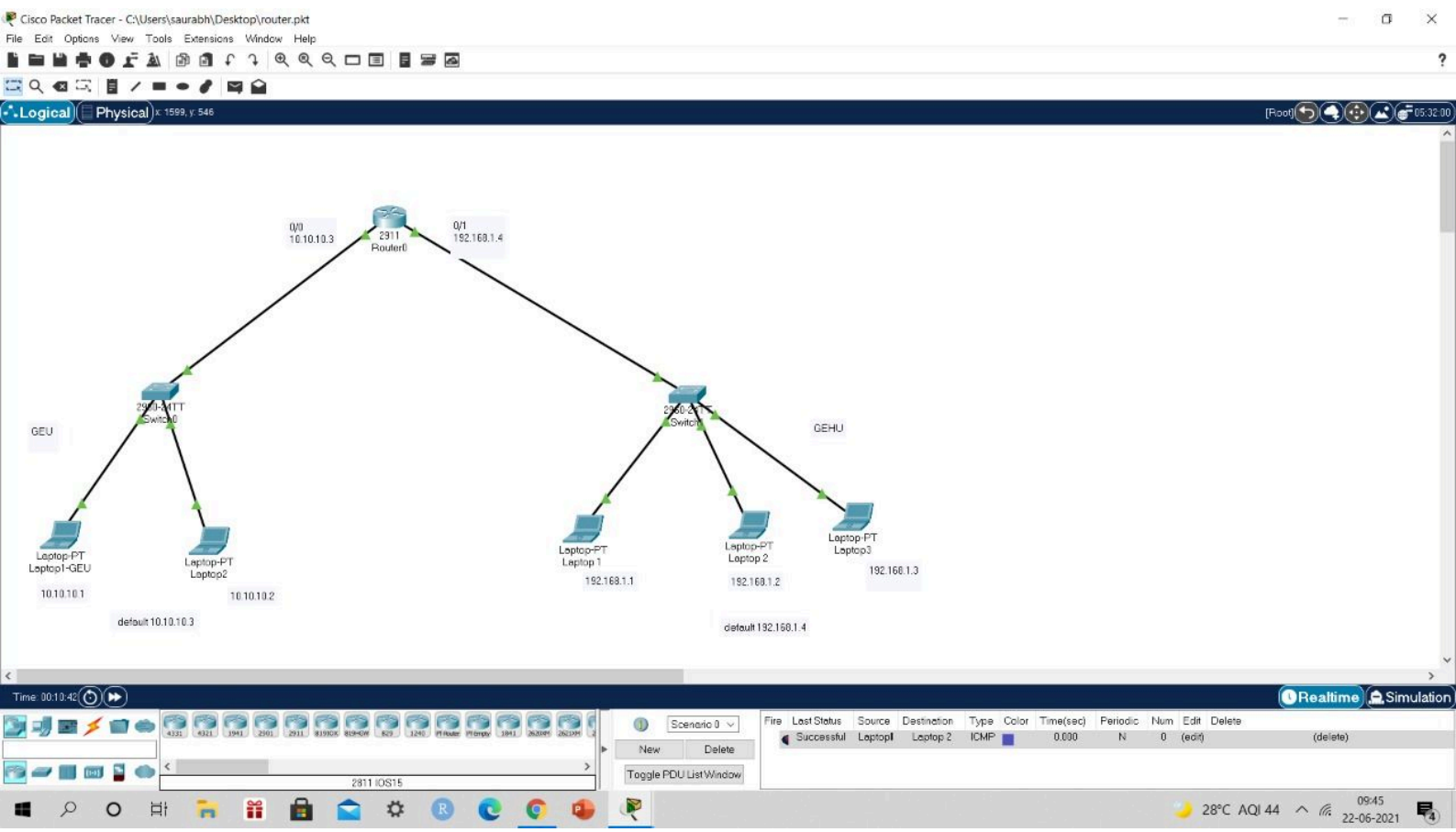
(3) ~~Set~~ Router is Connected to Switch 0 by the Interface GigabitEthernet 0/0. Set its IPv4 Address as 10.10.10.3. And Switch on the Port Status. This establishes the Connection between Router & Switch 0.

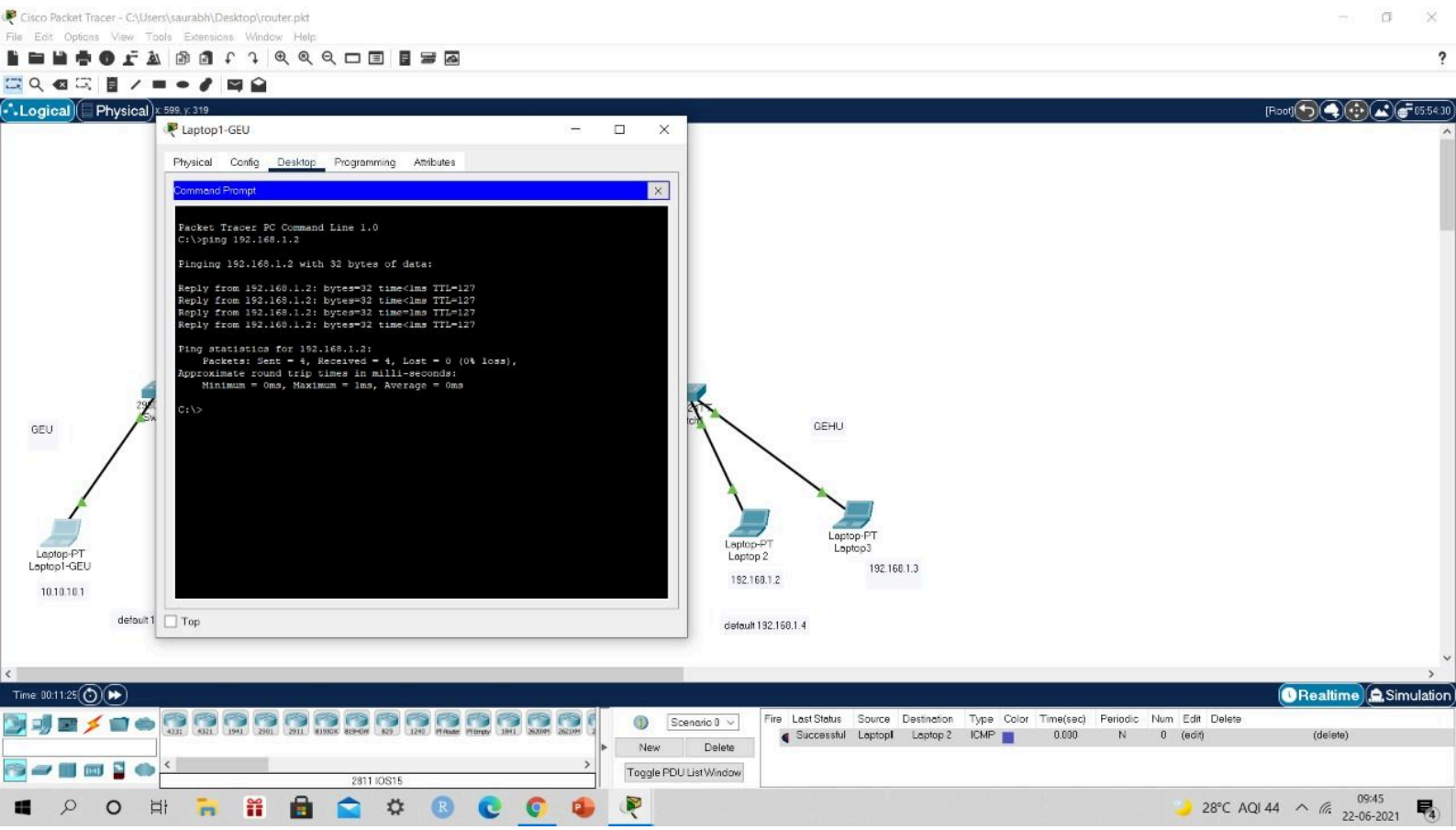
④ Now, set the IP Address of End devices connected to Switch 0 (GEU Network). Set the default Gateway of all the End devices connected to switch 0 as 10.10.10.3 (which is the IPv4 address of Router).

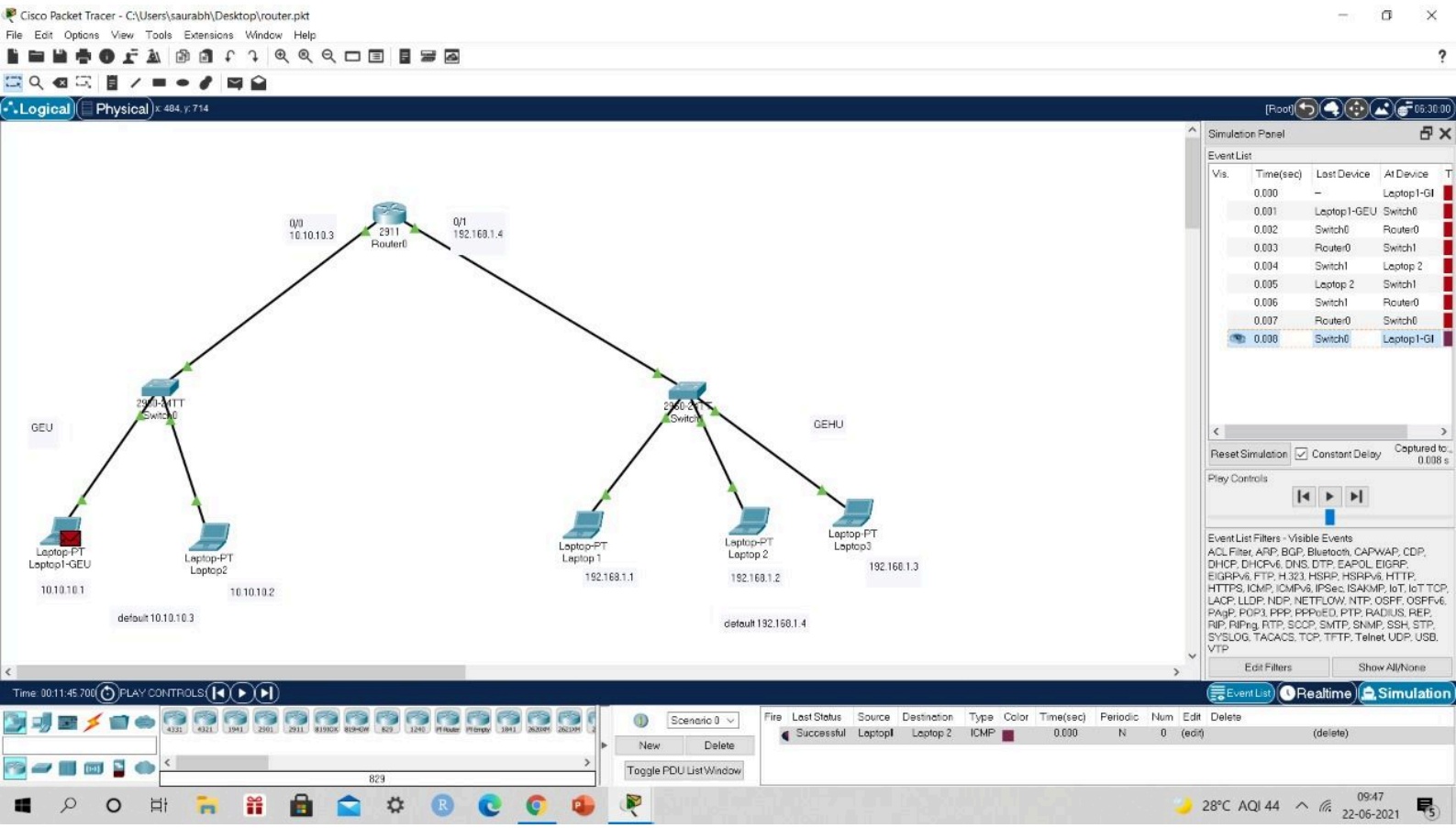
⑤ Perform Step 3 & Step 4 for GEHU Network (Switch 1). Router is connected to GEHU Network (Switch 1) by Interface GigabitEthernet Interface 0/1. Set its IPv4 Address as 192.168.1.4. Set the Port Status 1.

⑥ Now, Set the IP Address of End devices connected to Switch 1 (GEHU Network). Set default Gateway as 192.168.1.4.

⑦ Check all the Collection are done properly. Green arrows would be indication of proper Connection.


Cisco Packet Tracer - C:\Users\saurabh\Desktop\router.pkt
File Edit Options View Tools Extensions Window Help
Logical
Physical
x: 1599, y: 546
[Root]
05:32:00
0/0
10.10.10.3
2911
Router0
0/1
192.168.1.4
GEU
GEHU
Laptop-PT
Laptop1-GEU
10.10.10.1
default 10.10.10.3
Laptop-PT
Laptop2
10.10.10.2
Laptop-PT
Laptop 1
192.168.1.1
Laptop-PT
Laptop 2
192.168.1.2
default 192.168.1.4
Laptop-PT
Laptop3
192.168.1.3
Time: 00:10:42
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num
Edit
Delete
Successful
Laptop1
Laptop 2
ICMP
0.000
N
0
(edit)
(delete)
2811 IOS15
28°C AQI 44
09:45
22-06-2021


Cisco Packet Tracer - C:\Users\saurabh\Desktop\router.pkt
File Edit Options View Tools Extensions Window Help
Logical
Physical
Laptop1-GEU
Physical Config Desktop Programming Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.2
Pinging 192.168.1.2 with 32 bytes of data:
Reply from 192.168.1.2: bytes=32 time<1ms TTL=127
Reply from 192.168.1.2: bytes=32 time<1ms TTL=127
Reply from 192.168.1.2: bytes=32 time=1ms TTL=127
Reply from 192.168.1.2: bytes=32 time<1ms TTL=127
Ping statistics for 192.168.1.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>
Top
GEU
GEHU
Laptop-PT
Laptop1-GEU
10.10.10.1
Laptop-PT
Laptop 2
192.168.1.2
Laptop-PT
Laptop3
192.168.1.3
default 192.168.1.4
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete
Successful Laptop1 Laptop 2 ICMP 0.000 N 0 (edit) (delete)
2811 IOS15
28°C AQI 44
09:45
22-06-2021


Cisco Packet Tracer - C:\Users\saurabh\Desktop\router.pkt
File Edit Options View Tools Extensions Window Help
Logical
Physical
0/0
10.10.10.3
2911
Router0
0/1
192.168.1.4
GEU
GEHU
Laptop-PT
Laptop1-GEU
Laptop-PT
Laptop2
Laptop-PT
Laptop 1
Laptop-PT
Laptop 2
Laptop-PT
Laptop3
10.10.10.1
10.10.10.2
192.168.1.1
192.168.1.2
192.168.1.3
default 10.10.10.3
default 192.168.1.4
Simulation Panel
Event List
Vis. Time(sec) Last Device At Device
0.000 – Laptop1-GI
0.001 Laptop1-GEU Switch0
0.002 Switch0 Router0
0.003 Router0 Switch1
0.004 Switch1 Laptop 2
0.005 Laptop 2 Switch1
0.006 Switch1 Router0
0.007 Router0 Switch0
0.008 Switch0 Laptop1-GI
Reset Simulation
Constant Delay
Play Controls
Event List Filters - Visible Events
Edit Filters
Show All/None
Time: 00:11:45.708
PLAY CONTROLS:
Event List
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete
Successful Laptop1 Laptop 2 ICMP 0.000 N 0 (edit) (delete)
28°C AQI 44
09:47
22-06-2021