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COURSE : MCA HLD

ROLL NUMBER: 2098012

1. There is an organization A with multiple departments. Design a network for the HR department and the size of the department is 10 users. Also, show the communication between user number 1 and user number 5 of the network. (7

MARKS)

MID TERM PRACTICAL

PMC 202
Computer Network

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ANSWER 1:

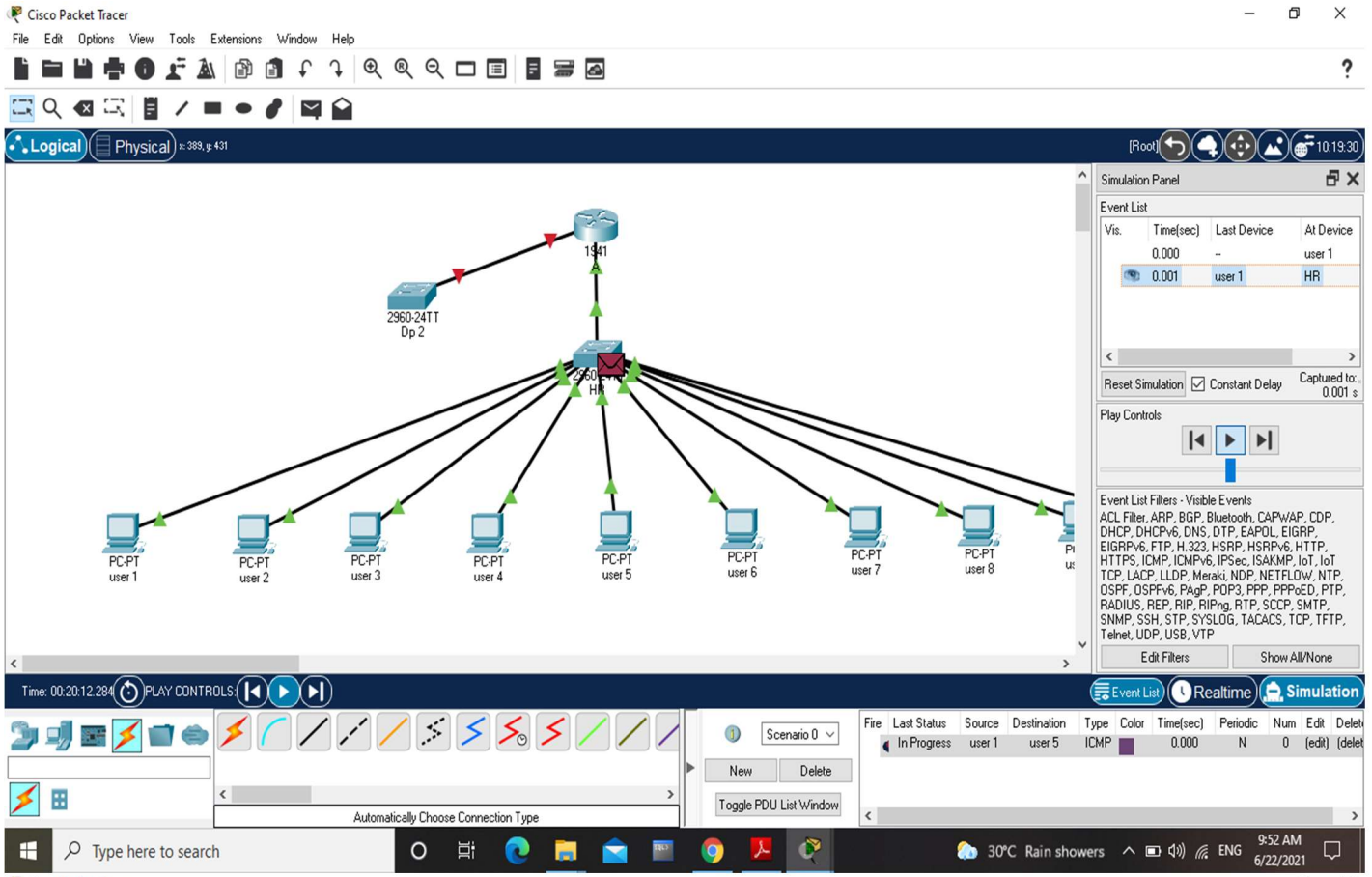
Step 1: First we create Organization 'A'.

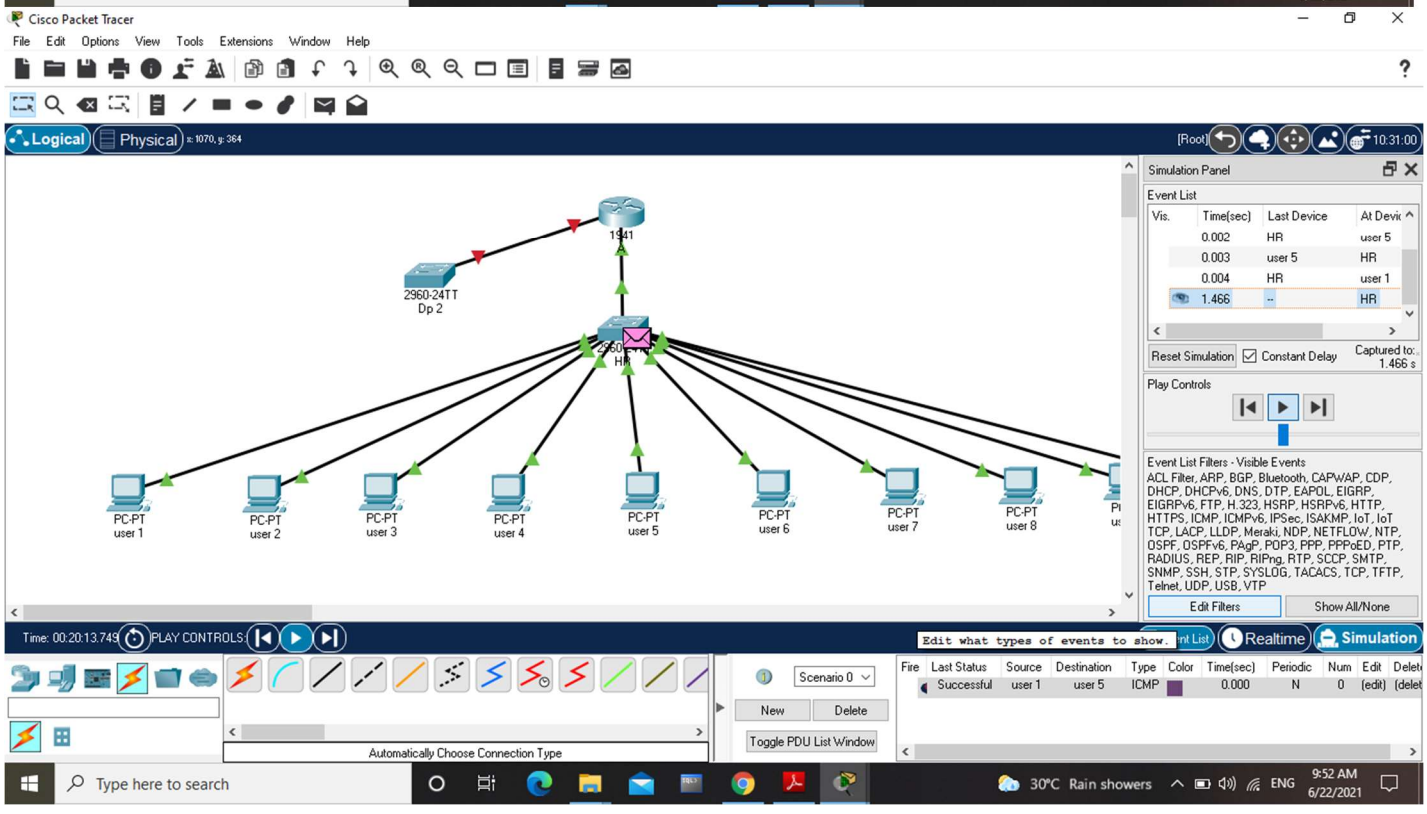
Step 2: We connect 'A' (Router) to HR department (Switch).

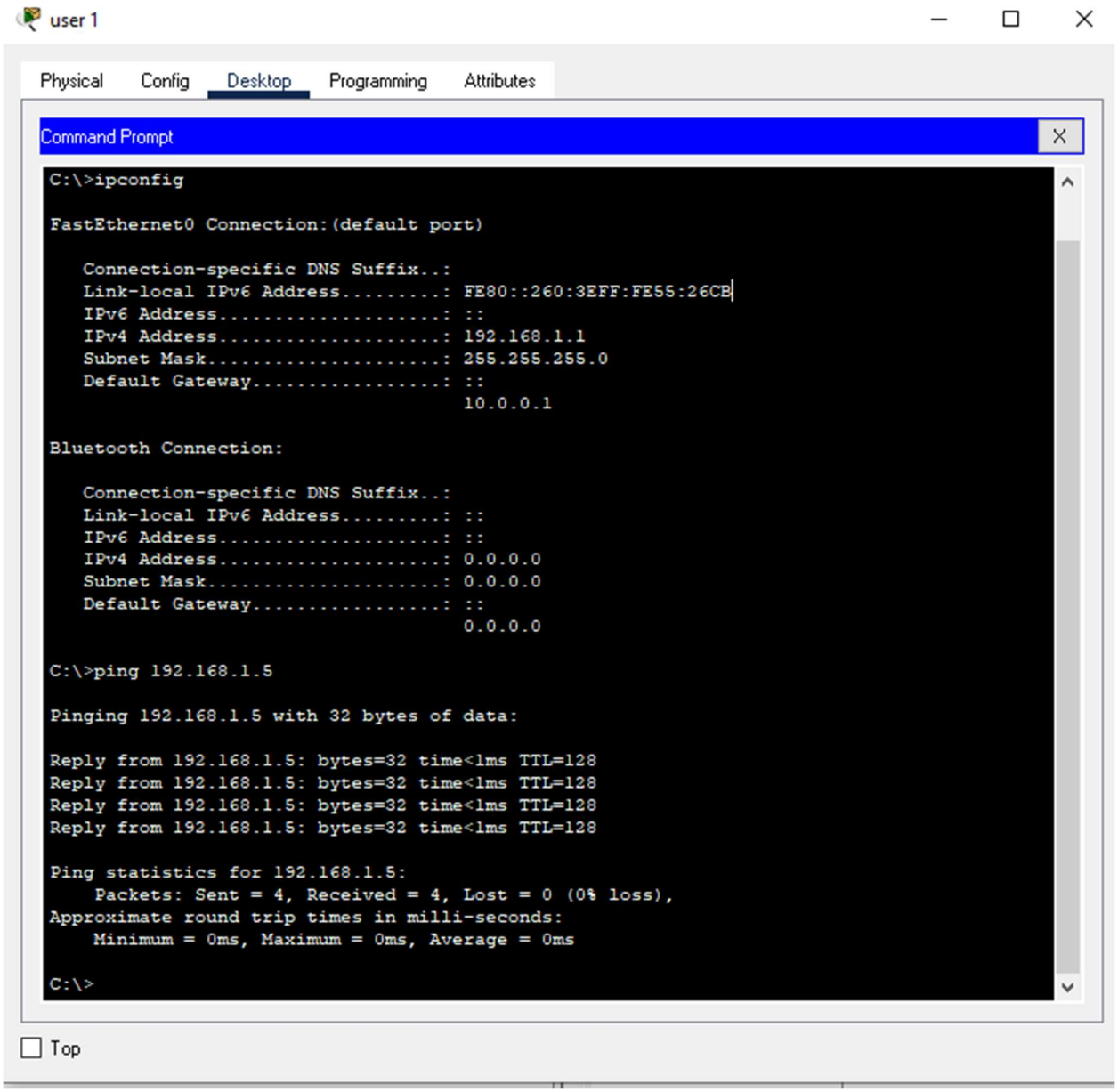
Step 3: In the HR Department we create 10 user user 1 to user 10. and connect them.

Step 4: Assign the ip address and default gateway to all user.

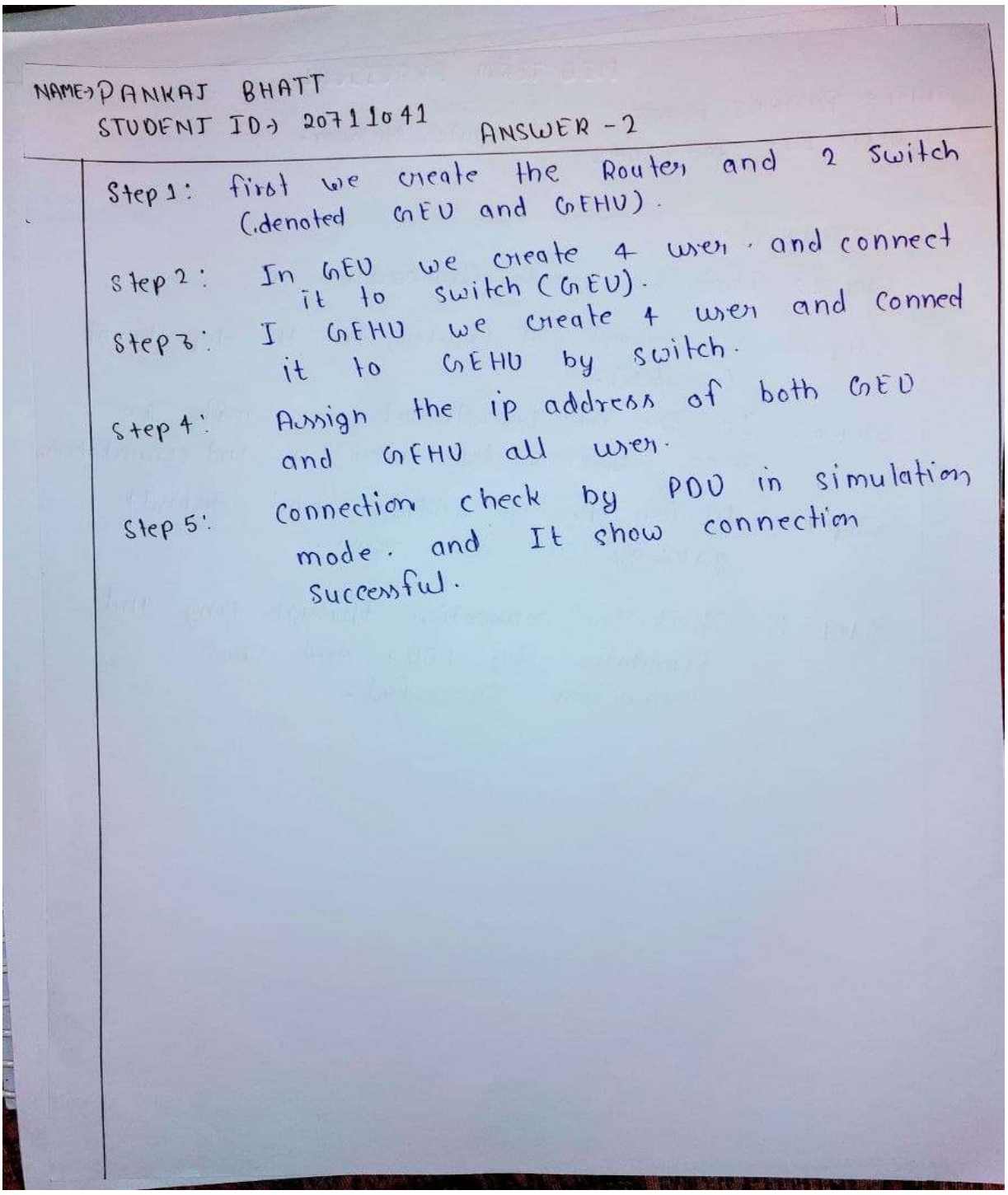
Step 5: Check the connection through Ping and Simulation by PDU. and Show connection Sucessful.


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical
Simulation Panel
Event List
Vis. Time(sec) Last Device At Device
0.000 -- user 1
0.001 user 1 HR
Reset Simulation Constant Delay Captured to: 0.001 s
Play Controls
Event List Filters - Visible Events
ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, IoT, IoT TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoED, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP
Edit Filters Show All/None
1941
2960-24TT
Dp 2
HR
PC-PT user 1
PC-PT user 2
PC-PT user 3
PC-PT user 4
PC-PT user 5
PC-PT user 6
PC-PT user 7
PC-PT user 8
Time: 00:20:12.284 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
In Progress user 1 user 5 ICMP 0.000 N 0 (edit) (delete
Automatically Choose Connection Type
Type here to search
30°C Rain showers ENG 9:52 AM 6/22/2021


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical
Simulation Panel
Event List
Vis. Time(sec) Last Device At Device
0.002 HR user 5
0.003 user 5 HR
0.004 HR user 1
1.466 -- HR
Reset Simulation Constant Delay Captured to: 1.466 s
Play Controls
Event List Filters - Visible Events
ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, IoT, IoT TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoED, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP
Edit Filters Show All/None
1941
2960-24TT
Dp 2
HR
PC-PT user 1
PC-PT user 2
PC-PT user 3
PC-PT user 4
PC-PT user 5
PC-PT user 6
PC-PT user 7
PC-PT user 8
Time: 00:20:13.749 PLAY CONTROLS:
Edit what types of events to show.
Realtime Simulation
Scenario 0 New Delete Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete
Successful user 1 user 5 ICMP 0.000 N 0 (edit) (delete
Automatically Choose Connection Type
Type here to search
30°C Rain showers ENG 9:52 AM 6/22/2021


user 1
Physical
Config
Desktop
Programming
Attributes
Command Prompt
C:\>ipconfig
FastEthernet0 Connection:(default port)
Connection-specific DNS Suffix..:
Link-local IPv6 Address.....: FE80::260:3EFF:FE55:26CB
IPv6 Address.....: ::
IPv4 Address.....: 192.168.1.1
Subnet Mask.....: 255.255.255.0
Default Gateway.....: ::
10.0.0.1
Bluetooth Connection:
Connection-specific DNS Suffix..:
Link-local IPv6 Address.....: ::
IPv6 Address.....: ::
IPv4 Address.....: 0.0.0.0
Subnet Mask.....: 0.0.0.0
Default Gateway.....: ::
0.0.0.0
C:\>ping 192.168.1.5
Pinging 192.168.1.5 with 32 bytes of data:
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.1.5:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>
Top

2.There are two organizations in a city named GEU and GEHU, design a network between the SOC department of GEU and GEHU. Also, show the communication between user number 1 of GEU and user number 2 of GEHU. (8 MARKS)



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ANSWER - 2

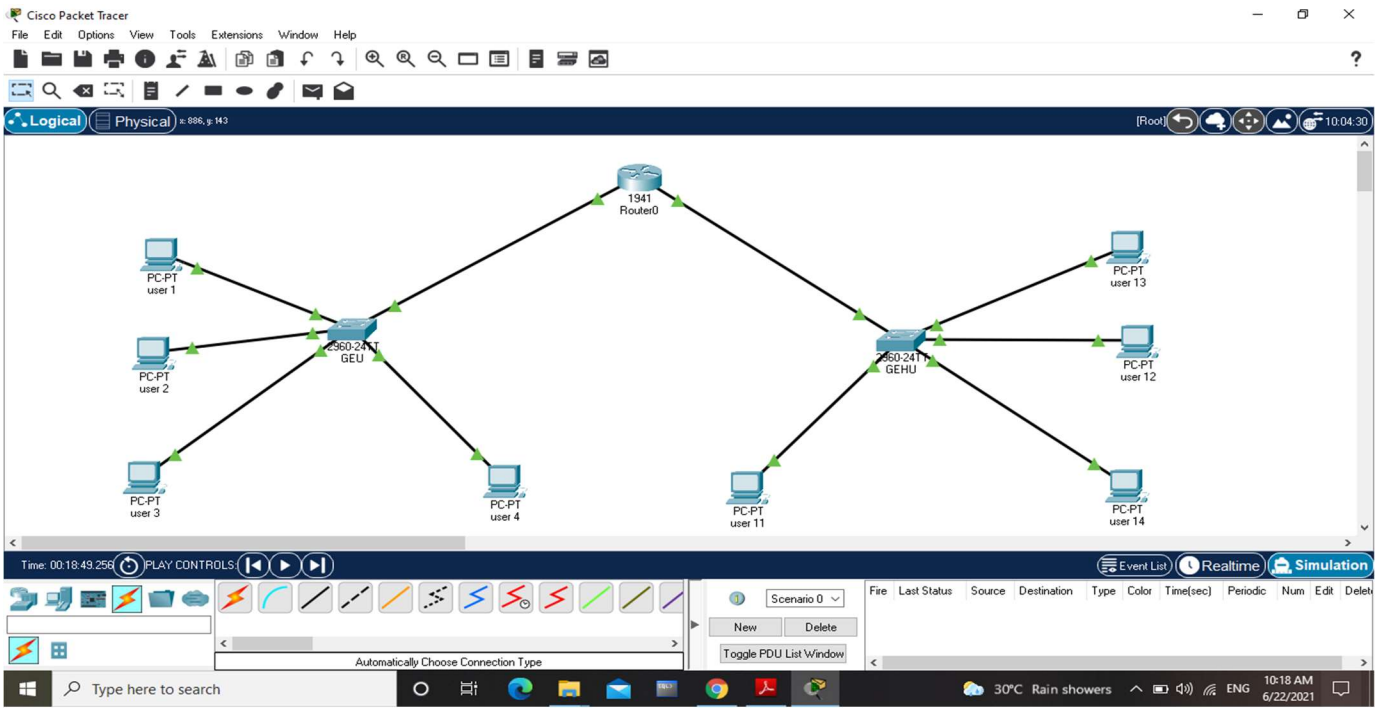
Step 1: first we create the Router and 2 Switch (denoted GEU and GEHU).

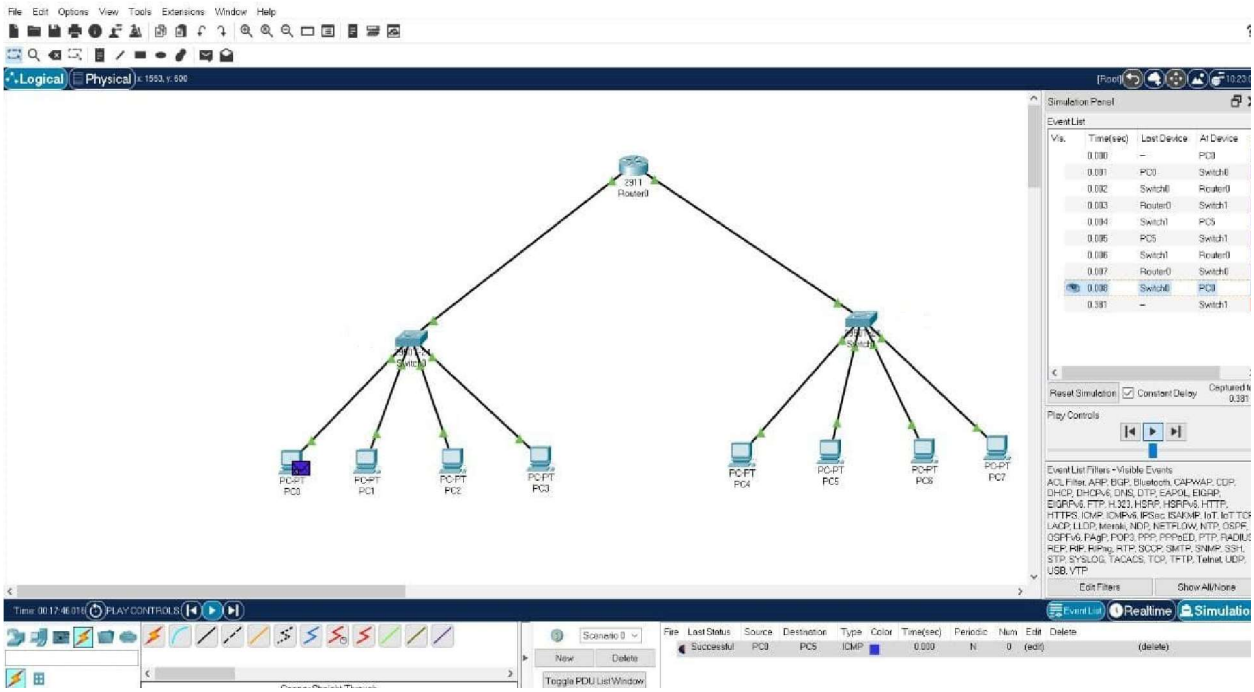
Step 2: In GEU we create 4 user and connect it to switch (GEU).

Step 3: I GEHU we create 4 user and conned it to GEHU by switch.

Step 4: Assign the ip address of both GEU and GEHU all user.

Step 5: Connection check by PDU in simulation mode. and It show connection Successful.


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical
Physical
1941
Router0
2360-24TT
GEU
2360-24TT
GEHU
PC-PT
user 1
PC-PT
user 2
PC-PT
user 3
PC-PT
user 4
PC-PT
user 11
PC-PT
user 12
PC-PT
user 13
PC-PT
user 14
Time: 00:18:49.256
PLAY CONTROLS:
Event List
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Automatically Choose Connection Type
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num
Edit
Delete
Type here to search
30°C Rain showers
ENG
10:18 AM
6/22/2021


File Edit Options View Tools Extensions Window Help
Logical
Physical
2911
Router0
PC-PT
PC0
PC-PT
PC1
PC-PT
PC2
PC-PT
PC3
PC-PT
PC4
PC-PT
PC5
PC-PT
PC6
PC-PT
PC7
Simulation Panel
Event List
Reset Simulation
Constant Delay
Play Controls
Edit Filters
Show All/None
Realtime
Simulation
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num
Edit
Delete
Successful
PC0
PC5
ICMP
0.000
N
0
(edit)
(delete)