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Class - MCA - 2C GEHU

Roll no - 2002030

Student id - 20561025

Computer Networks LAB

Mid-term

Q1)

Problem statement → 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 b/w user Number 1 and user Number 5 of the network.

objective description → From the question I have understood that, we have to create a LAN in a HR department.

→ Step 1) first we need to take 10 users (10 devices)

Step 2) then we need to take a switch (2960-24TT)

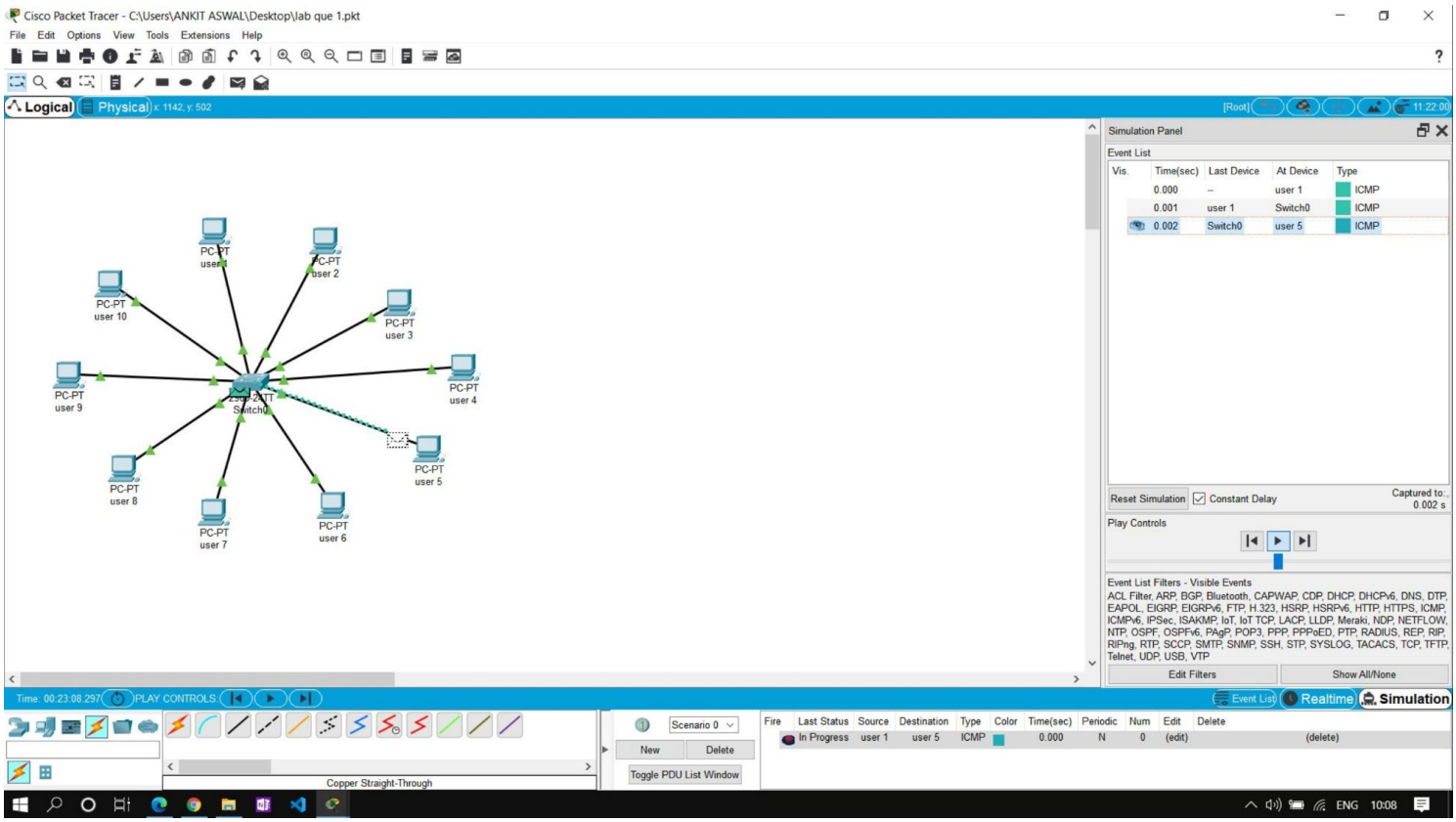
Step 3) Connect all the users to switche, Copper-straight through.

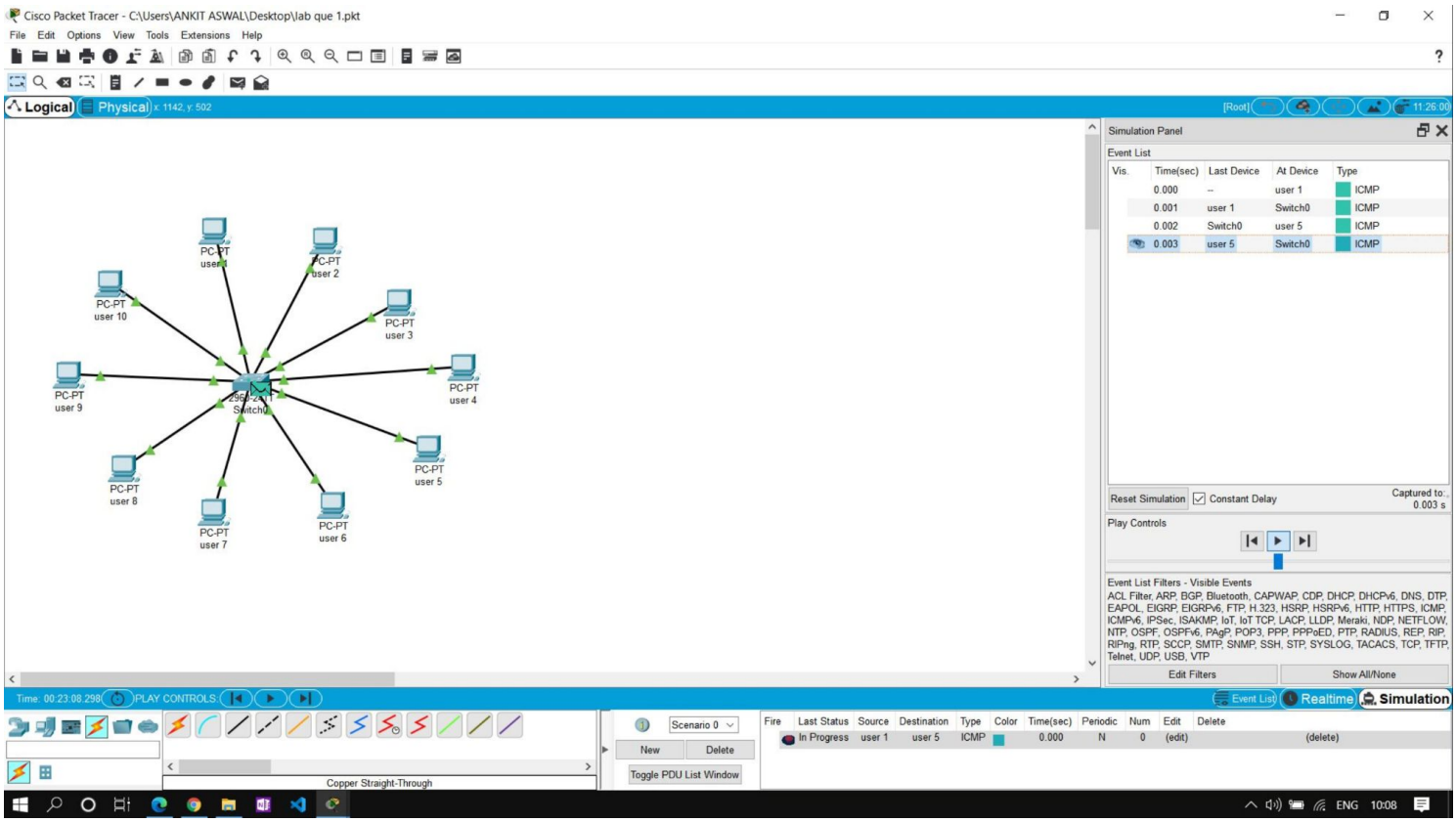
Step 4) Now set IP Address of all the users.

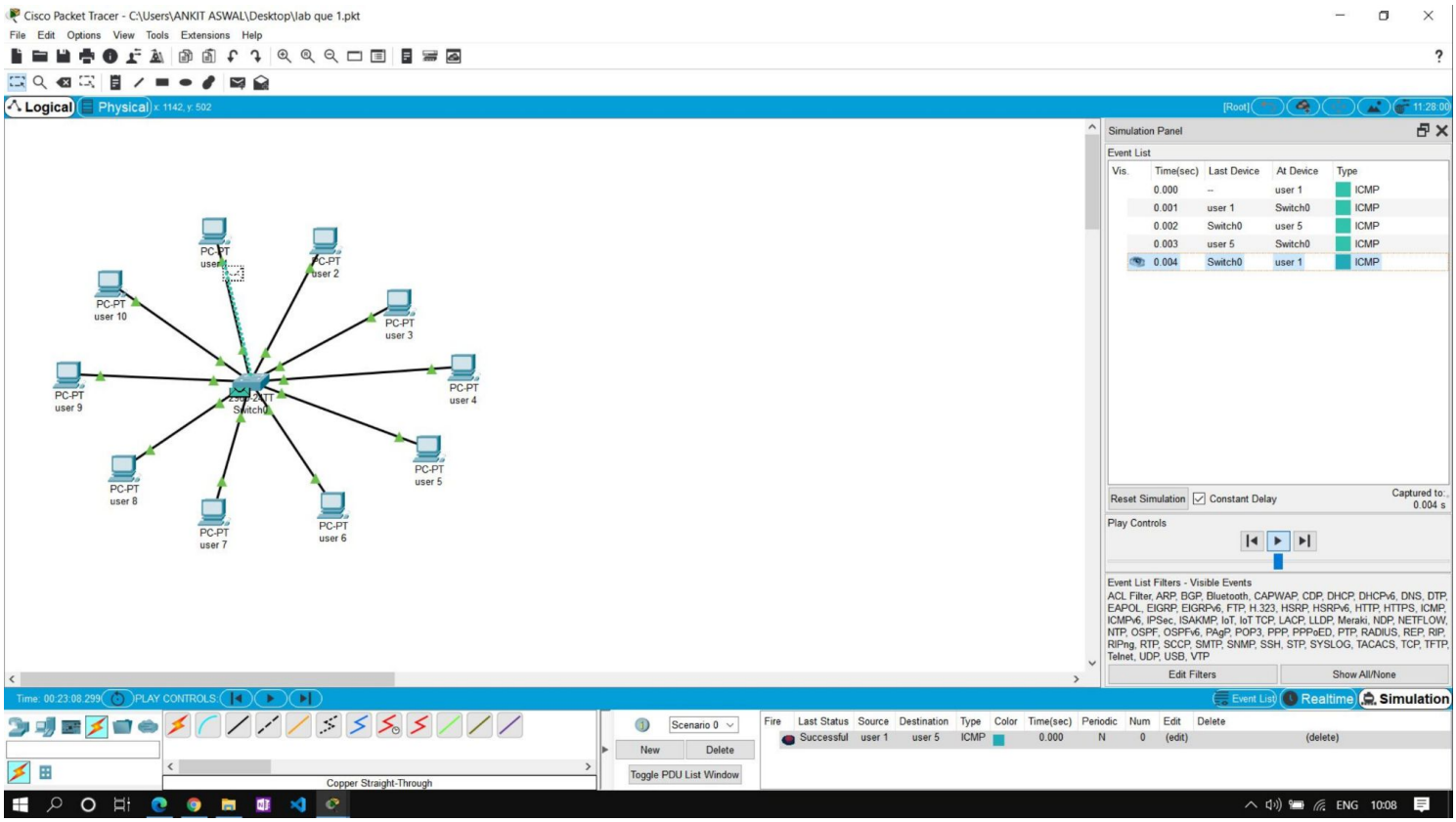
Step 5) Use Ping Command to check the Connectivity.

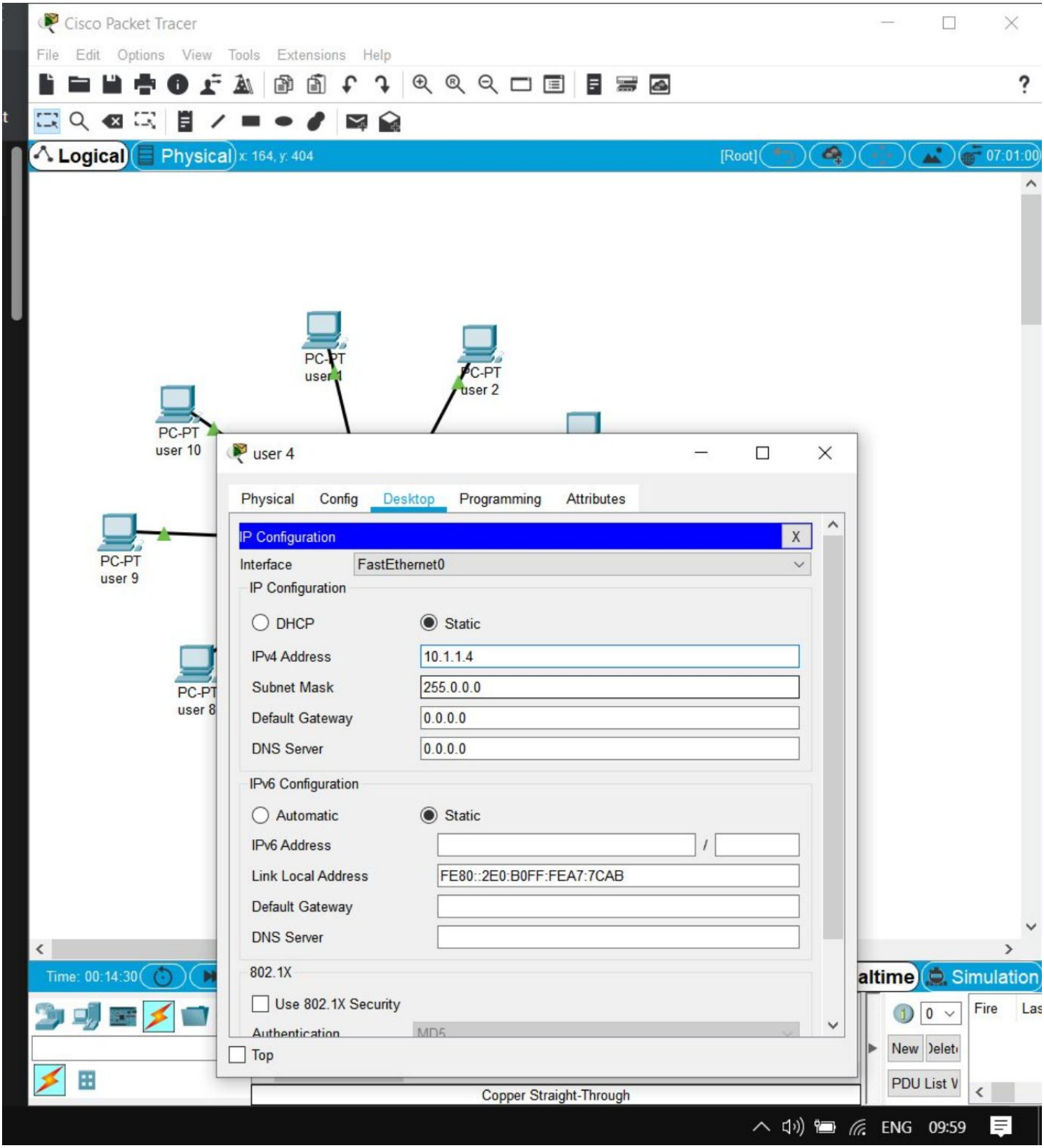
Done.

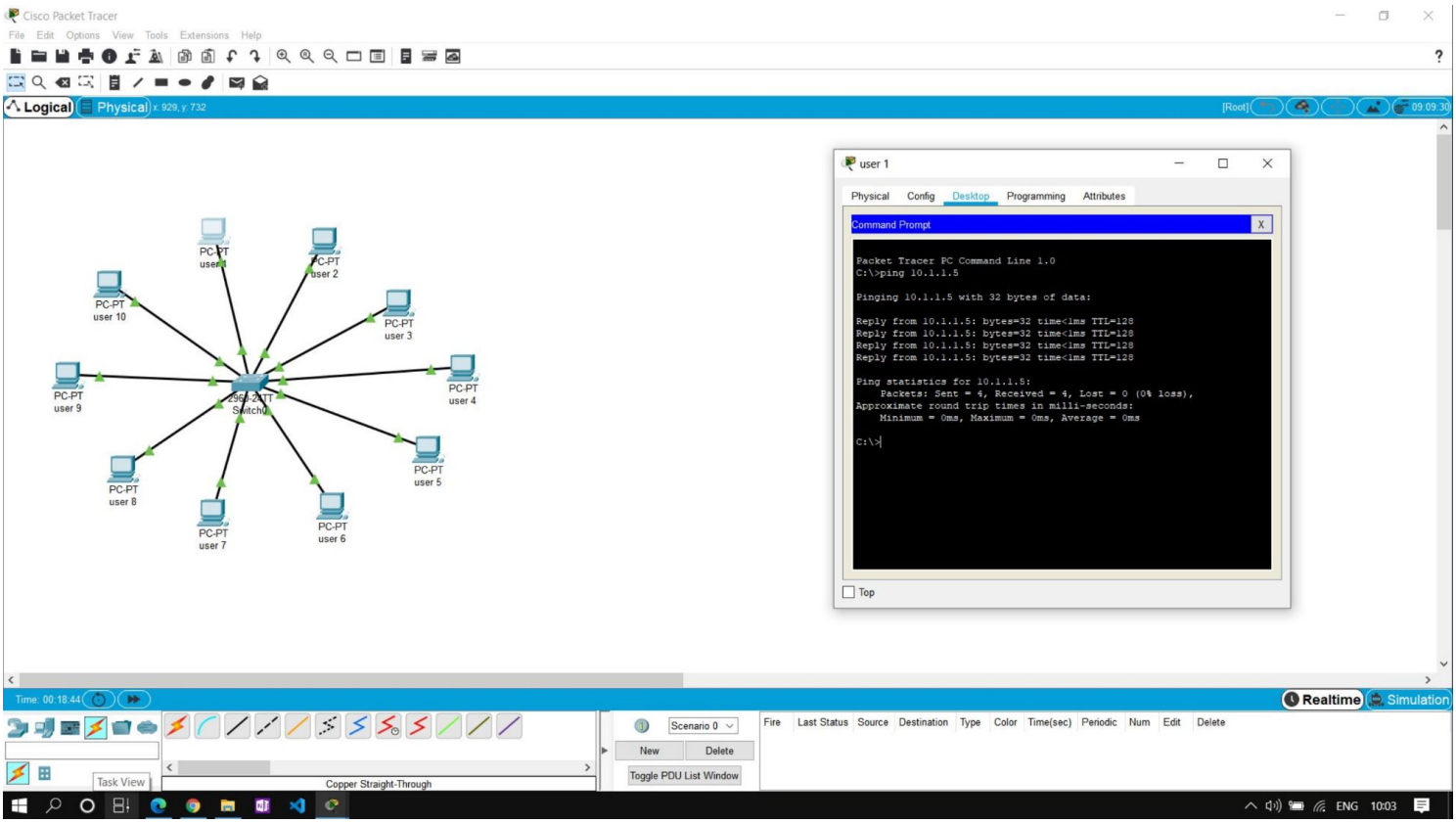
Ankit


Cisco Packet Tracer - C:\Users\ANKIT ASWAL\Desktop\lab que 1.pkt
File Edit Options View Tools Extensions Help
Logical Physical
Simulation Panel
Event List
Vis. Time(sec) Last Device At Device Type
0.000 -- user 1 ICMP
0.001 user 1 Switch0 ICMP
0.002 Switch0 user 5 ICMP
Reset Simulation Constant Delay
Captured to: 0.002 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 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
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
PC-PT user 9
PC-PT user 10
Switch0
Time: 00:23:08.297 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)
Copper Straight-Through
ENG 10:08


Cisco Packet Tracer - C:\Users\ANKIT ASWAL\Desktop\lab que 1.pkt
File Edit Options View Tools Extensions Help
Logical
Physical
Simulation Panel
Event List
Vis. Time(sec) Last Device At Device Type
0.000 -- user 1 ICMP
0.001 user 1 Switch0 ICMP
0.002 Switch0 user 5 ICMP
0.003 user 5 Switch0 ICMP
Reset Simulation
Constant Delay
Play Controls
Event List Filters - Visible Events
Edit Filters
Show All/None
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)
Copper Straight-Through
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
PC-PT user 9
PC-PT user 10
Switch0


Cisco Packet Tracer - C:\Users\ANKIT ASWAL\Desktop\lab que 1.pkt
File Edit Options View Tools Extensions Help
Logical
Physical
Simulation Panel
Event List
Vis. Time(sec) Last Device At Device Type
0.000 -- user 1 ICMP
0.001 user 1 Switch0 ICMP
0.002 Switch0 user 5 ICMP
0.003 user 5 Switch0 ICMP
0.004 Switch0 user 1 ICMP
Reset Simulation
Constant Delay
Captured to: 0.004 s
Play Controls
Event List Filters - Visible Events
Edit Filters
Show All/None
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
PC-PT user 9
PC-PT user 10
Switch0
Scenario 0
New
Delete
Toggle PDU List Window
Copper Straight-Through
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)
Realtime
Simulation


Cisco Packet Tracer
File Edit Options View Tools Extensions Help
Logical
Physical
x: 164, y: 404
[Root]
07:01:00
PC-PT user 1
PC-PT user 2
PC-PT user 10
PC-PT user 9
PC-PT user 8
user 4
Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
Interface
FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address
10.1.1.4
Subnet Mask
255.0.0.0
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::2E0:B0FF:FEA7:7CAB
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Top
Time: 00:14:30
Simulation
Fire
New
PDU List
Copper Straight-Through
ENG
09:59


Cisco Packet Tracer
File Edit Options View Tools Extensions Help
Logical
Physical
[Root]
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
PC-PT user 9
PC-PT user 10
2960-24TT Switch0
user 1
Physical Config Desktop Programming Attributes
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 = 0ms, Average = 0ms
C:\>
Top
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete
Copper Straight-Through
Task View
ENG 10:03

Q2)

Problem statement → There are two organizations in a city named GEU and GEHU, design a network b/w the SOC department of GEHU and GEU. Also show the communication b/w user Number 1 of GEU and user number 2 of GEHU.

Objective - from the question I have understood that we have to connect 2 LAN's using Router.

Step 1) create LAN-1 with 4 Pc and create LAN 2 with 4PCs

Step 2) Connect both LAN with router and configure the Router.

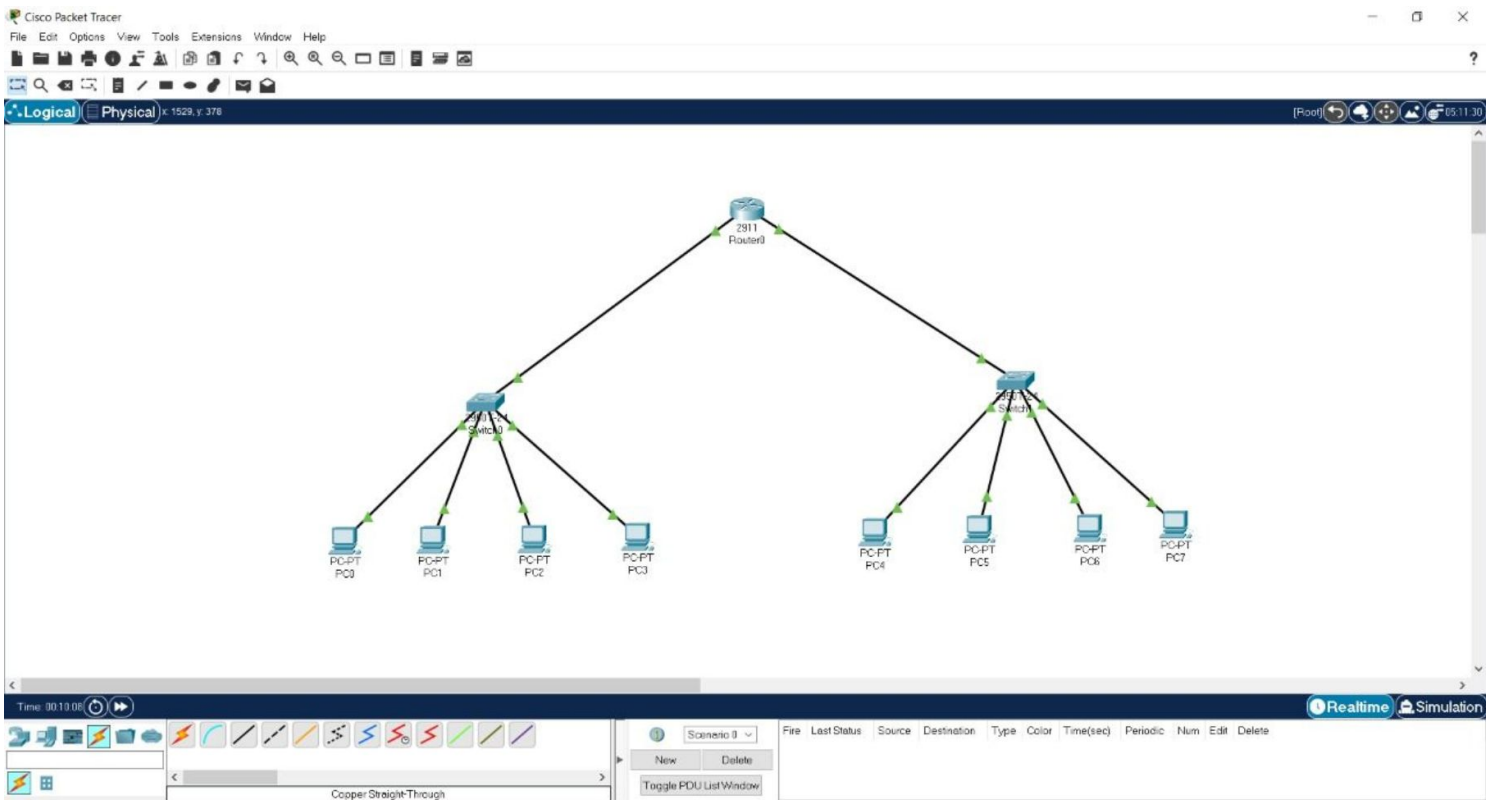
Step 3) Default Gateway for LAN-1 is 10.0.0.5

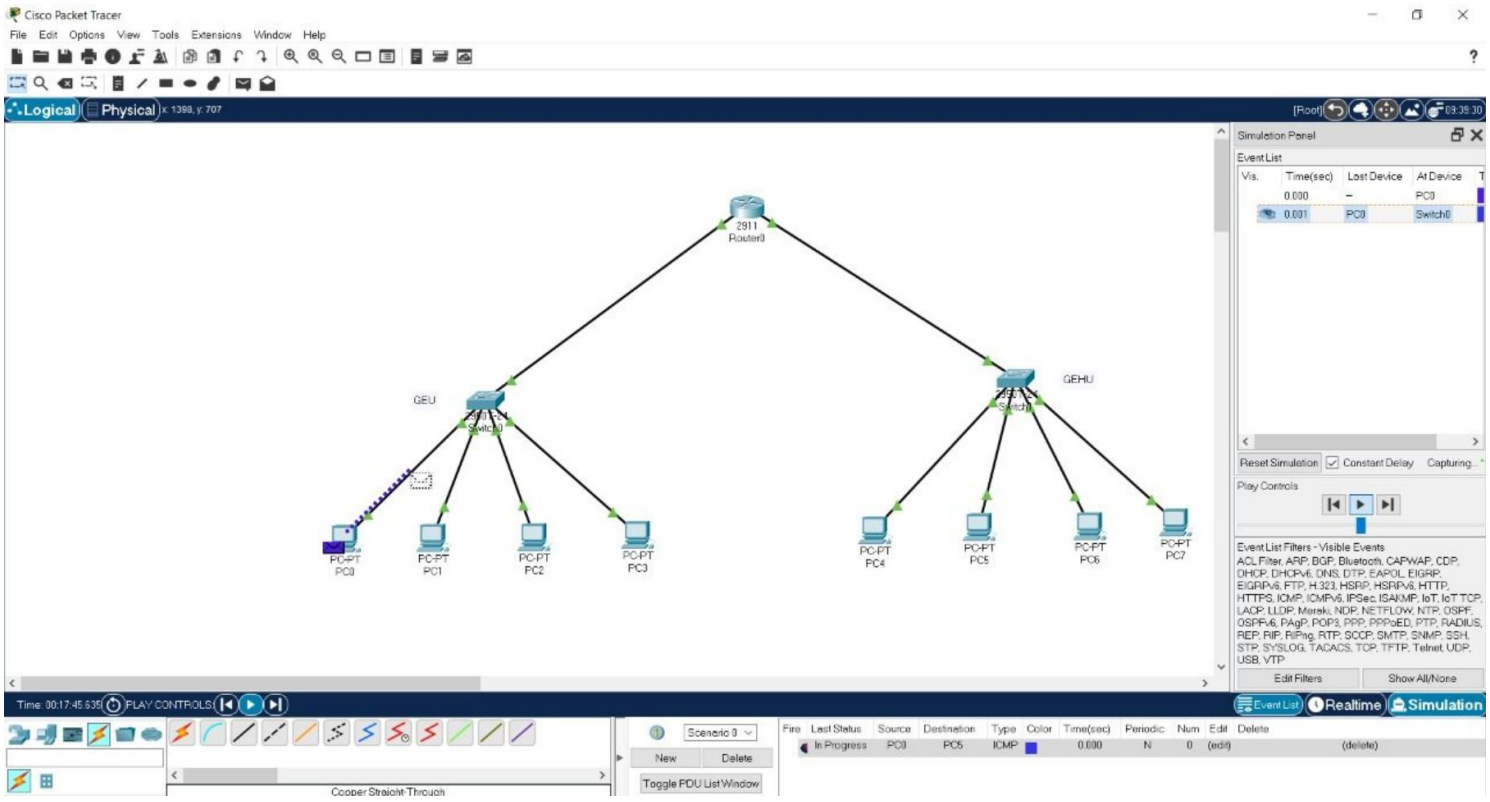
Default Gateway for LAN 2 is

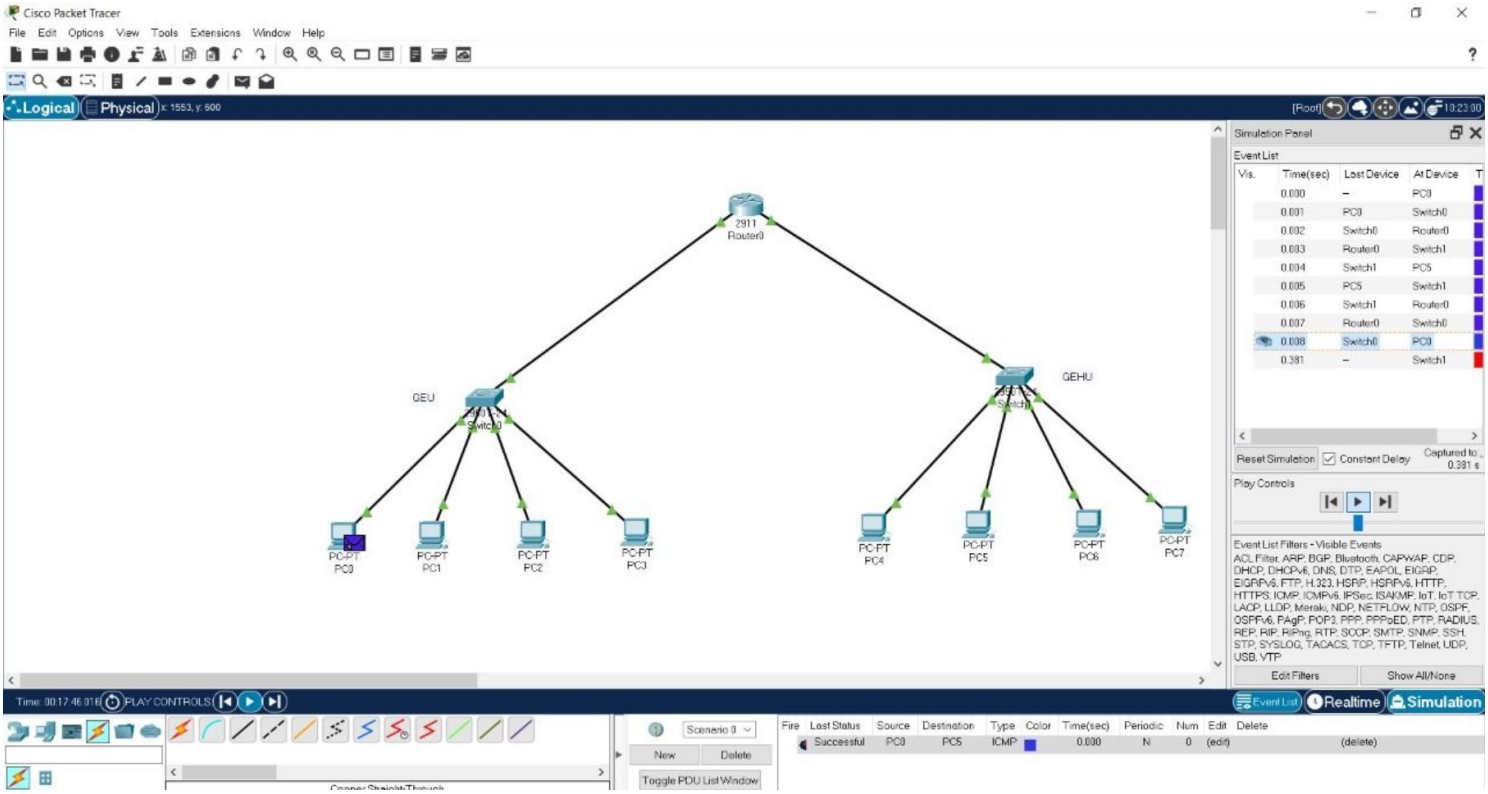
192.168.1.5

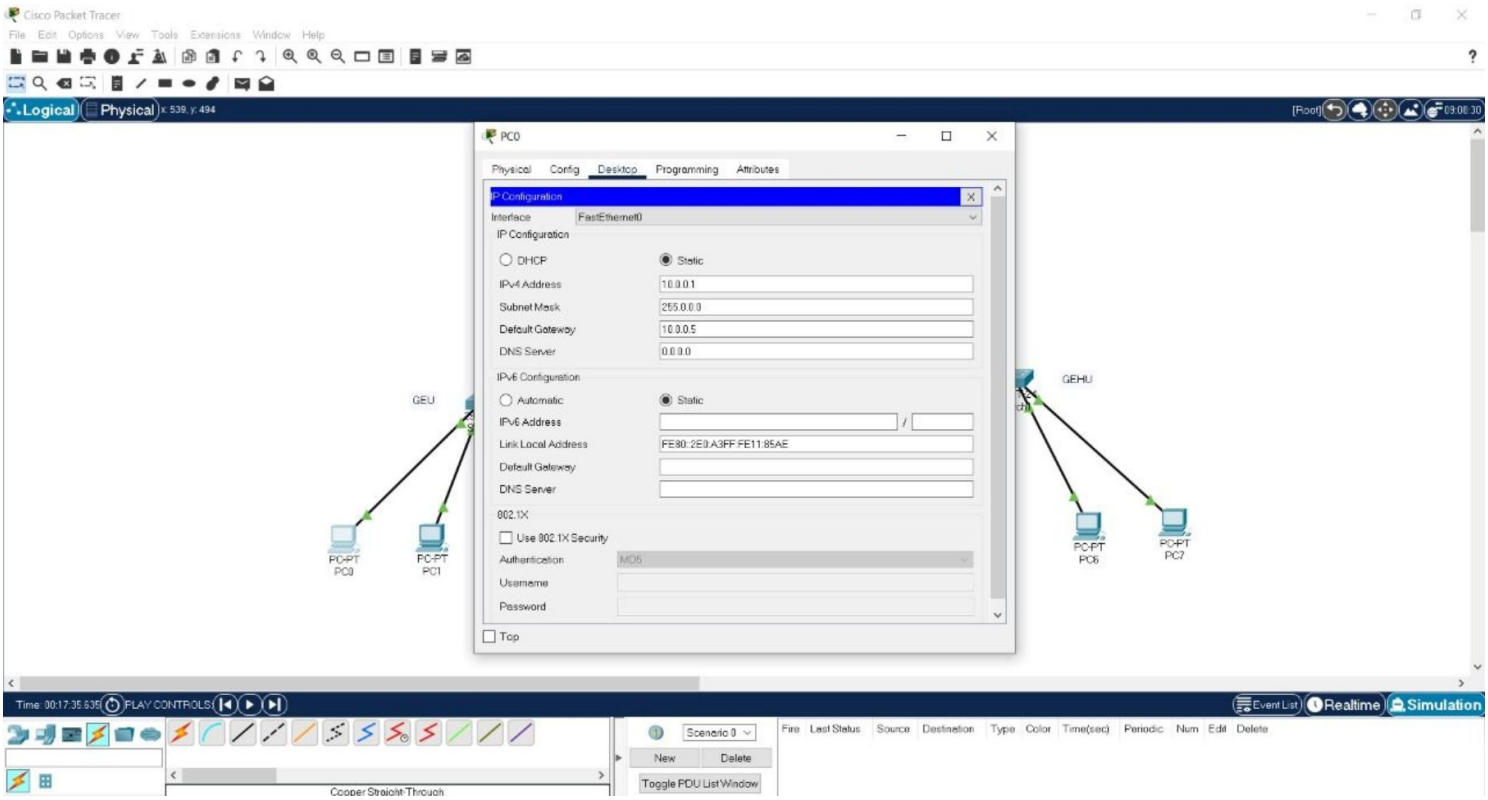
Step 4) Sending PdV to see if connection is established.

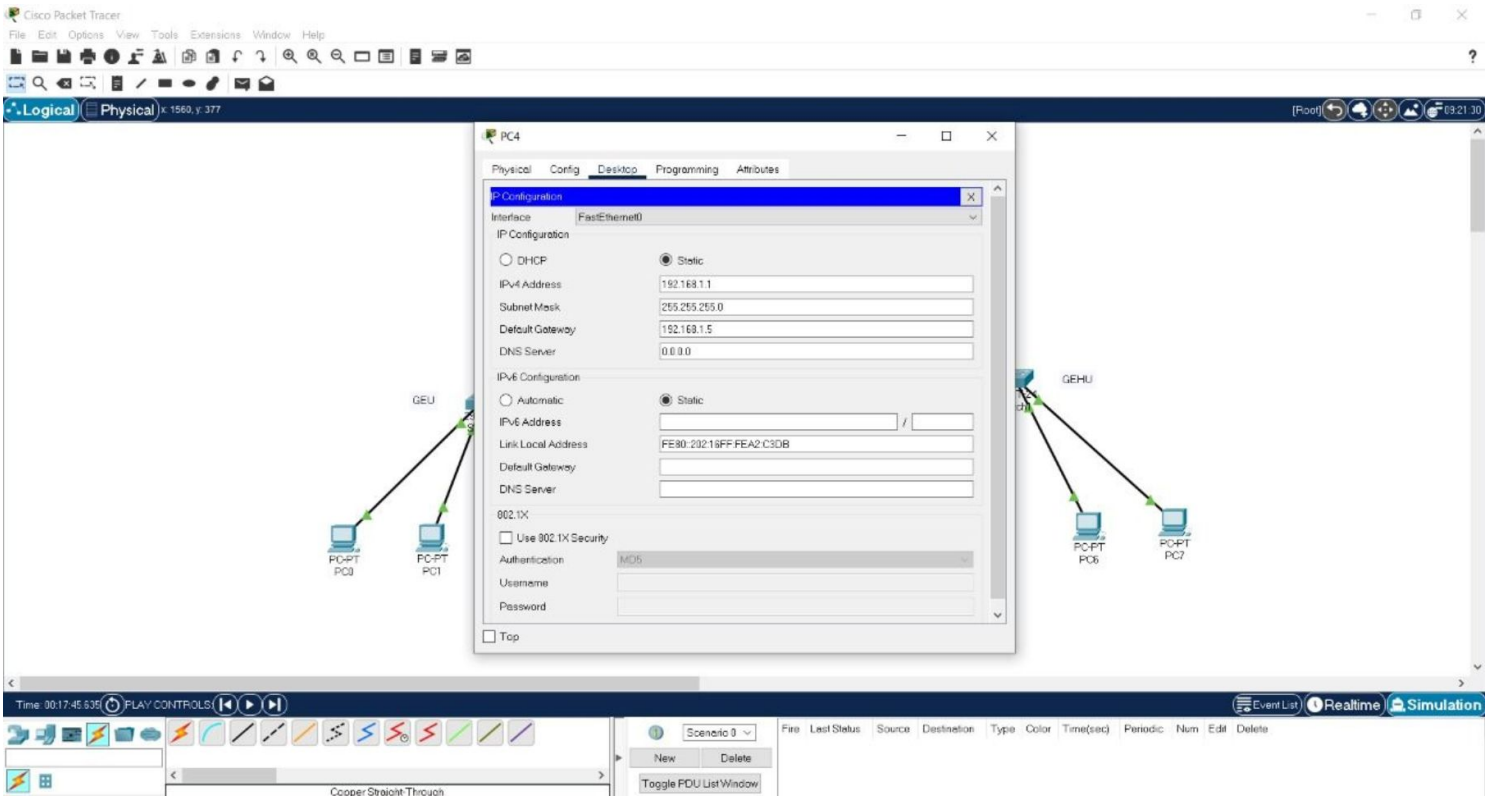
Ankit

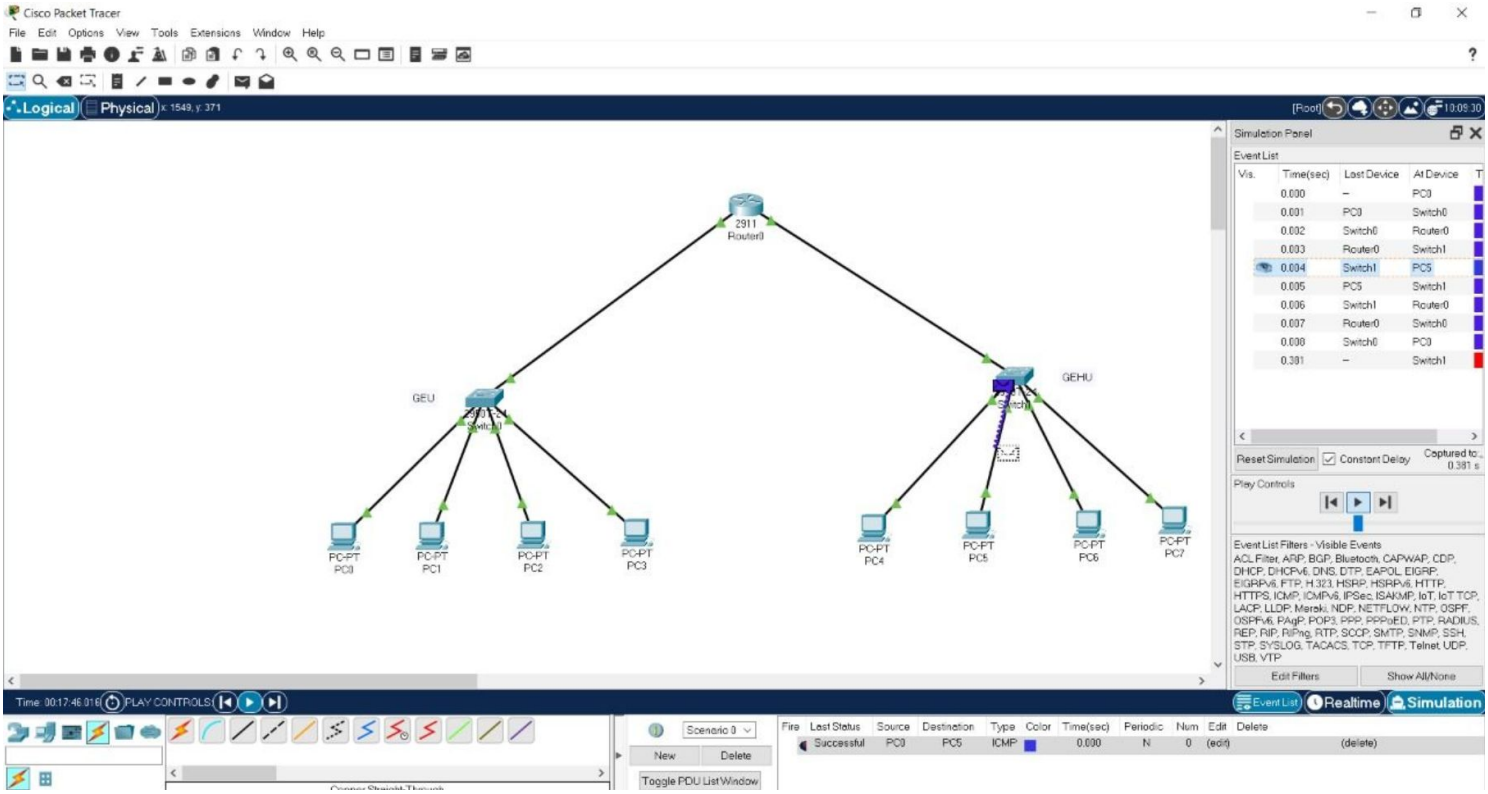

Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical x: 1529, y: 378
[Root] 05:11:30
2911
Router0
Switch0
Switch1
PC-PT
PC0
PC-PT
PC1
PC-PT
PC2
PC-PT
PC3
PC-PT
PC4
PC-PT
PC5
PC-PT
PC6
PC-PT
PC7
Time: 00:13:08
Realtime
Simulation
Copper Straight-Through
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical
2911 Router0
GEU
GEHU
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
Vis. Time(sec) Last Device At Device
0.000 - PC0
0.001 PC0 Switch0
Reset Simulation Constant Delay Capturing...
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
Time: 00:17:45.535 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 PC0 PC5 ICMP 0.000 N 0 (edit) (delete)
Copper Straight-Through


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical
2911
Router0
GEU
Switch0
GEHU
PC-PT
PC0
PC1
PC2
PC3
PC4
PC5
PC6
PC7
Simulation Panel
Event List
Vis. Time(sec) Last Device At Device
0.000 – PC0
0.001 PC0 Switch0
0.002 Switch0 Router0
0.003 Router0 Switch1
0.004 Switch1 PC5
0.005 PC5 Switch1
0.006 Switch1 Router0
0.007 Router0 Switch0
0.008 Switch0 PC0
0.381 – Switch1
Reset Simulation
Constant Delay
Play Controls
Event List Filters - Visible Events
Edit Filters
Show All/None
PLAY CONTROLS
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete
Successful PC0 PC5 ICMP 0.000 N 0 (edit) (delete)


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical
Physical
PC0
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address 10.0.0.1
Subnet Mask 255.0.0.0
Default Gateway 10.0.0.5
DNS Server 0.0.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address FE80::2E0:A3FF:FE11:85AE
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password
Top
GEU
GEHU
PC-PT PC0
PC-PT PC1
PC-PT PC6
PC-PT PC7
Time: 00:17:35.535
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
Copper Straight-Through


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical x: 1560, y: 377
[Root] 09:21:30
PC4
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IPv4 Address 192.168.1.1
Subnet Mask 255.255.255.0
Default Gateway 192.168.1.5
DNS Server 0.0.0.0
IPv6 Configuration
Automatic Static
IPv6 Address
Link Local Address FE80::202:16FF:FEA2:C3DB
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Username
Password
Top
GEU
GEHU
PC-PT PC0
PC-PT PC1
PC-PT PC6
PC-PT PC7
Time: 00:17:45.935 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
Copper Straight-Through


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical
2911 Router0
GEU
GEHU
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
Vis. Time(sec) Last Device At Device
0.000 – PC0
0.001 PC0 Switch0
0.002 Switch0 Router0
0.003 Router0 Switch1
0.004 Switch1 PC5
0.005 PC5 Switch1
0.006 Switch1 Router0
0.007 Router0 Switch0
0.008 Switch0 PC0
0.381 – Switch1
Reset Simulation
Constant Delay
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
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete
Successful PC0 PC5 ICMP 0.000 N 0 (edit) (delete)