DATE

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Course : MCA 2C

1. 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 between user number 1 and user number 5 of the network.

Objective :- How to establish a network in HR department with multiple user. How to create a LAN using switch in packet tracer.

Steps for network design :-

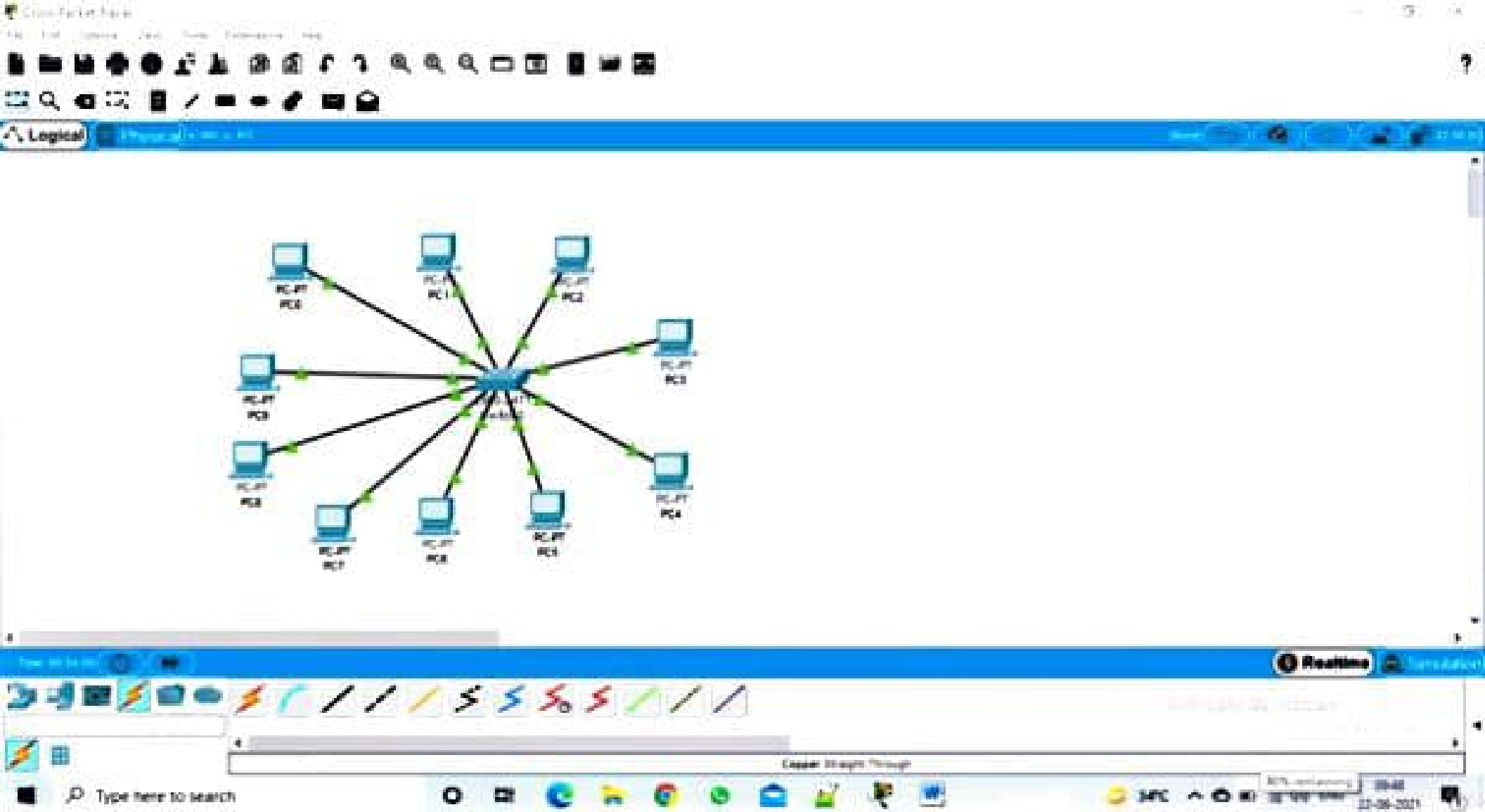
Step 1 : Drag and drop 10 PCs from 'End Devices' and one '2960-24TT' switch from switches.

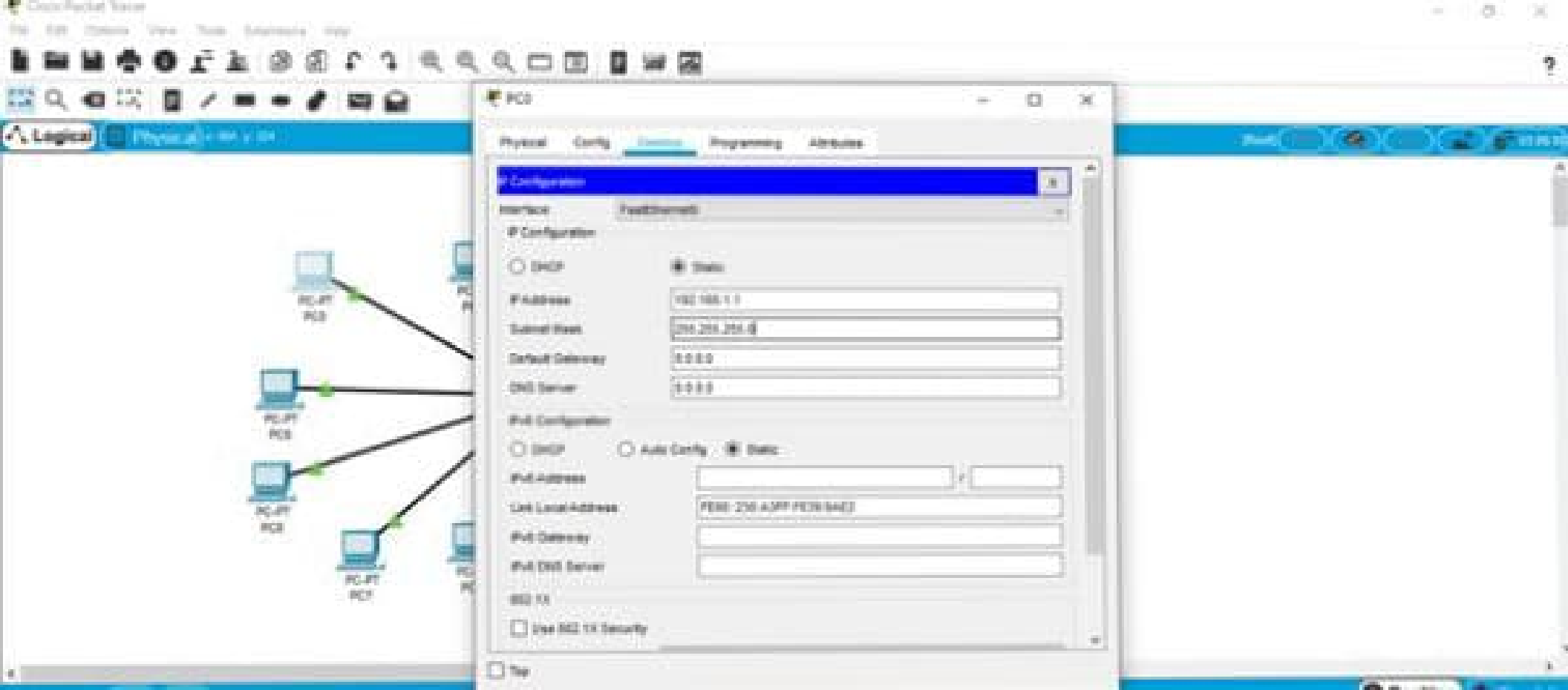
Step 2 : Now connect all PCs with switch using 'straight cable.
Network is created.

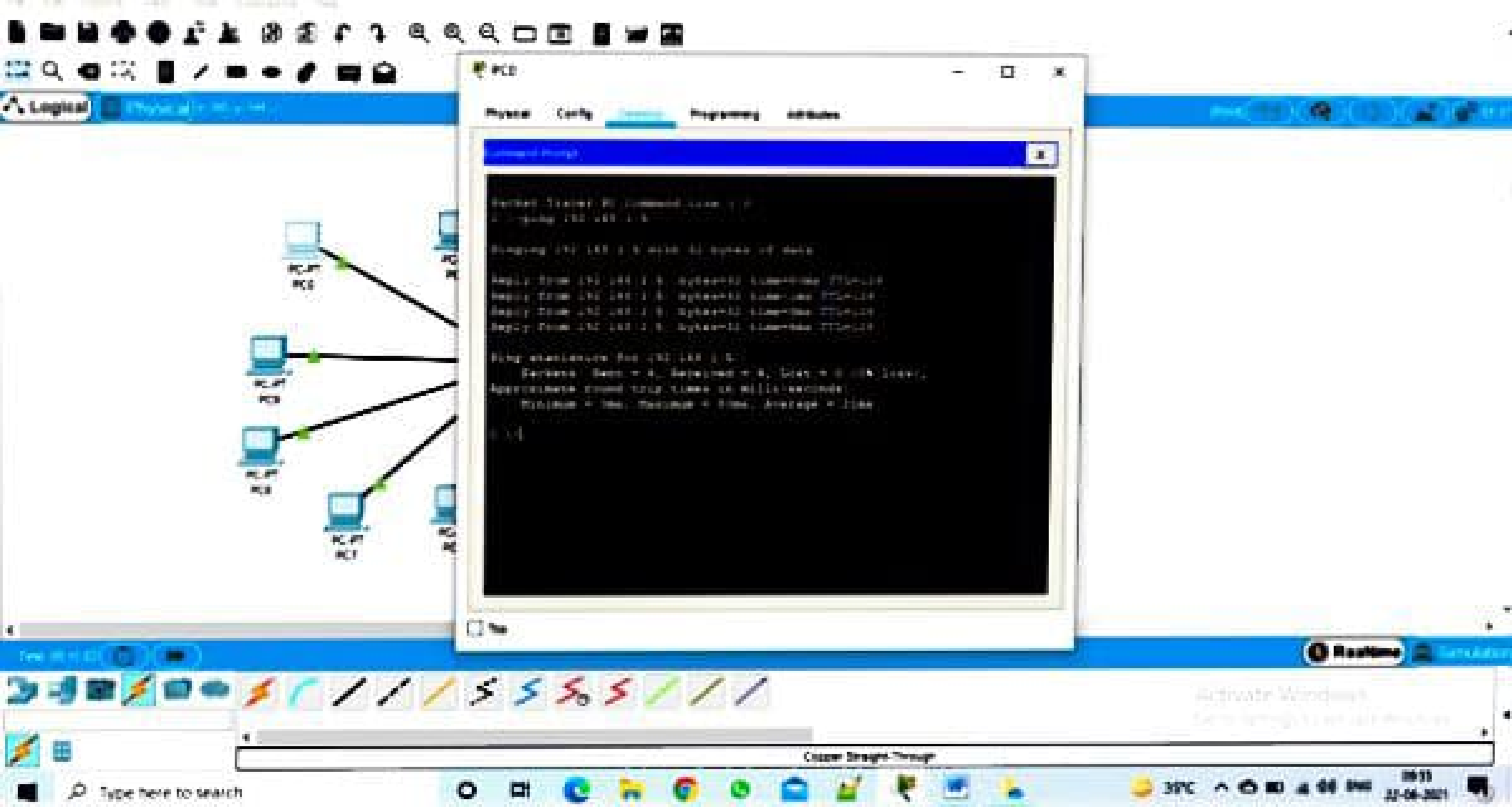
Step 3 : click on 1st PC and then open IP configuration.
Step 4 :- write IP address and click on subnet mask.
Step 5 :- continue step 3 to step 4 to get all IP address for all PCs
IP address created

Step 6 : click of 1st PC, go to desktop then click on cmd then write command ping 192.168.1.5
Connection showed

PAGE


Logical
Realtime
Type here to search


Logical
Physical
PC0
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IP Address
Subnet Mask
Default Gateway
DNS Server
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Top


PC0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
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
Top
Logical
Realtime
Copper Straight-Through
Type here to search
35°C
09:53
22-06-2021

DATE

2. Problem statement:- 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 GEHU and user number 2 of GEHU.

Objective:- how to networks communicate and how to design a network for two organizations.

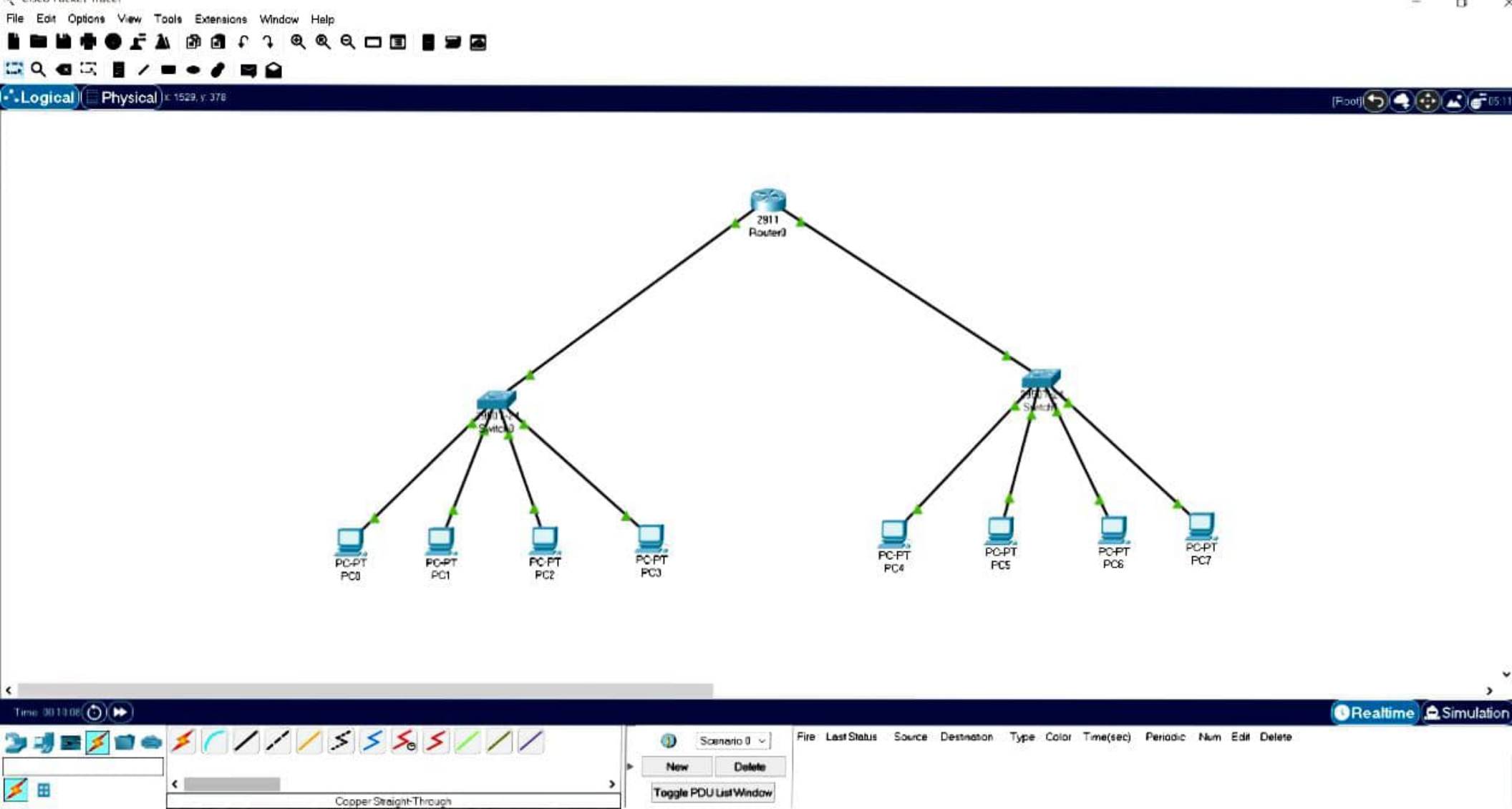
Steps for the network creations:-

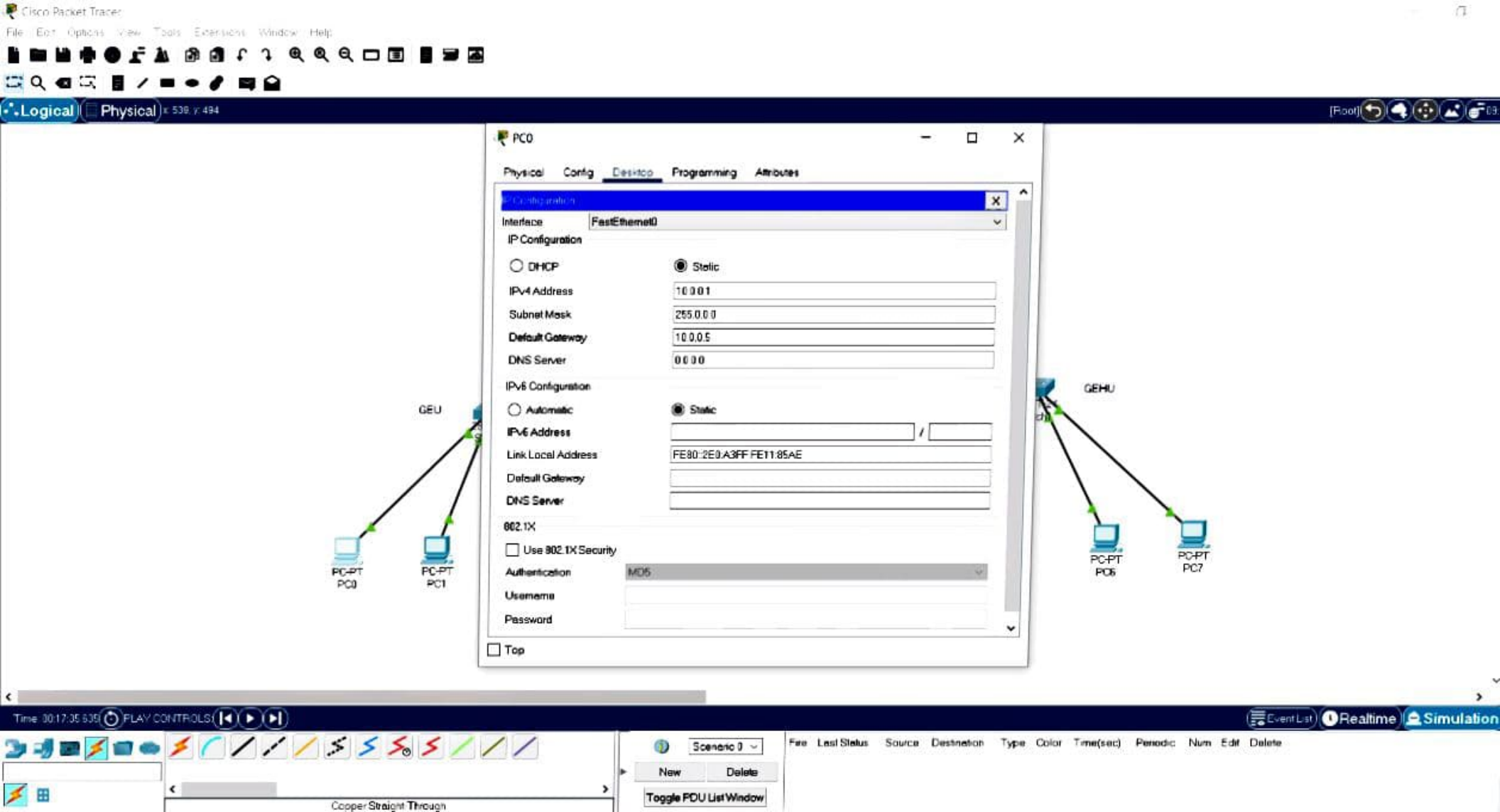
Step1:- Create LAN 1 with 4 PC and create LAN2 with 4 PCs.

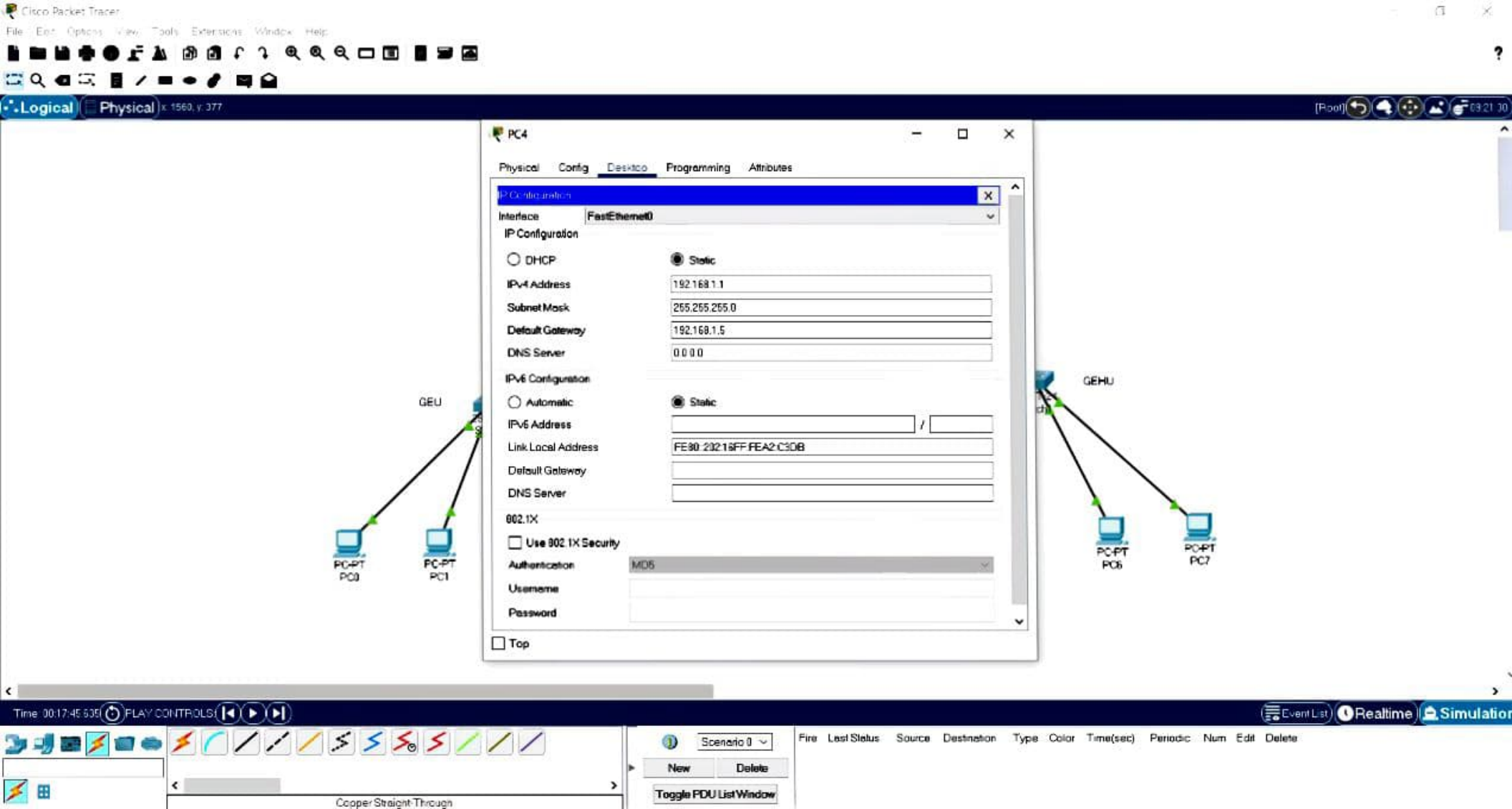
Step2: connect both the LAN's with router and configure the router.

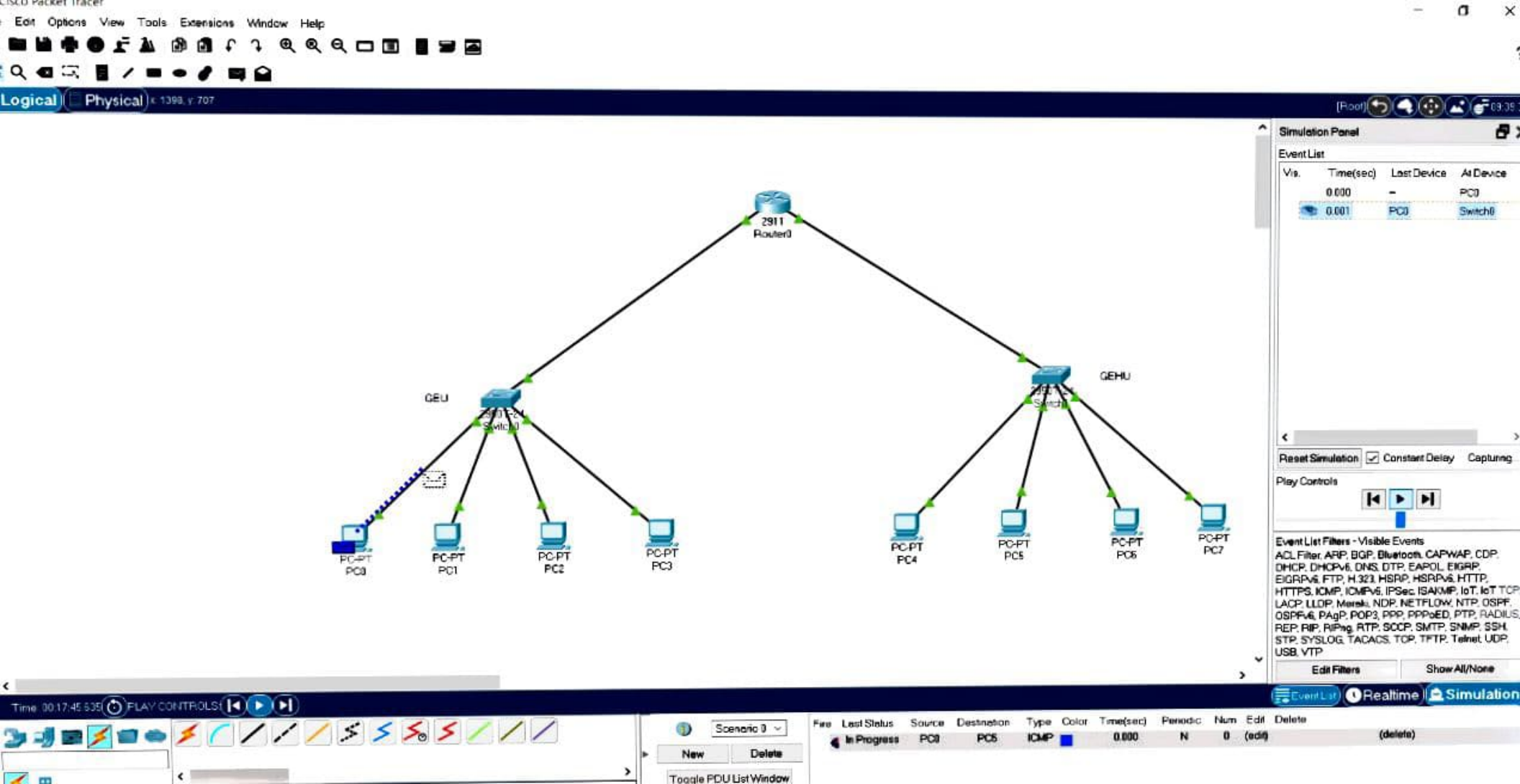
Step3: Default gateway for LAN-1 is 10.0.0.5
Default gateway for LA2-2 is 192.168.1.5

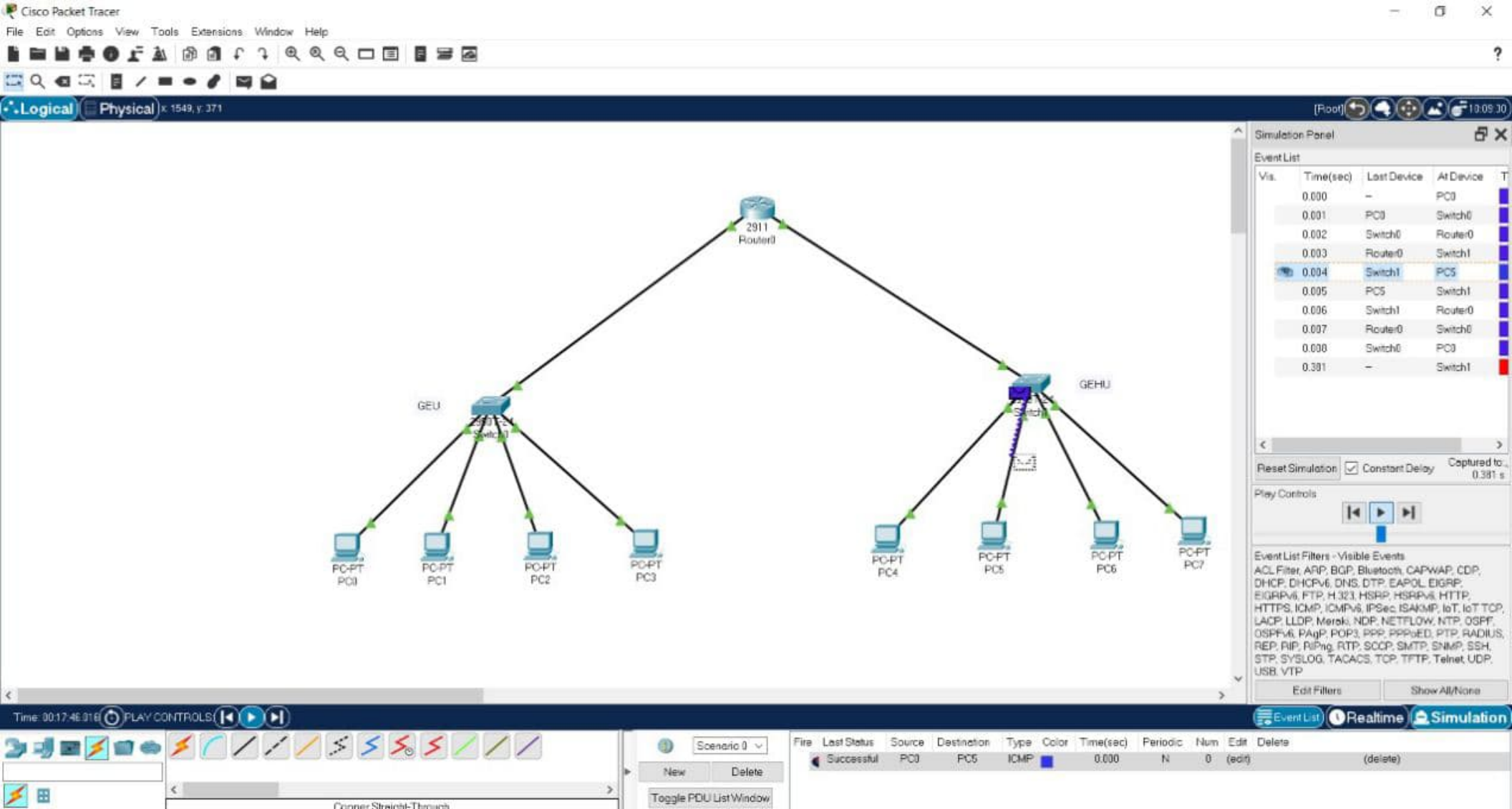
Step4: Sending PdU to see if connection is established.


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
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
PC0
Physical Config Desktop Programming Attributes
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: 00:17:35.539
PLAY CONTROLS
Event List
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
Logical
Physical
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
FE80:2321:6FF:FEA2:C30B
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: 00:17:45.535
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


Edit Options View Tools Extensions Window Help
Logical
Physical
2911
Router0
GEU
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
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)


Cisco Packet Tracer
File Edit Options View Tools Extensions Window Help
Logical Physical x: 1549, y: 371
[Root]
2911
Router0
GEU
GEHU
PC-PT
PC0
PC1
PC2
PC3
PC4
PC5
PC6
PC7
Simulation Panel
Event List
Vis. Time(sec) Last Device At Device T
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
Captured to: 0.381 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
Time: 00:17:46.316
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 PC0 PC5 ICMP 0.000 N 0 (edit) (delete)
Copper Straight-Through