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Student ID-20712004 University Roll No-2098064
Subject-Computer Networks PMC-202
Date-22-June-2021 Tuesday

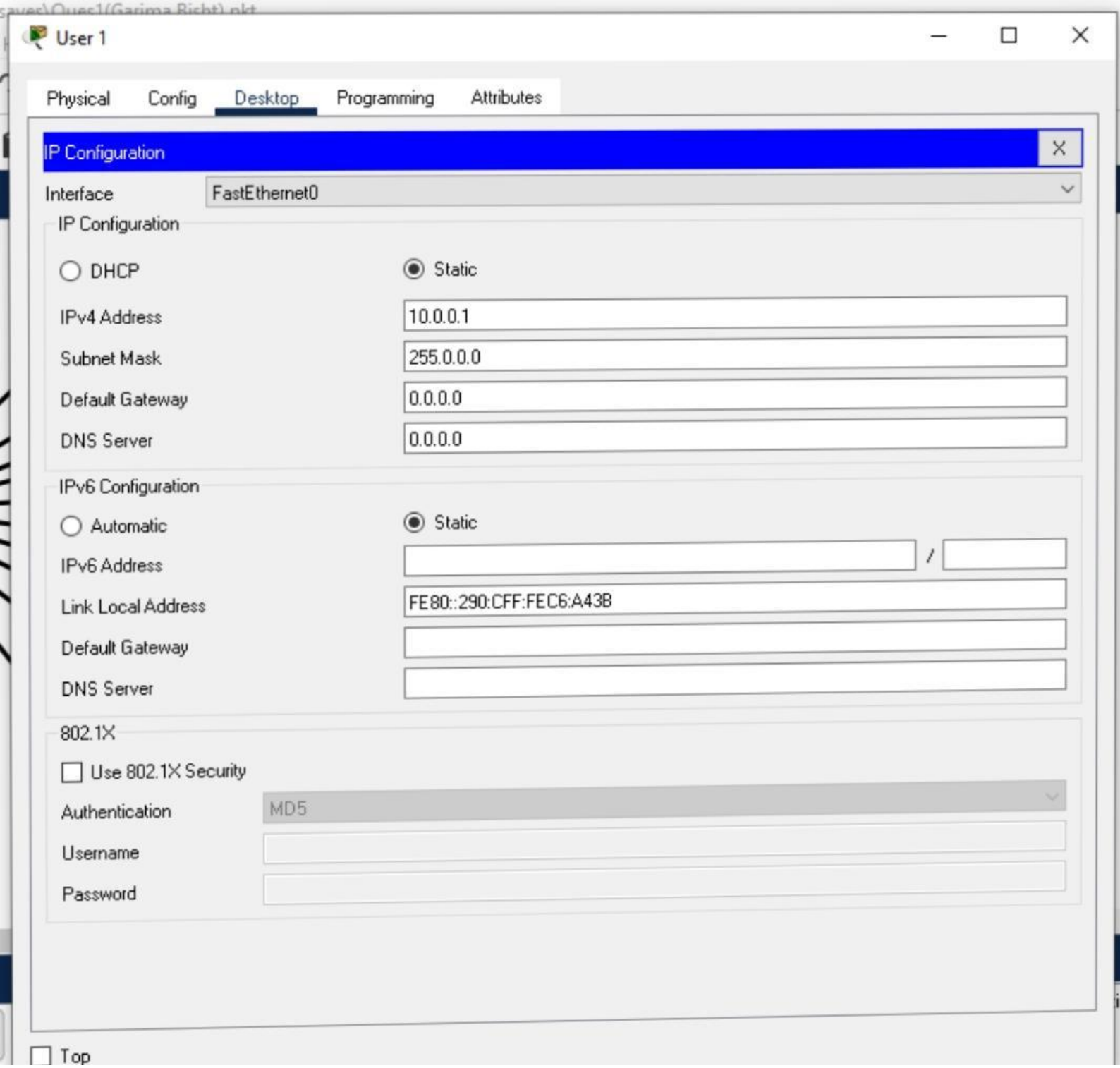
MID TERM PRACTICAL EXAM

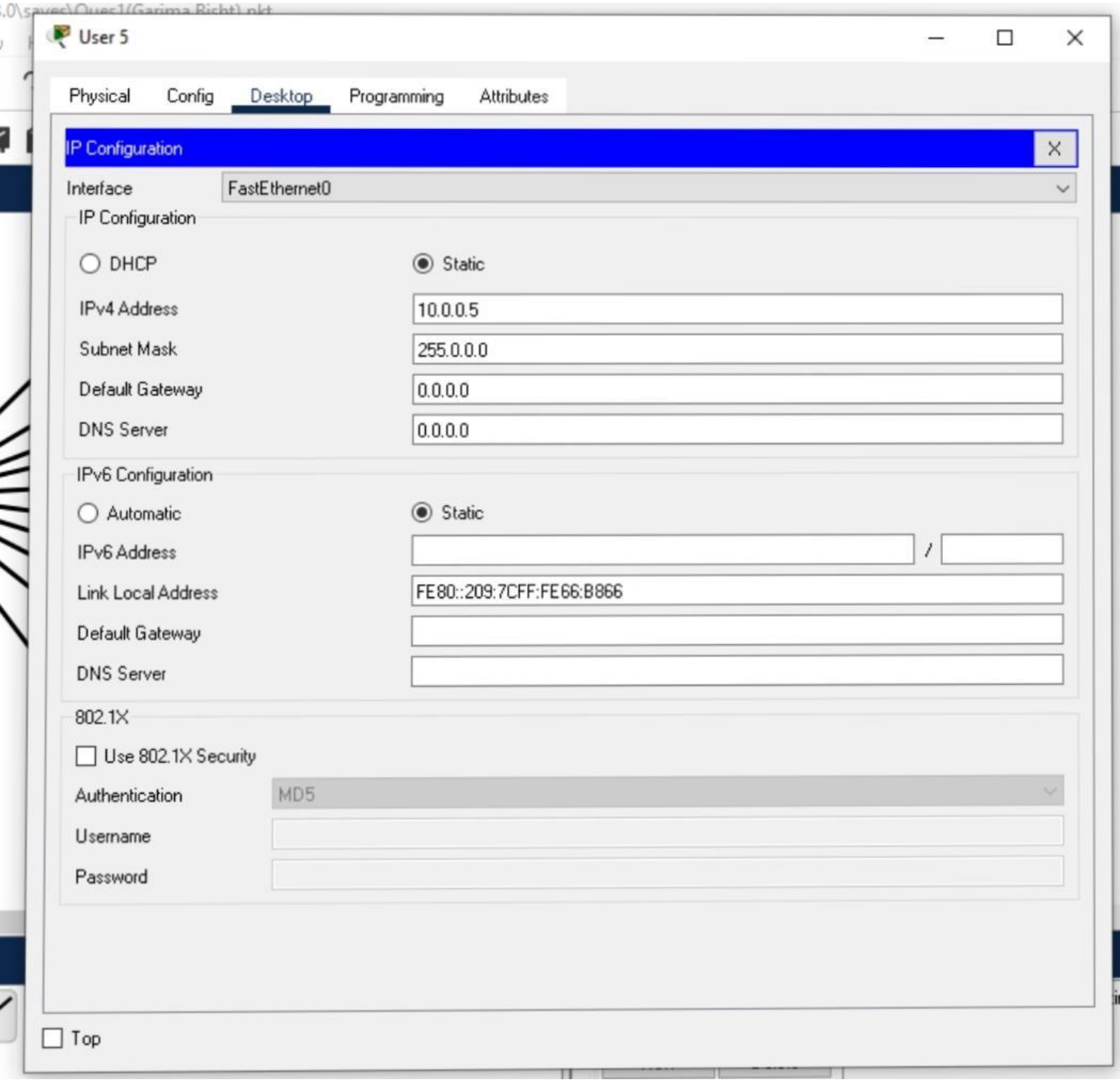
Ques 1- Objective-
we need to create a virtual LAN Environment in CISCO Packet Tracer that will shows communication between 2 users.

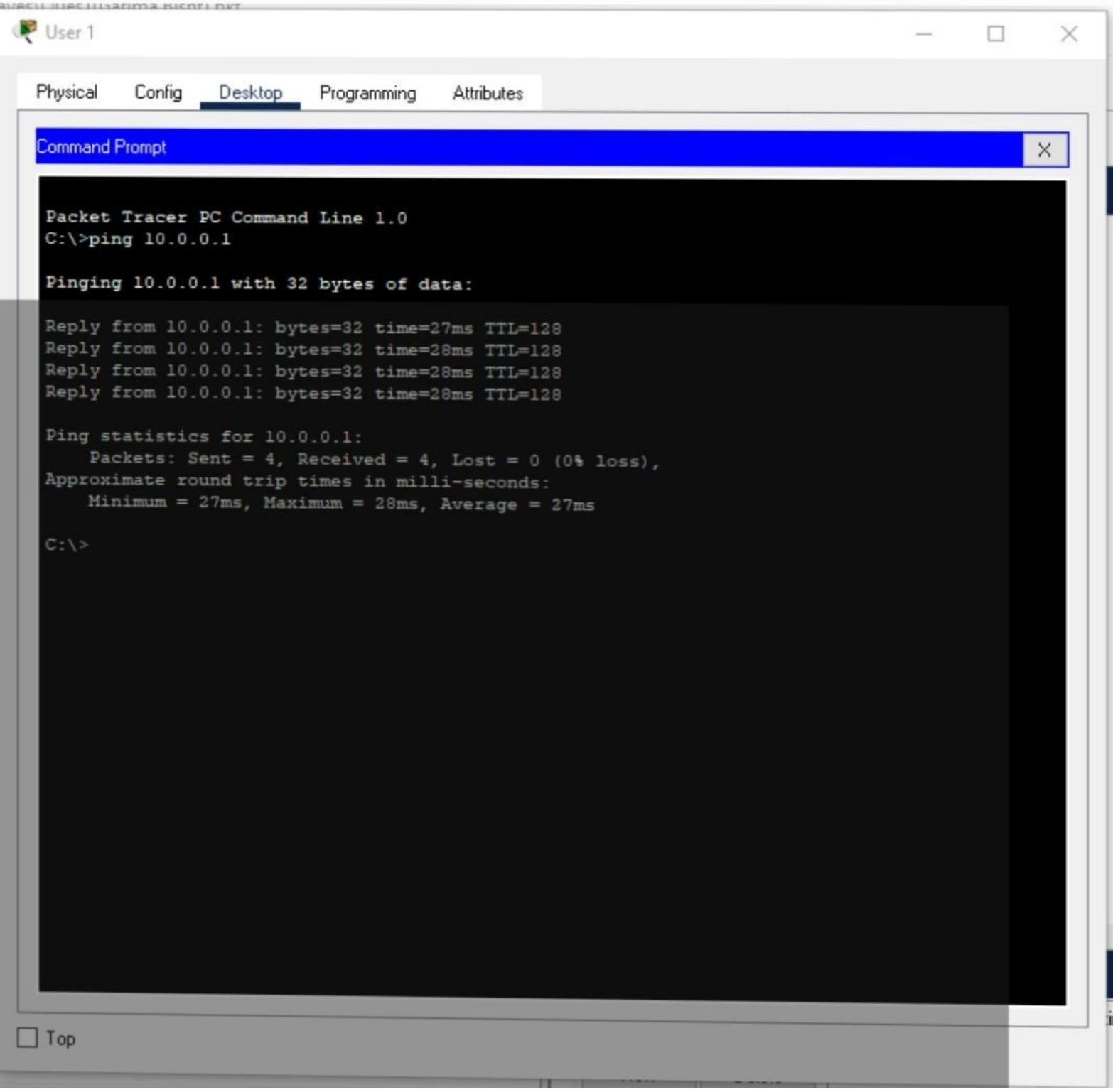
Steps

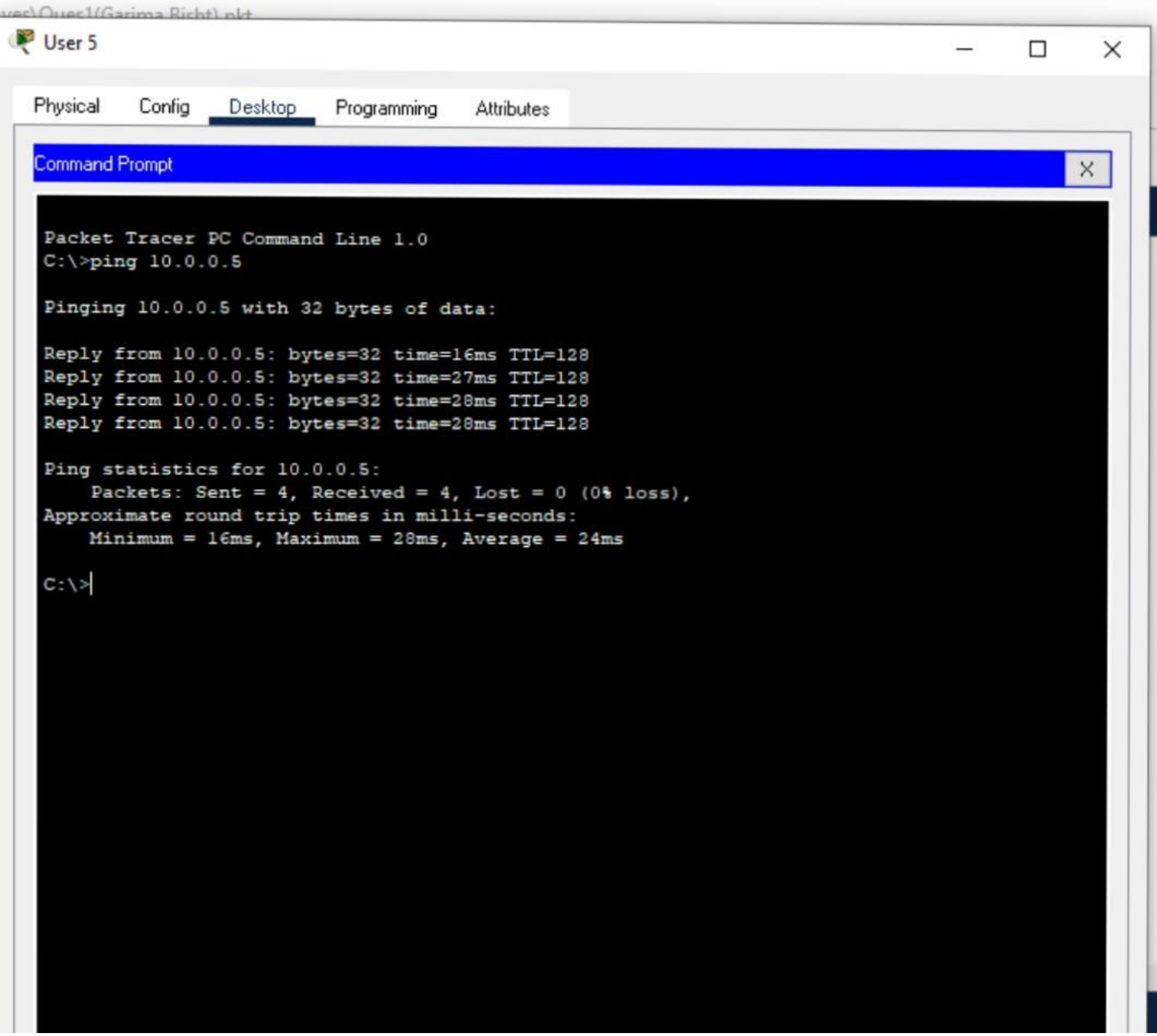
Step 1- Add switch & users. and connect them with cable
Step 2- Add 10 system named from User 1 to User 10. and connect all machines to switch.
Step 3- Assign IP address to every system
For → PC0 - User 1 - 10.0.0.1 is IP address
PC4 → User 5 - 10.0.0.5 is IP address
we need to show communication between User 1 and User 5.
Step 4- Send PDU from ~~packet~~ 1 system to another.
Step 5- Successfully connected

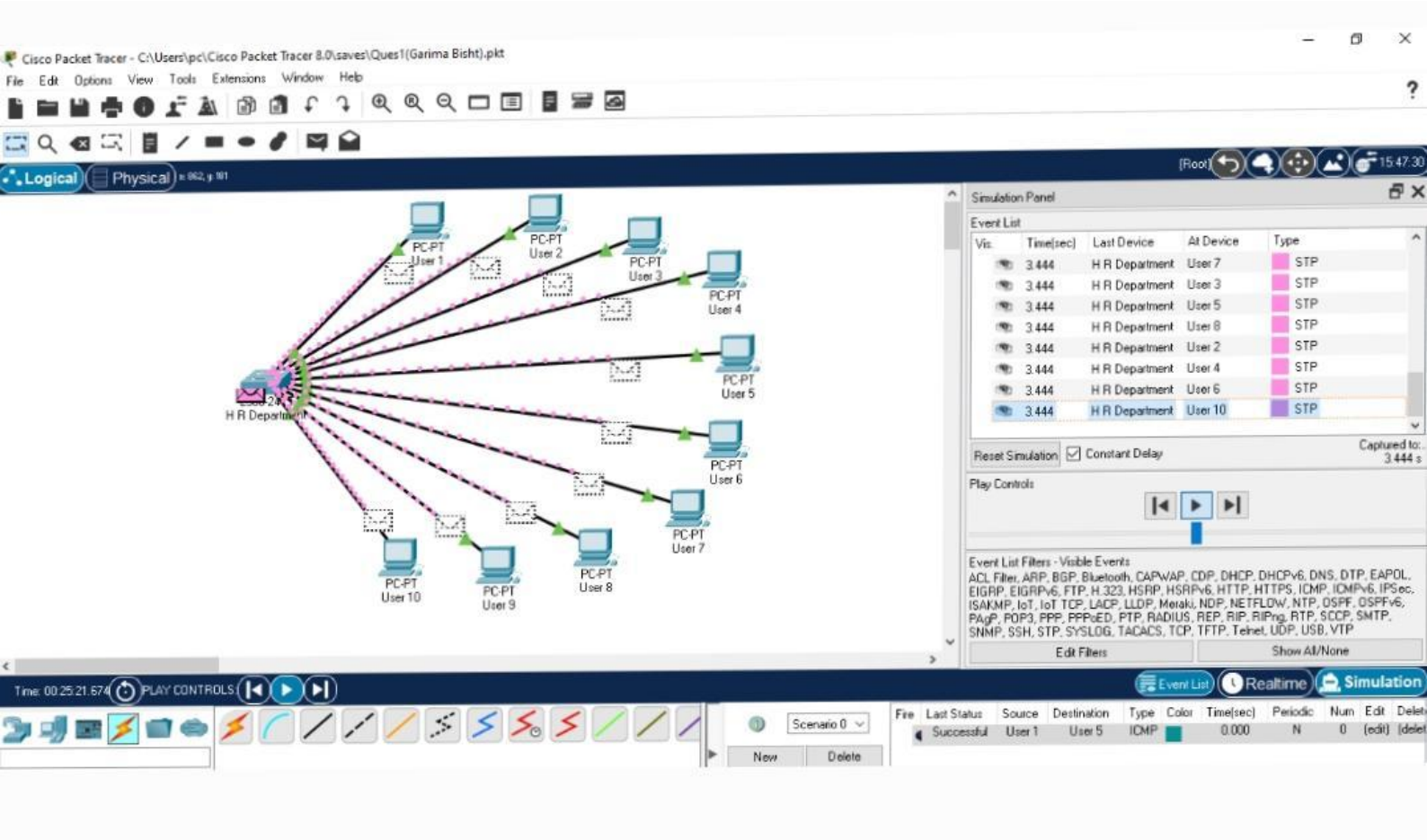
Garima Bisht


User 1
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
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::290:CFF:FEC6:A43B
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password
Top


User 5
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
IPv4 Address
10.0.0.5
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::209:7CFF:FE66:B866
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password
Top


User 1
Physical
Config
Desktop
Programming
Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
C:\>ping 10.0.0.1
Pinging 10.0.0.1 with 32 bytes of data:
Reply from 10.0.0.1: bytes=32 time=27ms TTL=128
Reply from 10.0.0.1: bytes=32 time=28ms TTL=128
Reply from 10.0.0.1: bytes=32 time=28ms TTL=128
Reply from 10.0.0.1: bytes=32 time=28ms TTL=128
Ping statistics for 10.0.0.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 27ms, Maximum = 28ms, Average = 27ms
C:\>
Top


User 5
Physical
Config
Desktop
Programming
Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
C:\>ping 10.0.0.5
Pinging 10.0.0.5 with 32 bytes of data:
Reply from 10.0.0.5: bytes=32 time=16ms TTL=128
Reply from 10.0.0.5: bytes=32 time=27ms TTL=128
Reply from 10.0.0.5: bytes=32 time=28ms TTL=128
Reply from 10.0.0.5: bytes=32 time=28ms TTL=128
Ping statistics for 10.0.0.5:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 16ms, Maximum = 28ms, Average = 24ms
C:\>


Cisco Packet Tracer - C:\Users\pc\Cisco Packet Tracer 8.0\saves\Ques1(Garima Bisht).pkt
File Edit Options View Tools Extensions Window Help
Logical
Physical
[Root]
15:47:30
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
H R Department
Simulation Panel
Event List
Vis. Time(sec) Last Device At Device Type
3.444 H R Department User 7 STP
3.444 H R Department User 3 STP
3.444 H R Department User 5 STP
3.444 H R Department User 8 STP
3.444 H R Department User 2 STP
3.444 H R Department User 4 STP
3.444 H R Department User 6 STP
3.444 H R Department User 10 STP
Reset Simulation
Constant Delay
Captured to: 3.444 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: 00:25:21.674
PLAY CONTROLS
Event List
Realtime
Simulation
Scenario 0
New
Delete
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)

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Ques2 - Objective Description

2 organization named GEU and GEHU in same city SOC departments. we need to create virtual LAN environment in CISCO Packet Tracer that will connect 2 user of different departments.

Steps.

Step 1 - we will place 2 routers and two switches.

Router 0, Router 1

Switch 0, Switch 1

Step 2 - Connect both routers with serial DTE wire

Step 3 - Add 2 System/user in each organization named user no 1 and user no 2.

Step 4 - Assign IP address to all four system in both departments.

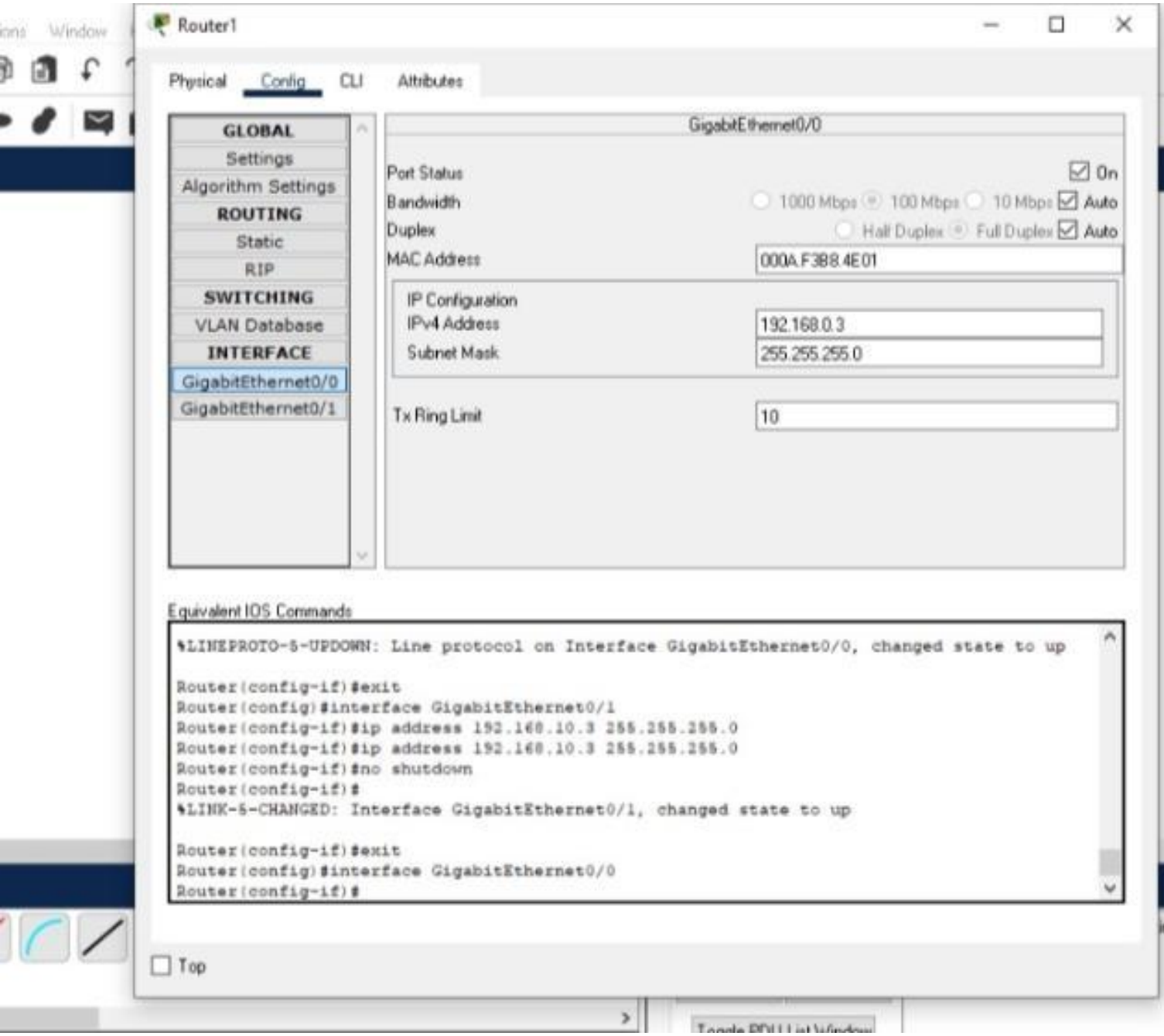
Step 5 - Now again there are 2 ways to verify communication between them.

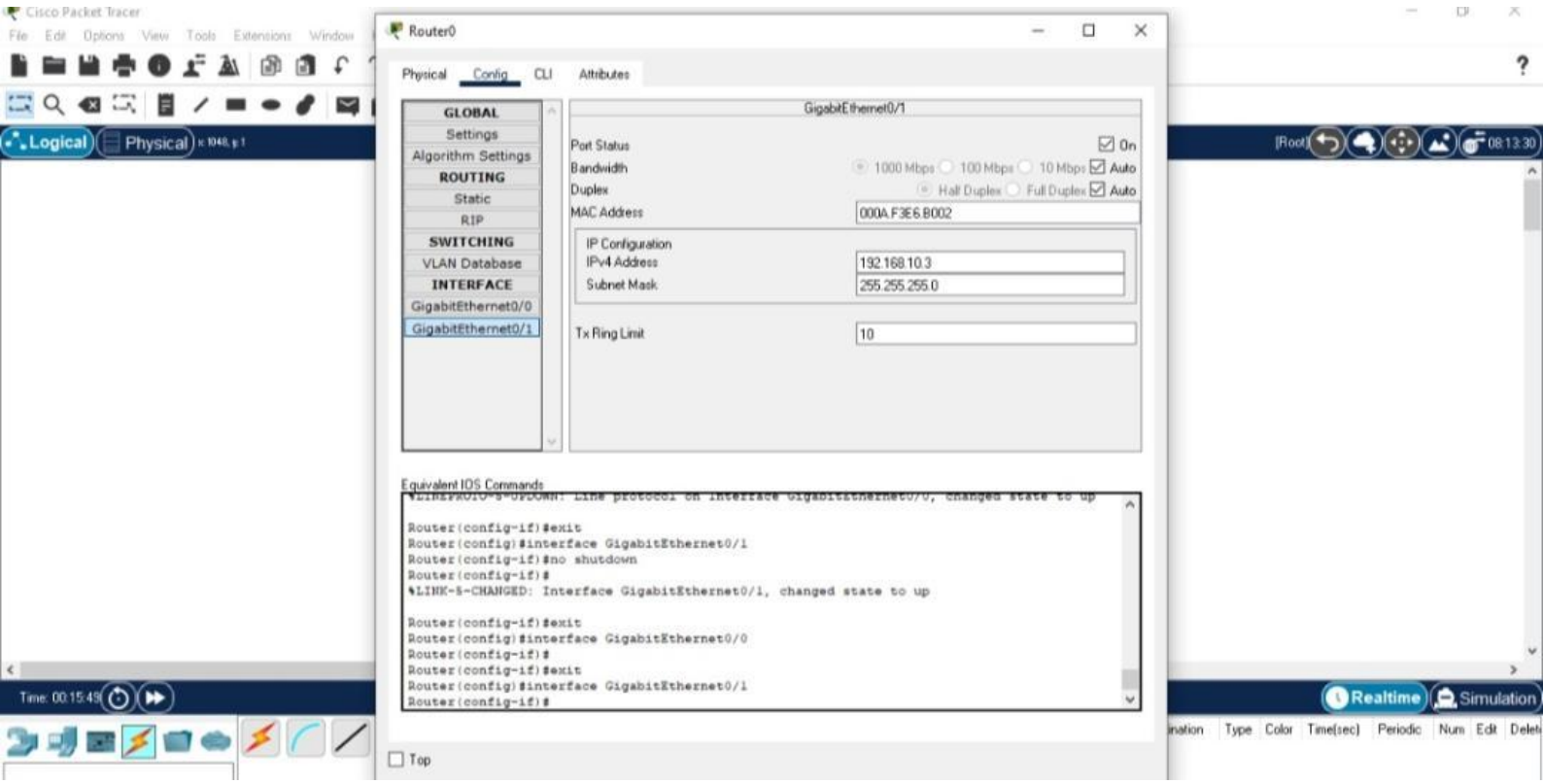
Pinging other user IP

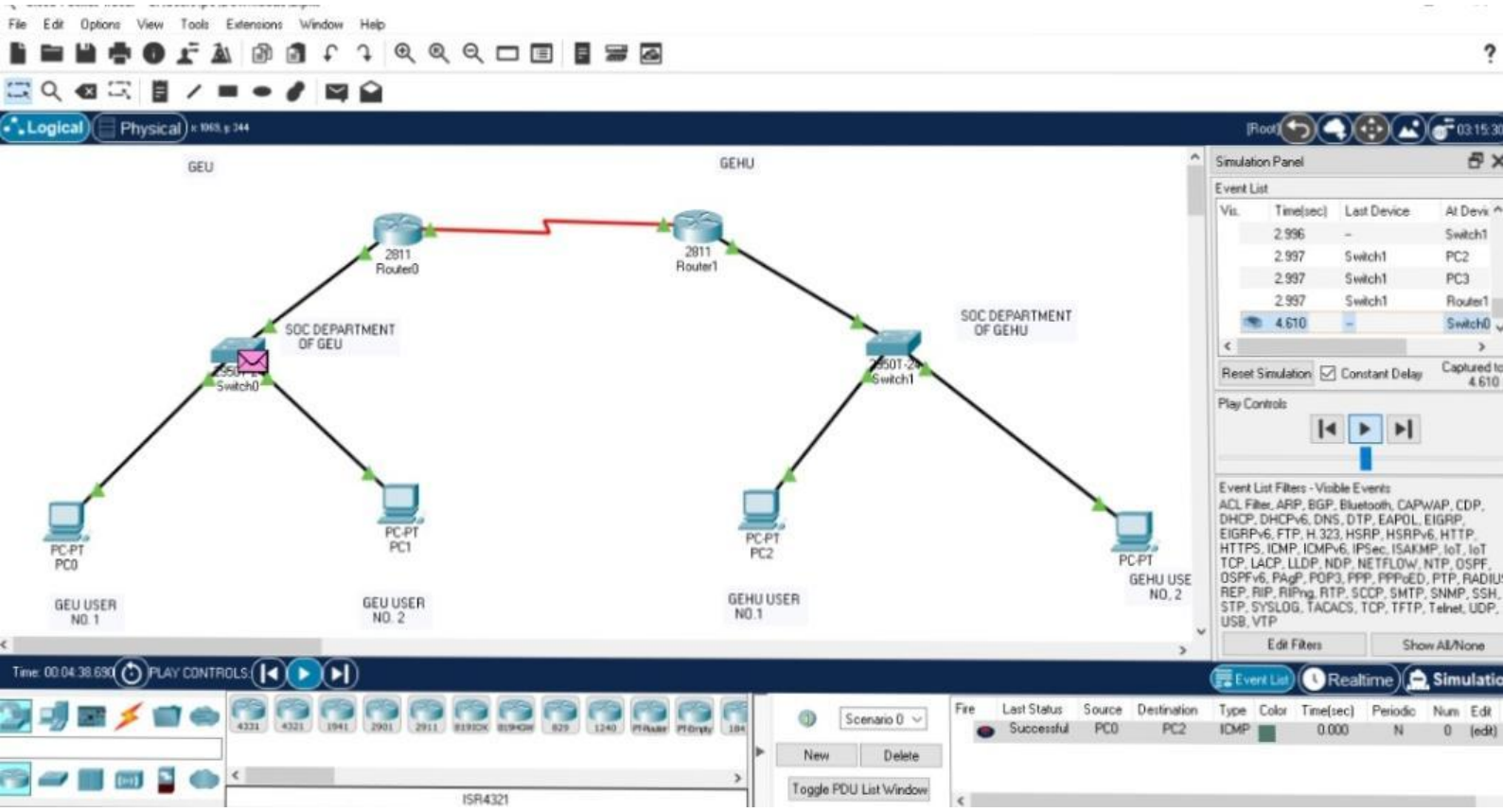
Sending PDU Packet from user 1 to user 2.

Step 6 - Successful Connected.

Garima Bisht


Router1
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
GigabitEthernet0/0
GigabitEthernet0/1
GigabitEthernet0/0
Port Status
On
Bandwidth
1000 Mbps
100 Mbps
10 Mbps
Auto
Duplex
Half Duplex
Full Duplex
Auto
MAC Address
000A.F388.4E01
IP Configuration
IPv4 Address
192.168.0.3
Subnet Mask
255.255.255.0
Tx Ring Limit
10
Equivalent IOS Commands
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/1
Router(config-if)#ip address 192.168.10.3 255.255.255.0
Router(config-if)#ip address 192.168.10.3 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0
Router(config-if)#
Top


Cisco Packet Tracer
File Edit Options View Tools Extensions Window
Logical
Physical
Router0
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
GigabitEthernet0/0
GigabitEthernet0/1
GigabitEthernet0/1
Port Status
On
Bandwidth
1000 Mbps
100 Mbps
10 Mbps
Auto
Duplex
Half Duplex
Full Duplex
Auto
MAC Address
000A.F3E6.B002
IP Configuration
IPv4 Address
192.168.10.3
Subnet Mask
255.255.255.0
Tx Ring Limit
10
Equivalent IOS Commands
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/1
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface GigabitEthernet0/1
Router(config-if)#
Top
Realtime
Simulation


File Edit Options View Tools Extensions Window Help
Logical
Physical
GEU
GEHU
2811
Router0
2811
Router1
SOC DEPARTMENT
OF GEU
SOC DEPARTMENT
OF GEHU
Switch0
Switch1
PC-PT
PC0
PC-PT
PC1
PC-PT
PC2
PC-PT
GEU USER
NO. 1
GEU USER
NO. 2
GEHU USER
NO.1
GEHU USE
NO. 2
Simulation Panel
Event List
Vis. Time(sec) Last Device At Devi
2.996 - Switch1
2.997 Switch1 PC2
2.997 Switch1 PC3
2.997 Switch1 Router1
4.610 - Switch0
Reset Simulation
Constant Delay
Play Controls
Event List Filters - Visible Events
Edit Filters
Show All/None
Time: 00:04:38.690
PLAY CONTROLS:
Event List
Realtime
Simulatio
ISR4321
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit
Successful PC0 PC2 ICMP 0.000 N 0 (edit)