Name - Amit Singh Section -: C 'MCA'

Roll No.- 2001186 Subject -: Computer Network Lab (PMC-202)

Student Id - 20711186

Que. 1 Ans -:

Problem Statement -: An organization A with multiple department. Design a Network for the HR Department and the size of the department is 10 users. Show communication b/w user number 1 and user number 5 of the network.

Objective -: Create a LAN network with 10 user

Steps For Creation Network -:

Step 1 - Create a LAN switch with 10 PCs.

Step 2 - Configure the IP Address of all 10 users.

Step 3 - Use Ping command to check the communication.

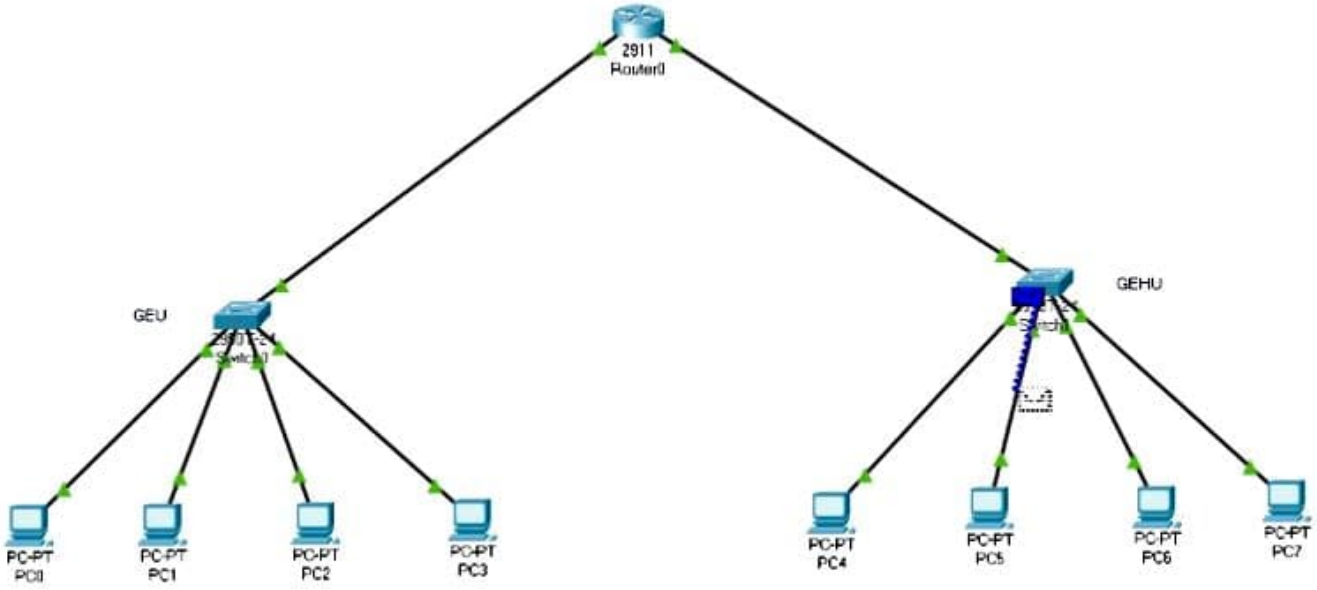
Step 4 - Sending PDU to check communication is stablished.

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 1549, y: 371

[Root]



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: 00:17:46.016 PLAY CONTROLS:

Event List | Realtime | Simulation

Scenario 0

New | Delete

Toggle PDU List Window

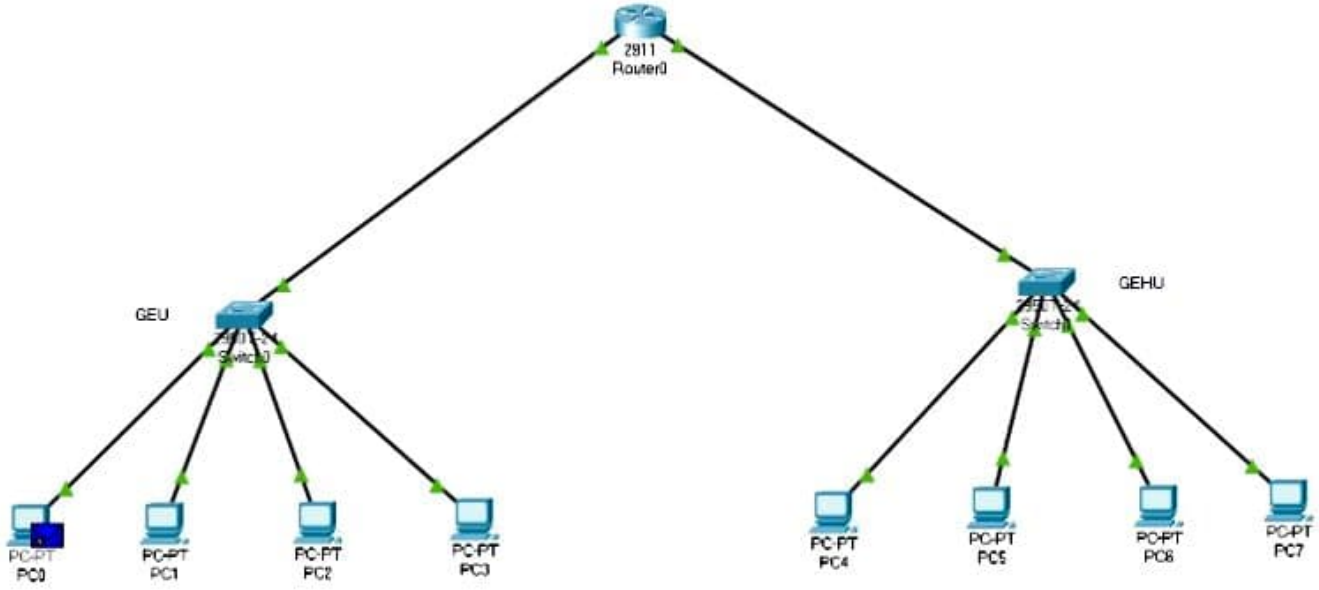
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC5	ICMP		0.000	N	0	(edit)	(delete)

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 1553, y: 600

[Root]



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

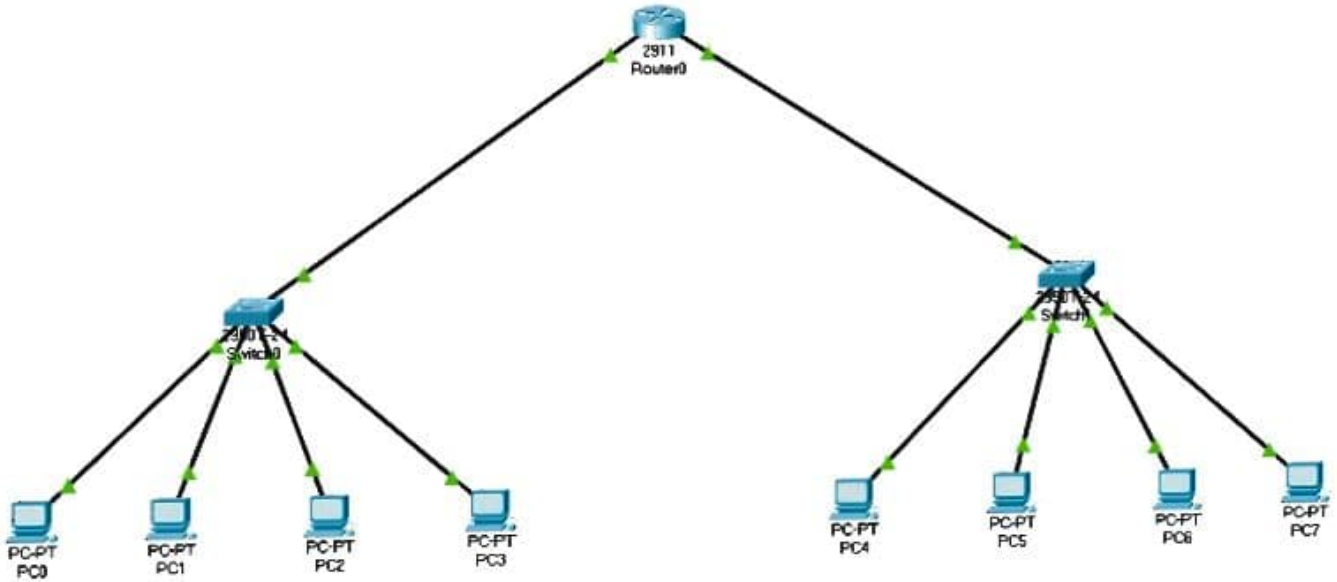
Time: 00:17:46.016 PLAY CONTROLS

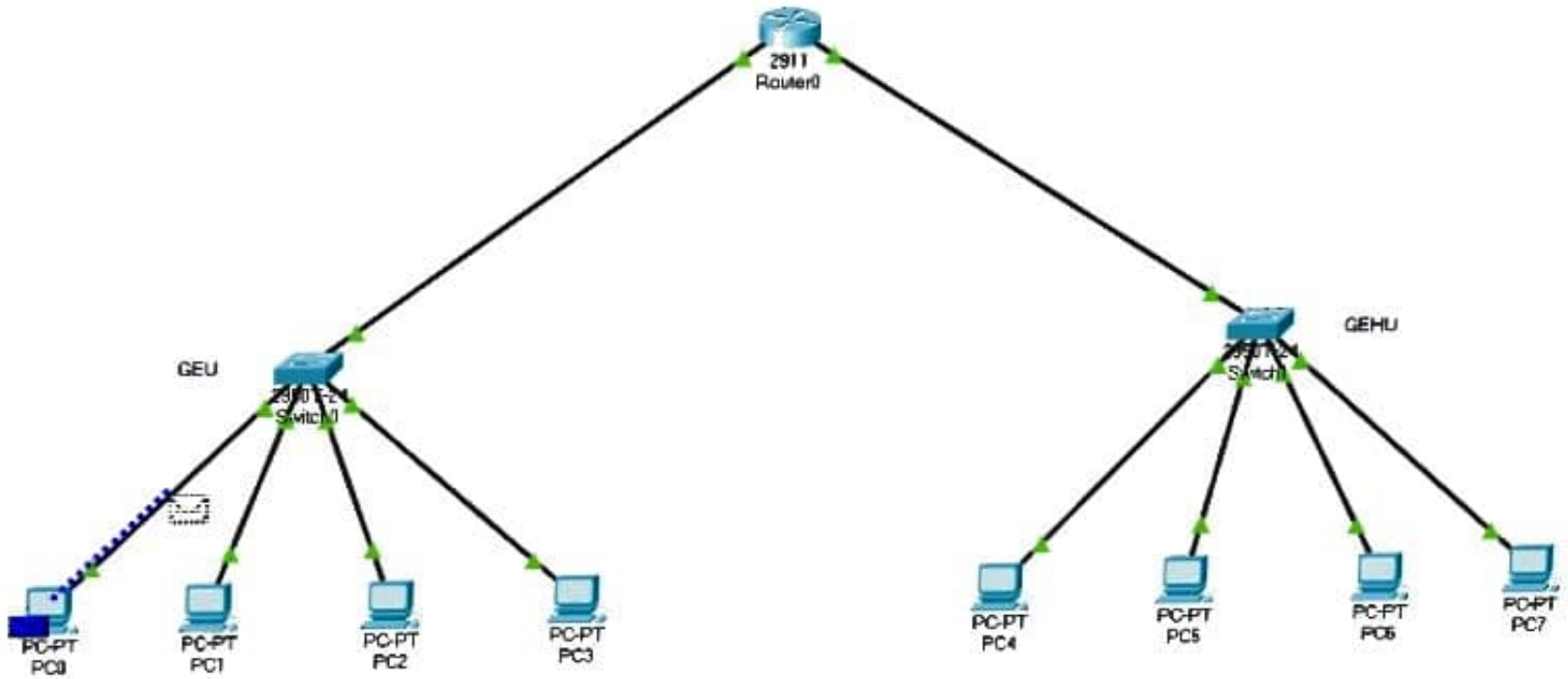
Event List | Realtime | Simulation

Copper Straight-Through

Scenario 0 | New | Delete | Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC5	ICMP		0.000	N	0	(edit)	(delete)


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


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

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

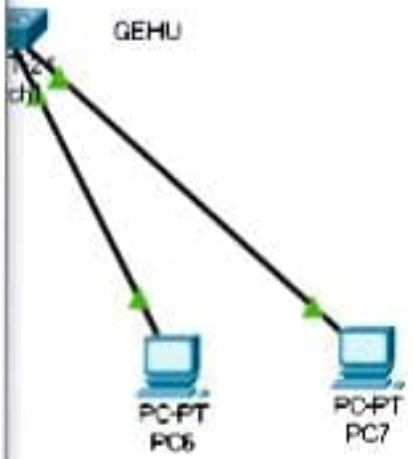
Use 802.1X Security

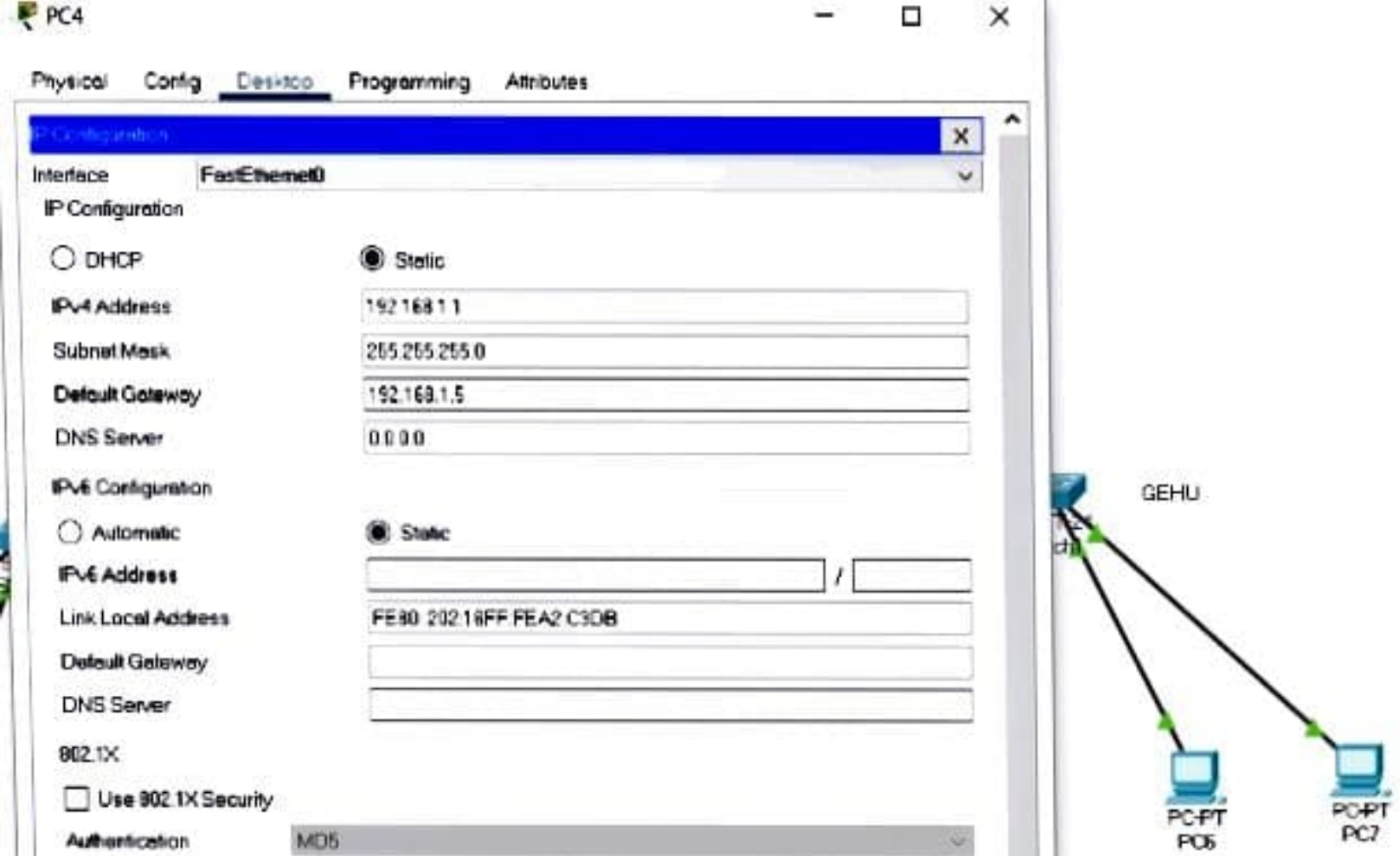
Authentication MD5

Username

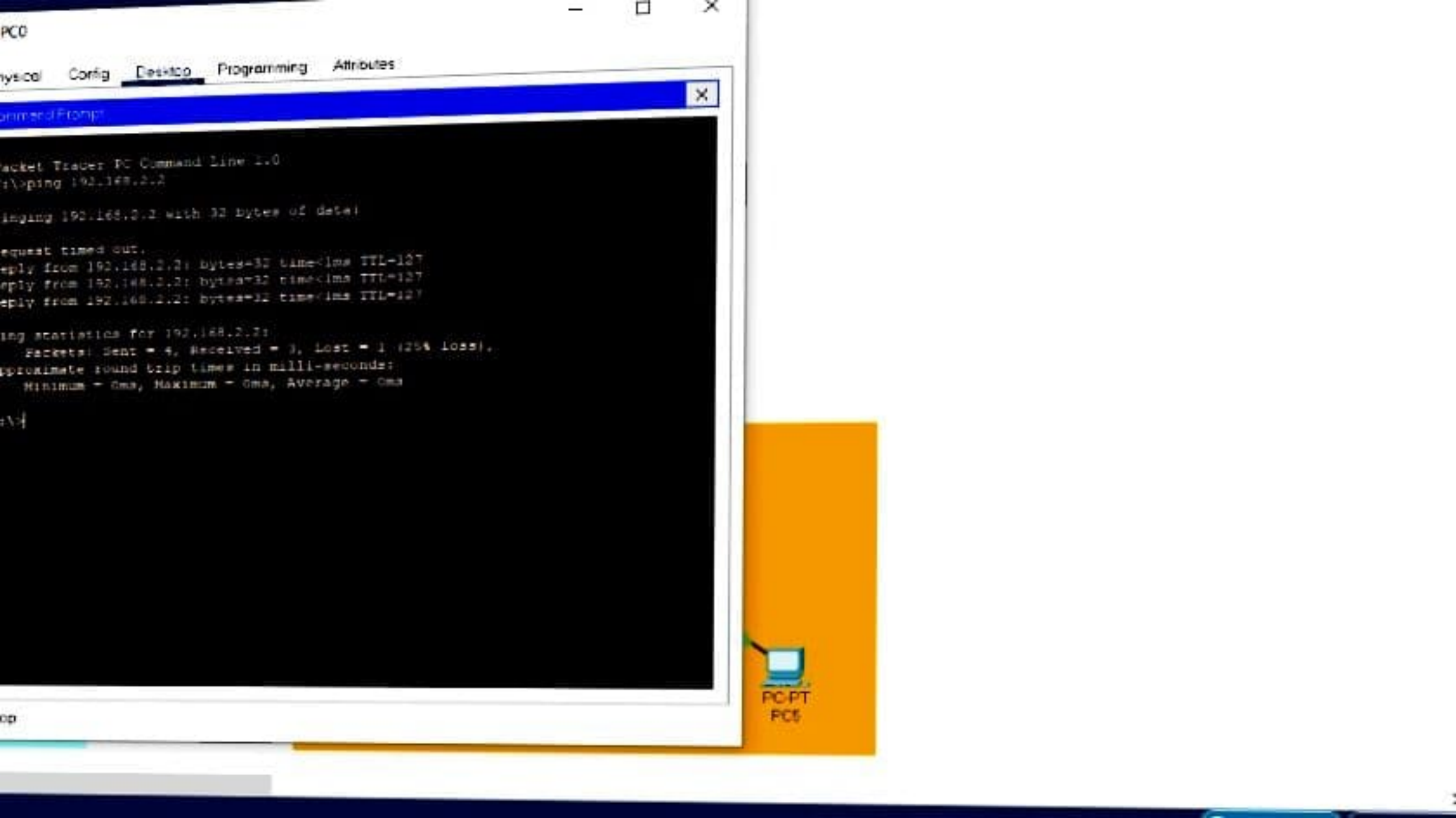
Password

Top




PC4
Physical
Config
Desktop
Programming
Attributes
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

GEHU
PC-PT
PC6
PC-PT
PC7


PC0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.2.2
Pinging 192.168.2.2 with 32 bytes of data:
Request timed out.
Reply from 192.168.2.2: bytes=32 time<1ms TTL=127
Reply from 192.168.2.2: bytes=32 time<1ms TTL=127
Reply from 192.168.2.2: bytes=32 time<1ms TTL=127
Ping statistics for 192.168.2.2:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>
Top
PC-PT
PC5

Problem statement :- There are two organizations in a city named GEU and GEHU, design a n/w b/w the SOC department of GEU and GEHU. Show the communication b/w user 1 of GEU and user 2 of GEHU.

Objective :- Creating two lan's with 4 Pcs each connecting both of them with the router and checking the establishment of the connection

Steps For creation :-

Step 1 :- Create lan 1 with 4 Pcs.

Step 2 :- Create lan 2 with new 4 Pcs.

Ste 3 :- Connect both lan 1 and Lan 2 with router and configure the router.

Step 4 :- Default gateway for Lan 1 is 10.0.0.

Step 5 :- default gateway for Lan 2 is 192.5.21.

Step 6 :- Sending message to check if connection is stablished.