Name : Projual Joshi
Course : MCA
Subject : Computer Network
Student ID : 2071105G

1) Problem Statement : There is an organization A with multiple departments. Design a network for the HR department and the size of department is 10 users. Also show the communication b/w user number 1 user no 5 of the network.
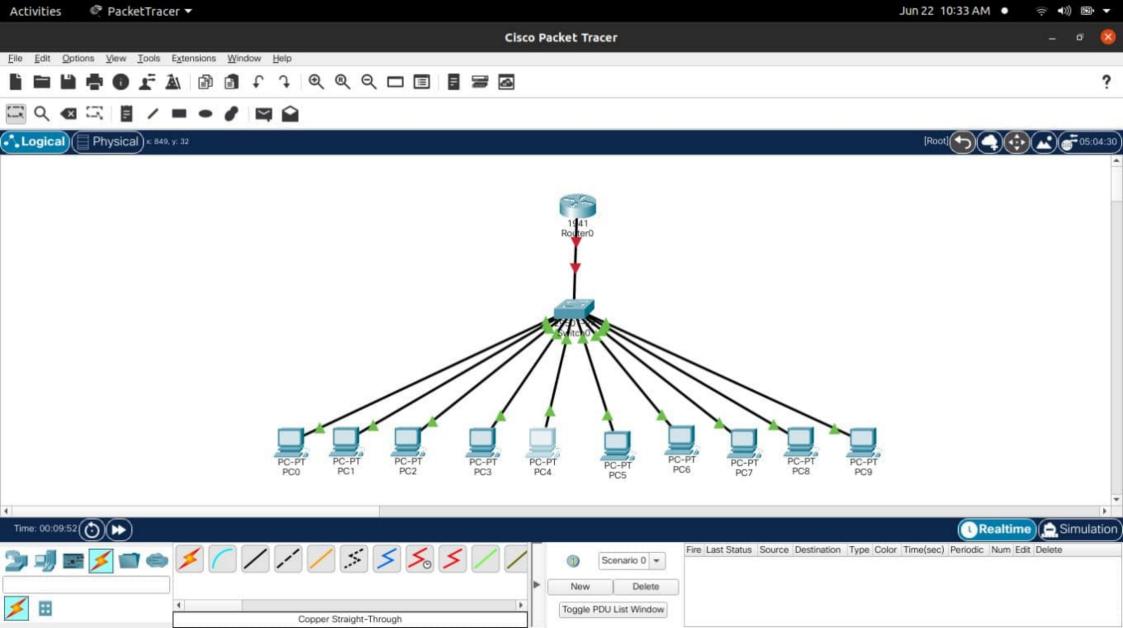
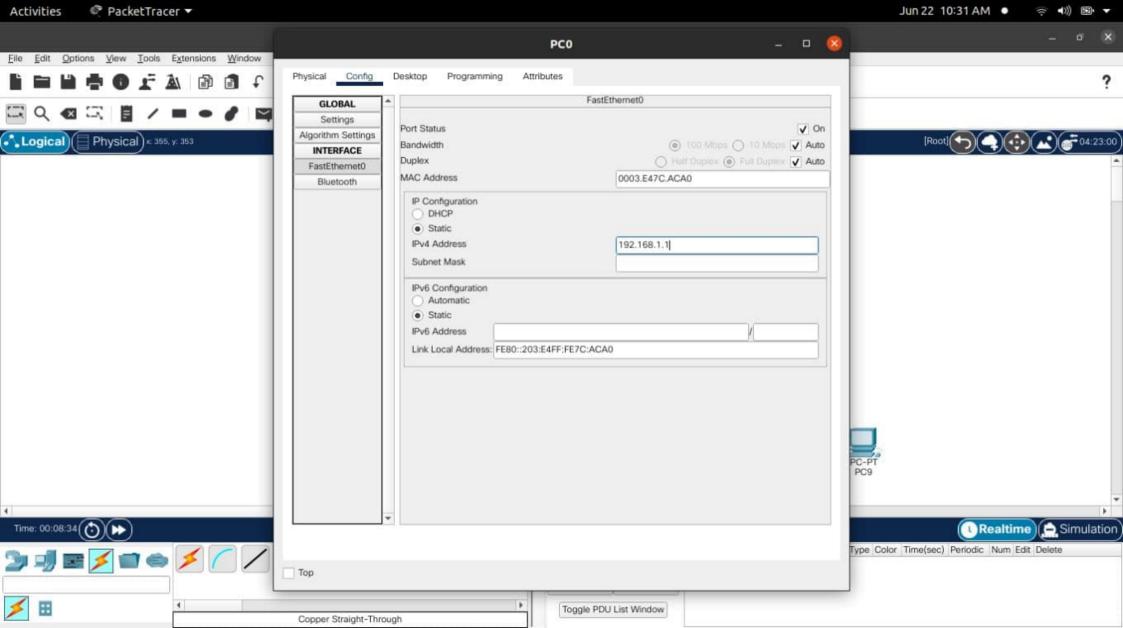Objective : The objective is to establish connection b/w two users in a department of 10 users.

Step 1 : First place pc, router and switch as per need on the screen.
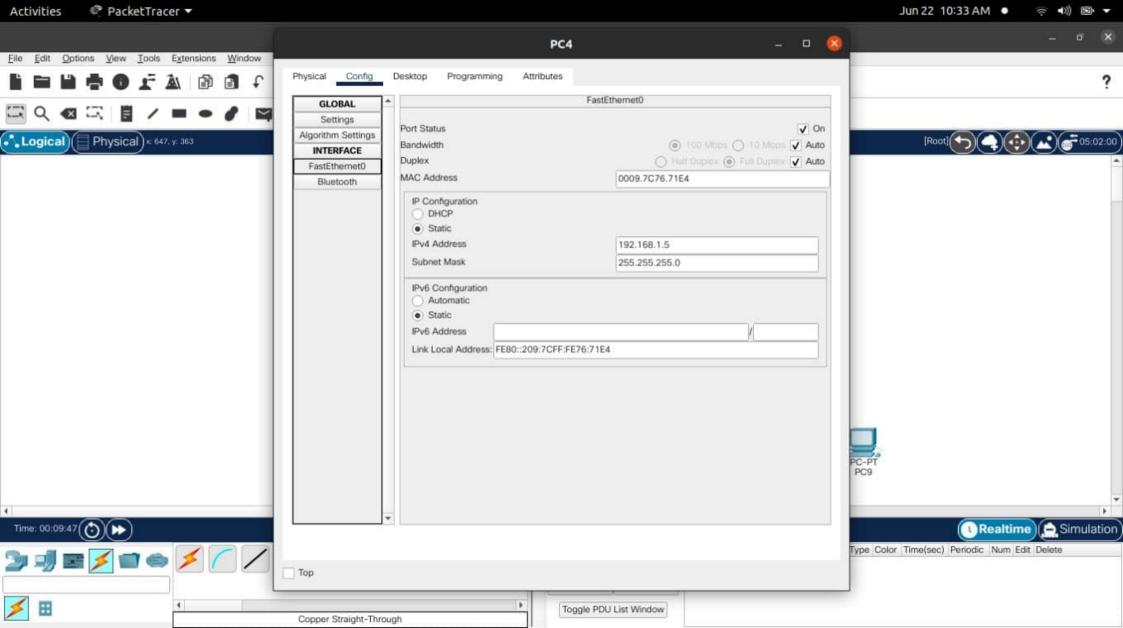
Step 2 : Then connect them using copper wire.

Step 3 : Connect switch and router with wire.

Step 4 : Start configuring the devices.
By assigning IP's to them.
Then connect Pc 0 to Pc4.

PC0

Physical | Config | Desktop | Programming | Attributes

GLOBAL
Settings
Algorithm Settings

INTERFACE
FastEthernet0
Bluetooth

FastEthernet0

Port Status ☑ On
Bandwidth ○ 100 Mbps ○ 10 Mbps ☑ Auto
Duplex ○ Half Duplex ○ Full Duplex ☑ Auto
MAC Address | 0003.E47C.ACA0

IP Configuration
○ DHCP
● Static
IPv4 Address | 192.168.1.1|
Subnet Mask |

IPv6 Configuration
○ Automatic
● Static
IPv6 Address | | /
Link Local Address: | FE80::203:E4FF:FE7C:ACA0

☐ Top

Logical | Physical   x: 355, y: 353   [Root]   04:23:00

PC-PT
PC9

Time: 00:08:34   Realtime   Simulation

Type Color Time(sec) Periodic Num Edit Delete

Copper Straight-Through   Toggle PDU List Window

PC4   _ □ ✕

Physical   Config   Desktop   Programming   Attributes

GLOBAL
Settings
Algorithm Settings
INTERFACE
FastEthernet0
Bluetooth

FastEthernet0

Port Status   ☑ On
Bandwidth   ◉ 100 Mbps ○ 10 Mbps   ☑ Auto
Duplex   ○ Half Duplex ◉ Full Duplex ☑ Auto
MAC Address   0009.7C76.71E4

IP Configuration
○ DHCP
◉ Static
IPv4 Address   192.168.1.5
Subnet Mask   255.255.255.0

IPv6 Configuration
○ Automatic
◉ Static
IPv6 Address   [   ] / [   ]
Link Local Address: FE80::209:7CFF:FE76:71E4

PC-PT
PC9

☐ Top

Time: 00:09:47   ⊙ ▶▶   🕐 Realtime   🔥 Simulation

Copper Straight-Through

Toggle PDU List Window

Name : Prajwal Joshi
Course : MCA
Subject : Computer Network
Student ID : 20711056

2) **Problem Statement:** There are two organizations in a city named GEU and GEHU, design a network between the SOC department of GEHU and GEHU Also show the communication b/w user 1 of GEU and user number 2 of GEHU.

Objection : To connect two users of same department from different organisations.

Step 1: First place pc, router, and switch for both the organisations.

Step 2: We will place 2 router and 2 switches for connecting both department and organisations.

Step 3: The connect both router and swith Serial DTE wire

Step 4: Assign IP addresses to users.

Step 5: Connect two users of both the departments by the IP addresses.

Prajwal

2811
Router0

GEU

Switch0

GEHU

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

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, TCP, TFTP, Telnet, UDP,
USB, VTP

Edit Filters   Show All/None

Time: 00:17:46.016   PLAY CONTROLS

Event List   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)

Scenario 0

New   Delete

Toggle PDU List Window

Copper Straight-Through