

PAGE No.   
 DATE

Name : Gagan Singh Nayal  
Course : MCA-2C  
Roll no : 2001060  
Stu Id : 20711149

Que-2

Ans Problem statement : There is a organisation 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 1 and user 5.

Objective : Create a LAN in Packet Tracer  
To understand how to create a wired LAN  
using switch Packet Tracer.

STEP 1:

We will take 10 end user either PC or laptop.

STEP 2:

For connecting them together we take a switch.

STEP 3:

Connect the PC's to switch using Copper straight wire.

STEP 4: Then we start configuring

the PC's by giving them IP address

STEP 5: Now click on PC 1 and go to command line prompt and ping the PC 5 with its IP address.

The connection is established successful message is transferred.

Ques 2:

Ans: To check the connectivity between the two PCs, we can use the command 'ping' in the command prompt. This will send a series of packets to the destination IP address and receive responses back. If the connection is successful, you will see 'Reply from [IP address]: bytes=32 time=xxms TTL=xx' for each packet. If there is a problem, you will see 'Request timed out' or 'Destination host unreachable'.

Ques-2 -

Ans -

Description

Problem statement : There are two organisations. One is a city GCU & GCU, design a network between the SOC department of GCU & GCU. And show communication between user number 1 of GCU and user number 2 of GCU.

Objective : To connect two LAN's using router. To understand how to connect LAN's using the router.

STEP 1 Create two Local area network (GCU & GCU) using switch & make the connections b/w the end device & that switch.

STEP 2 Connect the switch to router.

STEP 3 : Router is Connected to Switch 0 by the interface Gigabit Ethernet 0/0. Set its IPv4 address as 10.10.10.3. And switch on the Port Status. This establishes the connection between Router & switch 0.

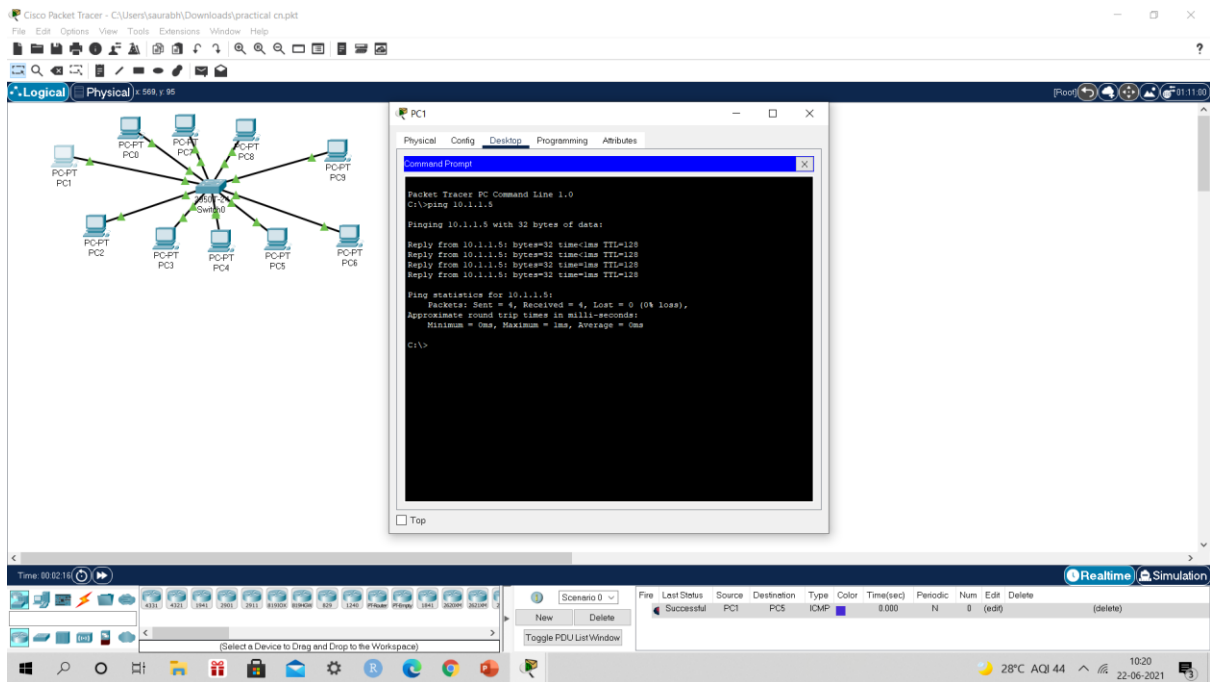
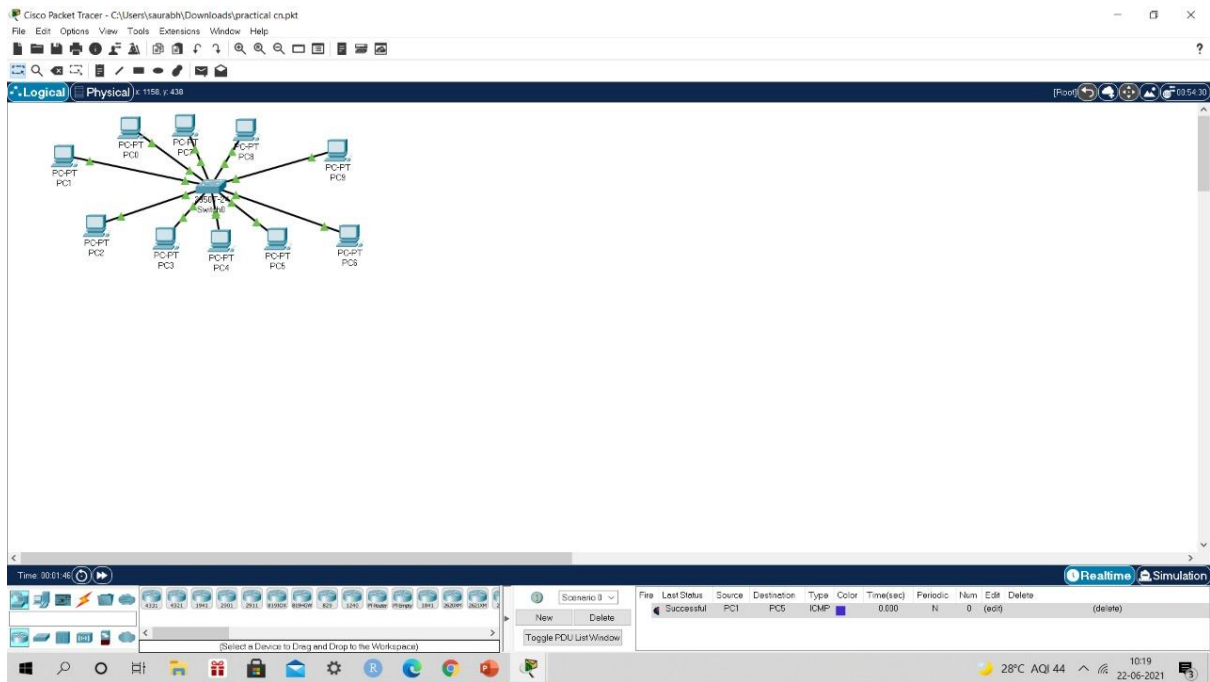
STEP 4 : Now set the IP Address of end devices connected to switch 0. Set the default gateway of all the end devices connected to switch 0 as 10.10.10.3 (which is the IPv4 address of Router).

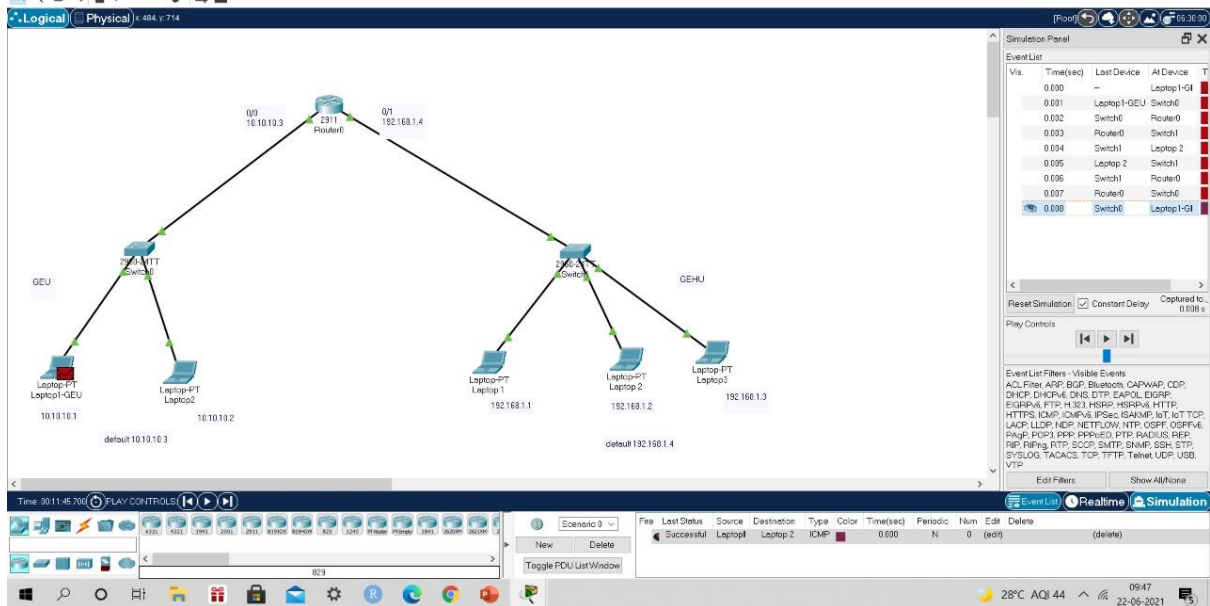
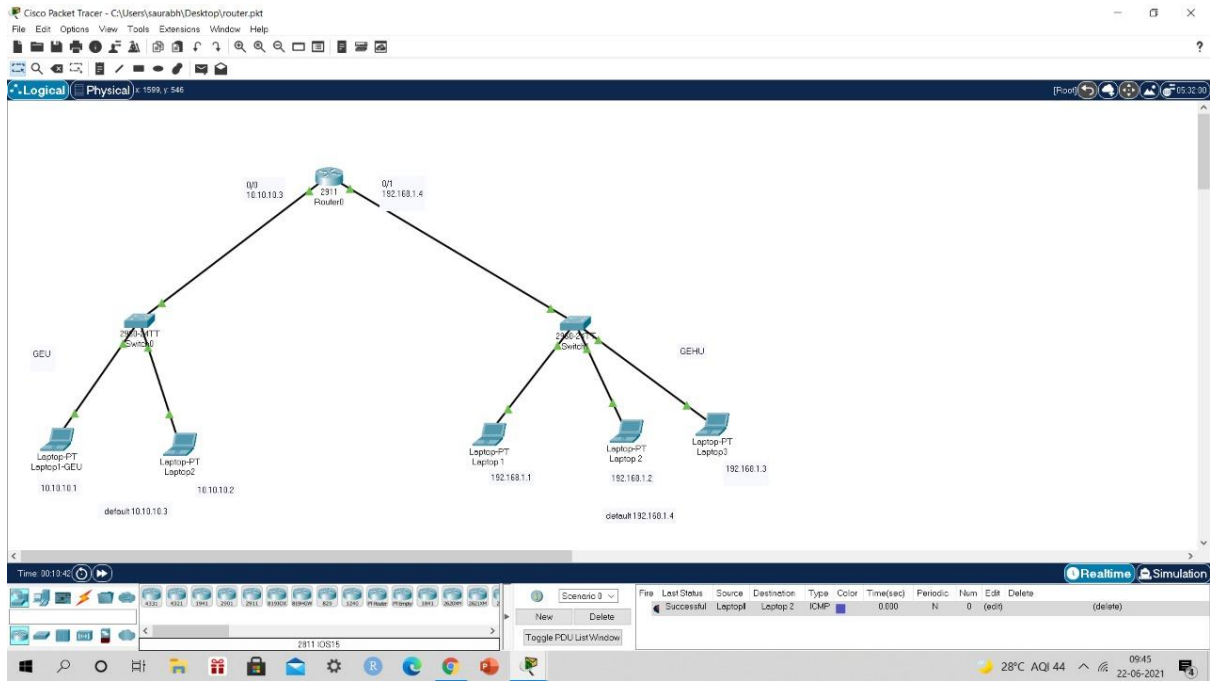


Step 5: Perform step 3 & step 4 for GENU Network (Switch 1). Router is connected to GENU Network (Switch 1) by Step Interface Gigabit Ethernet Interface 0/0. Set its IPv4 Address as 192.168.1.4. Set the Port Status 1.

Step 6: Now, Set the IP Address of End devices connected to Switch 1 (GENU). Set default Gateway as 192.168.1.4.

Step 7: Check all the ~~cat~~ connection are done properly. Green arrows would be indication of proper connection.





Cisco Packet Tracer - C:\Users\saurabh\Desktop\routert.pkt

File Edit Options View Tools Extensions Window Help

Logical Physical 509 x 319 [Floor] 05:54:30

Physical Config Desktop Programming Attributes

Command Prompt

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.2

Pinging 192.168.1.2 with 32 bytes of data:

Reply from 192.168.1.2: bytes=32 time=1ms TTL=127
Reply from 192.168.1.2: bytes=32 time=1ms TTL=127
Reply from 192.168.1.2: bytes=32 time=1ms TTL=127
Reply from 192.168.1.2: bytes=32 time=1ms TTL=127

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

GEU

Laptop-PT  
Laptop-GEU  
10.10.10.1

default1 ☐ Top

GEU

Laptop-PT  
Laptop 2  
192.168.1.2

Laptop-PT  
Laptop 1  
192.168.1.3

default 192.168.1.4

Time 00:11:25

Scenario 0

New Delete

Toggle PDU List Window

| Fire       | Last Status | Source  | Destination | Type | Color | Time(sec) | Periodic | Num | Edit   | Delete   |
|------------|-------------|---------|-------------|------|-------|-----------|----------|-----|--------|----------|
| Successful |             | Laptop1 | Laptop 2    | ICMP |       | 0.030     | N        | 0   | (edit) | (delete) |

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