ANS1. 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.

NAME: BHARTENDU PANT
COURSE: MCA 2A
R.No.: 2001048
SUBJECT: COMPUTER NETWORKS
SUBJECT CODE: PMC 202

ANS1.

- Problem statement :-
  To design a network for HR department having 10 users using cisco packet tracer.

- Description :-
  For designing a network having 10 users we need 10 pc's and a server to dynamically allocate the IP address, and at last a switch to connect those users. For designing this network following are some steps :-

- step 1 :-
  Open cisco packet tracer, choose 10 PC's a switch and a server from end devices

- step2 :-
  Connect all the pc's with switch and the switch with the server.

Step3: Select the server, then config, then select Fastethenet 0.

→ give the server an IP address.

Step 4: Now click on Services.

→ select DHCP

→ Default gateway (Put IP here)

→ DNS server (10.0.0.1)

→ Save.

Step 5: Select PC0.

→ go to desktop

→ go to Ip configuration.

→ Select DHCP.

Step 6: Repeat step 5 for all other 9 PC's.

Step 7: For connecting User 1 and user 5.

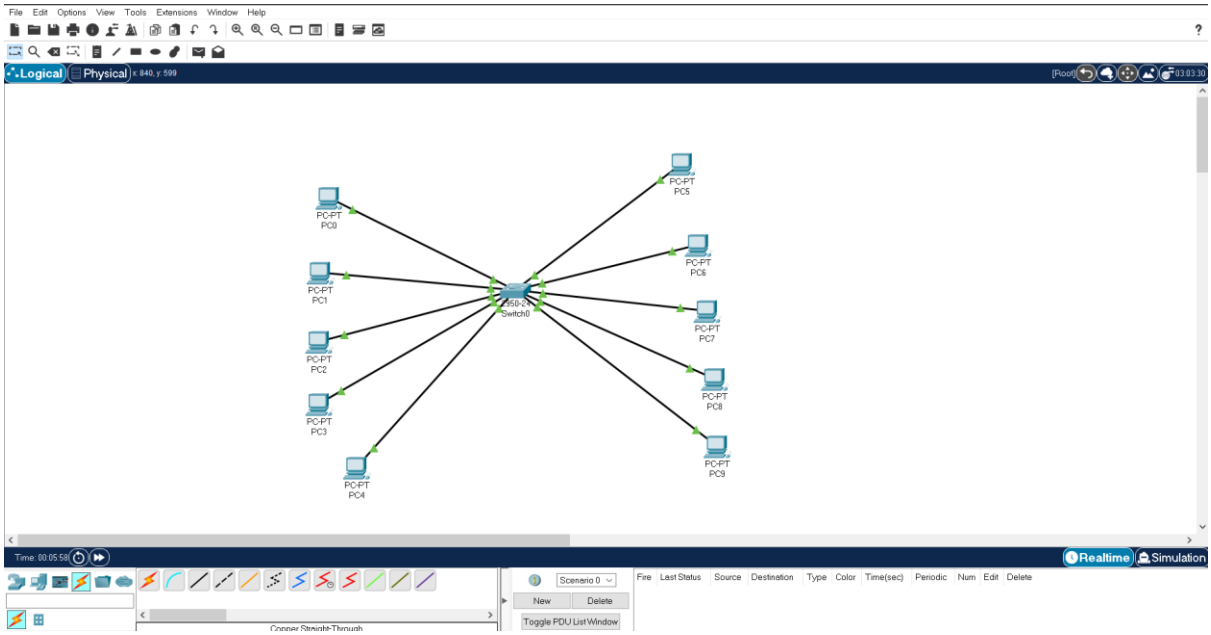
→ Add simple PDU

→ Click on PC0

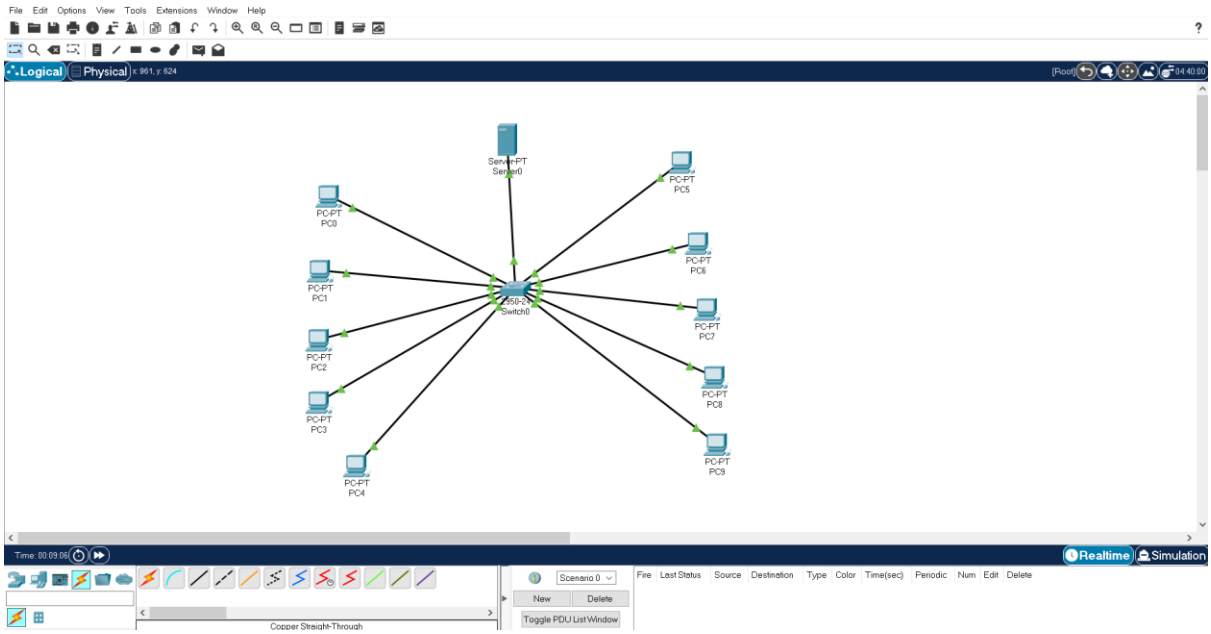
→ click on PC4

If the status shows Successful (bottom-right), then your connection is successfully established.

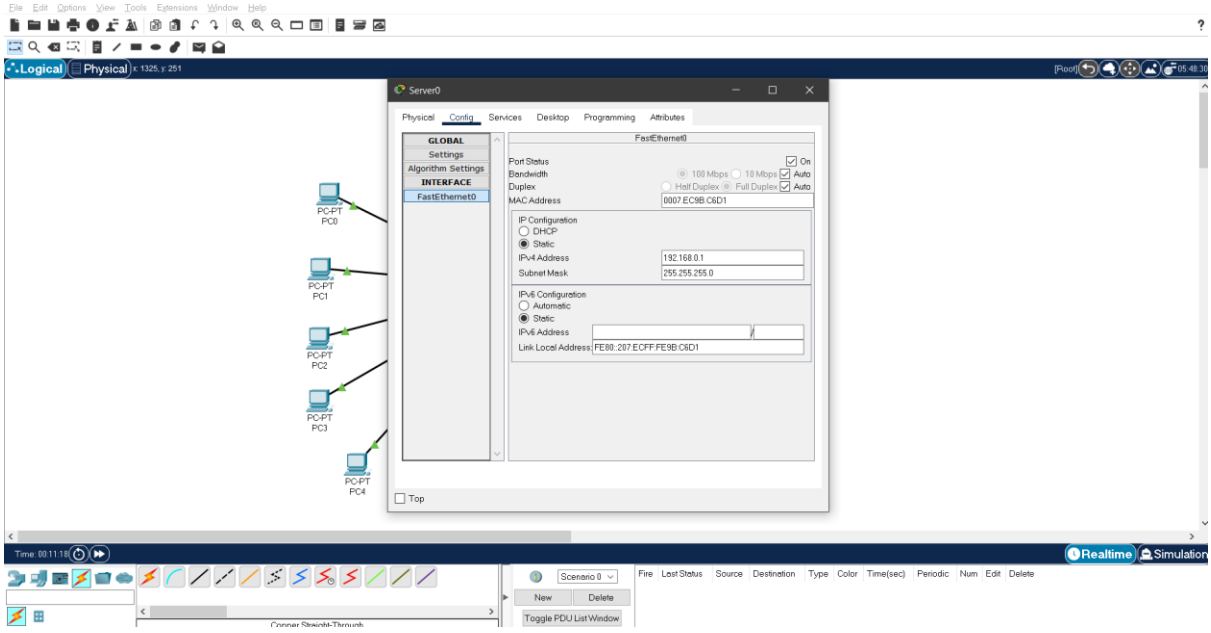
Step 1 :

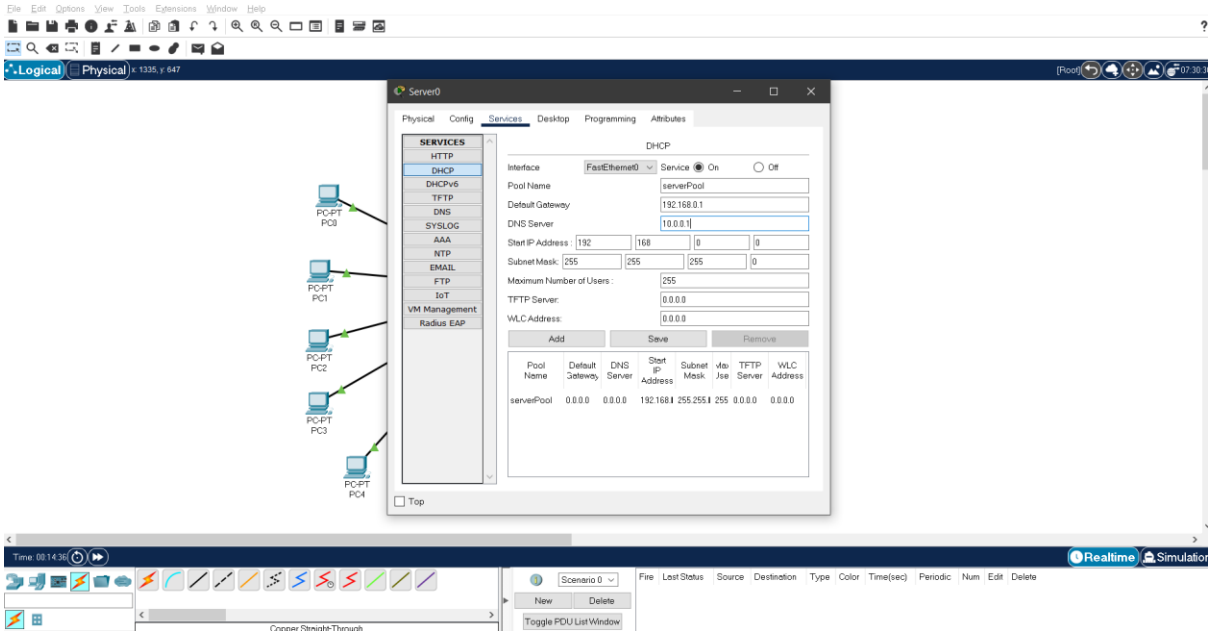

File Edit Options View Tools Extensions Window Help
Logical
Physical
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
PC-PT PC4
PC-PT PC5
PC-PT PC6
PC-PT PC7
PC-PT PC8
PC-PT PC9
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num
Edit
Delete

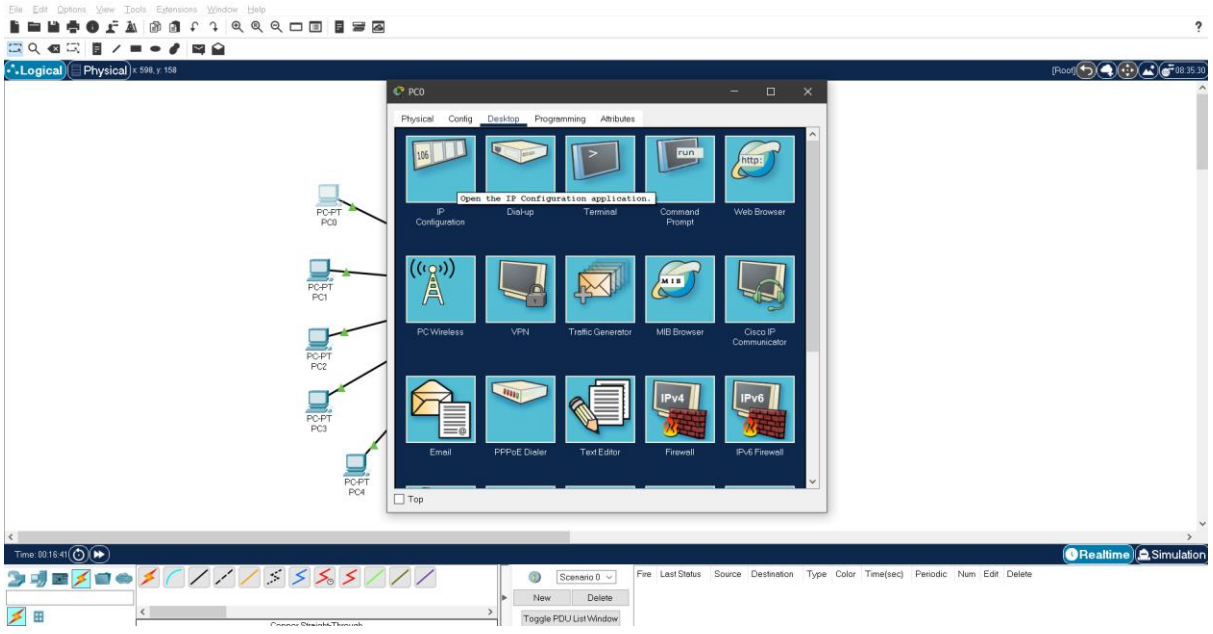
Step 2:

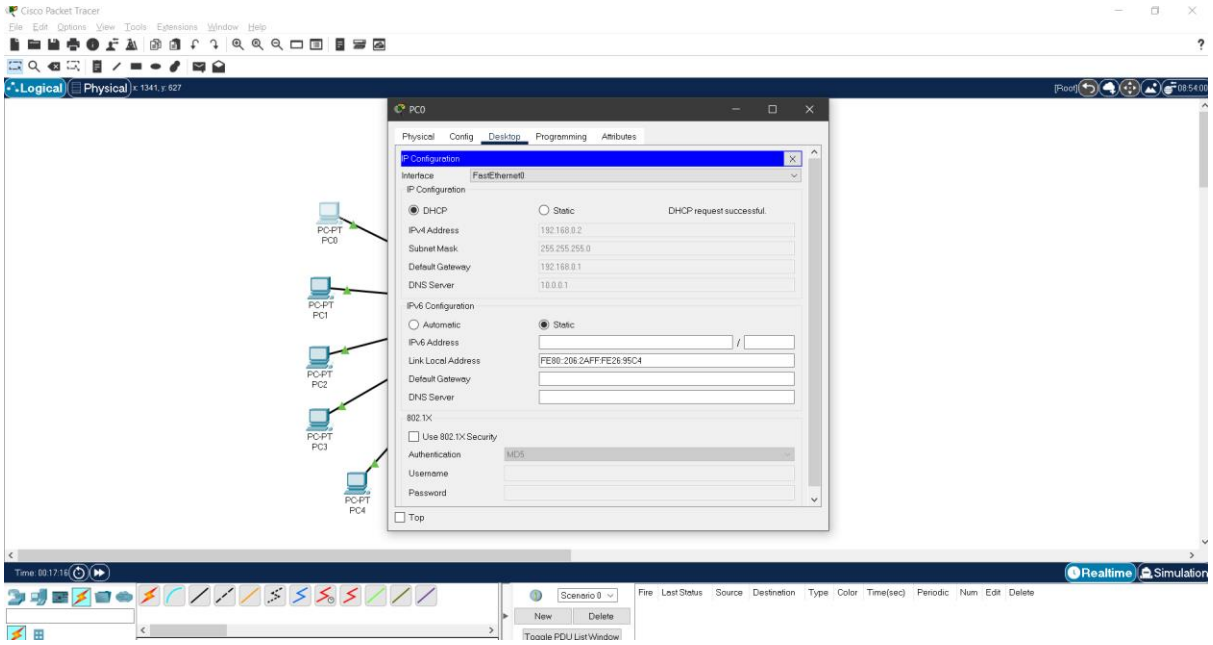

File Edit Options View Tools Extensions Window Help
Logical
Physical
Server-PT Server0
PC-PT PC5
PC-PT PC0
PC-PT PC6
PC-PT PC1
2950-24 Switch0
PC-PT PC7
PC-PT PC2
PC-PT PC8
PC-PT PC3
PC-PT PC9
PC-PT PC4
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Copper Straight-Through

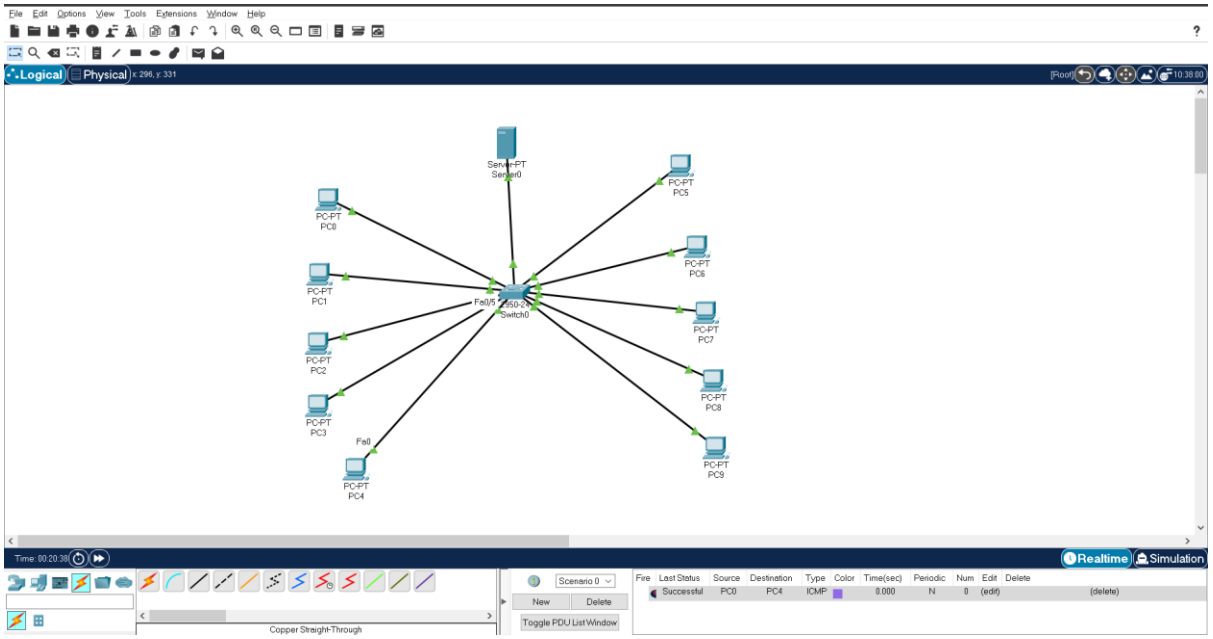
Step 3 :


File Edit Options View Tools Extensions Window Help
Logical
Physical
Server0
Physical
Config
Services
Desktop
Programming
Attributes
GLOBAL
Settings
Algorithm Settings
INTERFACE
FastEthernet0
FastEthernet0
Port Status
On
Bandwidth
100 Mbps
10 Mbps
Auto
Duplex
Half Duplex
Full Duplex
Auto
MAC Address
0007.EC9B.C6D1
IP Configuration
DHCP
Static
IPv4 Address
192.168.0.1
Subnet Mask
255.255.255.0
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::207:ECFF:FE9B:C6D1
Top
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
PC-PT PC4
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window


Server0
Physical
Config
Services
Desktop
Programming
Attributes
SERVICES
HTTP
DHCP
DHCPv6
TFTP
DNS
SYSLOG
AAA
NTP
EMAIL
FTP
IoT
VM Management
Radius EAP
DHCP
Interface
FastEthernet0
Service
On
Off
Pool Name
serverPool
Default Gateway
192.168.0.1
DNS Server
10.0.0.1
Start IP Address :
Subnet Mask:
Maximum Number of Users :
255
TFTP Server:
0.0.0.0
WLC Address:
Add
Save
Remove
Pool Name
Default Gateway
DNS Server
Start IP Address
Subnet Mask
TFTP Server
WLC Address
serverPool
Top
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
PC-PT PC4
Logical
Physical
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num
Edit
Delete


PC0
Physical
Config
Desktop
Programming
Attributes
Open the IP Configuration application.
IP Configuration
Dial-up
Terminal
Command Prompt
Web Browser
PC Wireless
VPN
Traffic Generator
MIB Browser
Cisco IP Communicator
Email
PPPoE Dialer
Text Editor
Firewall
IPv6 Firewall
Top
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
PC-PT PC4
Logical
Physical
Realtime
Simulation
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
PC0
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
DHCP
Static
DHCP request successful.
IPv4 Address
192.168.0.2
Subnet Mask
255.255.255.0
Default Gateway
192.168.0.1
DNS Server
10.0.0.1
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::206:2AFF:FE26:95C4
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password
Top
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
PC-PT PC4
Realtime
Simulation
Scenario 0
New
Delete
Toggle PDU List Window
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num
Edit
Delete


Logical
Physical
Server-PT Server0
PC-PT PC5
PC-PT PC0
PC-PT PC6
PC-PT PC1
Fa0/5
2950-24 Switch0
PC-PT PC7
PC-PT PC2
PC-PT PC8
PC-PT PC3
Fa0
PC-PT PC9
PC-PT PC4
Realtime
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Scenario 0
New
Delete
Toggle PDU List Window
Copper Straight-Through
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num
Edit
Delete
Successful
PC0
PC4
ICMP
0.000
N
0
(edit)
(delete)