

Name : Anyali Rawat

Course : MCA

Section : B

University Roll No. : 2001029

Subject Name : Computer Networks

Subject Code : TMC 203

Problem Statement : There is an organisation A with multiple departments. Design a network for the HR department and the size of the department is 10 users. Also, show communication b/w user number 1 & user number 5 of the network.

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

Description :-

LAN : LAN is a Local Area Network that interconnects computers within a limited area such as an organisation, school, lab, university campus or ~~but~~ office building.

STEP 1 : Network Design

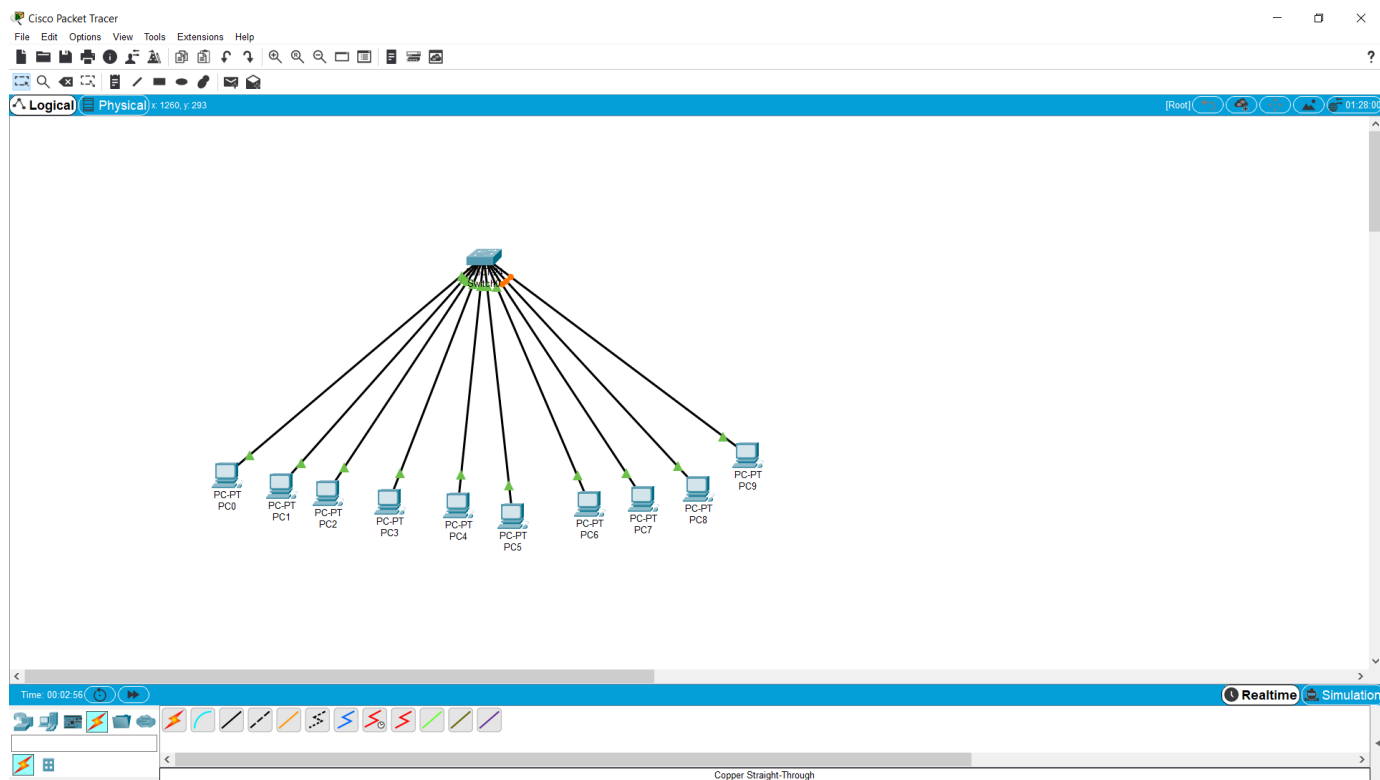
STEP 2 : IP configuration.

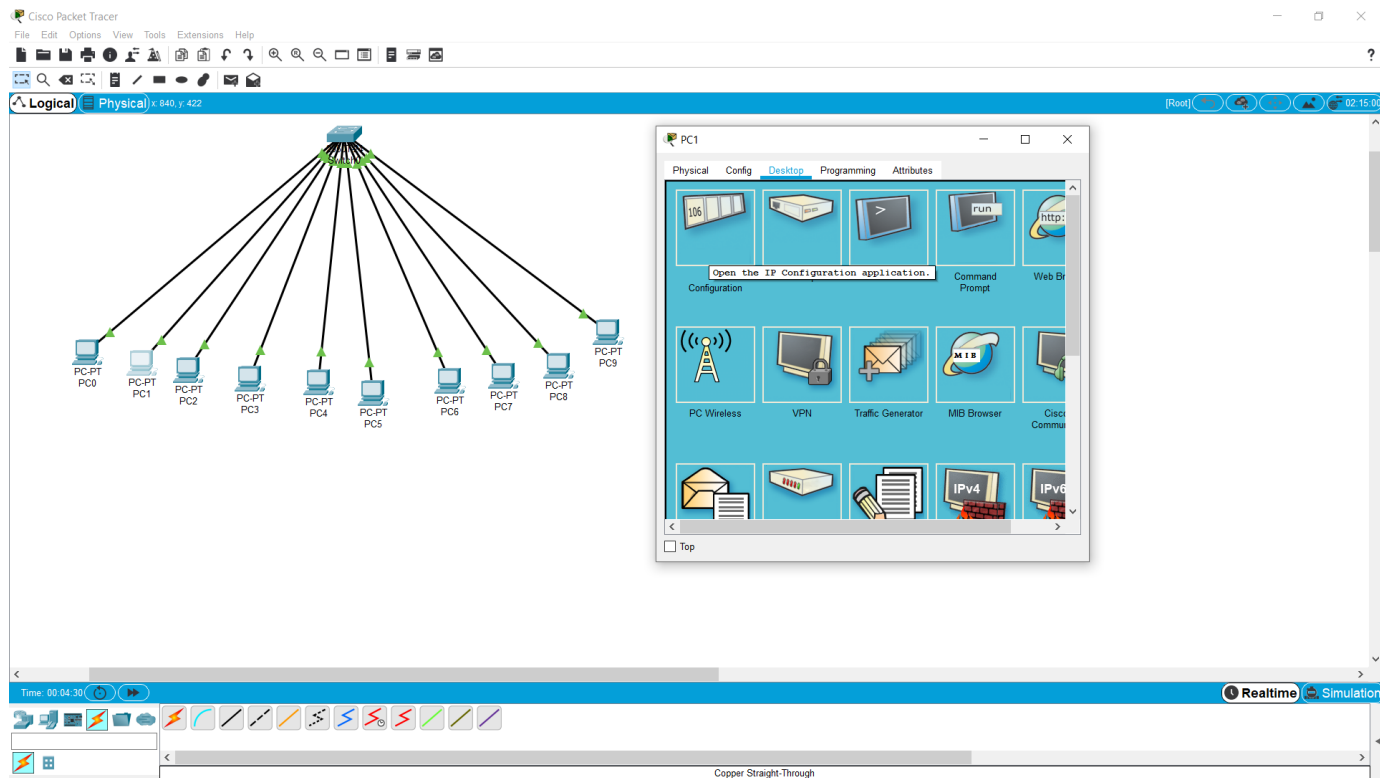
Setting the IP address for PC's.

STEP 3 : Connectivity.

using the ping command to check the connectivity

Anyali





Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical 948, y: 711 [Root] 02:45:00

PC Configuration

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address 192.168.1.3

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80::2E0:F9FF:FED9:B0D6

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

☐ Top

Time: 00:05:29

Realtime Simulation

Copper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical 1832 y 706 [Root]

```
graph TD; Switch[Switch] --- PC0[PC-PT PC0]; Switch --- PC1[PC-PT PC1]; Switch --- PC2[PC-PT PC2]; Switch --- PC3[PC-PT PC3]; Switch --- PC4[PC-PT PC4]; Switch --- PC5[PC-PT PC5]; Switch --- PC6[PC-PT PC6]; Switch --- PC7[PC-PT PC7]; Switch --- PC8[PC-PT PC8]; Switch --- PC9[PC-PT PC9];
```

PC4

Physical Config Desktop Programming Attributes

Command Prompt

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.5

Pinging 192.168.1.5 with 32 bytes of data:

Reply from 192.168.1.5: bytes=32 time=1ms TTL=128
Reply from 192.168.1.5: bytes=32 time=2ms TTL=128
Reply from 192.168.1.5: bytes=32 time=2ms TTL=128
Reply from 192.168.1.5: bytes=32 time<ms TTL=128

Ping statistics for 192.168.1.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 2ms, Average = 1ms
C:\>
```

Time: 00:24:03

Realtime Simulation

Copper Straight-Through