

classmate
Date _____
Page _____

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Course:- MCA
Section:- B
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Subject Name:- Computer Networks
Subject Code:- PNC-203

1) Problem Statement:- There is an Organisation A with multiple departments.

Objective:- To understand how to create a wired lan using switch.

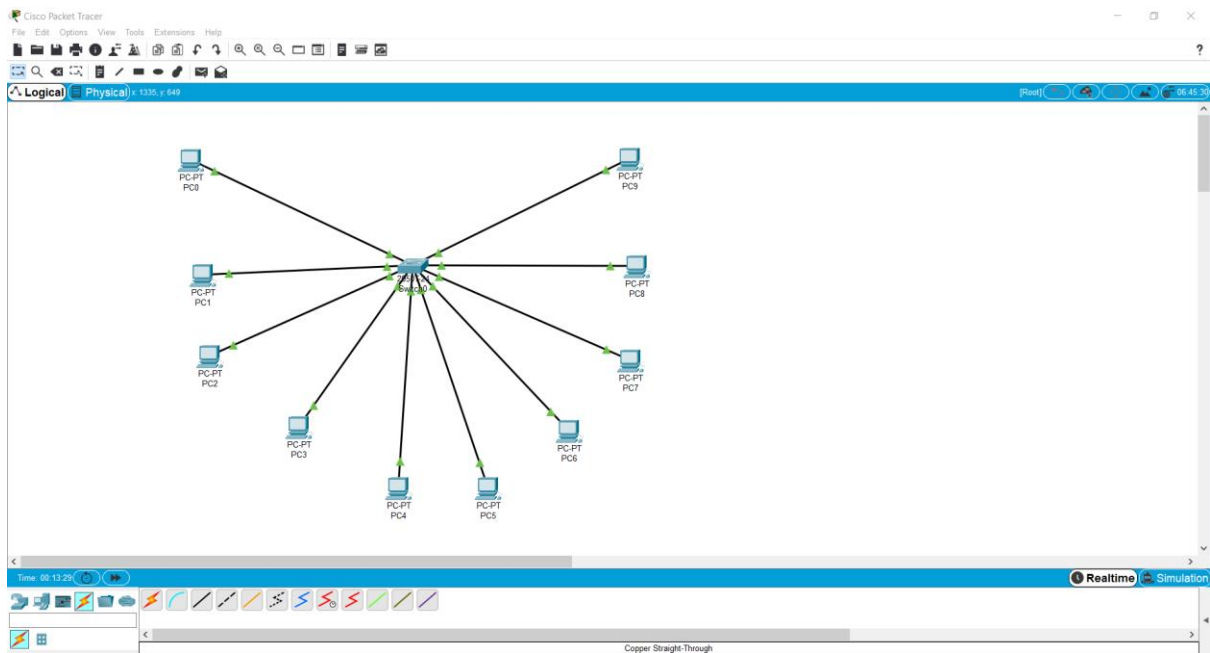
Step 1:-) Go to End devices, which is located at left bottom and drag and drop 10 pcs to working area and one switch because the switch will help to establish LAN connection b/w 10 PCs.
Then select Copper straight through & join all pc with this wires and after that give PCs different fast Ethernet connection

Step 2:-) In step 2 we will give all 4 pc IP address and subnet mask by Manually

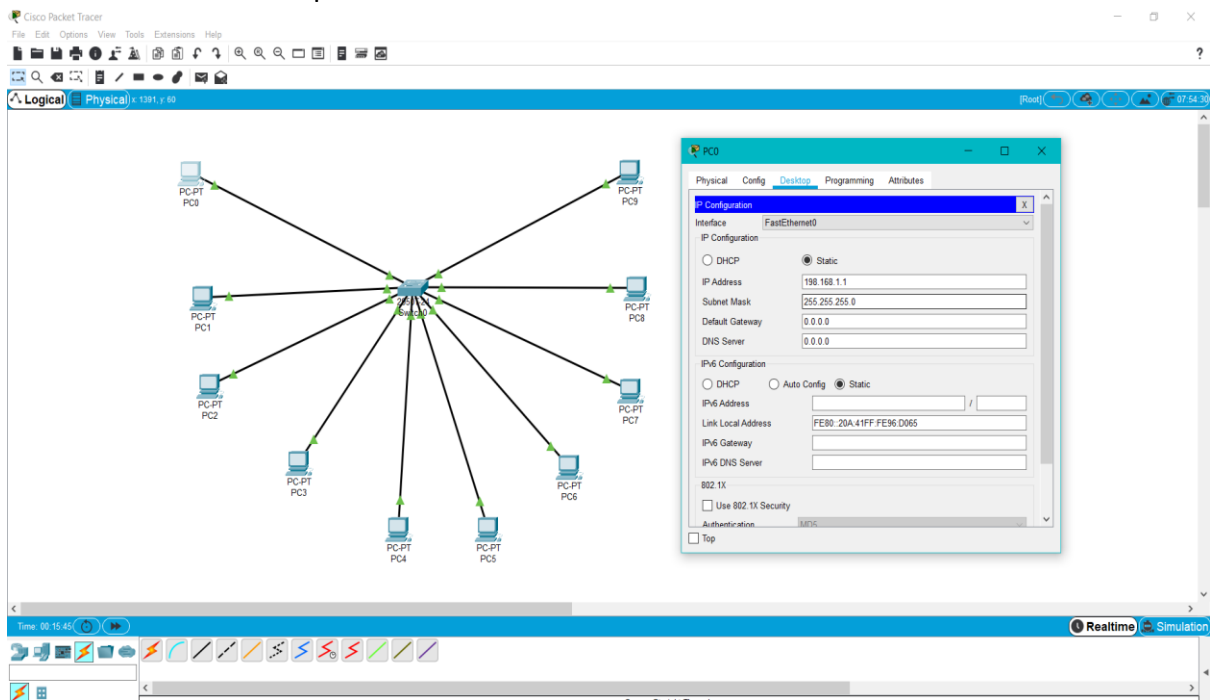
Step 3:-) After the connection, we have to test the connection by using ping command for 1st and 5th pc in the network.

Kiran

STEP 1: ESTABLISHING THE CONNECTION



STEP 2: CONFIGURING Ips of the PCs



Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical x 643, y 244 [Run] 08:52:30

PC1 Configuration Window:

- Interface: FastEthernet0
- IP Configuration:
 - ☒ DHCP
 - ☐ Static
 - IP Address: 198.168.1.2
 - 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: [empty]
 - Link Local Address: FE80:202:4AFF:FEE5:12C9
 - IPv6 Gateway: [empty]
 - IPv6 DNS Server: [empty]
- 802.1X:
 - ☐ Use 802.1X Security
 - Authentication: [empty]
- ☐ Top

Time: 00:17:41 [Run] Realtime Simulation

Copper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical x 1273, y 38 [Run] 09:39:09:30

PC2 Configuration Window:

- Interface: FastEthernet0
- IP Configuration:
 - ☒ DHCP
 - ☐ Static
 - IP Address: 198.168.1.3
 - 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: [empty]
 - Link Local Address: FE80:2E0:F7FF:FECD:9698
 - IPv6 Gateway: [empty]
 - IPv6 DNS Server: [empty]
- 802.1X:
 - ☐ Use 802.1X Security
 - Authentication: [empty]
- ☐ Top

Time: 09:18:14 [Run] Realtime Simulation

Copper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical x 1885, y 227 [Root] 09:17:30

PC Configuration

Interface: FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address: 198.168.1.3

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:FFFF:FECD:9698

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication:

Top

Time: 00:18:30

Cooper Straight-Through

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical x 440, y 388 [Root] 09:44:00

PC Configuration

Interface: FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address: 198.168.1.4

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: FE80:260:50FF:FEE7:6300

IPv6 Gateway:

IPv6 DNS Server:

802.1X

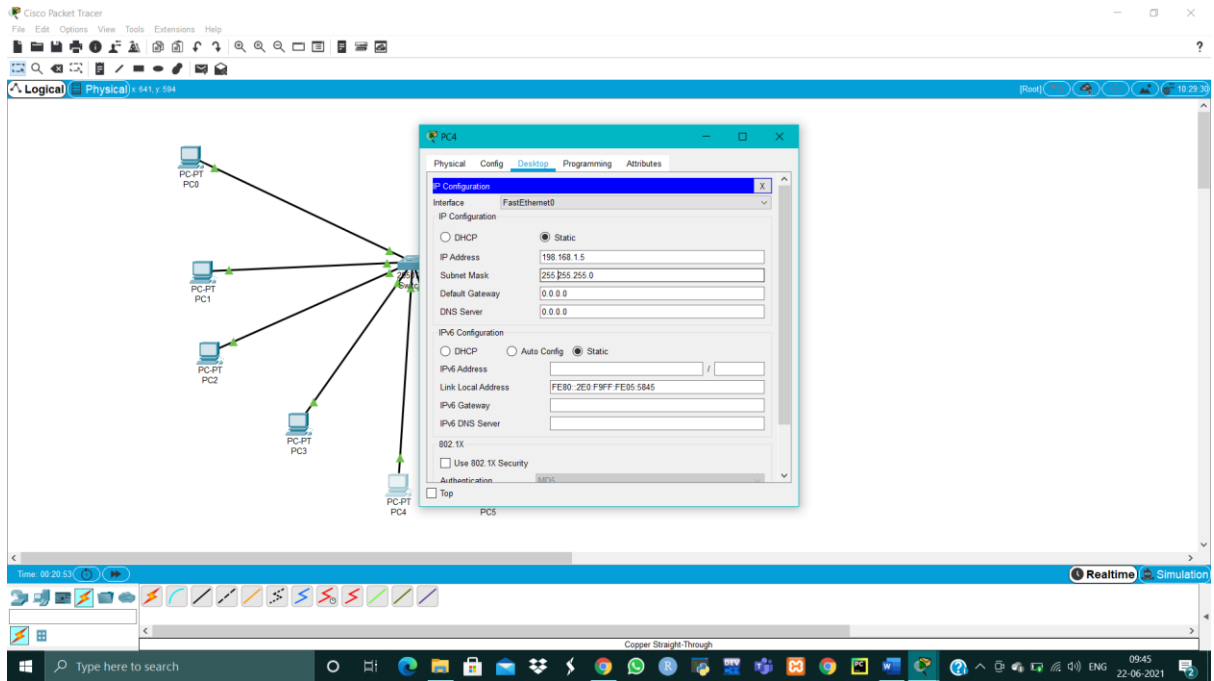
☐ Use 802.1X Security

Authentication:

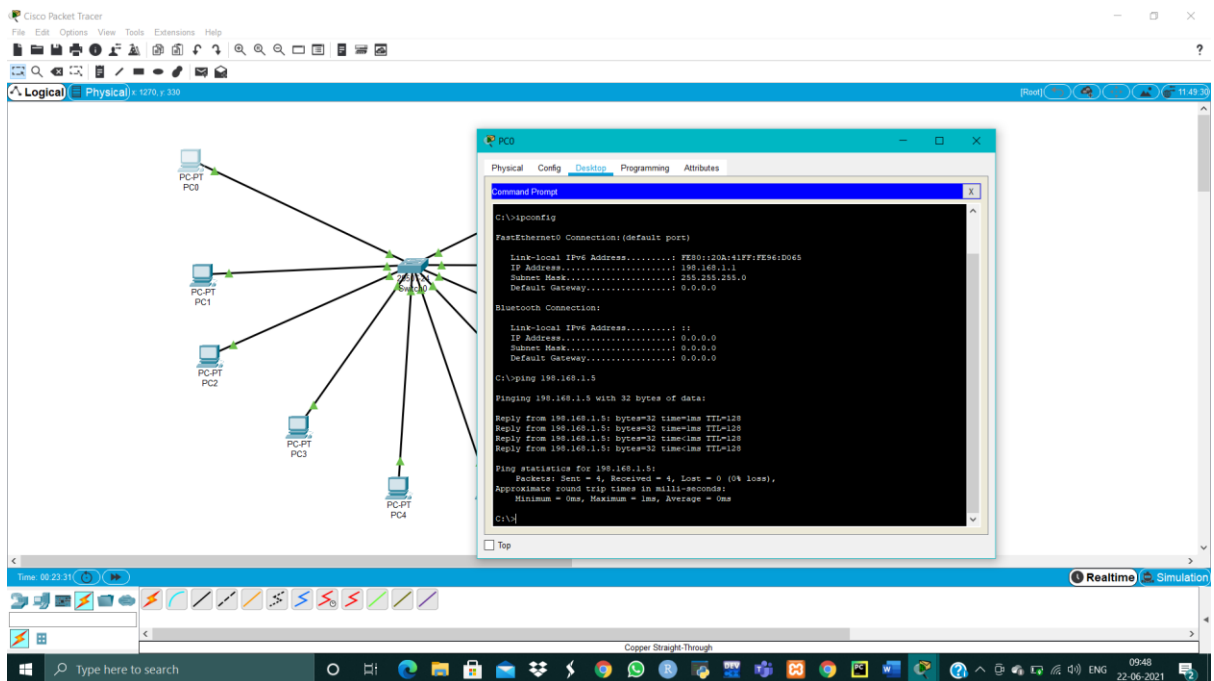
Top

Time: 00:19:23

Cooper Straight-Through



STEP 3: CHECKING CONNECTIVITY BETWEEN PCs



Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical 1185, 1.40 [Run] 12.30.30

```
graph TD
    S((Switch)) --- PC0[PC-PT PC0]
    S --- PC1[PC-PT PC1]
    S --- PC2[PC-PT PC2]
    S --- PC3[PC-PT PC3]
    S --- PC4[PC-PT PC4]
    S --- PC5[PC-PT PC5]
    S --- PC6[PC-PT PC6]
```

PC4

Physical Config Desktop Programming Attributes

Command Prompt

Packet Tracer PC Command Line 1.0

C:\>ipconfig

FastEthernet0 Connection: (default port)

Link-local IPv6 Address : FE80::2E0:F9FF:FE05:5845
IP Address. : 190.168.1.5
Subnet Mask : 255.255.255.0
Default Gateway : 0.0.0.0

Bluetooth Connection:

Link-local IPv6 Address : ::
IP Address. : 0.0.0.0
Subnet Mask : 0.0.0.0
Default Gateway : 0.0.0.0

C:\>ping 190.168.1.1

Pinging 190.168.1.1 with 32 bytes of data:

Reply from 190.168.1.1: bytes=32 time=1ms TTL=128
Reply from 190.168.1.1: bytes=32 time=1ms TTL=128
Reply from 190.168.1.1: bytes=32 time=1ms TTL=128
Reply from 190.168.1.1: bytes=32 time=1ms TTL=128

Ping statistics for 190.168.1.1:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milliseconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>

Time: 00:25:04 Realtime Simulation

Copper Straight-Through

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