Izaan Mohtashim

P20-0613

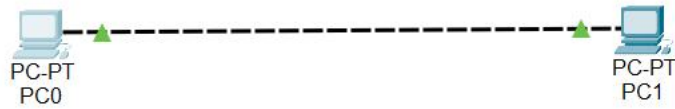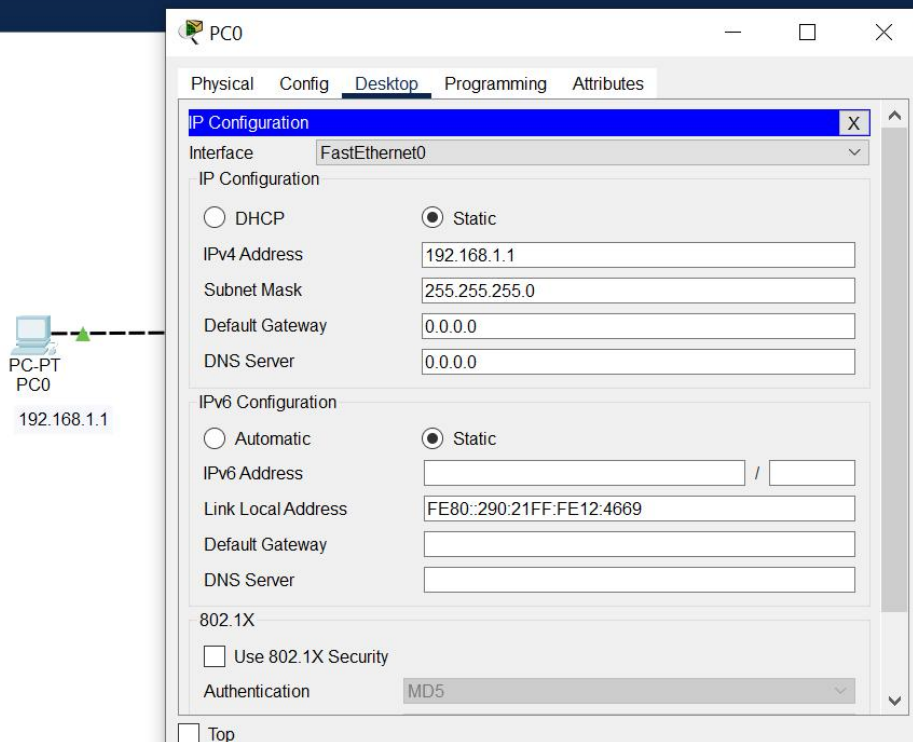# Sec 5-A

Computer Networks Lab
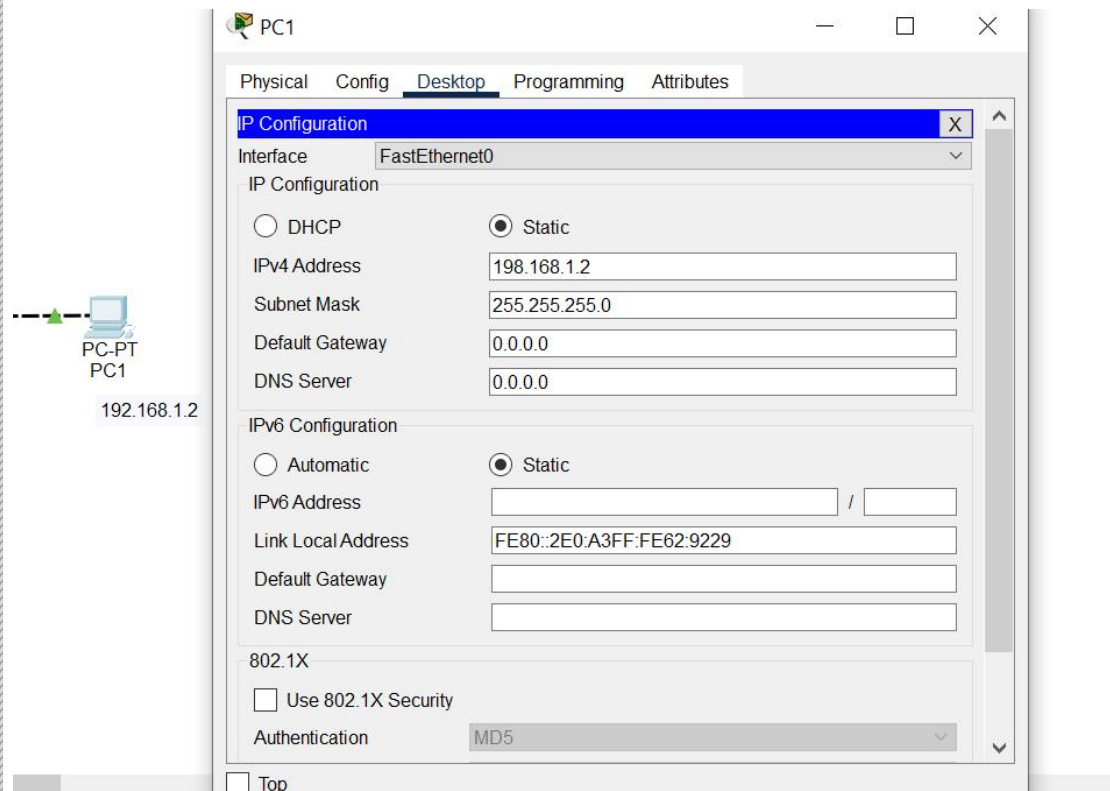

Lab Task 2

Task 1 (I)

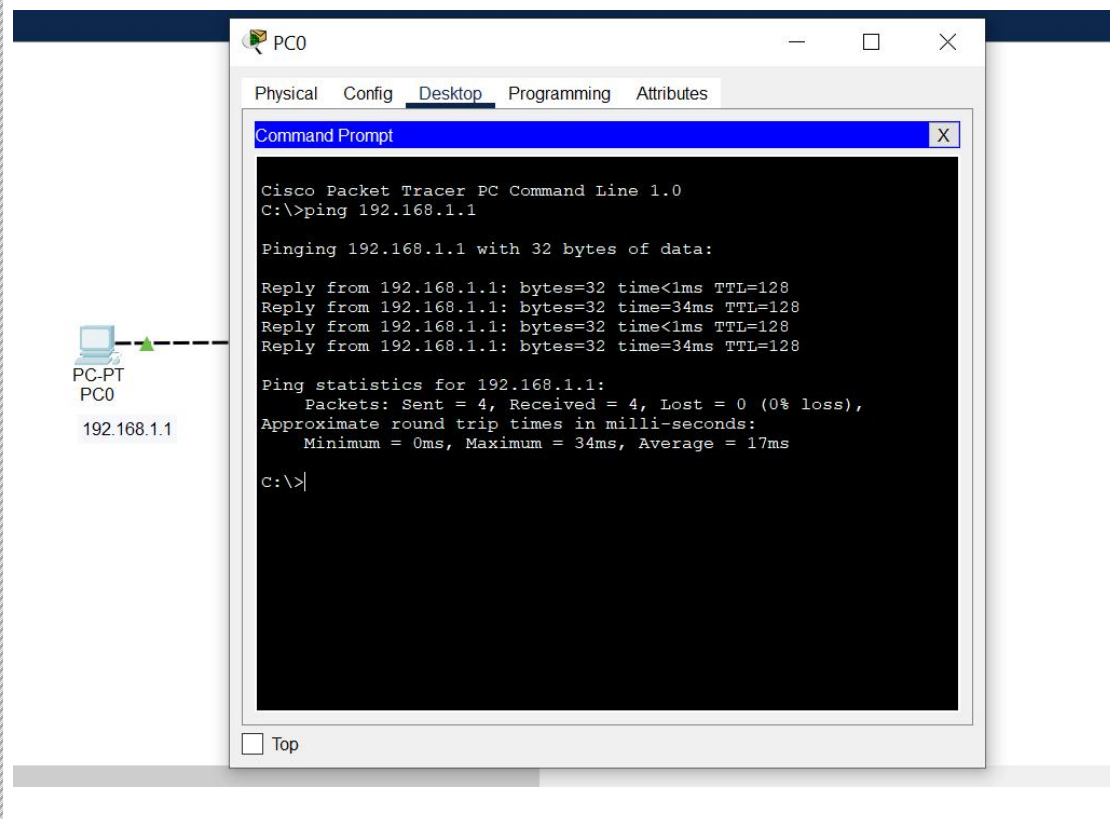1) First we made the connection of two PC by Copper Cross Over

2) Then we assign Ip address to PC 0 by clicking on it and then click on desktop and then ip config. There we can assign its ip.

3) Then we assign Ip address to PC 1 by clicking on it and then click on desktop and then ip config. There we can assign its ip.
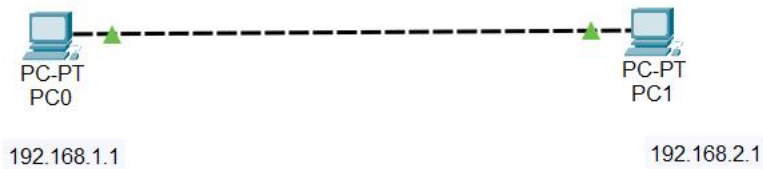

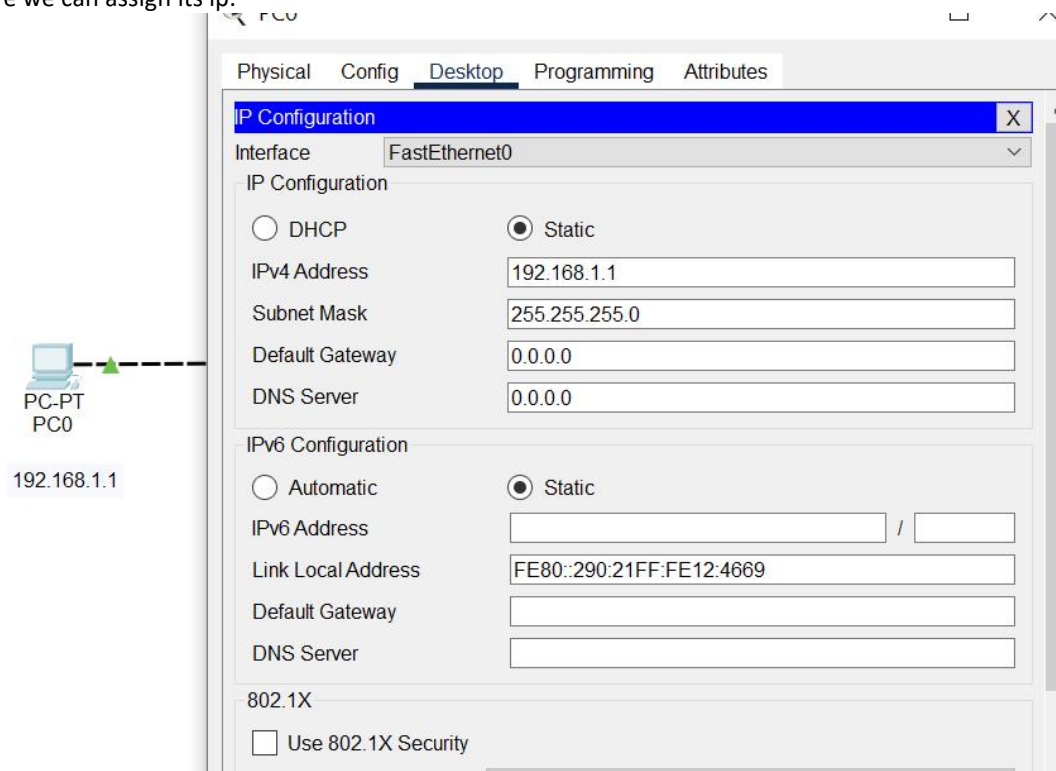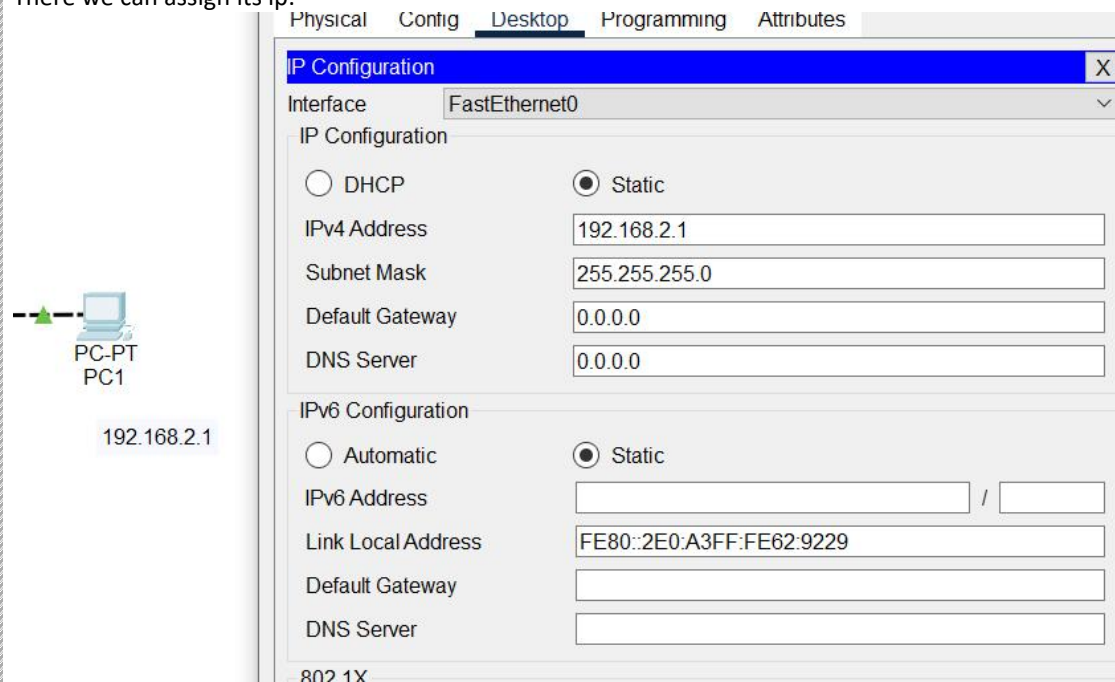4) Then we calculted its ping of PC 0 by clicking on PC and then desktop and cmd.

Task (ii)

1) First we made the connection of two PC by Copper Cross Over

PC-PT
PC0

192.168.1.1

PC-PT
PC1

192.168.2.1

2) Then we assign Ip address to PC 0 by clicking on it and then click on desktop and then ip config. There we can assign its ip.

PC-PT
PC0

192.168.1.1

| Physical | Config | Desktop | Programming | Attributes |

IP Configuration   X

Interface   FastEthernet0

IP Configuration

○ DHCP   ◉ Static

IPv4 Address   192.168.1.1

Subnet Mask   255.255.255.0

Default Gateway   0.0.0.0

DNS Server   0.0.0.0

IPv6 Configuration

○ Automatic   ◉ Static

IPv6 Address   /

Link Local Address FE80::290:21FF:FE12:4669

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

3) Then we assign Ip address to PC 1 by clicking on it and then click on desktop and then ip config. There we can assign its ip.

4) This error is generated bcz the network id of both pc are different that's why connection cant be established.

Task (iii)

1) In this we have changed the subnet mask.

Physical | Config | Desktop | Programming | Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration
- DHCP
- Static (selected)
- IPv4 Address: 192.168.1.1
- Subnet Mask: 255.255.0.0
- Default Gateway: 0.0.0.0
- DNS Server: 0.0.0.0

IPv6 Configuration
- Automatic
- Static (selected)
- IPv6 Address: _____ / ___
- Link Local Address: FE80::290:21FF:FE12:4669
- Default Gateway: _____
- DNS Server: _____

802.1X
- Use 802.1X Security

PC-PT PC0
192.168.1.1

2) In this we have changed the subnet mask.

PC1

Physical | Config | Desktop | Programming | Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration
- DHCP
- Static (selected)
- IPv4 Address: 192.168.2.1
- Subnet Mask: 255.255.0.0
- Default Gateway: 0.0.0.0
- DNS Server: 0.0.0.0

IPv6 Configuration
- Automatic
- Static (selected)
- IPv6 Address: _____ / ___
- Link Local Address: FE80::2E0:A3FF:FE62:9229
- Default Gateway: _____
- DNS Server: _____

802.1X
- Use 802.1X Security

PC-PT PC1
192.168.2.1

3) Connection is establish because the network id of both are same.


```
Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=3ms TTL=128
Reply from 192.168.1.1: bytes=32 time=2ms TTL=128
Reply from 192.168.1.1: bytes=32 time=10ms TTL=128
Reply from 192.168.1.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 10ms, Average = 3ms

C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=6ms TTL=128
Reply from 192.168.1.1: bytes=32 time<1ms TTL=128
Reply from 192.168.1.1: bytes=32 time=7ms TTL=128
Reply from 192.168.1.1: bytes=32 time=33ms TTL=128

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 33ms, Average = 11ms

C:\>
```
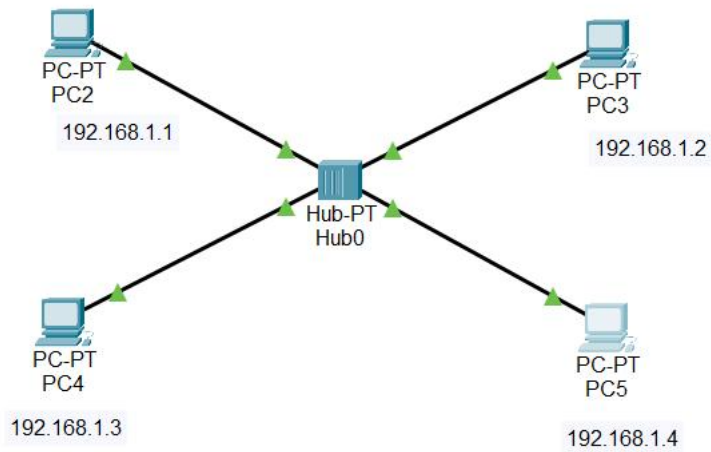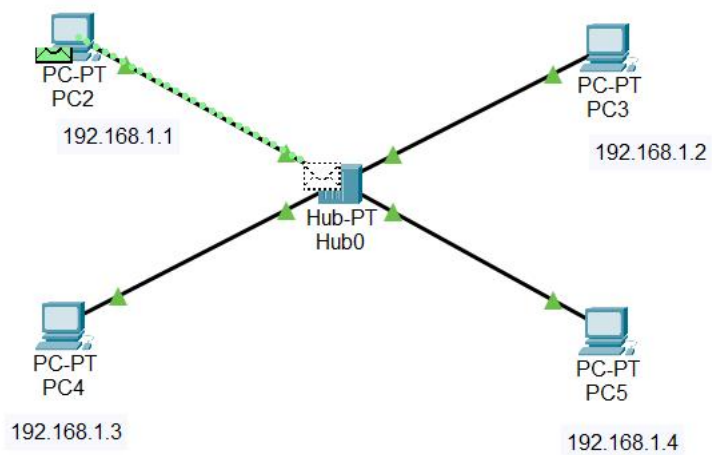
PC-PT
PC0

192.168.1.1

Task 2(HUB)

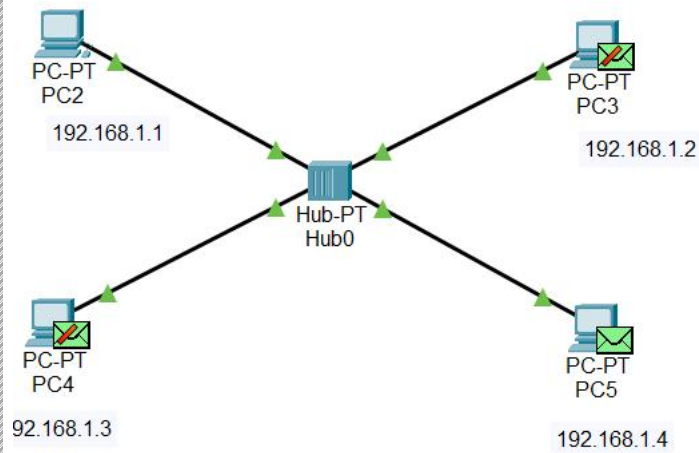1) We connected 4 pc to hub device and also assigned different ip to each PC.

2) Then we send a message from PC2 to PC5. Here you can see that first the message will send to HUB.
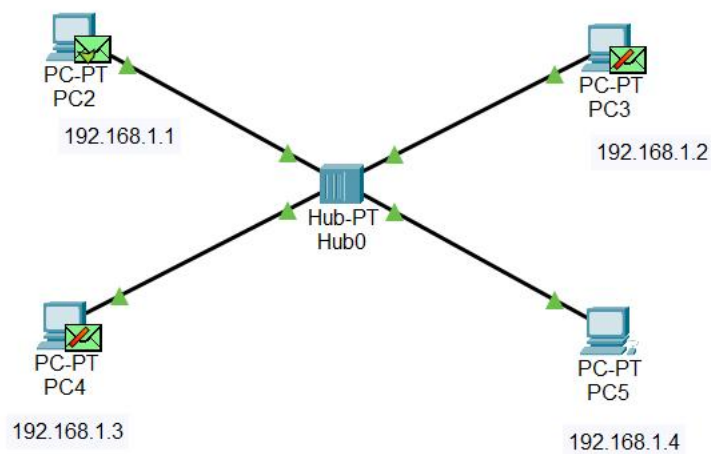
3) Then the HUB will send to message to all PC because it is not an intelligent device and don't have memory so that's why it send to all device.
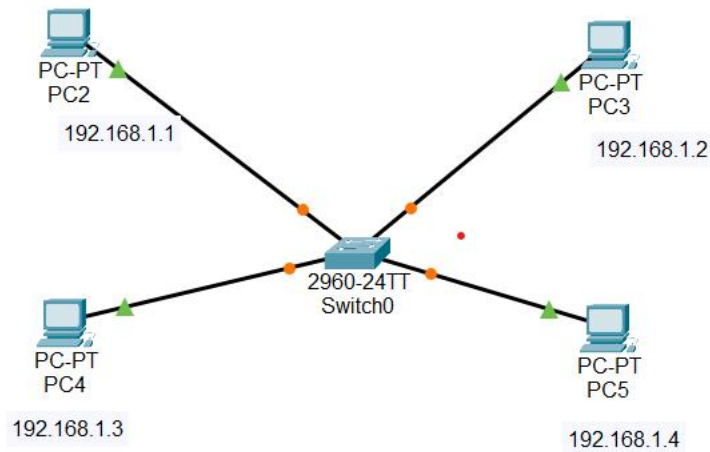

4) When the message is received then again it send to the sender to accomplish that your message have been sent.
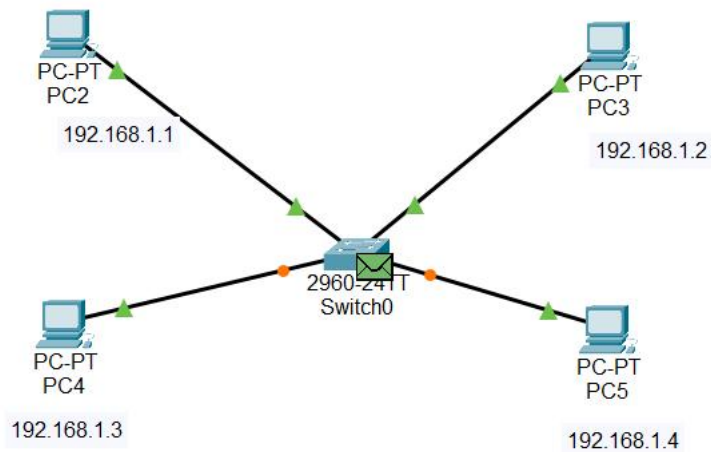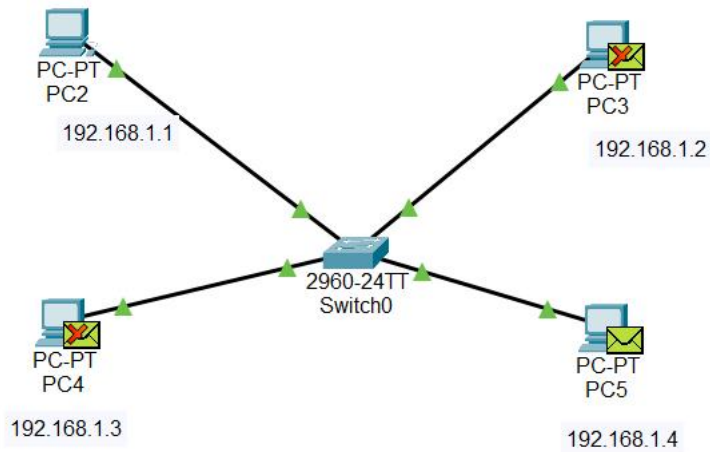
Task 3 (Switch)

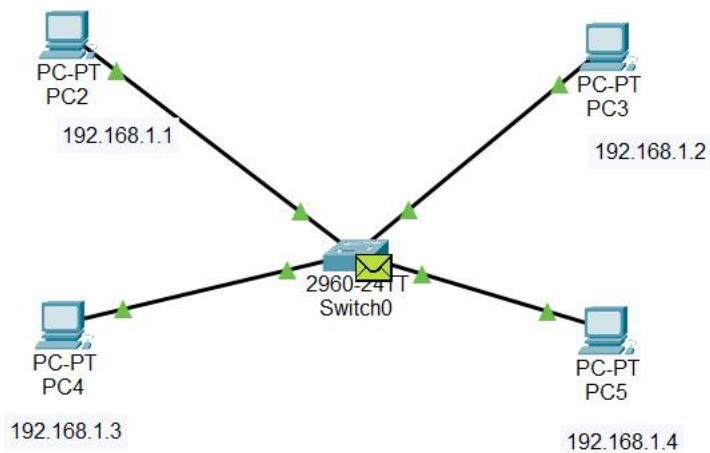1) We connected 4 pc to Switch device and also assigned different ip to each PC.

2) We send the message from PC2 to PC5 so first it will recive by switch.

3) Then the switch will send to all PC to store memory and it will be recive by PC5.

4) After receiving msg it will then send to PC2 so say that msg being recived at that time the msg will be recived only by PC2 not all device and that's the difeerence between HUB and Switch.

5) As you see here……