Computer Networks Lab Task – 2

Instructor: Ma’am Hurmat Hidayat

Roll No: 20P-0563

Name: Mahad Ashraf

Section: B

Task 1: Cisco packet Tracer

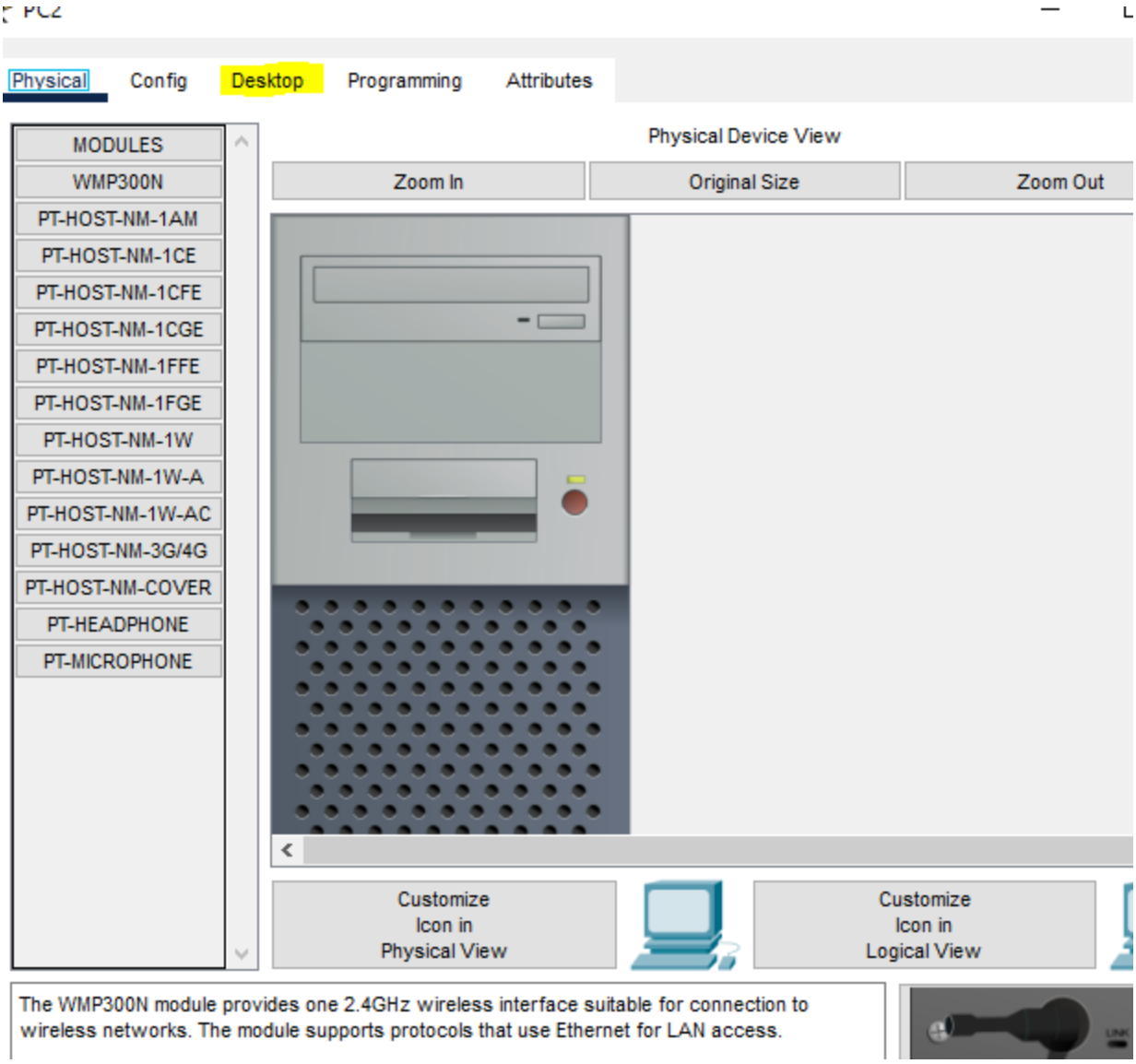
Part 1: First Configure the PCs as shown above and verify the connection using ping command.

1-Step: First we open Cisco packet tracer after that we click on End Devices and select two end devices

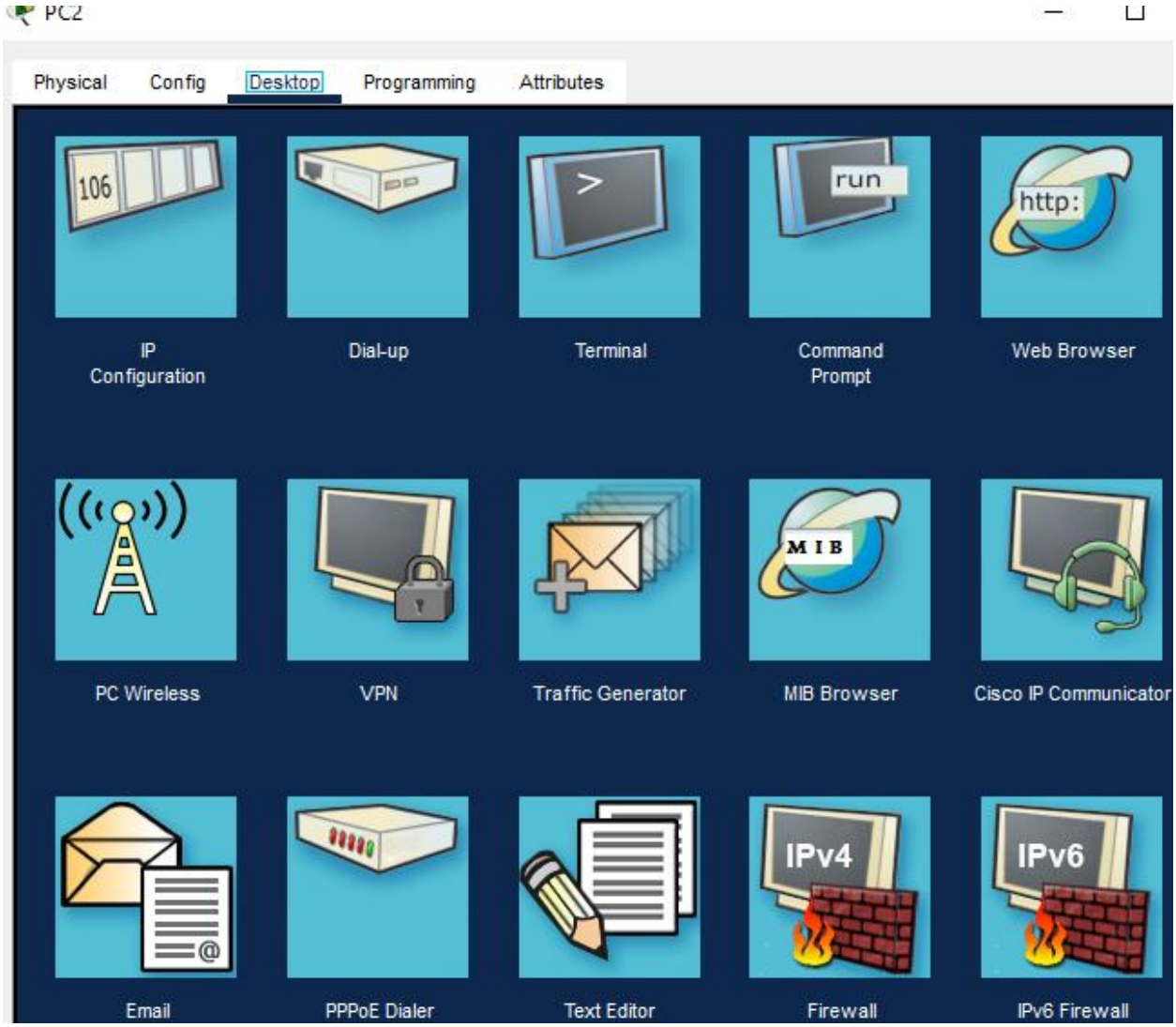
We can also name these pc's

2 – Step:

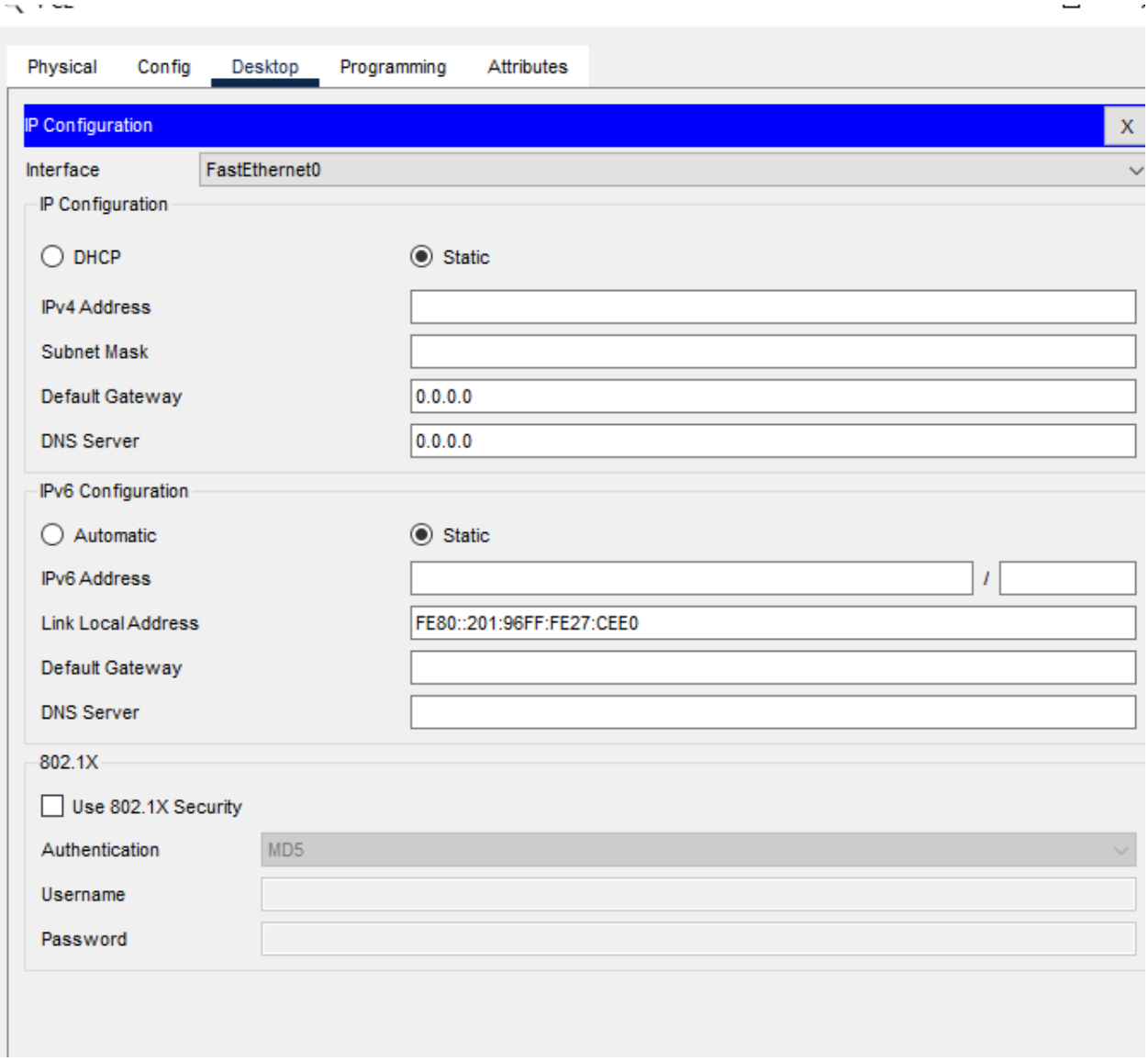
Now you click on first pc a settings will pop up on that you will see on top right corner there is option called desktop click on that



After that select IP configuration



Now type in the IP addresses and subnet mask

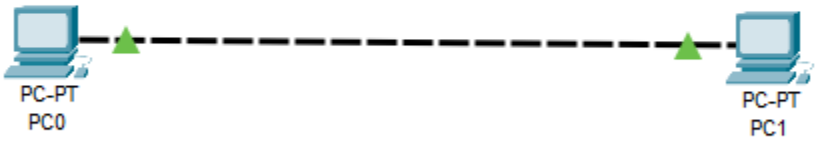


Follow the same procedure for pc 2

3 – Step:

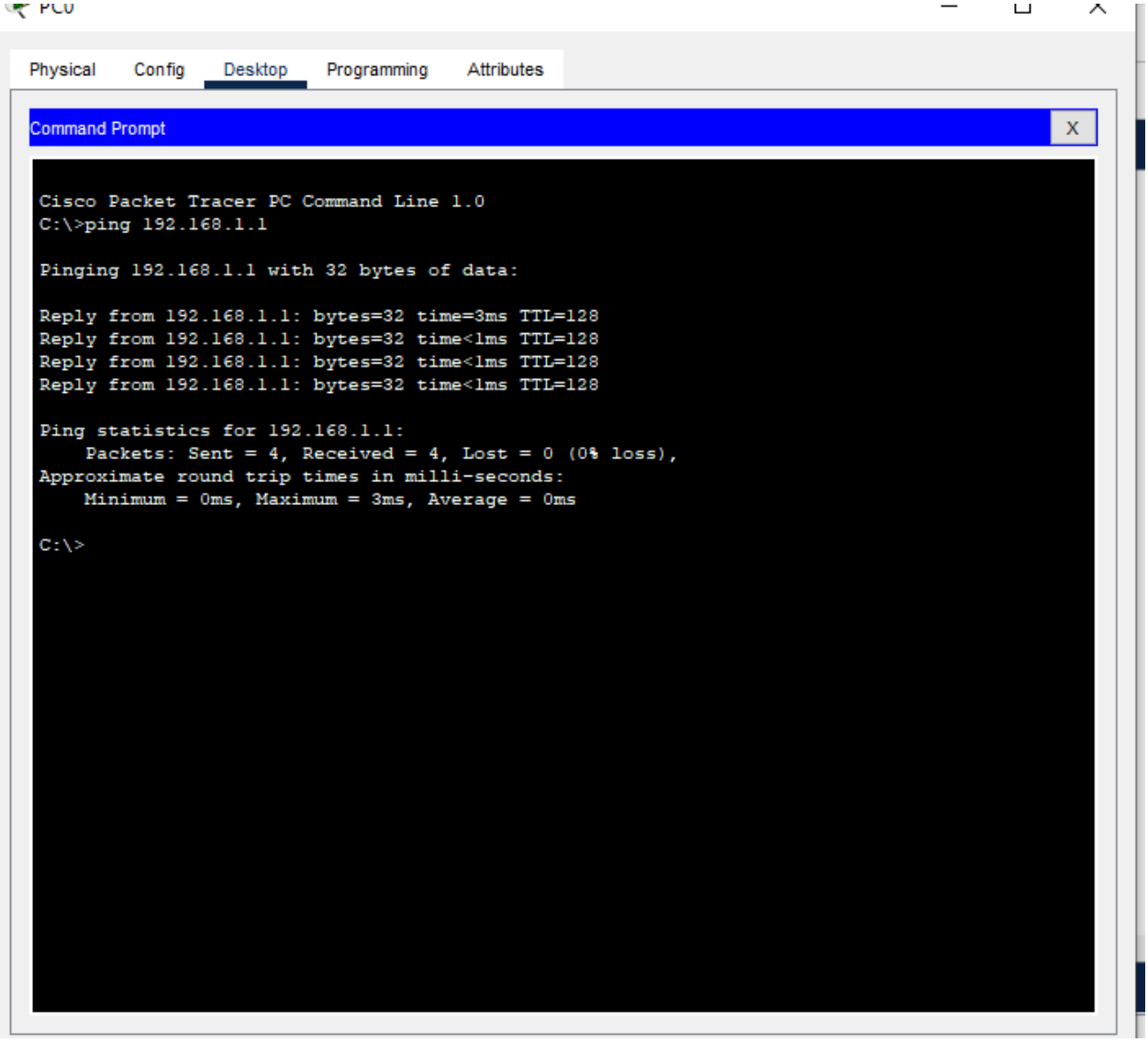
Now after doing this on bottom left corner you will see an lighting icon click on that set of different wires will appear you have to select the lining one wire

4 –Step:
Now you have to connect both of these pc's with each other by selecting Fast Ethernet Cable



5 – Step:

Now in the last step you have to ping pc 1 with the 2 pc for that click on 1 pc and go on desktop over there click on command prompt, After clicking on that type in ping and write the IP address of the 2 pc and press enter and if the procedure works both the pc's are connected together because the IP address and the subnet mask for the both pc's are same so it gets connected easily with request time out



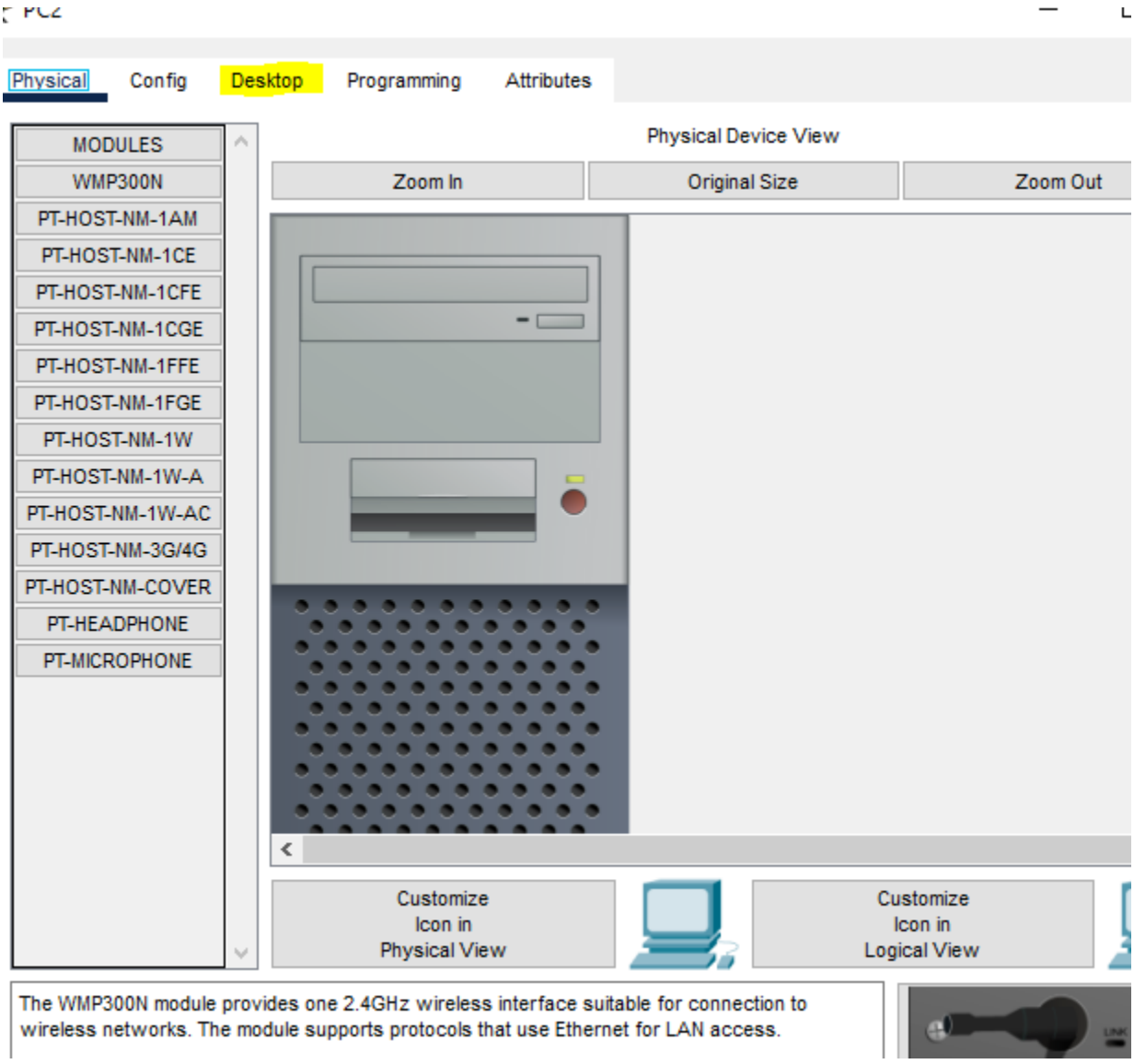
Part 2: Configure PC1 as follow: IPv4: 192.168.1.1 Subnet mask: 255.255.255.0

And PC2 as: IPv4: 192.168.2.1 Subnet mask: 255.255.255.0

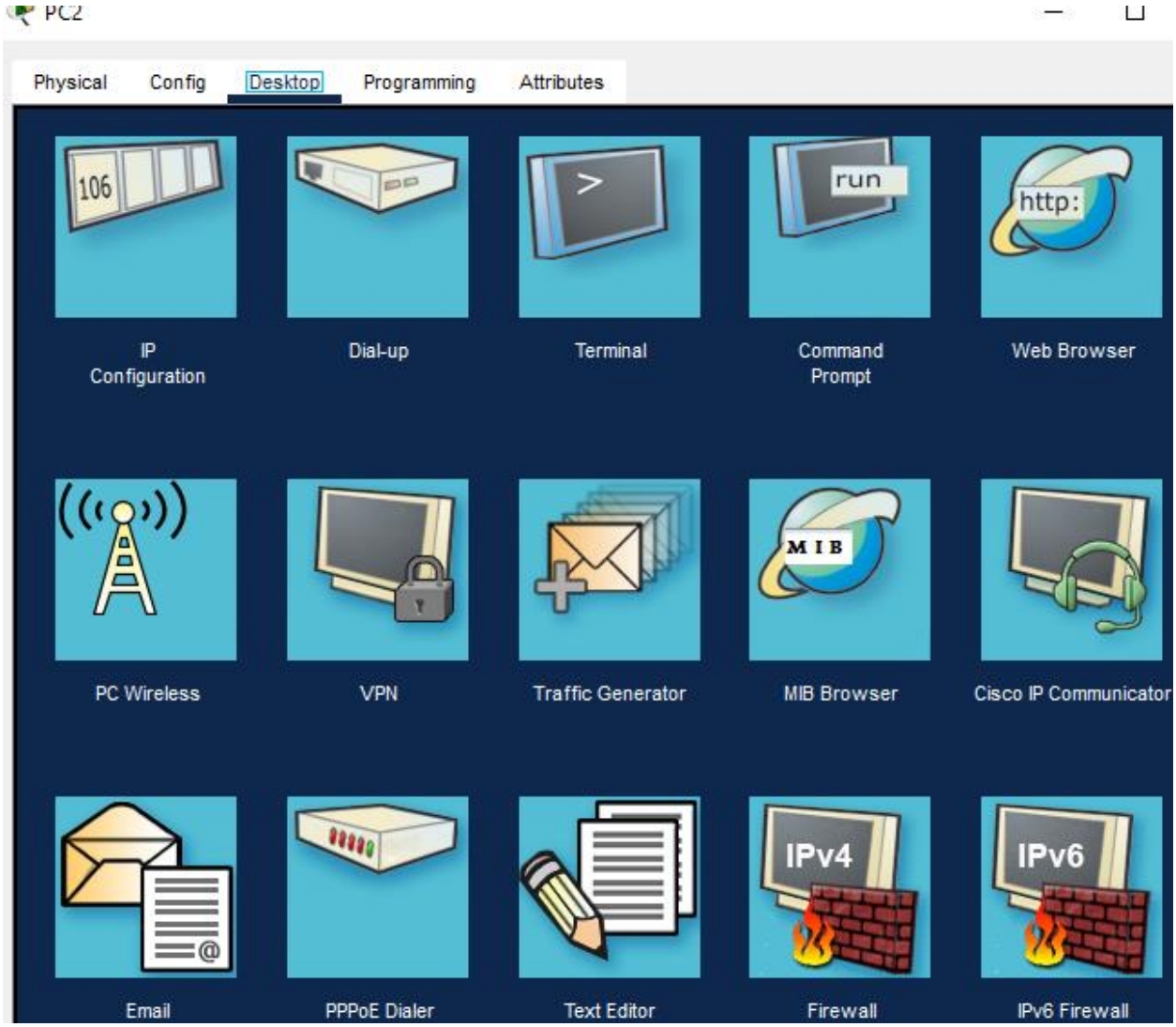
1-Step: First we open Cisco packet tracer after that we click on End Devices and select two end devices

2 – Step:

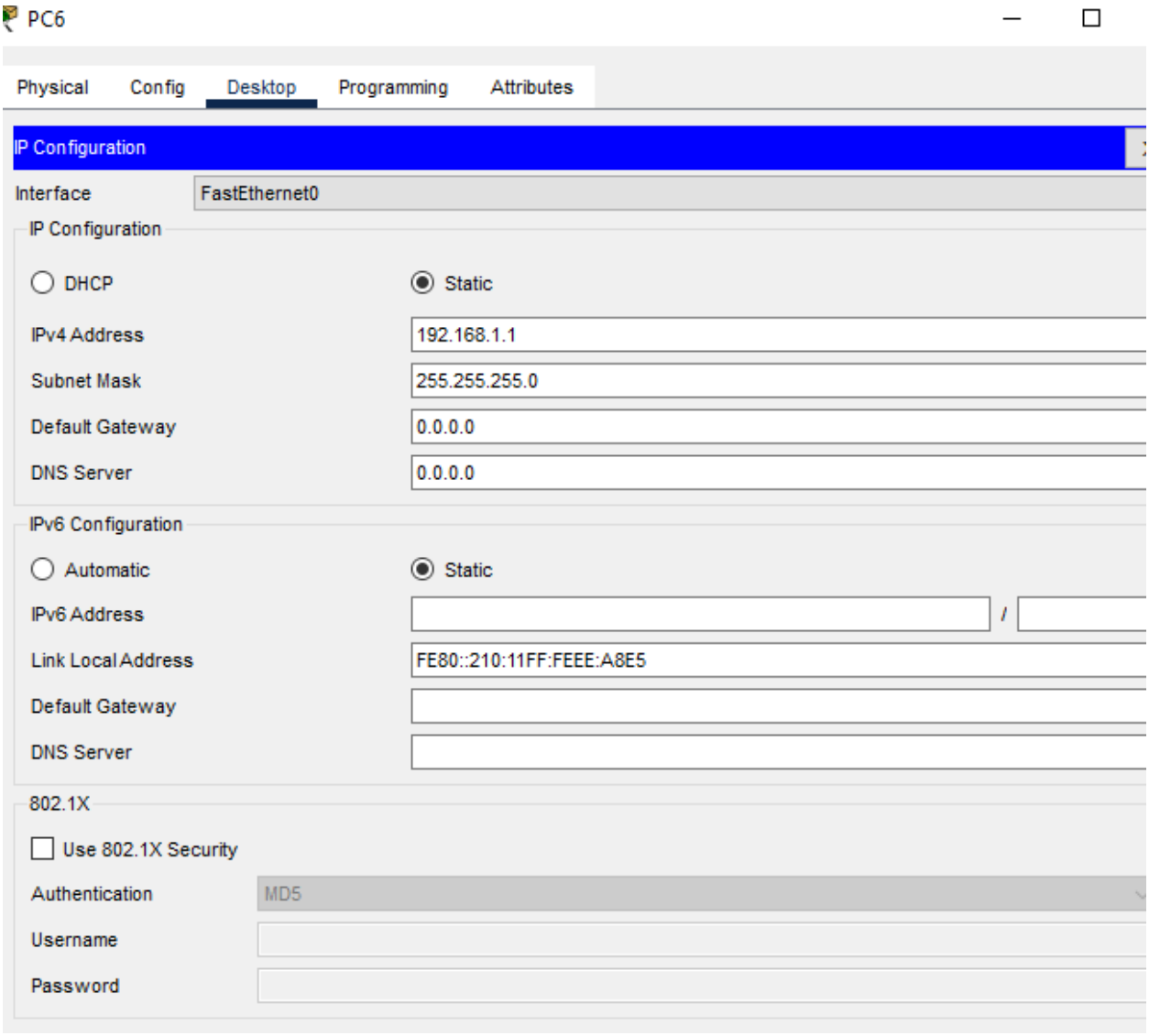
Now you click on first pc a settings will pop up on that you will see on top right corner there is option called desktop click on that



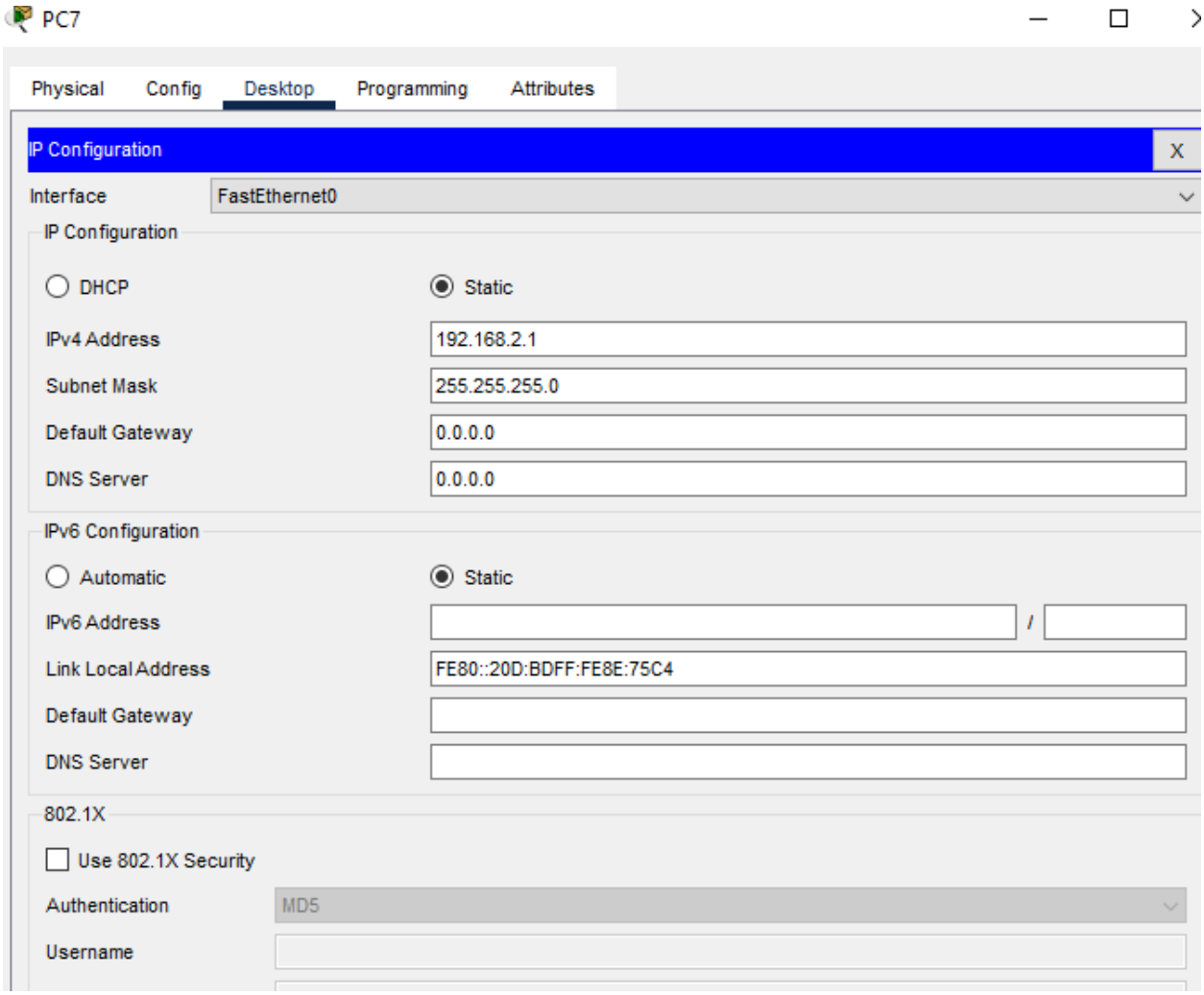
After that select IP configuration



Now type in the IP address for first pc 192.168.1.1 and subnet mask 255.255.255.0



And for pc 2 type IP address 192.168.2.1 and subnet mask 255.255.255.0

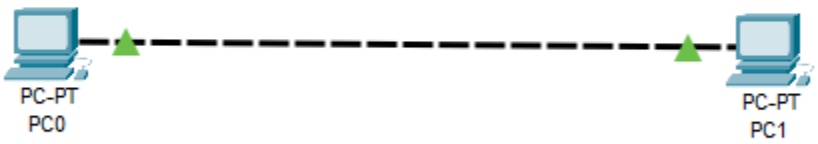


3 – Step:

Now after doing this on bottom left corner you will see an lighting icon click on that set of different wires will appear you have to select the lining one wire

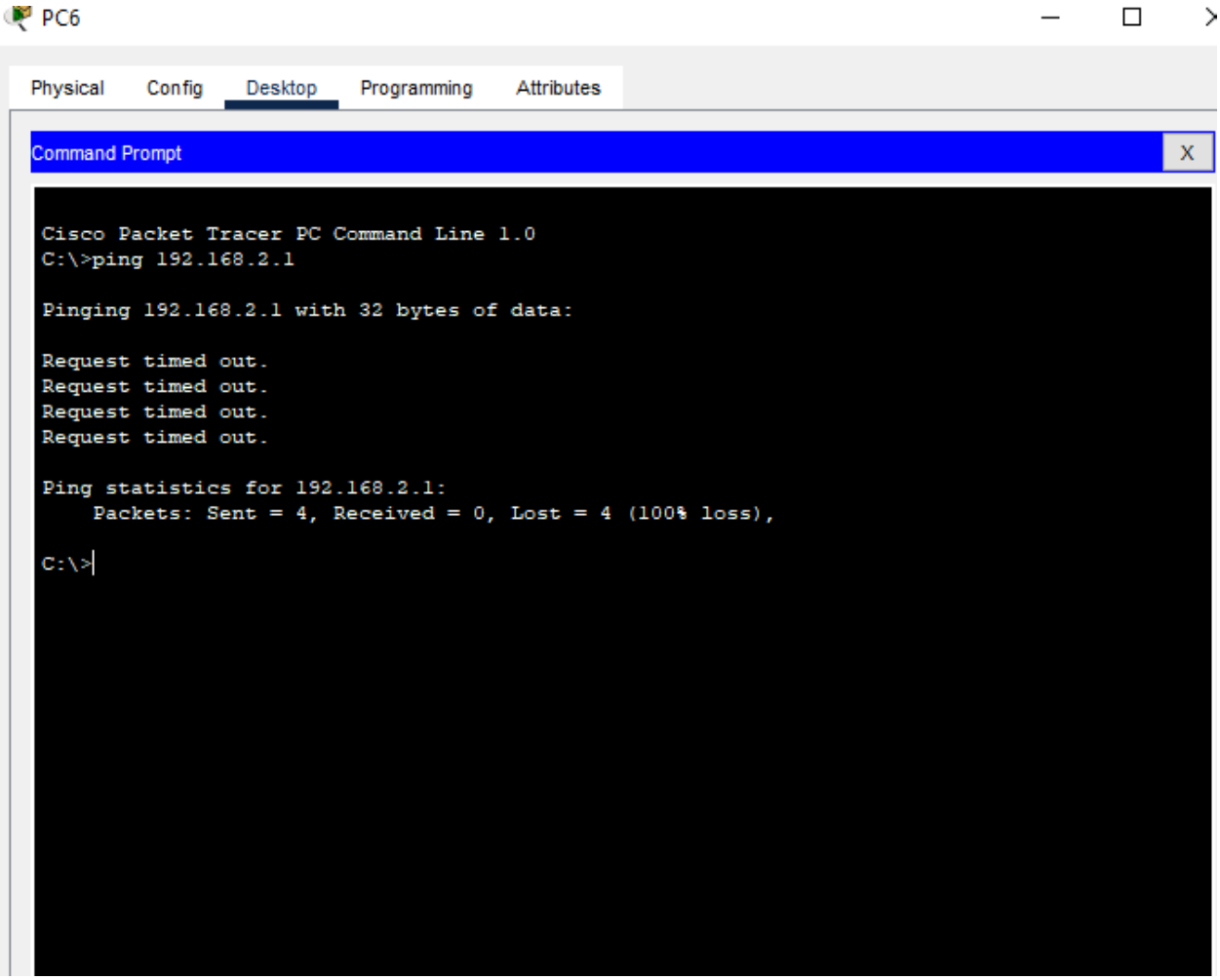
4 –Step :

Now you have to connect both of these pc's with each other by selecting Fast Ethernet Cable



5 – Step:

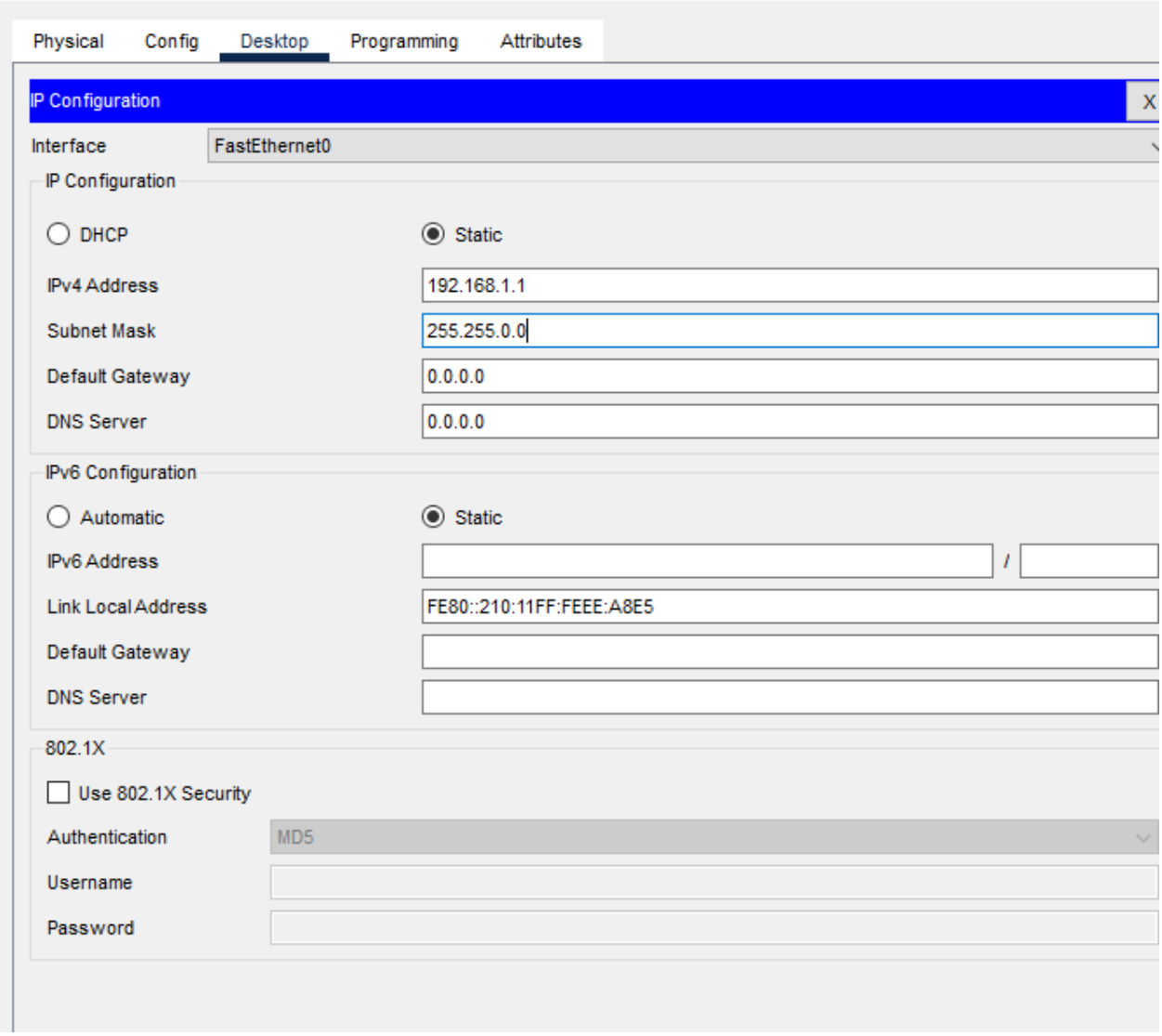
Now in the last step you have to ping pc 1 with the 2 pc for that click on 1 pc and go on desktop over there click on command prompt, After clicking on that type in ping and write the IP address of the 2 pc and press enter we will get a request time out error in this one Because In this one we get request time out and we get an error because when we change the subnet mask for the different IP addresses we lost the connection because when we send or ping it doesn't find the 2 pc and gets lost and doesn't find the other pc that's why



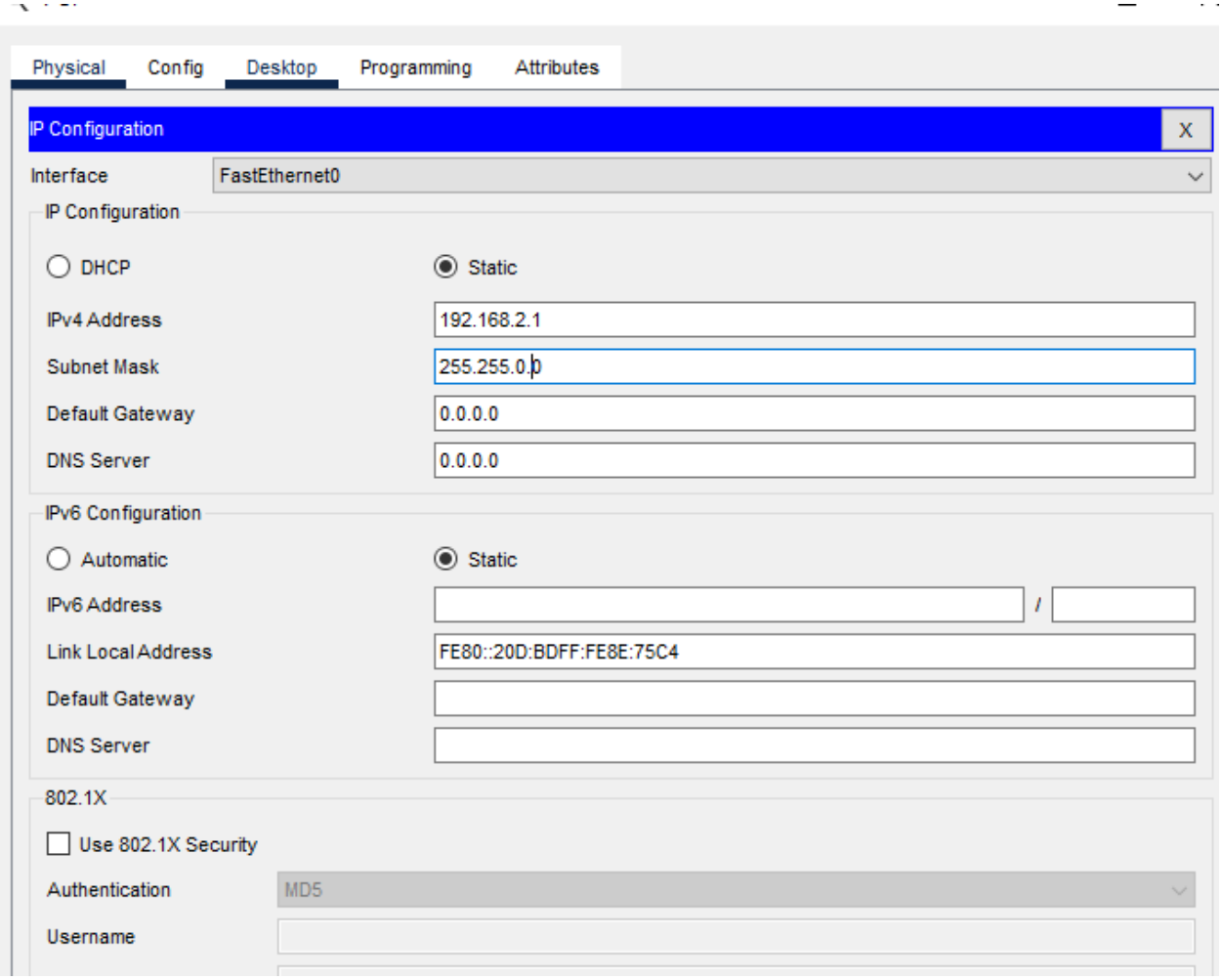
Part 3: Configure PC1 as follow: IPv4: 192.168.1.1 Subnet mask: 255.255.0.0

And PC2 as: IPv4: 192.168.2.1 Subnet mask: 255.255.0.0

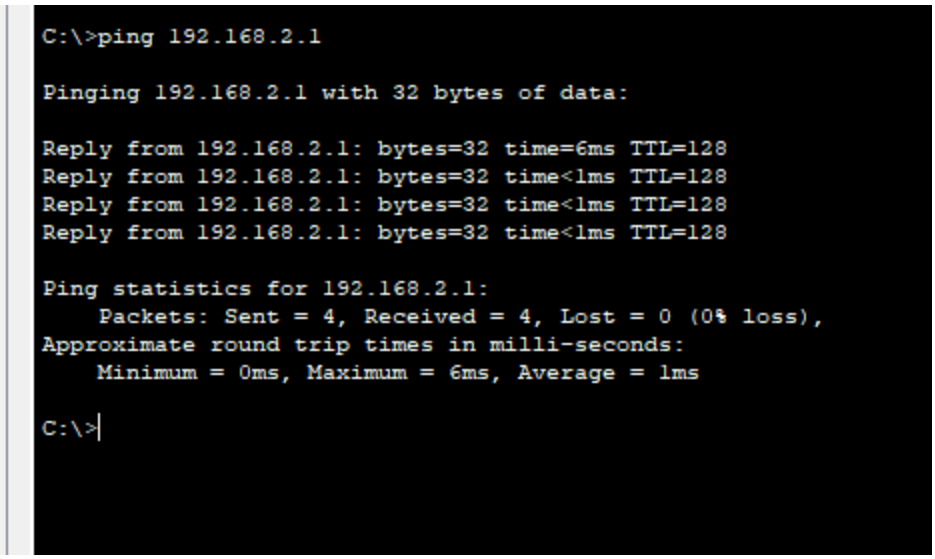
We again click on pc 1 and select IP address and type in the new subnet mask for pc 1



And after that we click on pc 2 and do the same and type in new subnet mask for pc 2



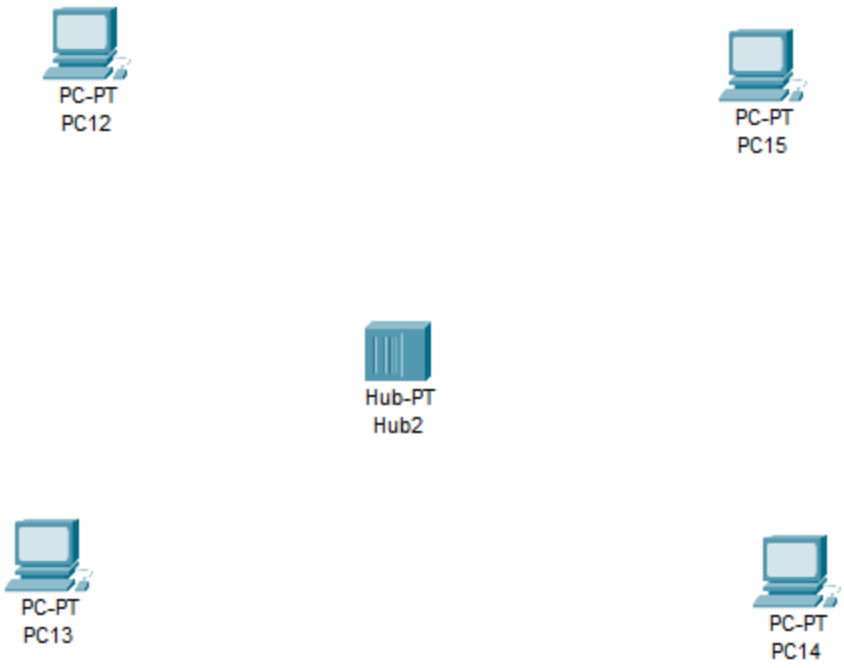
Now we open command prompt and ping these 2 pc's and we get a reply from the 2 pc packet sent 4 and no lost it also showed the round trip because in this one we change the subnet mask for them both and connect them accordingly so we change from 255.255.255.0 to 255.255.0.0 so it gets connected because we give 0 value to the that port so it finds the first two matching port and gets connected



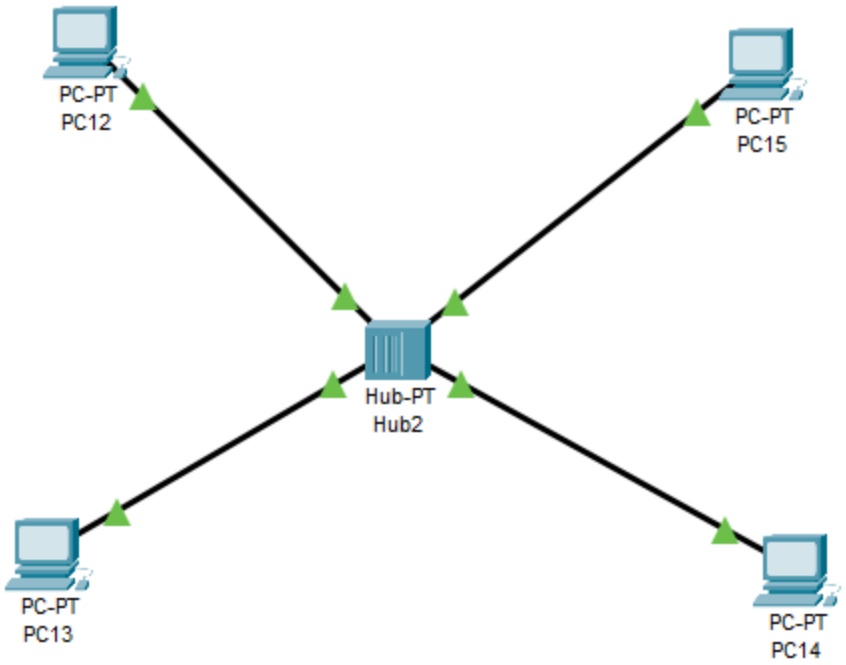
Task 2: Simulation of hub with end devices

1 – Step: first we drag and drop four end devices pc and name them differently

After that we drag and drop a hub in the middle of these 4 pc as shown

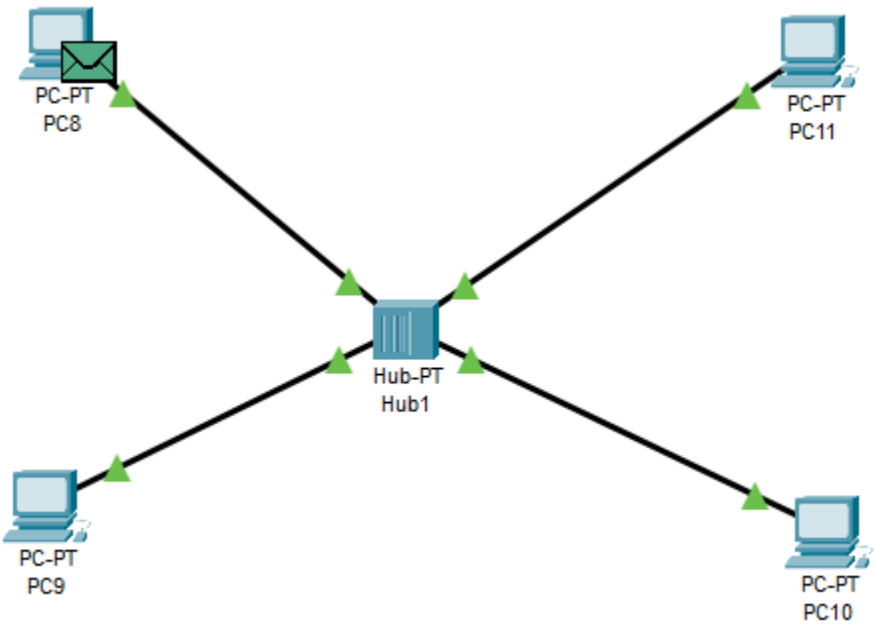


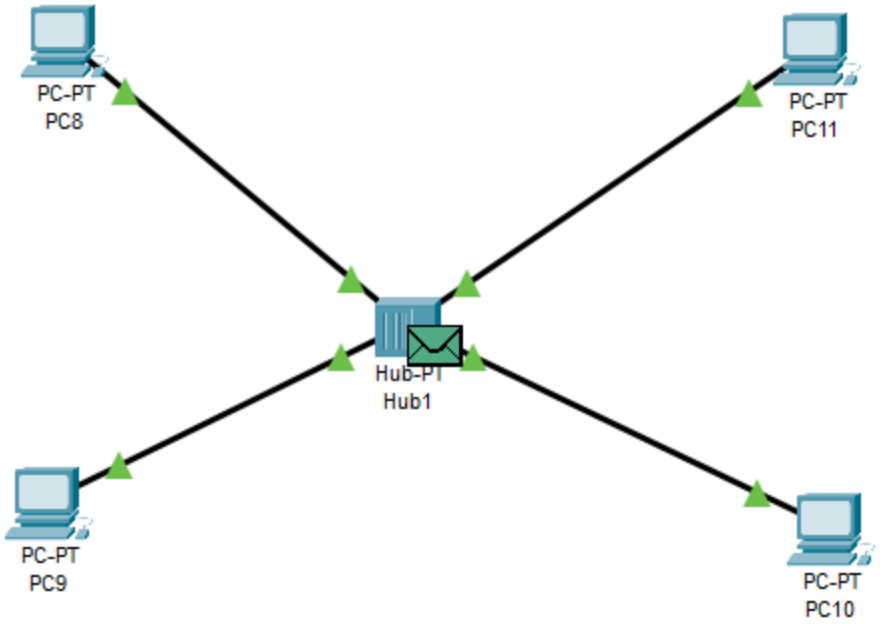
2 – Step: Now we connect the hub with all four of these devices with a copper straight through wire and select different Ethernet for each of them

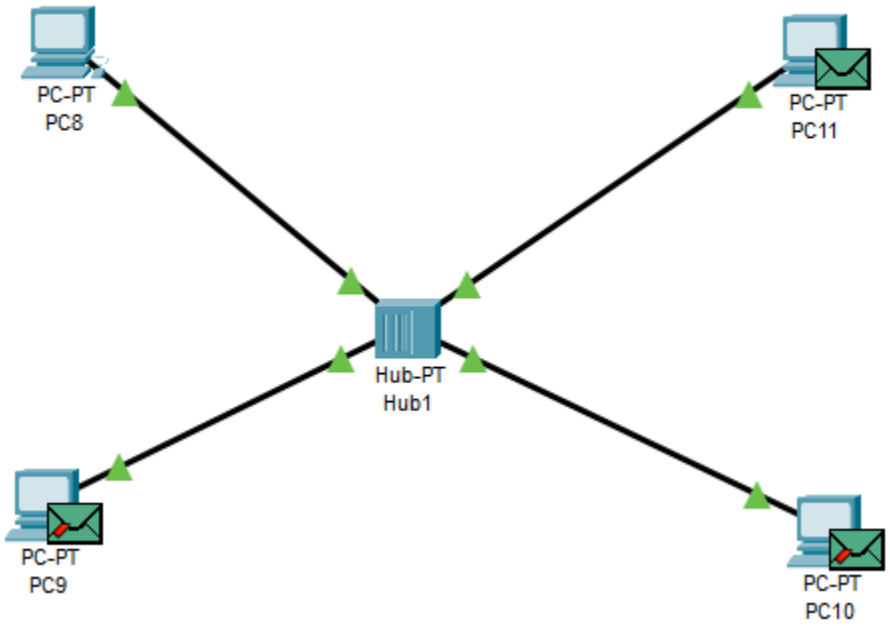


3 – Step :

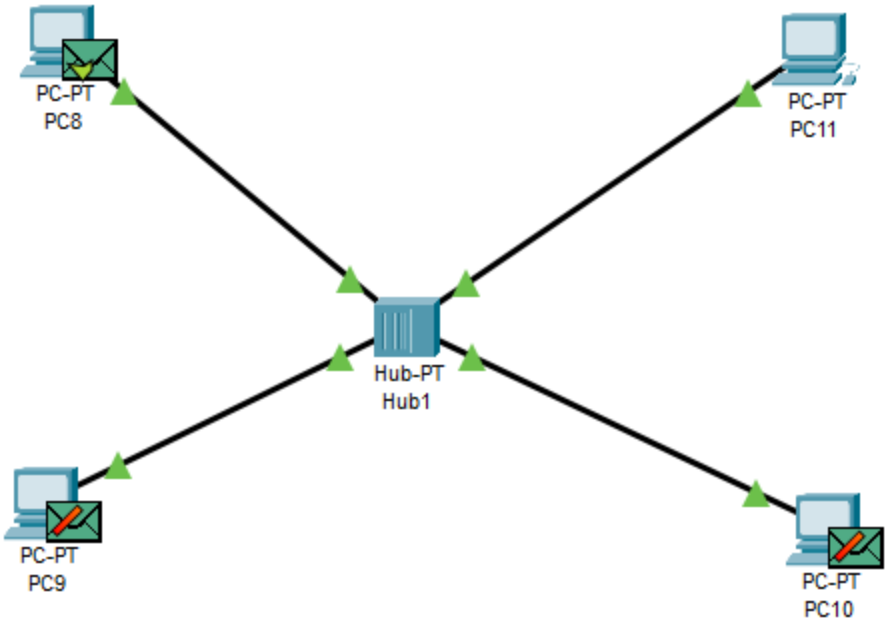
Now after we give different IP addresses to 4 pc's then we try to send a packet from pc 1 to pc 2 through the hub through simulation we check







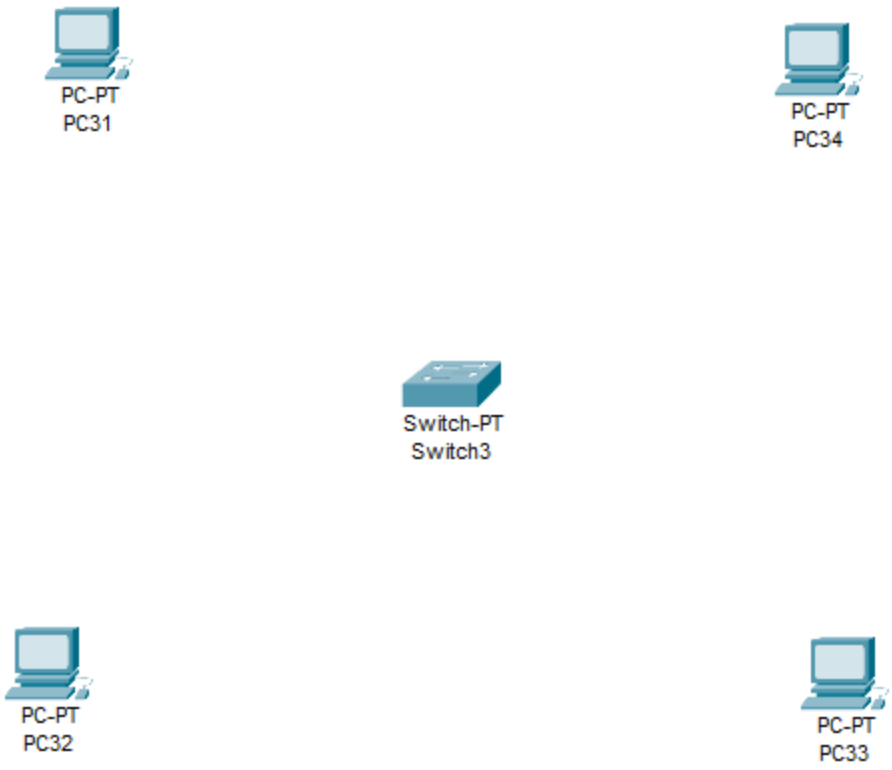
After receiving the packet from pc 1 pc 2 send back the same packet through the hub to all 3 but it only gets accepted by the pc 1 and rejected by the other 2 pc



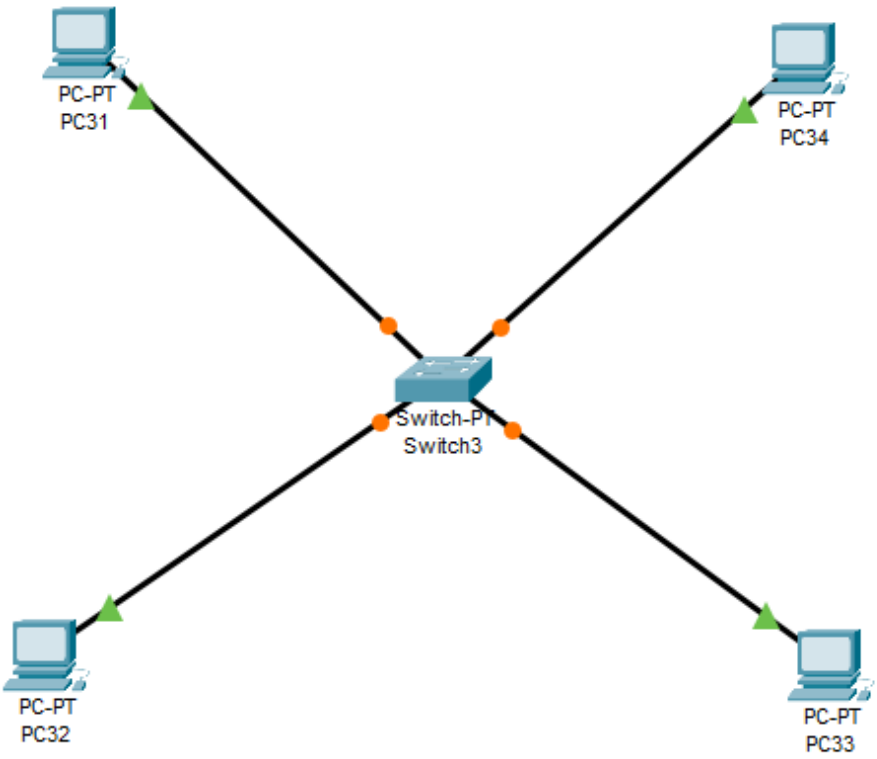
Task 3: Simulation of Switch with end devices

1 – Step: Step: first we drag and drop four end devices pc and name them differently

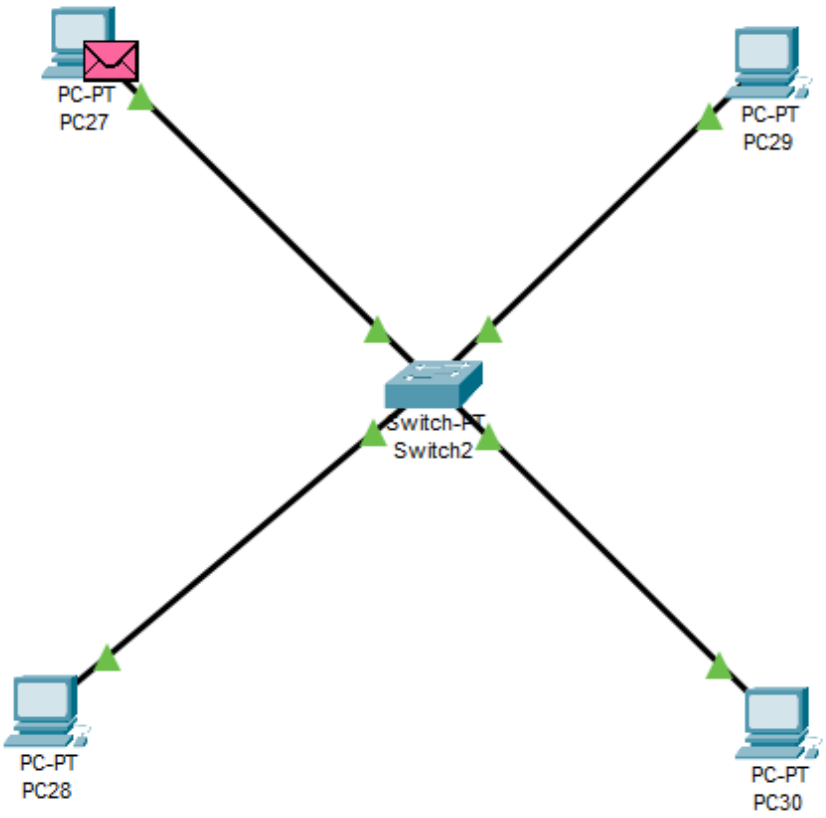
After that we drag and drop a switch in the middle of these 4 pc as shown

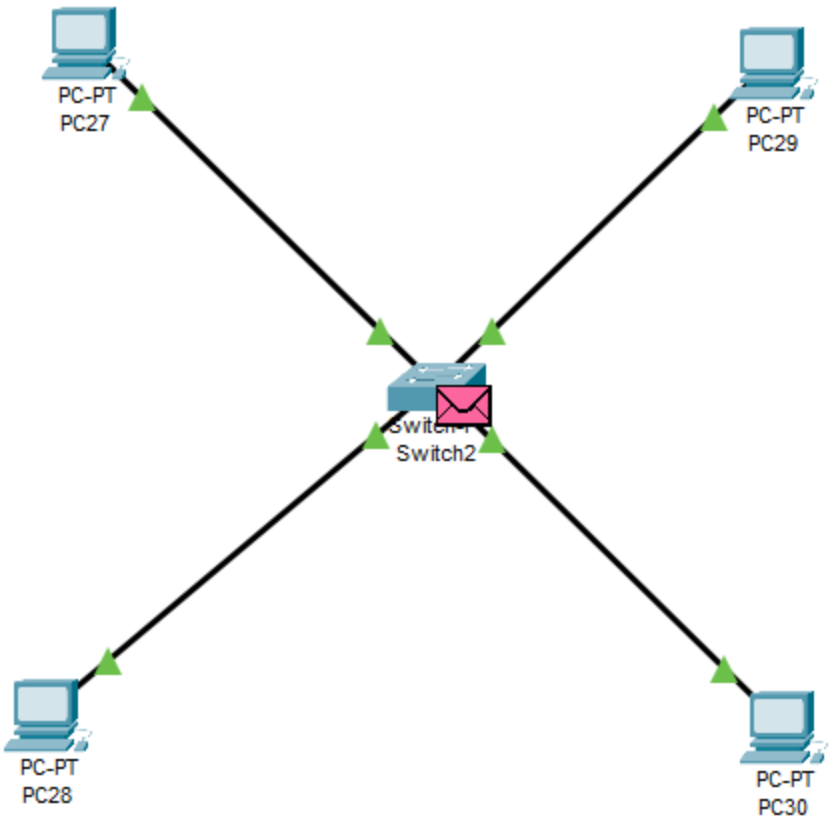


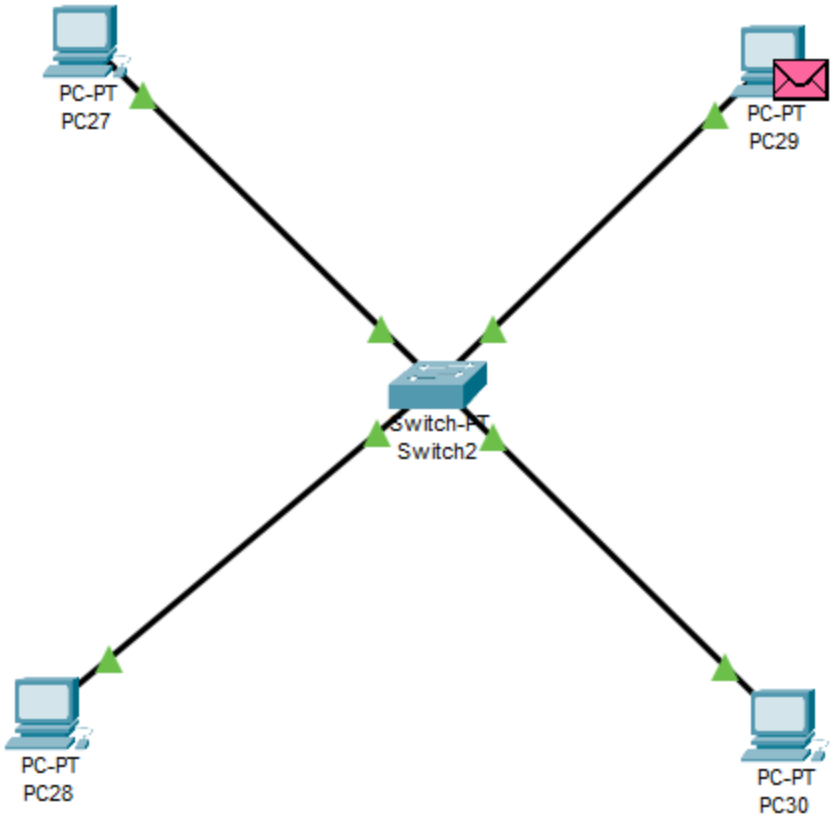
2 – Step: Now we connect the switch with all four of these devices with a copper straight through wire and select different Ethernet for each of them

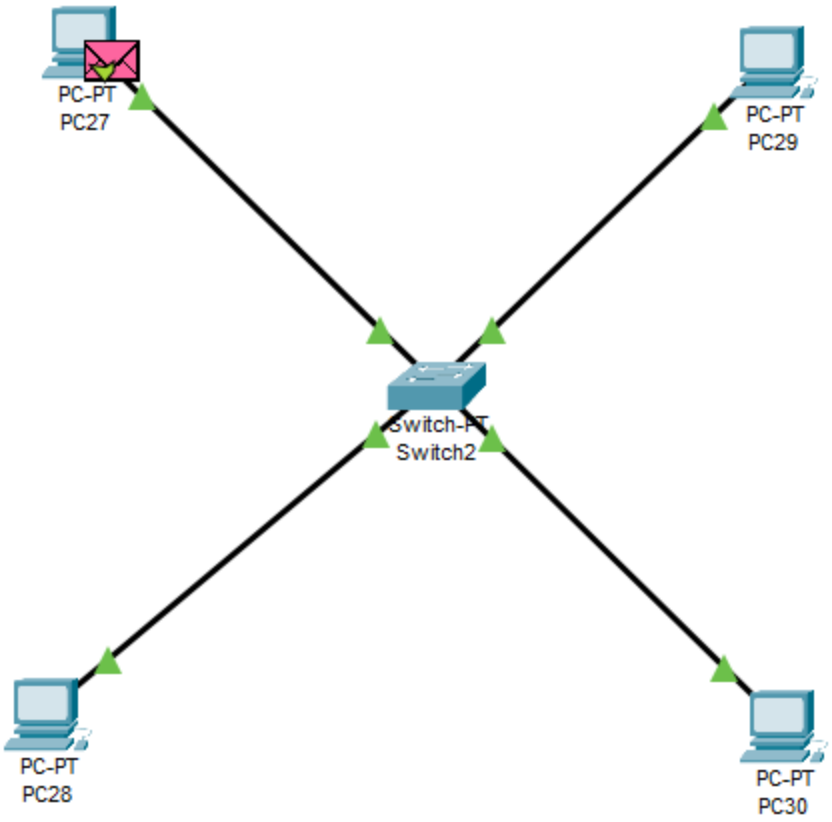


3 – step : now we send packets from pc 1 to pc2 through switch


PC-PT
PC27
PC-PT
PC29
Switch-PT
Switch2
PC-PT
PC28
PC-PT
PC30


PC-PT
PC27
PC-PT
PC29
Switch2
PC-PT
PC28
PC-PT
PC30


PC-PT
PC27
PC-PT
PC29
Switch-PT
Switch2
PC-PT
PC28
PC-PT
PC30


PC-PT
PC27
PC-PT
PC29
Switch-PT
Switch2
PC-PT
PC28
PC-PT
PC30