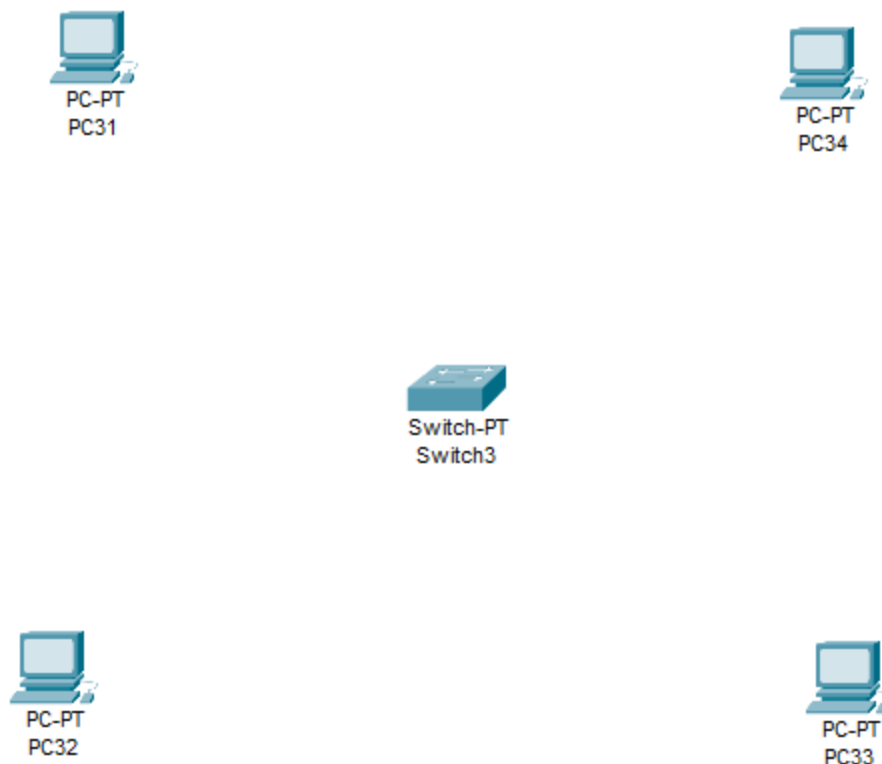


Task 1: Perform communication of four devices using switch

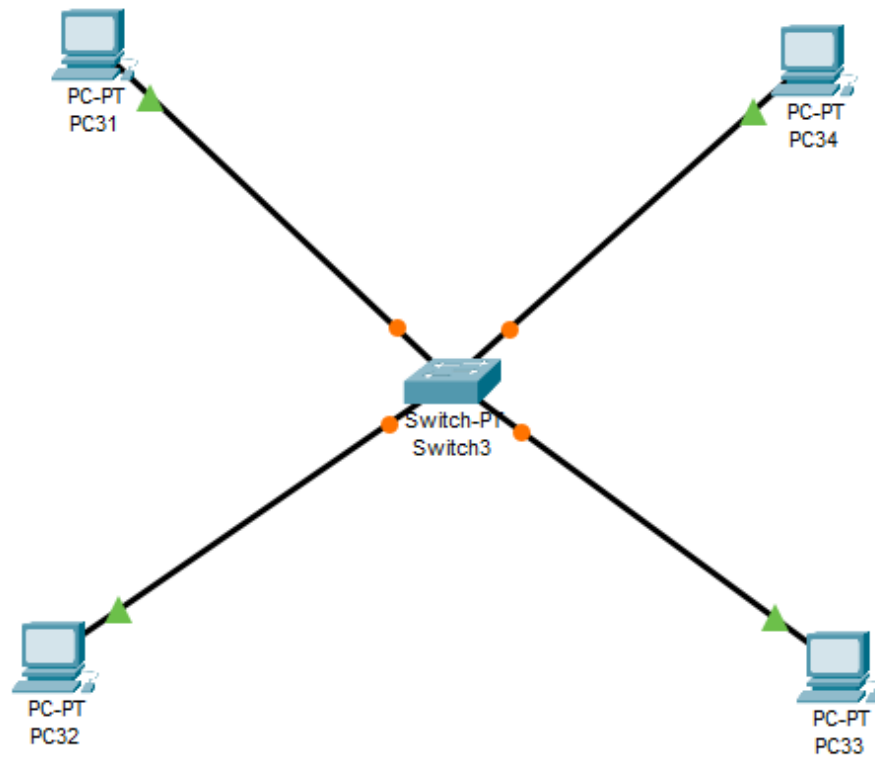
- Use the IP Address of Class C
- Simulate transfer of packet between two PCs
- Write brief and concise description of the whole process.

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

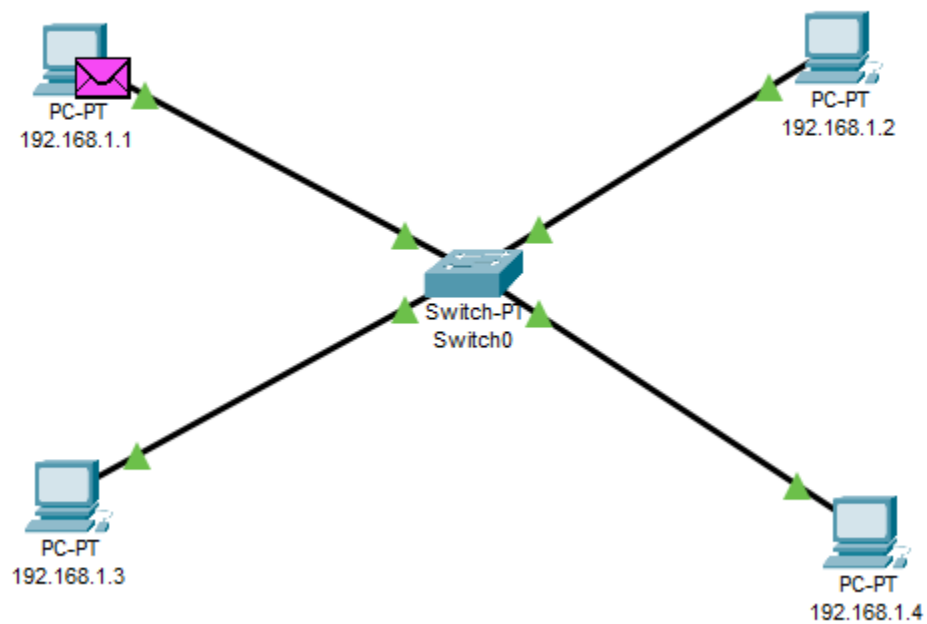
After that we drag and drop a switch in the middle of these 4 pc as shown

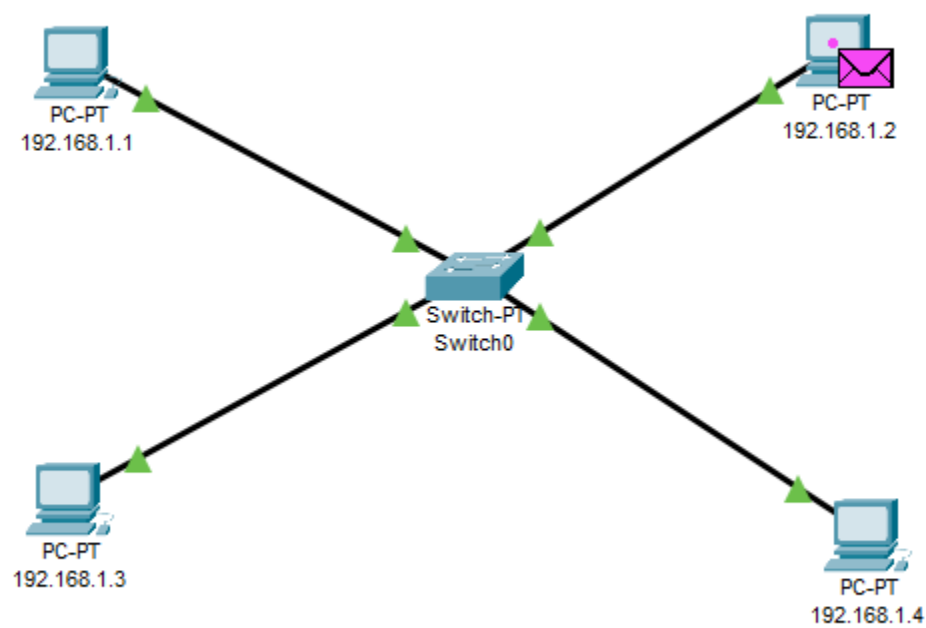
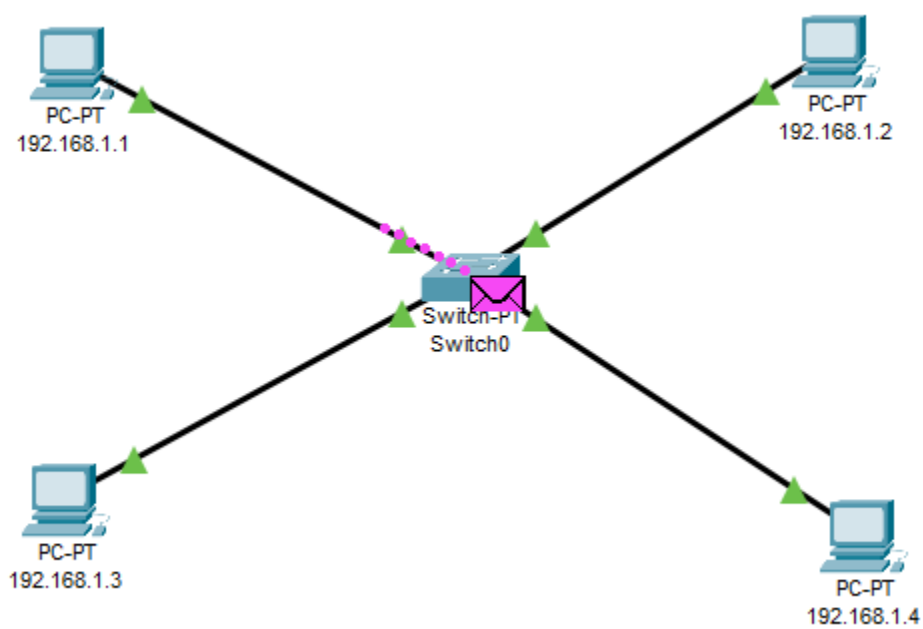


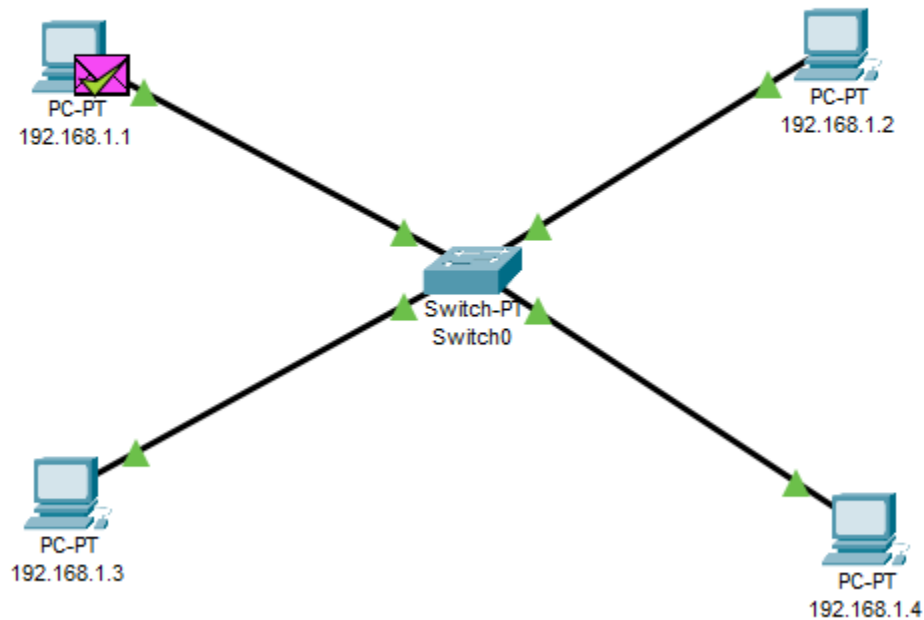
2 – Step: Now we connect the switch with all four of these devices with a copper straight through wire and select different Ethernet for each of them



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



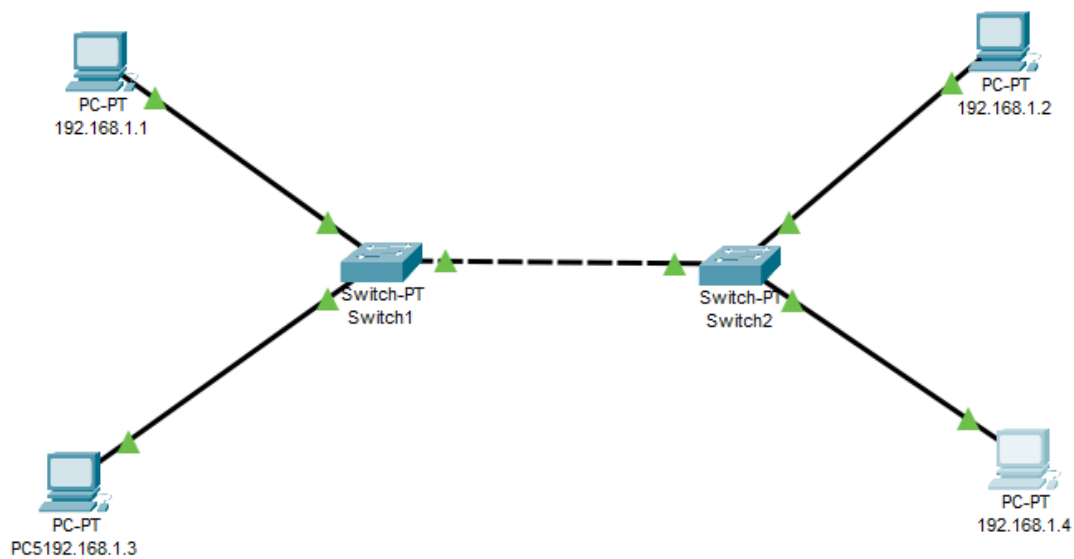




Task 2: Perform communication through multiple switches

- Use the IP Address of Class C
- Simulate transfer of packet between PC0 and PC3
- Write brief and concise description of the whole process.

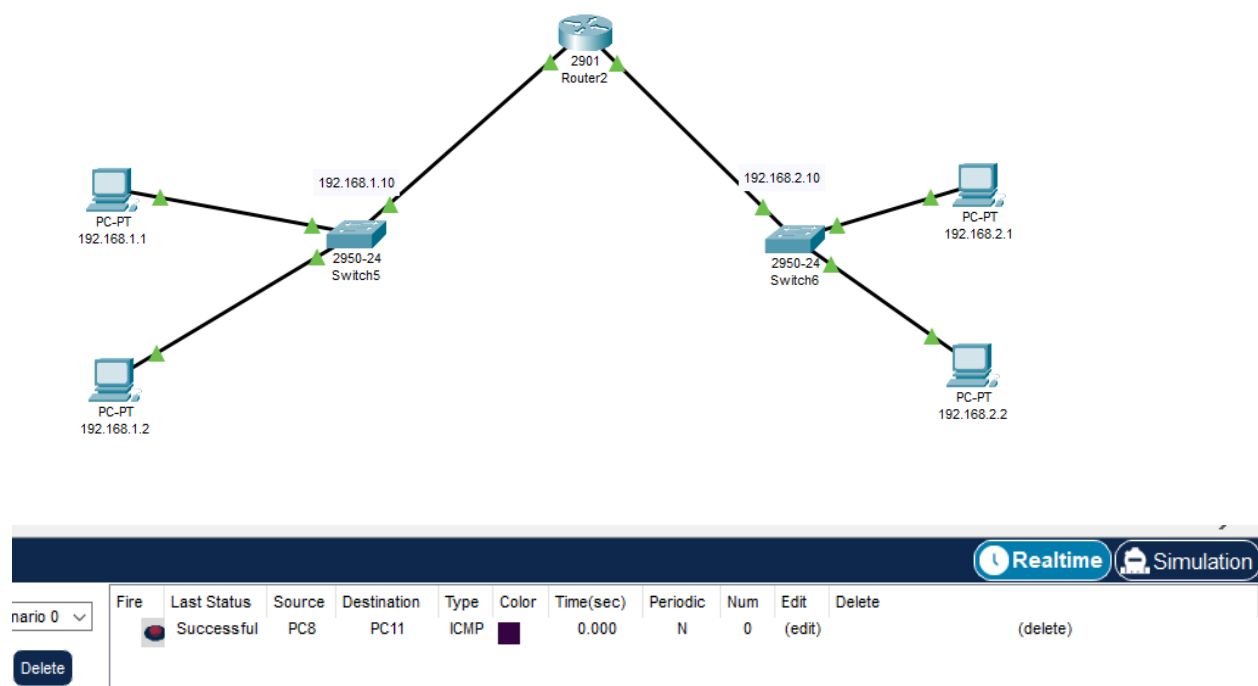
We assign different IP addresses to all the 4 pc's then we connect first two pc's with switch 1 and the last two pc's with switch 2 as mentioned below after that we send a packet from pc 1 to pc 3 whose IP address is 192.168.1.3



First we take 4 End PC's after that we take 2 switches and connect first two pc with 1 switch and the last two with the 2 switch

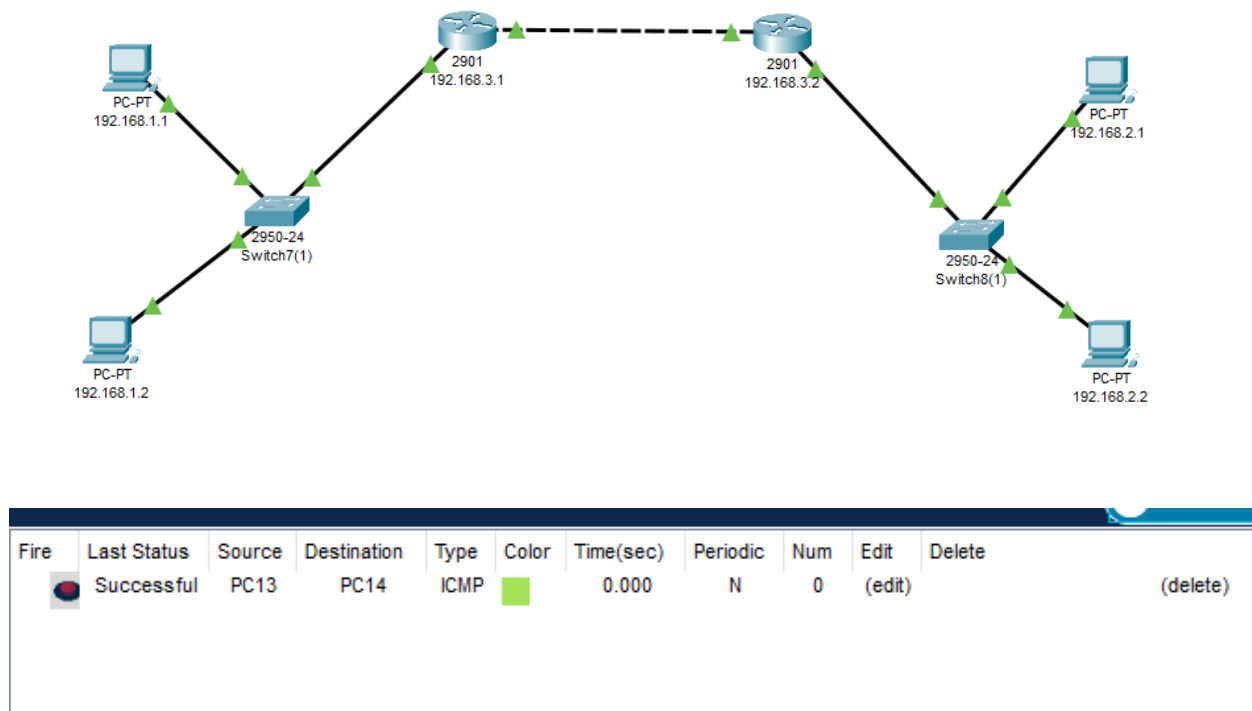
Realtime										
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC4	PC7	ICMP		0.000	N	0	(edit)	(delete)

Task 3: Connect Router with 2 switches and connect switches with end PC's



Now in this we connect a router with the switches instead of going from switches to switches we add a router between them and in this we assign a gateway to the router for switch 1 and for switch 2 the gateway for switch 1 is 192.168.1.10 and the gateway for switch 2 is 192.168.2.10 connected with 4 low end pc's so now when we send a packet from pc 1 to pc 3 it will check if the gateway entered is correct it will move from switch 1 through the router towards the switch 2 and delivers it's packet to pc 3 if the gateway is wrong the router will send back the packet and the packet transfer will fail .

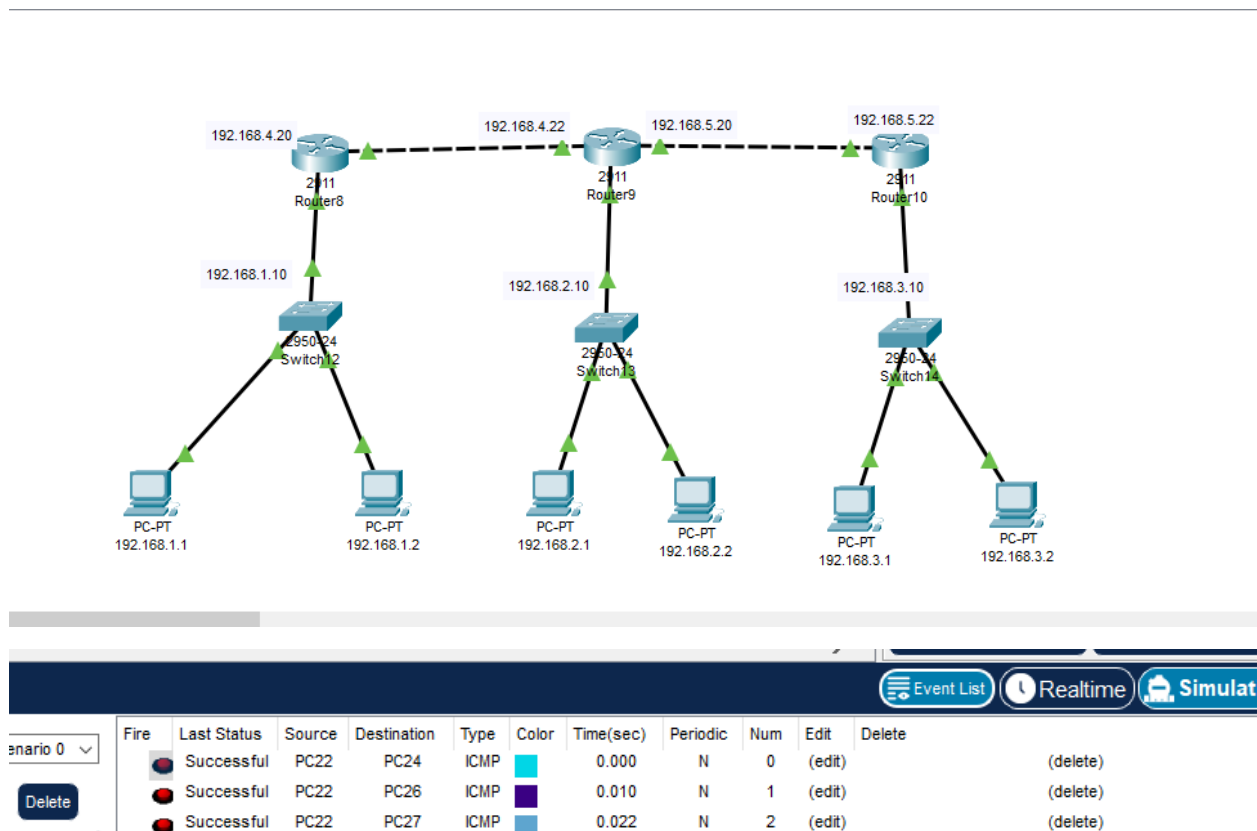
Task 4: Static routing between 2 routers



In this task we have done the same as the first one but over here we have added two routers over here and we are creating a static connection between these two so the gateway concept is same we assign the gateway for the switches in all the 4 pc's with different IP addresses like IP address for pc 1 and pc 2 is **192.168.1.1, 192.168.1.2** and for the pc 3 and 4 IP address is **192.168.2.1, 192.168.2.2**.

So now before sending the packet we connect them through a static connection by giving the IP address to the router for the IP address of the location you want to send for example in this case we are sending to pc 3 so we write **192.168.2.0** and the subnet mask is **255.255.255.0** and since we are hopping from router 1 to router 2 so we write in the router2 address 192.168.3.2 and we follow the same case in router 2 since the packet has to come back to pc 1

Task 5: Static routing between 3 routers



In this we now have 3 routers having a static connection between them so we follow the same procedure of connecting them and now since we have a third router and switch connected to the pc so we assign them the IP address of **192.168.3.1** and **192.168.3.2** with a gateway of **192.168.3.10** so now we add two static connection in all the 3 routers so first we use router 0 over there we add a static connection from pc 1 to pc 3 so means the packet will hop to router 2 and send that packet and have to return back to pc 1 and the second static address would be for pc 5 so router 1 will hop to router 3 and we will write the same connections for router 2 and router 3 router 2 will send packet back to router 1 and router 3 and router will send packet back to router 2 and router 1