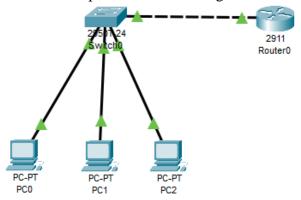
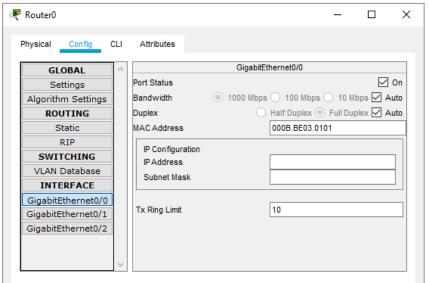
Lab 3

Assigning IP Address to a Network (with router / manual)

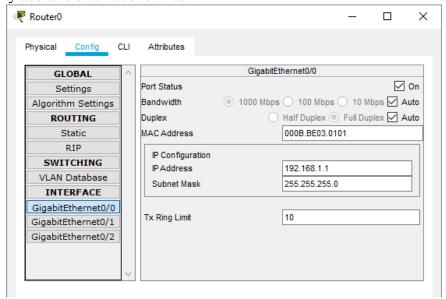
1. Make a network similar to this and open the router settings.



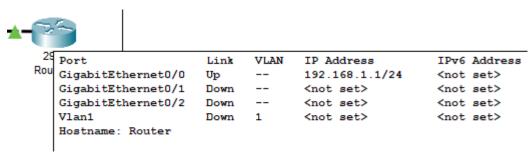
2. Open config and go to the port which is in use (GigabitEthernet0/0 or 0/1 or 0/2)



3. In the "IP Address" field, type the following IP address: **192.168.1.1** and click enter, it'll automatically add a relevant subnet mask.



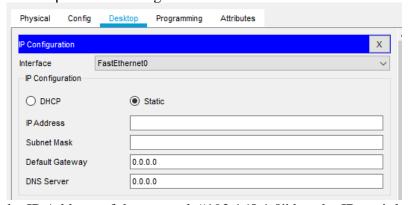
4. Hover over the router to double-check if the IP is assigned or not.



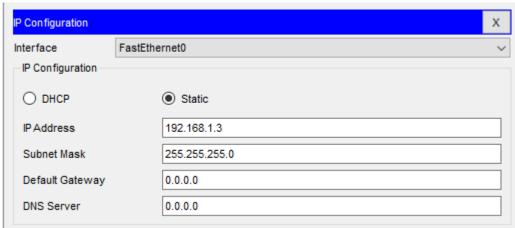
5. Now, click on the end device (PC/Laptop) and open its setting and go to "desktop".



6. From here, open the first option "IP Configuration"

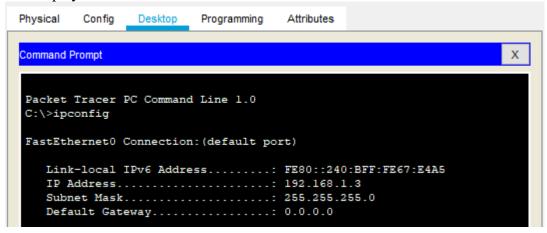


7. Now, in here type the IP Address of the network "192.168.1.0" but the IP can't be same as the "Router's IP Address"

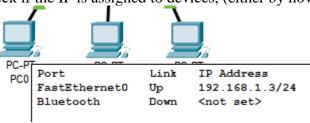


8. Then click on the "x" button on top and go to "Command Prompt" option.

9. In the Command prompt, type 'ipconfig' and check if the IP is assigned or not IP will be displayed in "IPV4".



- **10.** Repeat the Steps 5 to 9 for all the End-Devices to assign them IP manually.
- 11. Afterwards, you can check if the IP is assigned to devices, (either by hover, or command prompt)



12. Now to check if we can transfer message between end-devices or not, just open any end-device and open its Command Prompt, and type "**ping**" and afterwards type the **ip-address** of **target device**.

```
Command Prompt
C:\>ipconfig
FastEthernet0 Connection: (default port)
   Link-local IPv6 Address..... FE80::240:BFF:FE67:E4A5
   IP Address..... 192.168.1.3
   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 192.168.1.4
Pinging 192.168.1.4 with 32 bytes of data:
Reply from 192.168.1.4: bytes=32 time=1ms TTL=128
Reply from 192.168.1.4: bytes=32 time<1ms TTL=128
Reply from 192.168.1.4: bytes=32 time<1ms TTL=128
Reply from 192.168.1.4: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.1.4:
   Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
   Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

13. As there is 0% loss that means, the connection was successful and message was sent successfully.

Lab 3 - Task

Task 1;

Design the network of "Lab-7" or "Lab-8" (2-3 rows of computers) Use: Switch, Router, & End-Devices like Laptop/PC Assign them IP Address (Static/Manually) of any Network (or you can use network **192.168.1.0**)