Week 5 – IP Configuration (Summary)

1. PC IP Configuration => using GUI (Desktop > IP Config)

- IP Address
- Subnet Mask *(show the network and host arrangement for the given IP)*
- Default Gateway *(router IP address - based on the port used to connect to outside network)*

2. Router IP Configuration => Using CLI

```
Router(config)#int gig0/0
Router(config-if)#ip add 192.168.10.1 255.255.255.0
Router(config-if)#desc This is LAN to S1
Router(config-if)#no shut
Router(config-if)#exit
```

3. Test IP configuration

- Ping from source to destination

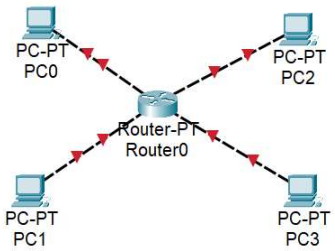
  ```
  Router# ping 192.168.10.60
  ```
  ***or using the Automatic ping (Envelop)*

- If ping from PC, use command prompt

Additional Information

1. IP v4 address must be in:
    - 32 bits binary
    - Consists of 4 octets only, and each octet is 8 bits binary.
    - Each octet can only range between (0 to 255 only – in decimal)

2. Router is the device which can split the networks or combine few networks together.
3. There is no need to configure IP address at the Switch for the network to be able to send data / ping. Therefore, you cannot ping from / to the switch.
4. Each router interface (router port) used, should be assigned with one IP address *(if you have 4 lines connected to / from the router, it means the router needs 4 different IPs)*



5. You must make sure that the router port (interface) is visible on the network diagram to avoid making mistake while assigning the IP address.