SUPERIOR UNIVERSITY

Task no : 7

Name = Muhammad waleed

Roll no = SU92-BSSEM-F22-105

Section = 5B

Course = Computer Network

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Submitted by = Sir Rasikh Ali

Lab 7

Assigning IP Address to a Network (Dynamically/DHCP, using Command)

1. Repeat Steps **"1"** to **"8"** from Lab 6, After that stay in CLI, in "**router(config)#**".

```
Router#config terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#
Router(config)#
```

Ctrl+F6 to exit CLI focus Copy Paste

2. Write commands:

   2.1. ip dhcp excluded-address [start ip address] [end ip address] like: ip dhcp excluded-address 192.168.1.2 192.168.1.10

   (optional command, if you want to keep some IP Addresses separate, not to be assigned by DHCP)

   2.2. ip dhcp pool [CustomPoolName] like: ip dhcp pool Network192

   2.3. network [NetworkID] [Subnet Mask] like: network 192.168.1.0 255.255.255.0

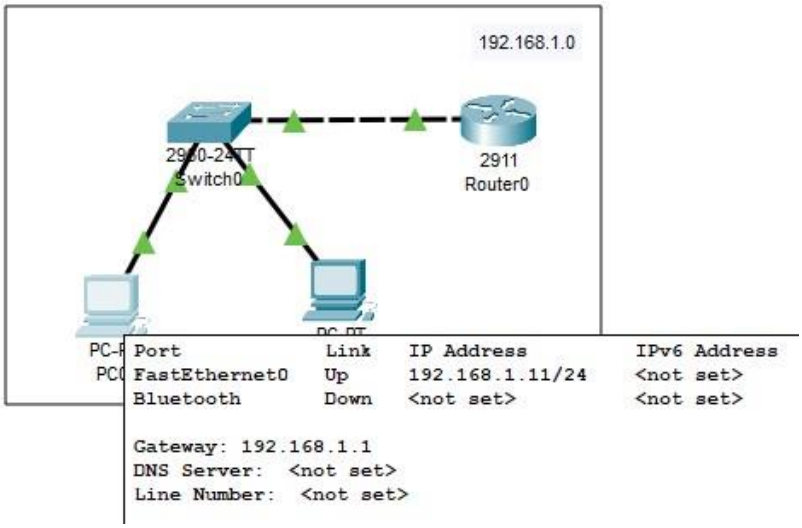
   2.4. default-router [Router IP Address] like: default-router 192.168.1.1

   (This was assigned in "**Lab 6**" content)

   2.5. Lastly, to exit from this "router(dhcp-config)#" just type "**exit**"

```
Router#config terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#
Router(config)#ip dhcp excluded-address 192.168.1.2 192.168.1.10
Router(config)#ip dhcp pool Network192
Router(dhcp-config)#network 192.168.1.0 255.255.255.0
Router(dhcp-config)#default-router 192.168.1.1
Router(dhcp-config)#exit
Router(config)#
```

3. Now, configure IP addresses to be DHCP, like we did in "**Lab-4, Step 8 to 10**" and afterwards hover over the PCs to check if the IP is configured or not



4. Now, to check connection between PCs and Router, execute "**ping**" & "**telnet**" commands

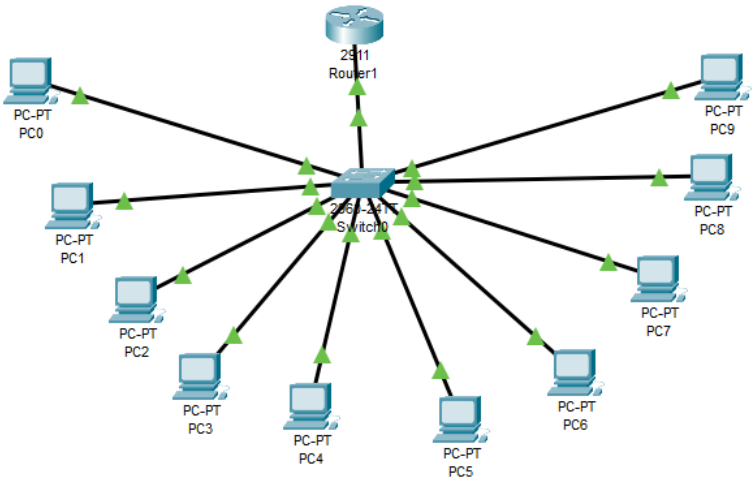
Lab 7 - Task

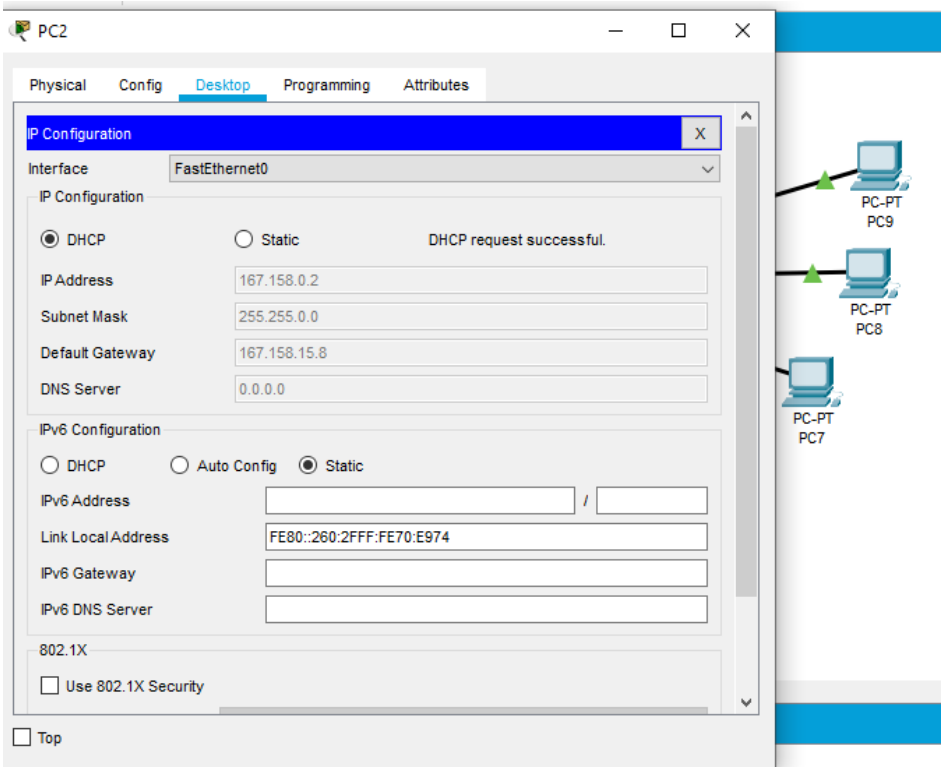
Task 1;

Design network of "Lab-7" or "Lab-8" (2-3 rows of computers) Use:

- Switch (1)
- Router (1)
- End-Devices like Laptop/PC

Assign IP Address (167.158.15.0) using Command for Router. And Dynamically (DHCP-Router) for End-Devices


2911
Router1
PC-PT
PC0
PC-PT
PC1
PC-PT
PC2
PC-PT
PC3
PC-PT
PC4
PC-PT
PC5
PC-PT
PC6
PC-PT
PC7
PC-PT
PC8
PC-PT
PC9


PC2
Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
Interface
FastEthernet0
IP Configuration
DHCP
Static
DHCP request successful.
IP Address
167.158.0.2
Subnet Mask
255.255.0.0
Default Gateway
167.158.15.8
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::260:2FFF:FE70:E974
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Top
PC-PT
PC9
PC-PT
PC8
PC-PT
PC7