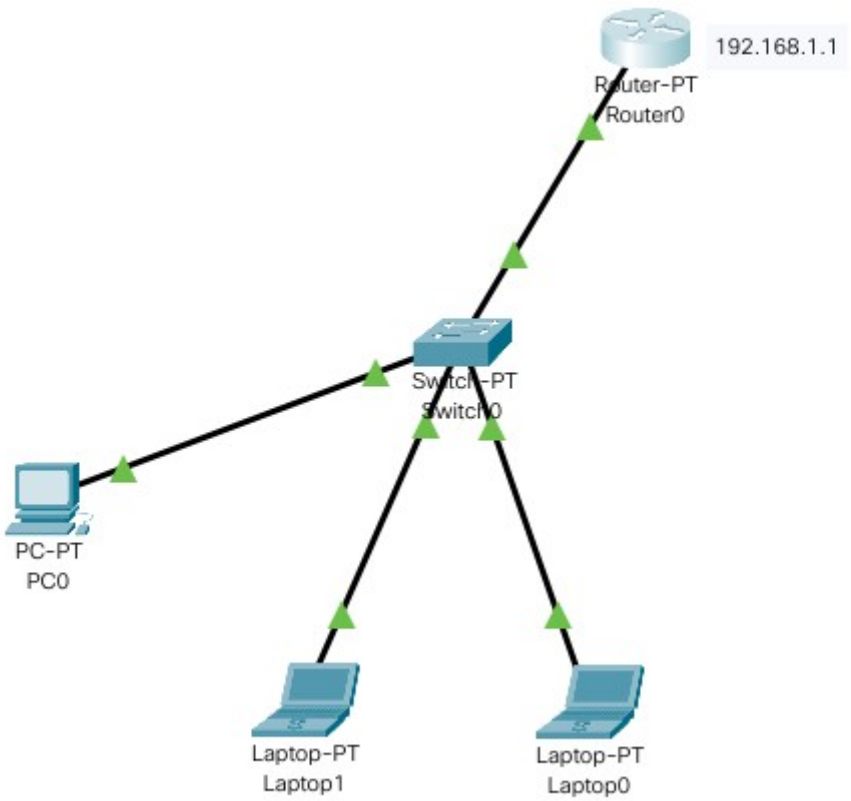
Computer Networks

Lab 04

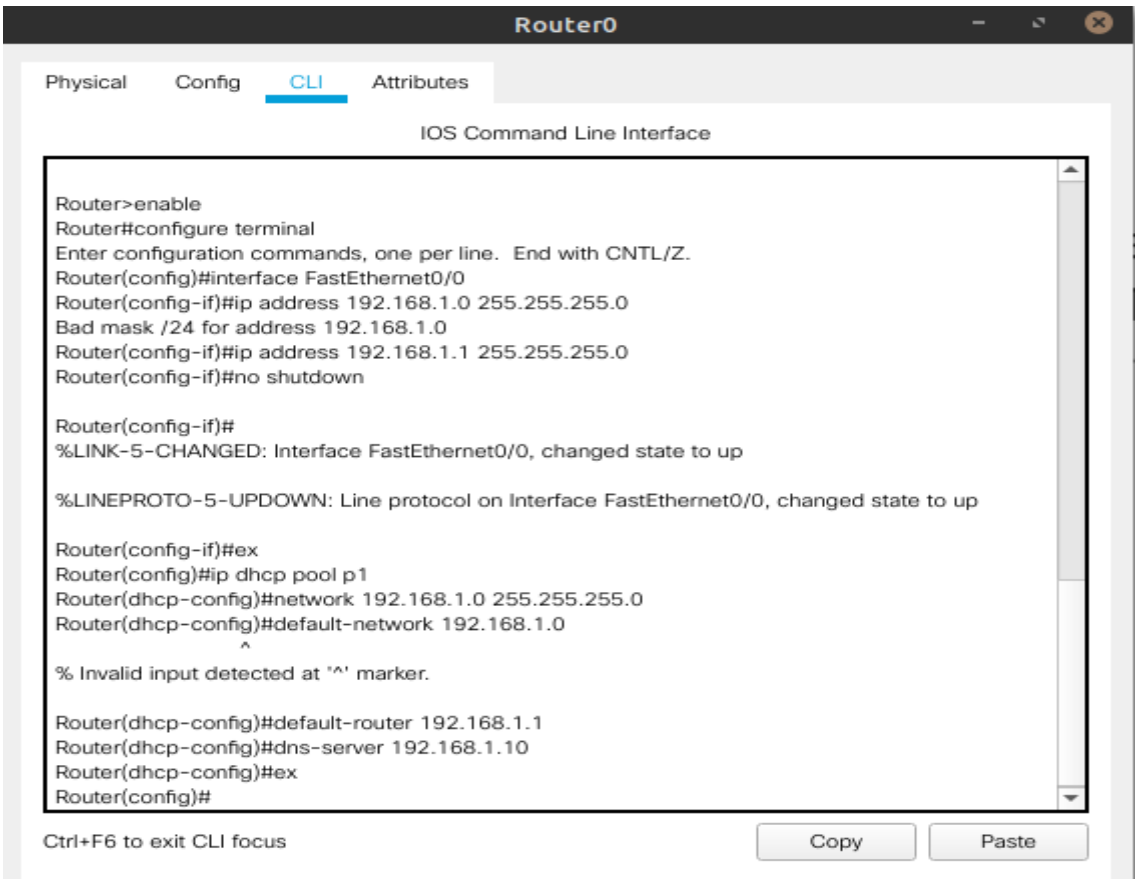
Hamza Shahid
20P-0117
BSSE-5A

Task 01:

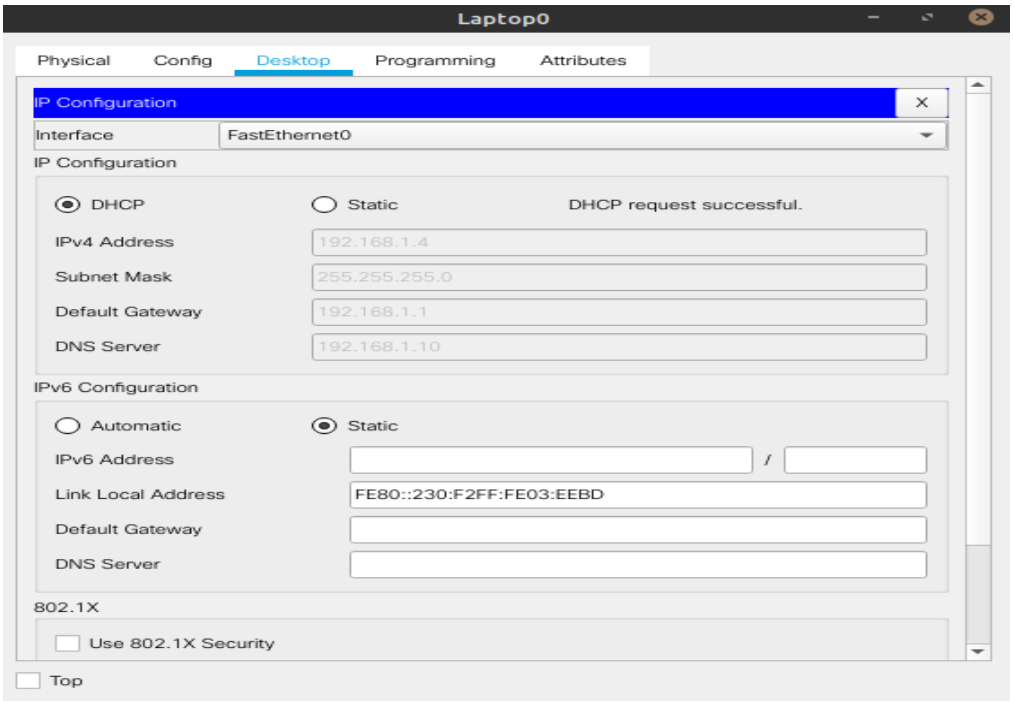
- First you need to drag 2 laptops, 1 PC and a router.
- Configure static IP address pf server.



- Now configure DHCP service on server by following steps:
  - Click on server and click on CLI
  - ip dhcp pool name_of_dhcp_pool
  - network network_ip subnet_mask
  - default-network network_ip
  - default-router router_ip
  - dns-server default_gateway_of_router
  - ex

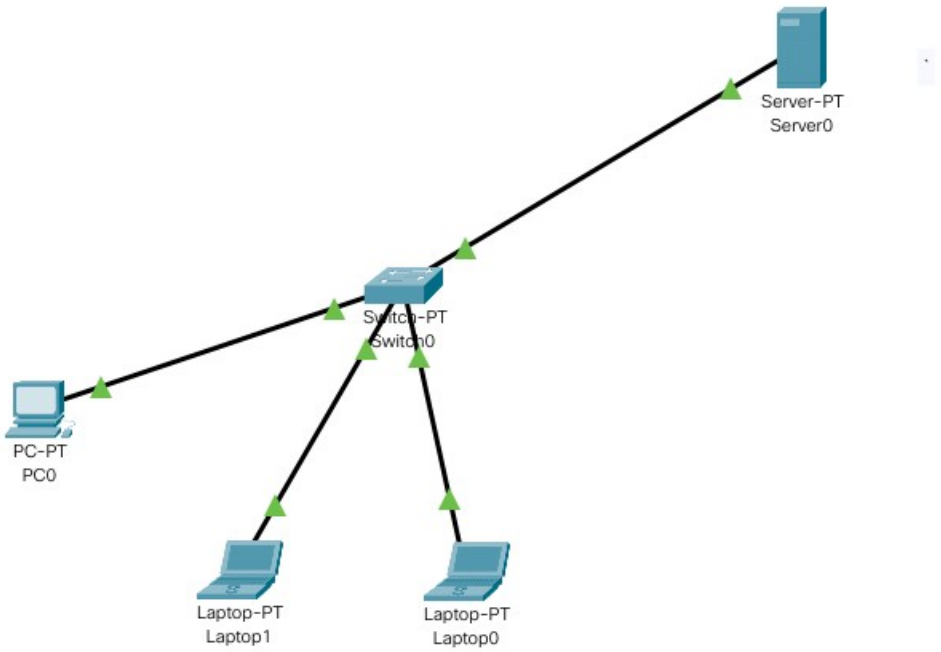


- Now click on each PC / laptop.
- And enable DHCP instead of Static
- And all addresses will be assigned by router.

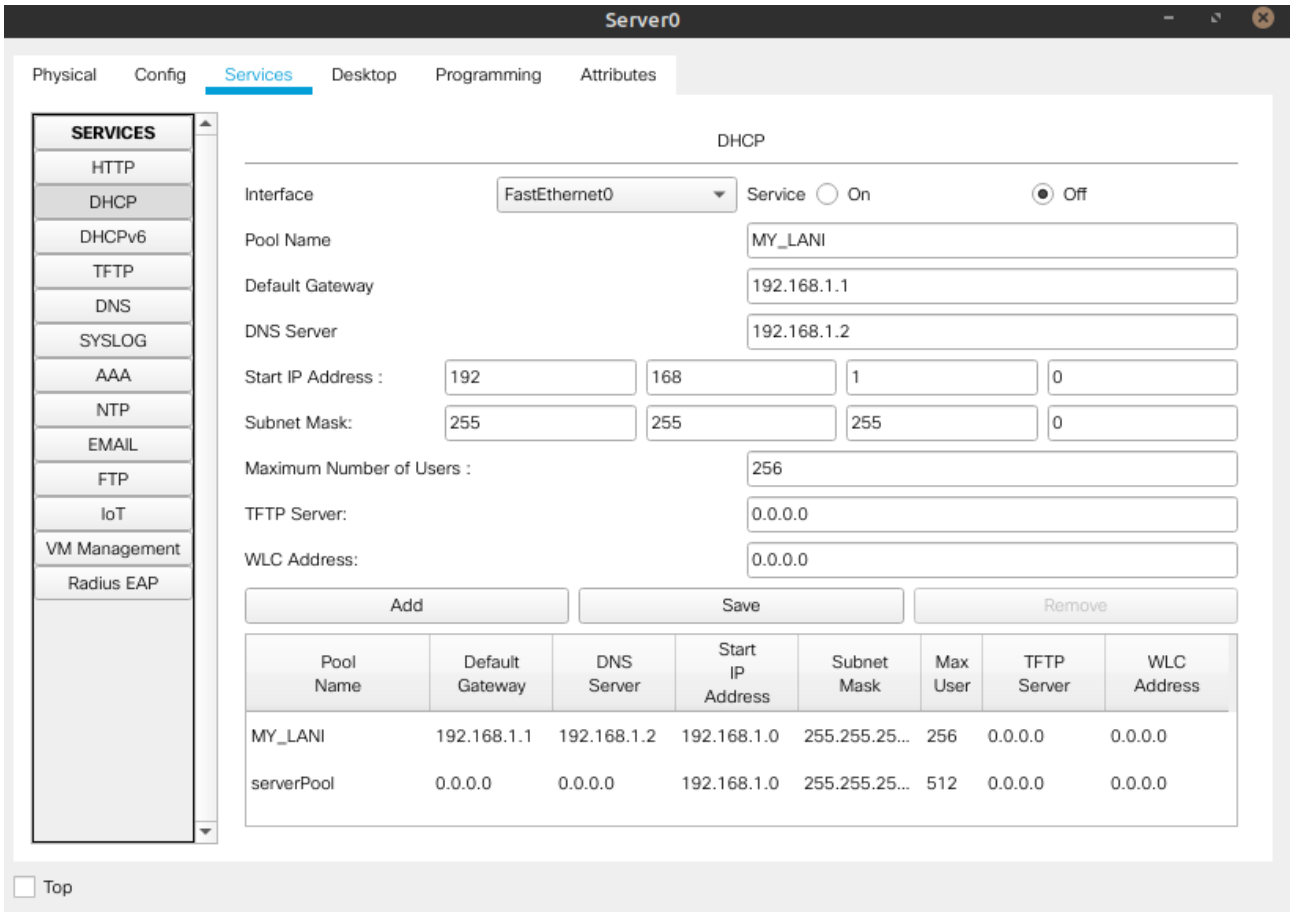


Task 02:

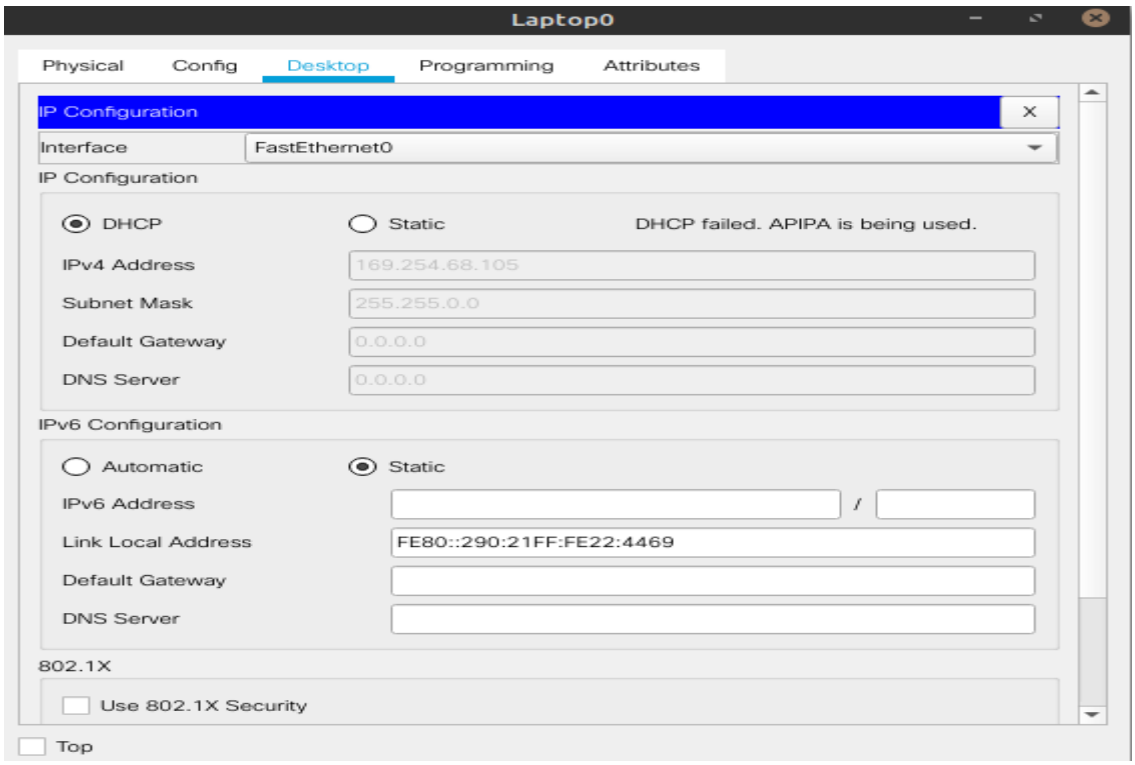
- Set up the network we made above.
- This time just connect the router with the server.



- Now set up DHCP pool by clicking on server and then click on services tab.
- Then choose DHCP, click on add and fill all the info required like pool name, gateway address and DNS server etc.
- Then click on save. The pool will be listed below.

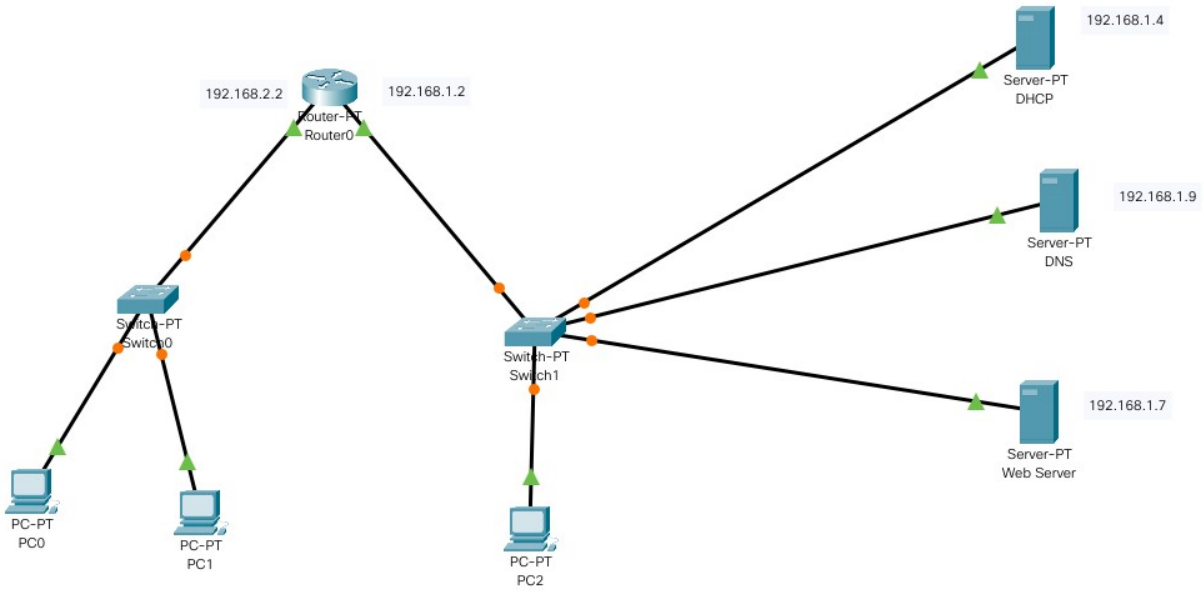


- Then click on Desktop and assign IP address to DHCP.
- Now click on each PC and click on DHCP instead of server.
- All the addresses will be assigned to them by server.

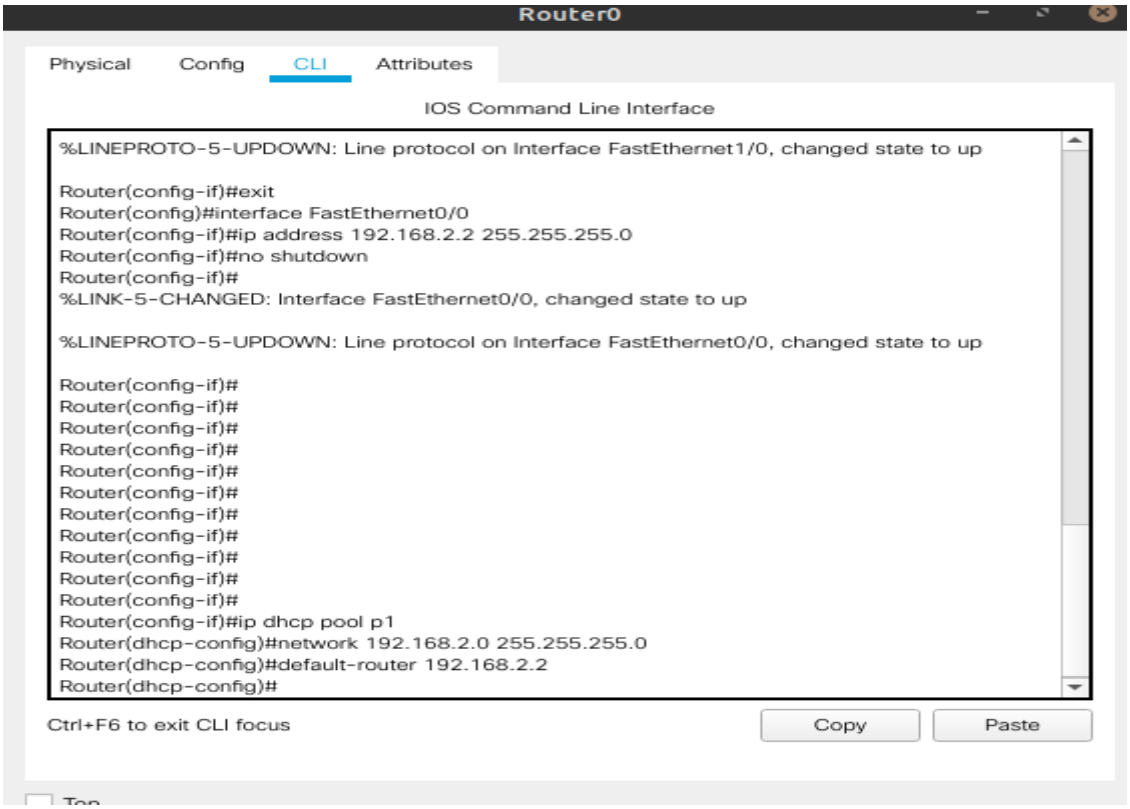


Final Task:

- Create the following topology by dragging them to screen.

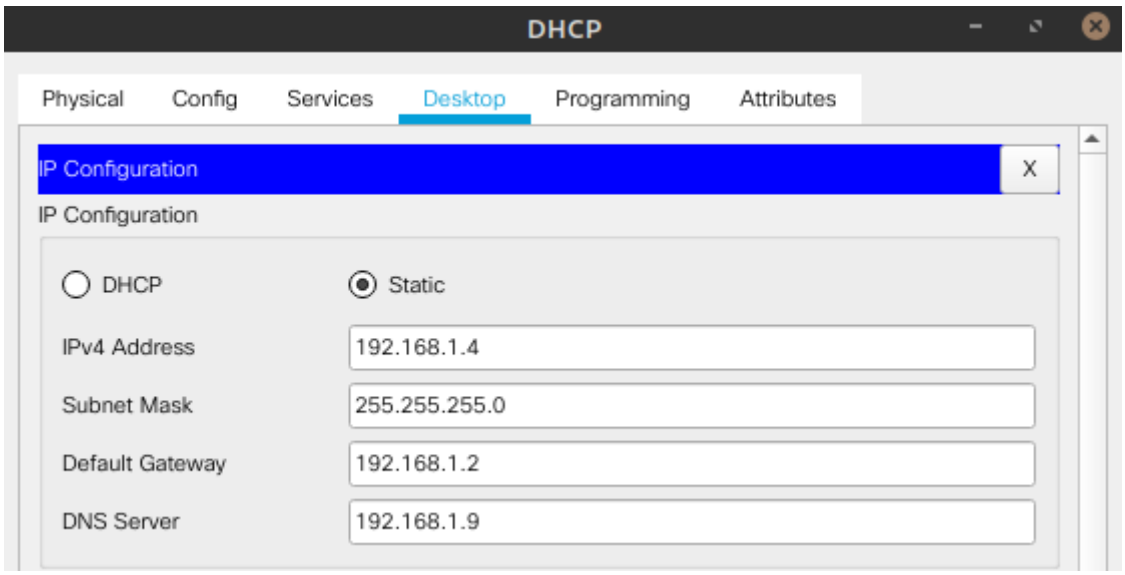


- Click on router and assign IP to both ports.
- Create pool only for the left side (router with the two PCs).

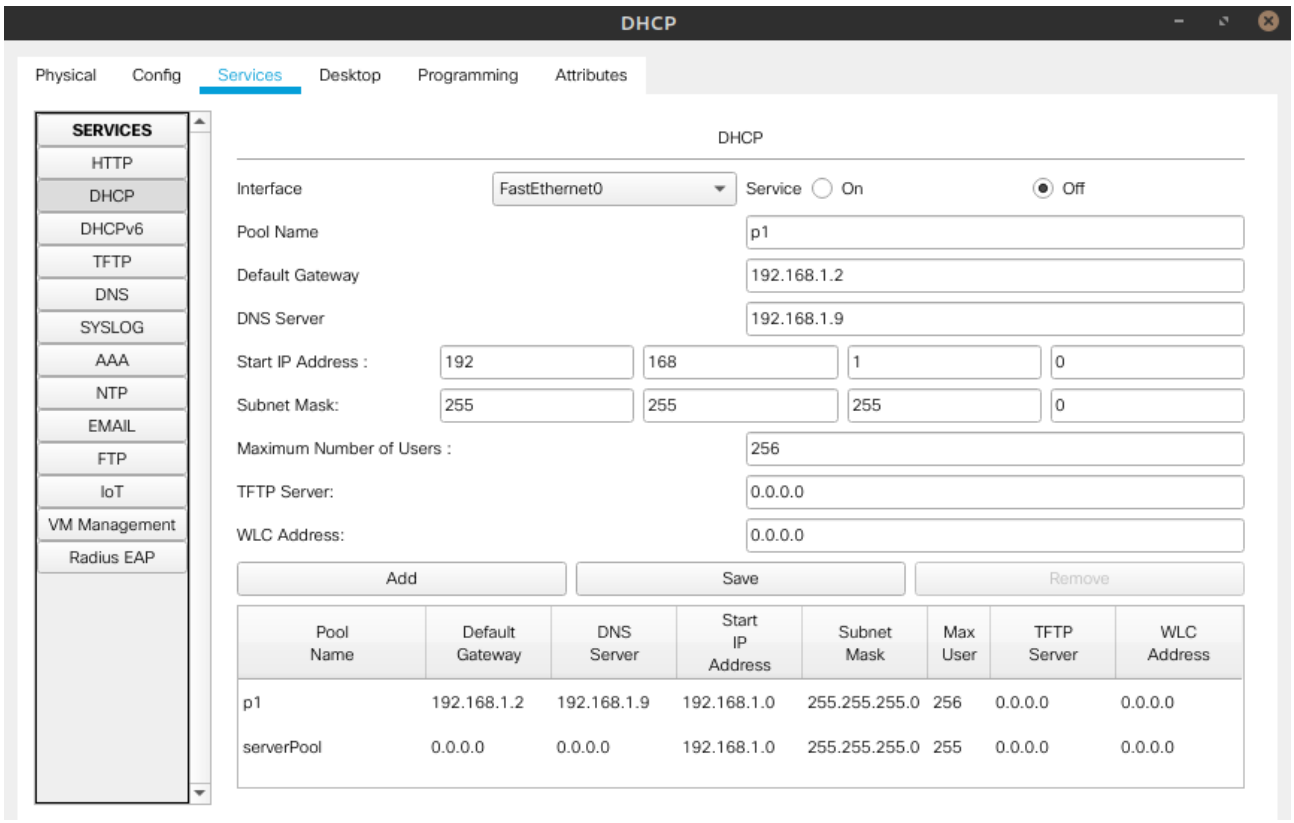


DHCP server:

- Click on DHCP. And assign IP, subnet, gateway and DNS server address.

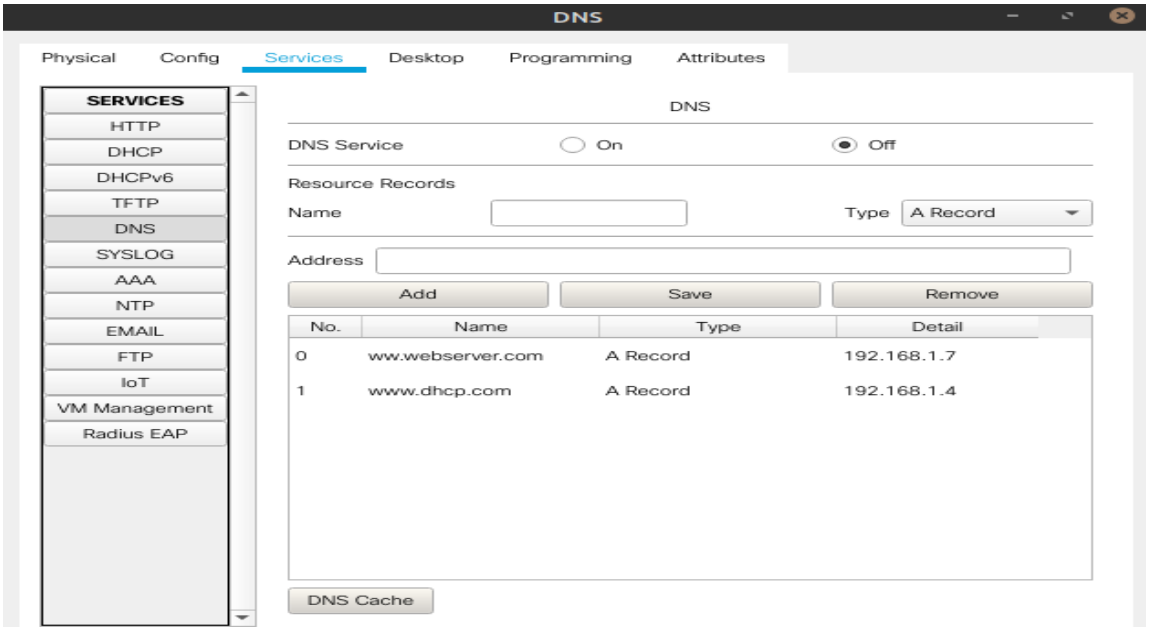


- Now click on Services then on DHCP.
- Create pool for the server with the one PC.



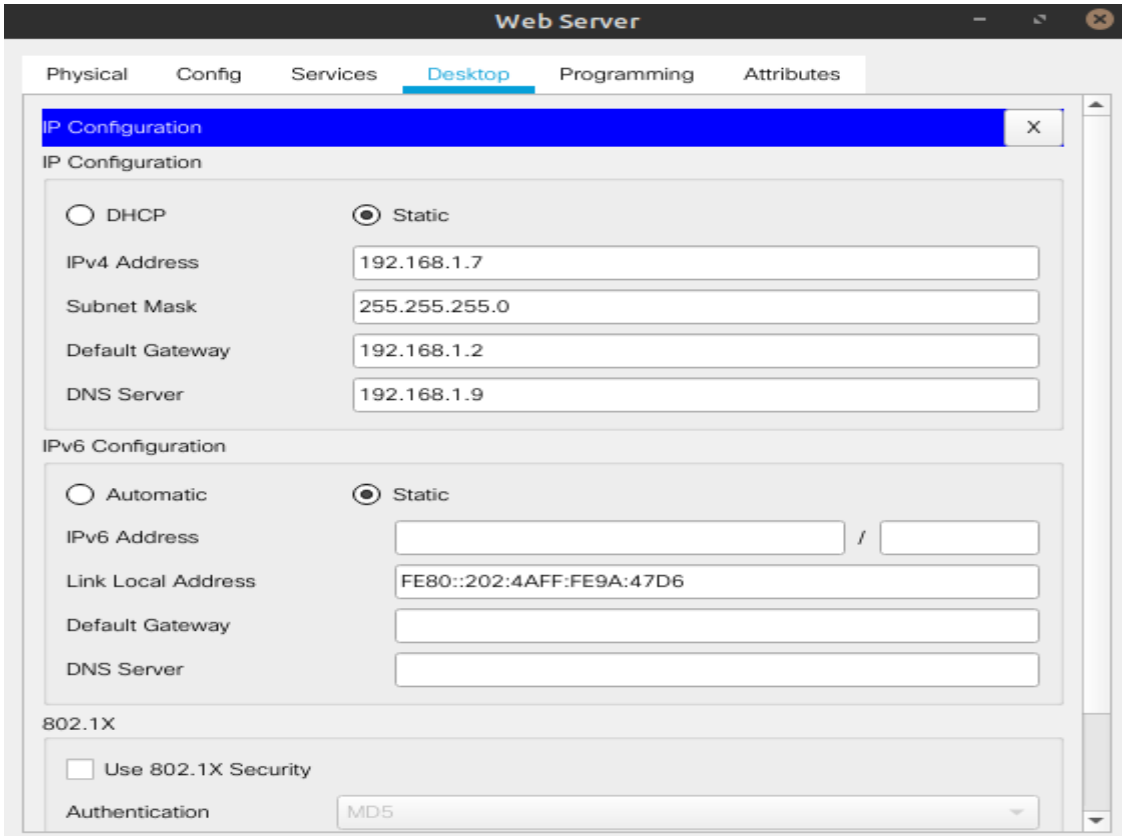
DNS server:

- Now click on DNS server, then click on Services and then click on DNS.
- Add two DNS with the URL and IP of rest of the two servers.

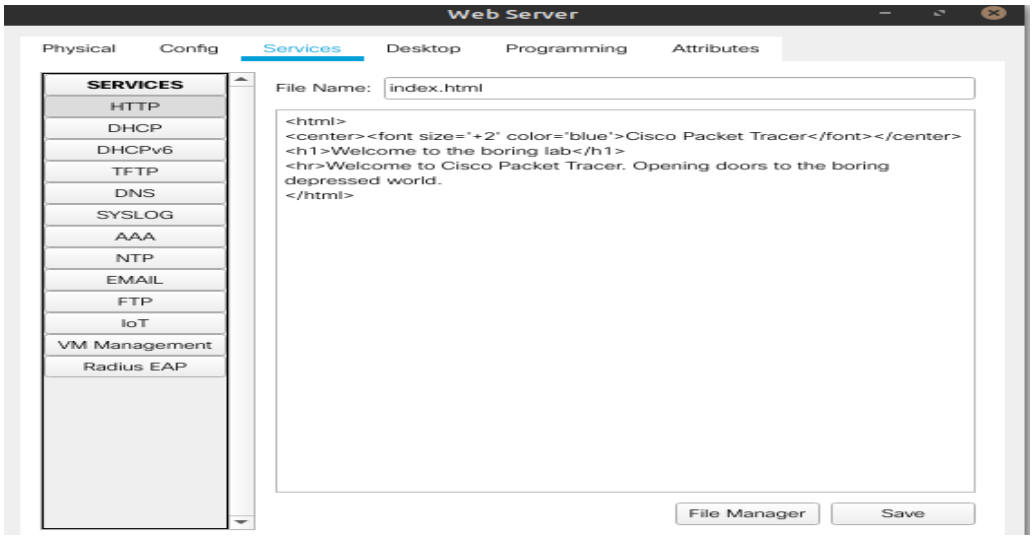


Web server:

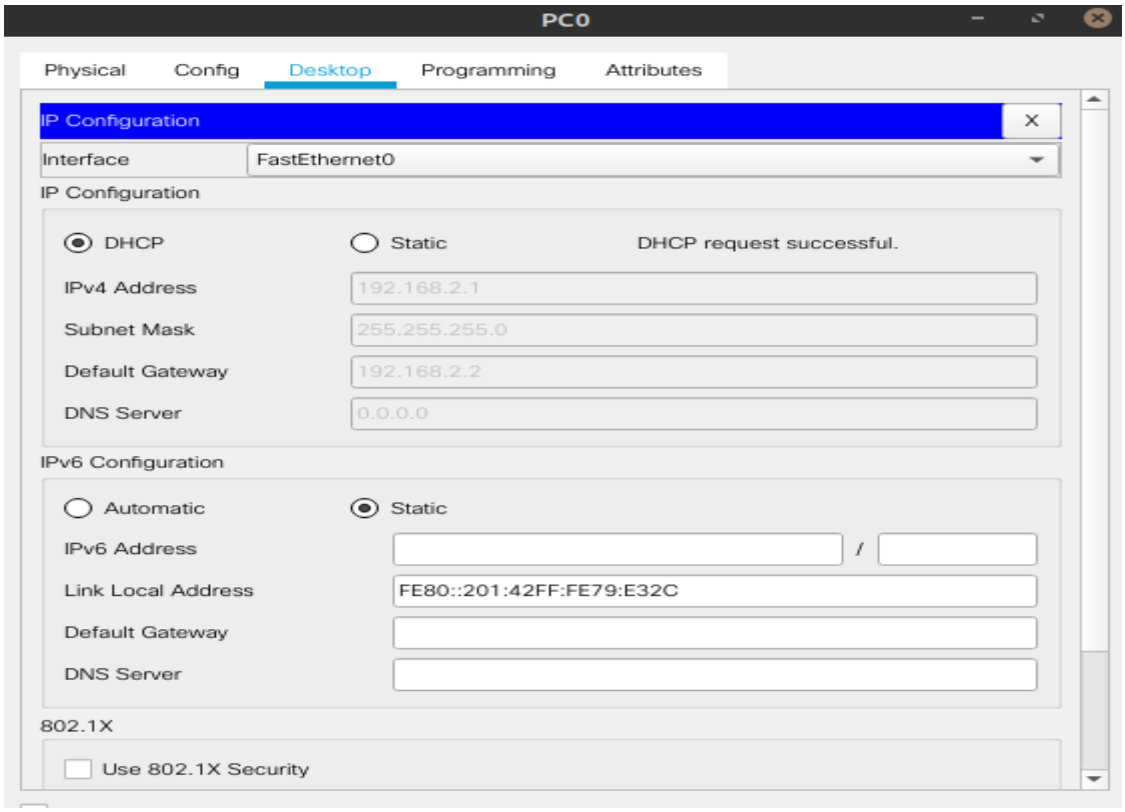
- Now click on server named “Web Server”.
- And assign IP, subnet, gateway and DNS server address.

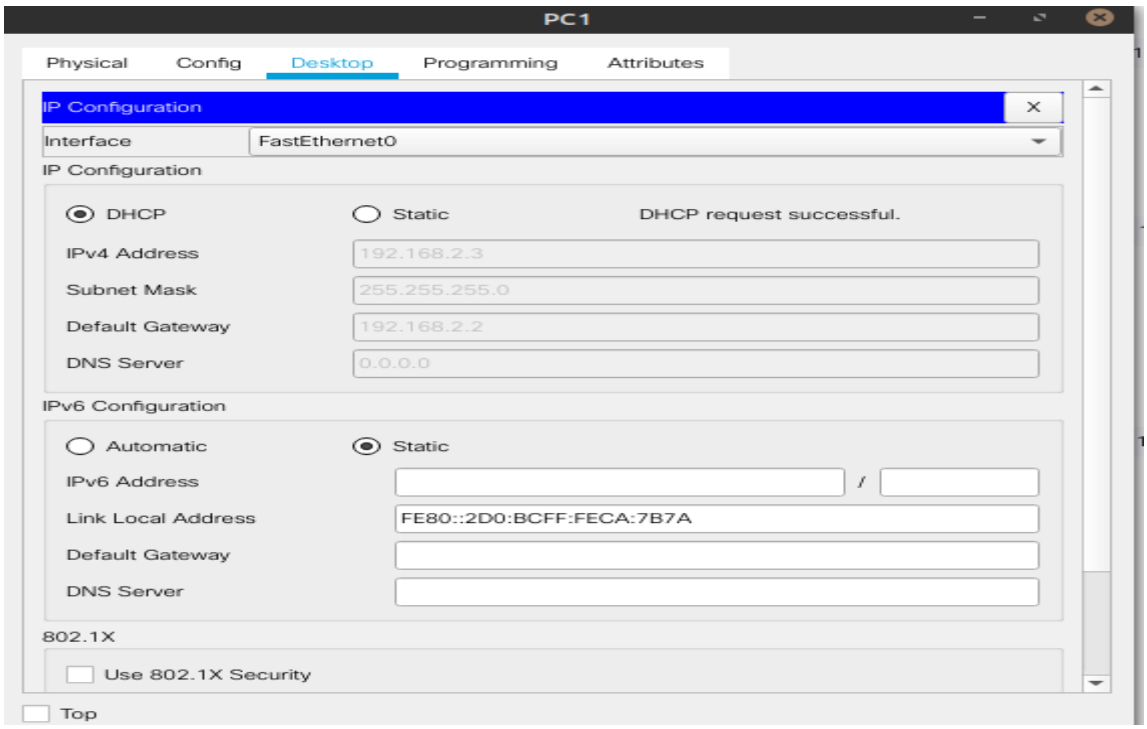


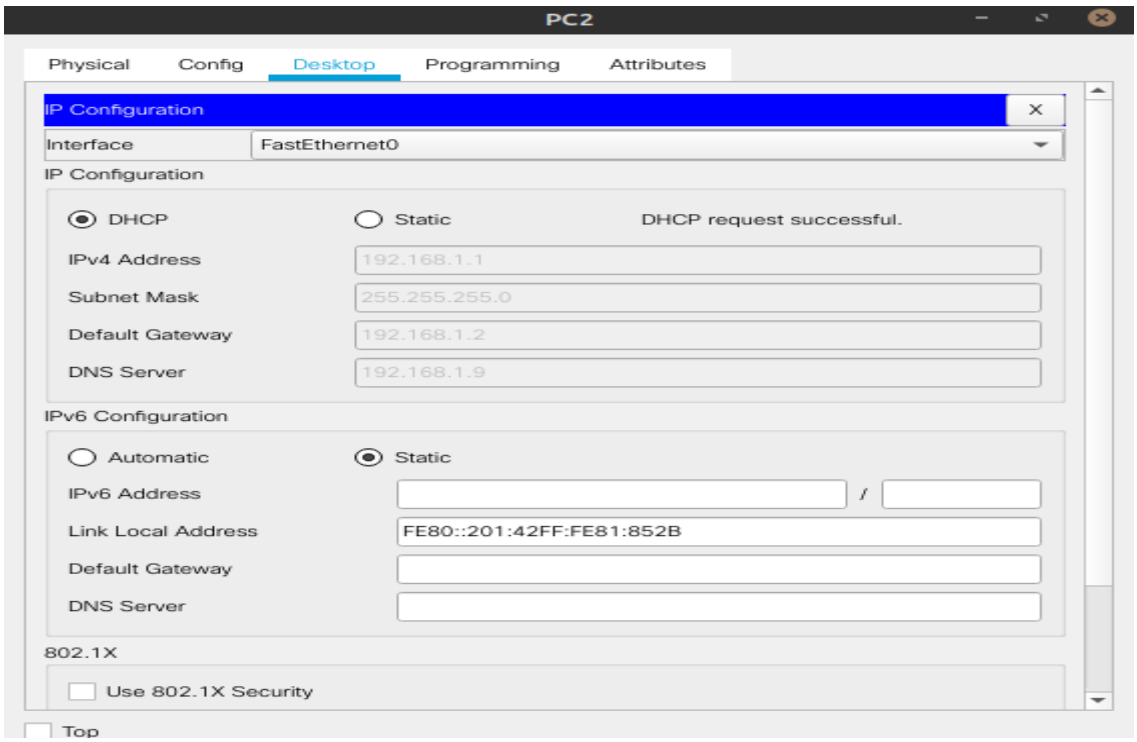
- You can also edit the html page by clicking on HTTP.



- Now go to every PC and enable DHCP.
- First created pool will assign the PC addresses by router.
- Second one pool will assign the addresses to the two PCS connected to server.






PC2
Physical
Config
Desktop
Programming
Attributes
IP Configuration
Interface
FastEthernet0
IP Configuration
DHCP
Static
DHCP request successful.
IPv4 Address
192.168.1.1
Subnet Mask
255.255.255.0
Default Gateway
192.168.1.2
DNS Server
192.168.1.9
IPv6 Configuration
Automatic
Static
IPv6 Address
/
Link Local Address
FE80::201:42FF:FE81:852B
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Top