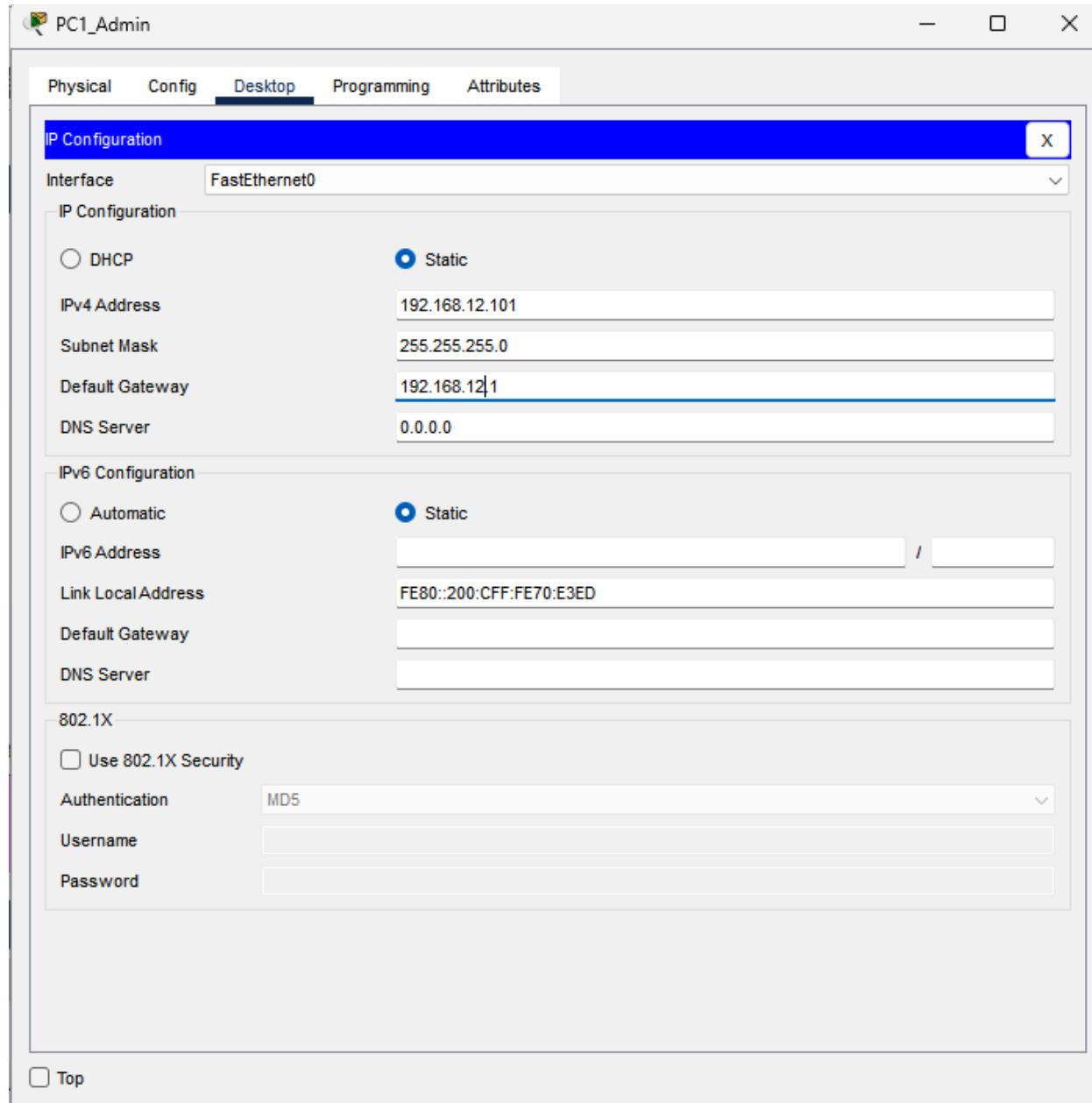


CYB 210 5-2 Activity: Packet Tracer

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CYB 210
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- I. Change **network addressing** (subnet masks, IP addressing, and default gateway) for the new network configuration.

Provide an **explanation**: Configured all 4 IPV4 and default gateway to PC1, PC2,PC3, to the correct addresses.



- II. Change **RIP** to accommodate two new network configurations. Submit a screenshot of the RIP Configuration dialog window and a

Given explanation:

1. I opened the Subnet Router.
2. I clicked CLI.
3. I typed the following input on the CLI console to connect to the new network configurations that was provided for me on the new spreadsheet.

Subnet_Router

Physical Config **CLI** Attributes

IOS Command Line Interface

```
A.2B software, version 3.0.0.
5 FastEthernet/IEEE 802.3 interface(s)
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

router1>enable
router1#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
router1(config)#router rip
router1(config-router)#no network 192.168.6.1
router1(config-router)#no network 192.168.9.1
router1(config-router)#exit
router1(config)#interface FastEthernet 0/0
router1(config-if)#ip address 192.168.12.1 255.255.255.0
router1(config-if)#exit
router1(config)#interface FastEthernet 1/0
router1(config-if)#ip address 192.168.20.1 255.255.255.0
router1(config-if)#exit
router1(config)#router rip
router1(config-router)#network 192.168.12.0
router1(config-router)#network 192.168.20.0
router1(config-router)#exit
router1(config)#exit
router1#
%SYS-5-CONFIG_I: Configured from console by console
```

Copy Paste

Top

- III. Configure **NAT** on the router. Submit a screenshot of the NAT translations table and a brief explanation of the steps you took.

Explanation:

1. Open the Subnet Router
2. Click the CLI
3. The commands I used to set the IP addresses from inside and outside was
 - router1>enable
 - router1#configure terminal
 - Enter configuration commands, one per line. End with CNTL/Z.
 - router1(config)#interface FastEthernet 0/0
 - router1(config-if)#ip address 192.168.12.1 255.255.255.0
 - router1(config-if)#ip nat inside
 - router1(config-if)#interface FastEthernet1/0
 - router1(config-if)#ip nat outside
 - router1(config-if)#ip nat inside source static 192.168.12.1 192.168.20.1
 - router1(config)#exit
 - router1#
 - %SYS-5-CONFIG_I: Configured from console by console

Subnet_Router

Physical Config CLI Attributes

IOS Command Line Interface

```
Press RETURN to get started.

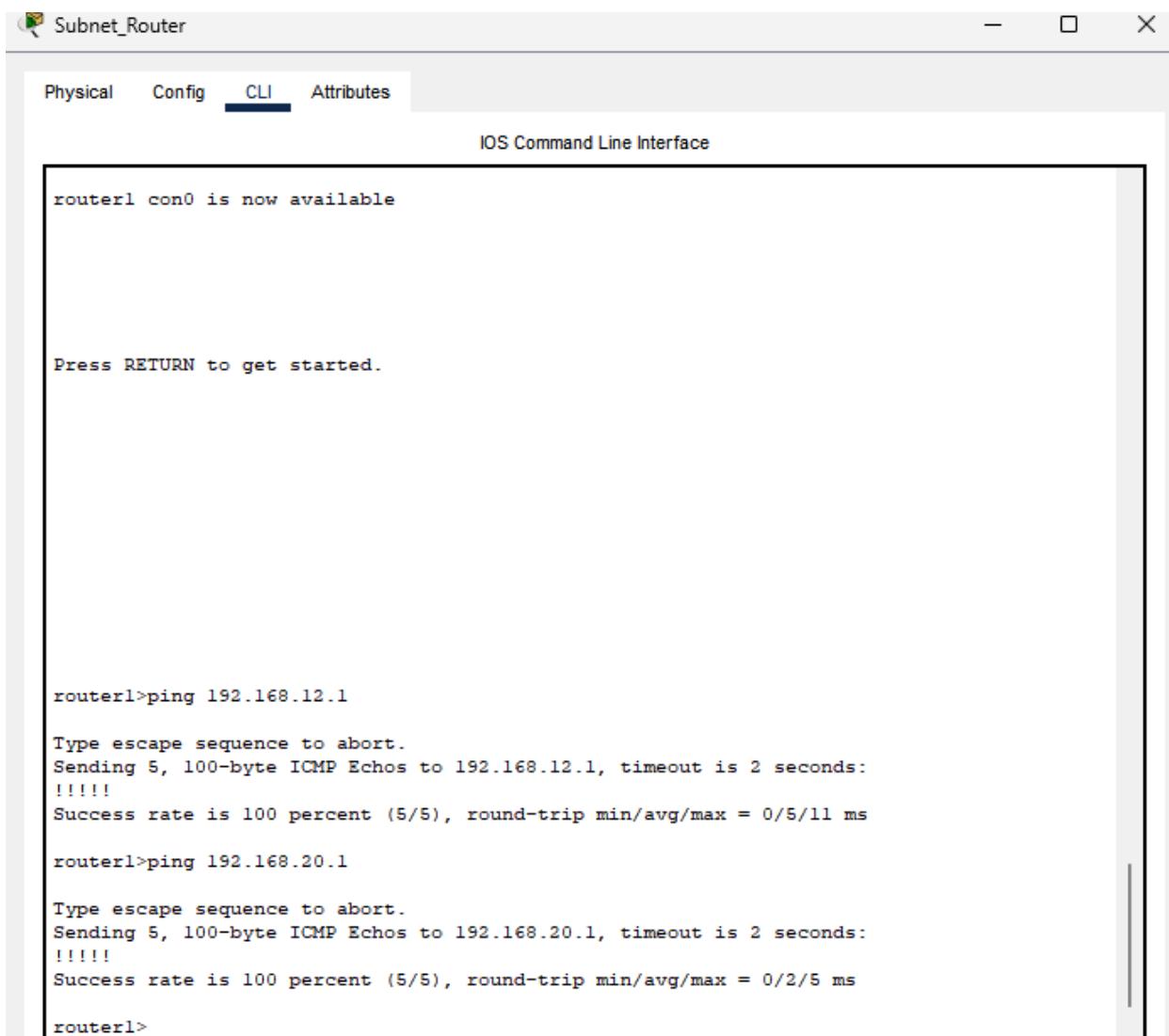
router1>configure terminal
^
% Invalid input detected at '^' marker.

router1>enable
router1#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
router1(config)#interface FastEthernet 0/0
router1(config-if)#ip address 192.168.12.1 255.255.255.0
router1(config-if)#ip nat inside
router1(config-if)#interface FastEthernet1/0
router1(config-if)#ip nat outside
router1(config-if)#ip nat inside source static 192.168.12.1 192.168.20.1
router1(config)#exit
router1#
%SYS-5-CONFIG_I: Configured from console by console

router1#show ip nat translation
Pro Inside global      Inside local        Outside local      Outside global
--- 192.168.20.1       192.168.12.1      ---               ---
```

Also, I pinged both the Ip addresses to make sure they were a success.

(PART OF) Configure NAT



The screenshot shows a window titled "Subnet_Router" with tabs for "Physical", "Config", "CLI" (which is selected), and "Attributes". The main area is labeled "IOS Command Line Interface". The terminal session output is as follows:

```
router1 con0 is now available

Press RETURN to get started.

router1>ping 192.168.12.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.12.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/5/11 ms
router1>ping 192.168.20.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.20.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/2/5 ms
router1>
```

IV. Configure DHCP services

Explanation:

1. Created a StudentPool
2. Turned the services Off to On
3. Configured the default gateway to 192.168.20.1
4. Configured the DNS Server to 192.168.20.100
5. Start IP Address: 192.168.20.125
6. Change the max of users: 37
7. Once Finished, I clicked on every StudentPC to check and it successfully assigned the correct IP addresses to each PC and device that are in range.

The screenshot shows the 'Server_Main' application window with the 'Services' tab selected. On the left, a sidebar lists various services: HTTP, DHCP (which is currently selected and highlighted in blue), DHCPv6, TFTP, DNS, SYSLOG, AAA, NTP, EMAIL, FTP, IoT, VM Management, and Radius EAP. The main panel is titled 'DHCP' and contains the following configuration fields:

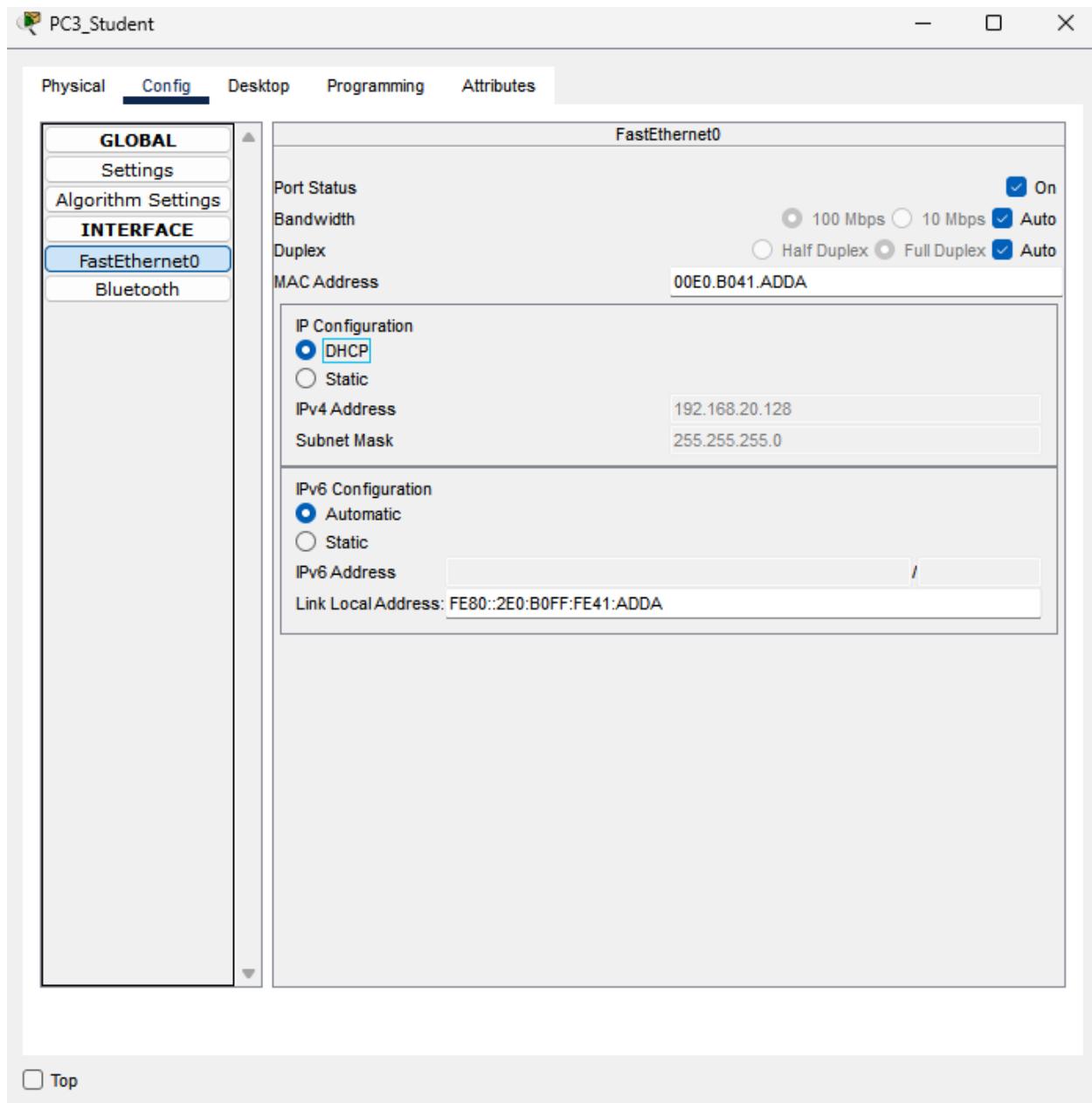
- Interface: FastEthernet0
- Service: On (radio button selected)
- Pool Name: StudentPool
- Default Gateway: 192.168.20.1
- DNS Server: 192.168.20.100
- Start IP Address: 192.168.20.125
- Subnet Mask: 255.255.255.0
- Maximum Number of Users: 37
- TFTP Server: 0.0.0.0
- WLC Address: 0.0.0.0

Below these fields are three buttons: 'Add', 'Save', and 'Remove'. A table below the buttons displays existing DHCP pool configurations:

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	0.0.0.0	0.0.0.0	192.168.1.125	255.255.255.0	25	0.0.0.0	0.0.0.0
StudentPool	192.168.20.1	192.168.20.100	192.168.20.125	255.255.255.0	37	0.0.0.0	0.0.0.0

At the bottom left of the main panel, there is a 'Top' button.

Second screenshot of PC2

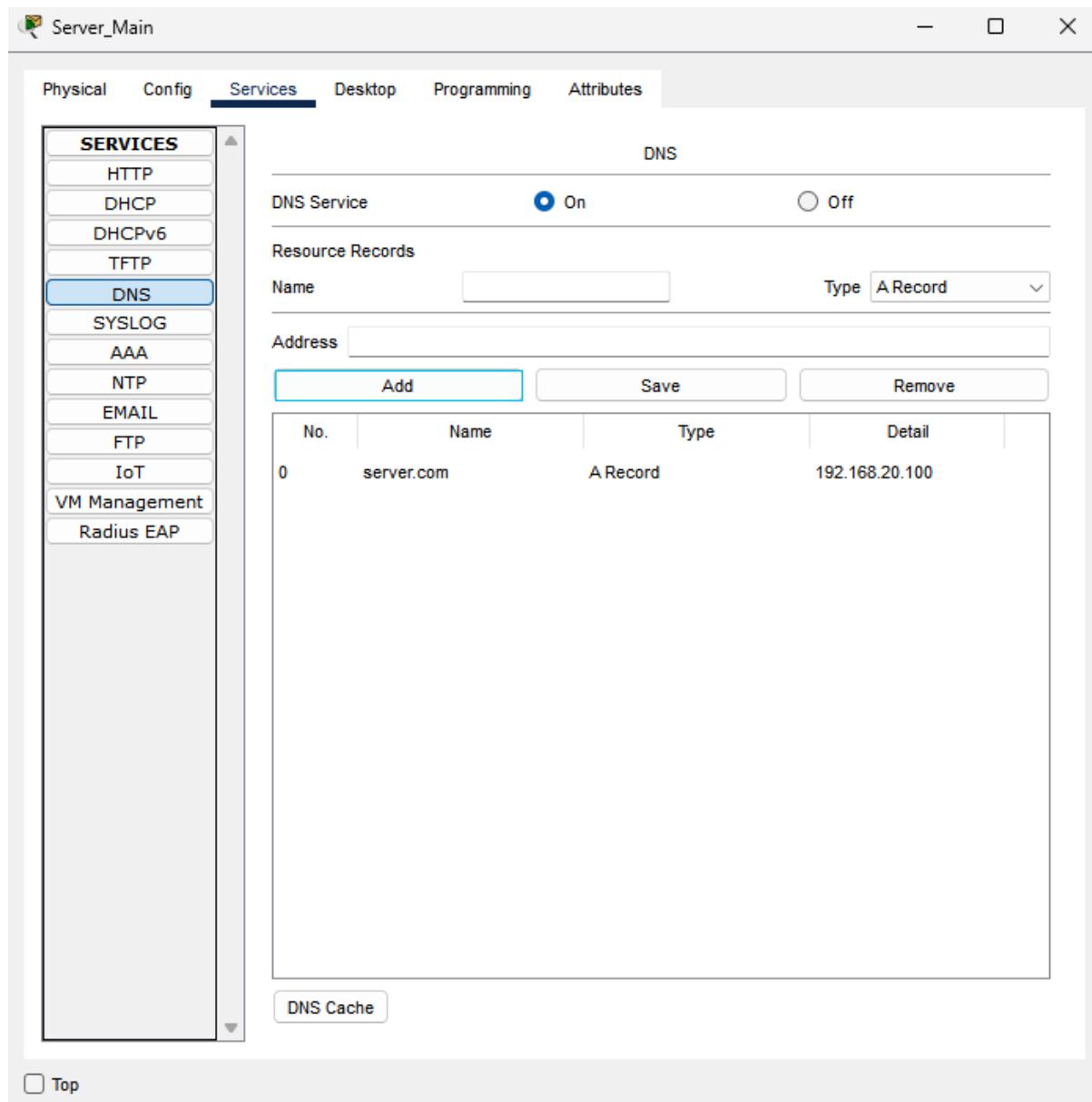


V. Configure DNS for the server name and IP address

Explanation:

1. Click Student Server Main
2. Once in, go to Services
3. In Services, click DNS
4. Once in, Remove the first server.com
5. Turn the DNS Service to ON
6. Add a server
7. Name – Server.com
8. Type = A Record

Photo below



VI. Label all devices and networks with the IP addresses

