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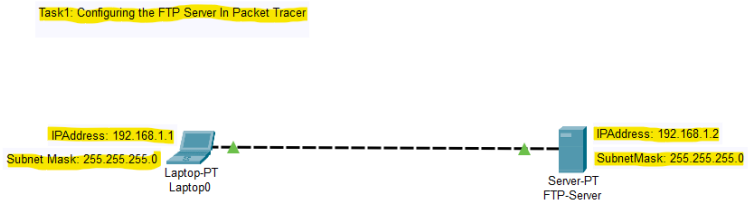
Roll No	:	20P-0165
Section	:	BCS-5A

Lab Task 6

Task 1: Configuring an FTP server in Packet Tracer

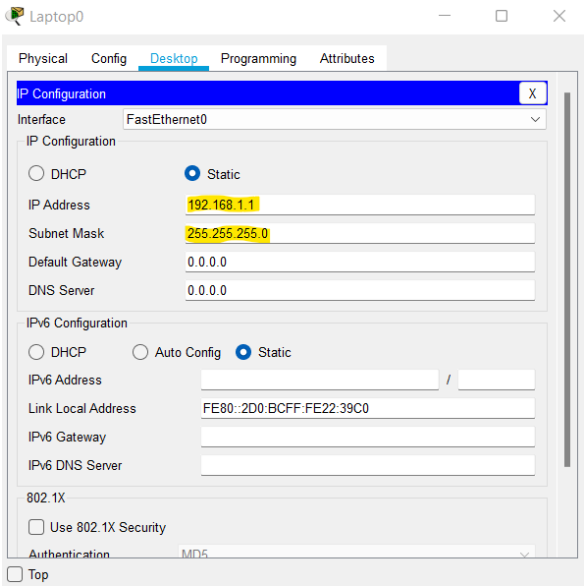
Step1: Build the Network Topology.



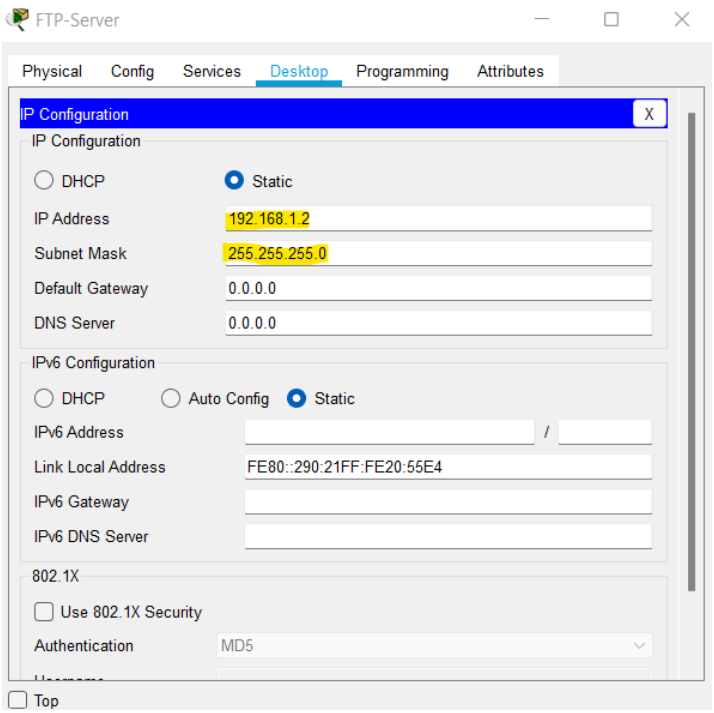
Step2: Assign IP Addresses to the Node and the Server.

1. For Laptop Assign IP address => **192.168.1.1** with subnet mask => **255.255.255.0.**
2. For the Server Assign IP address => **192.168.1.2** with subnet mask => **255.255.255.0.**

Laptop IP Configuration:



Server IP Configuration:

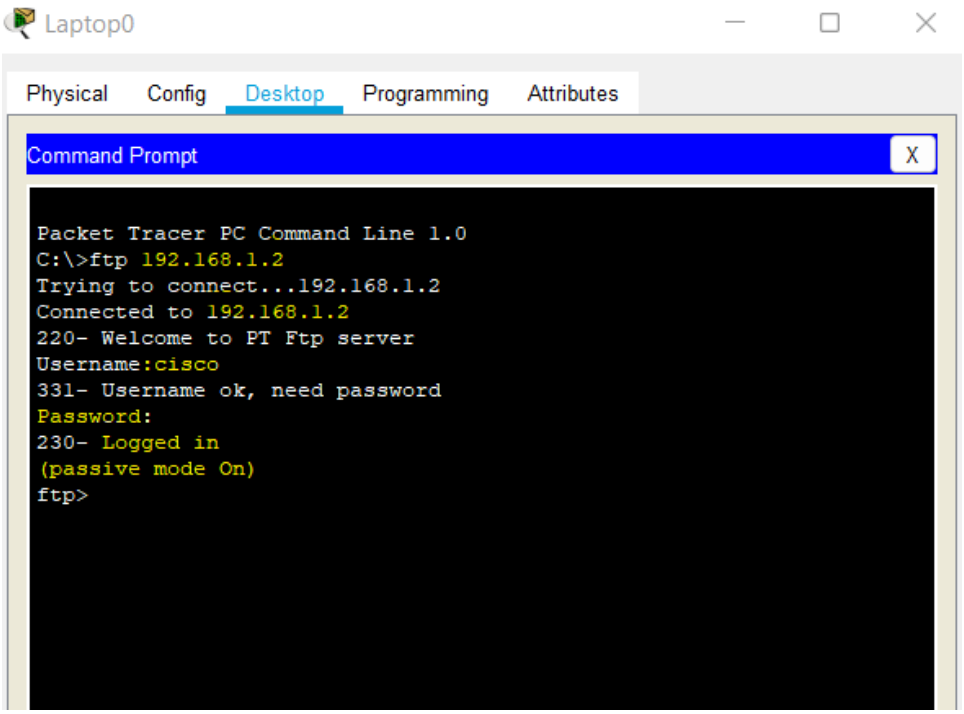


Step3: Now try using an FTP client built in the laptop to send files to an FTP server configured in the Server.

Connect with the server by using the **ftp** command.

=> ftp 192.168.1.2

Provide the username(cisco) and password(cisco) [which are the defaults] for ftp login.

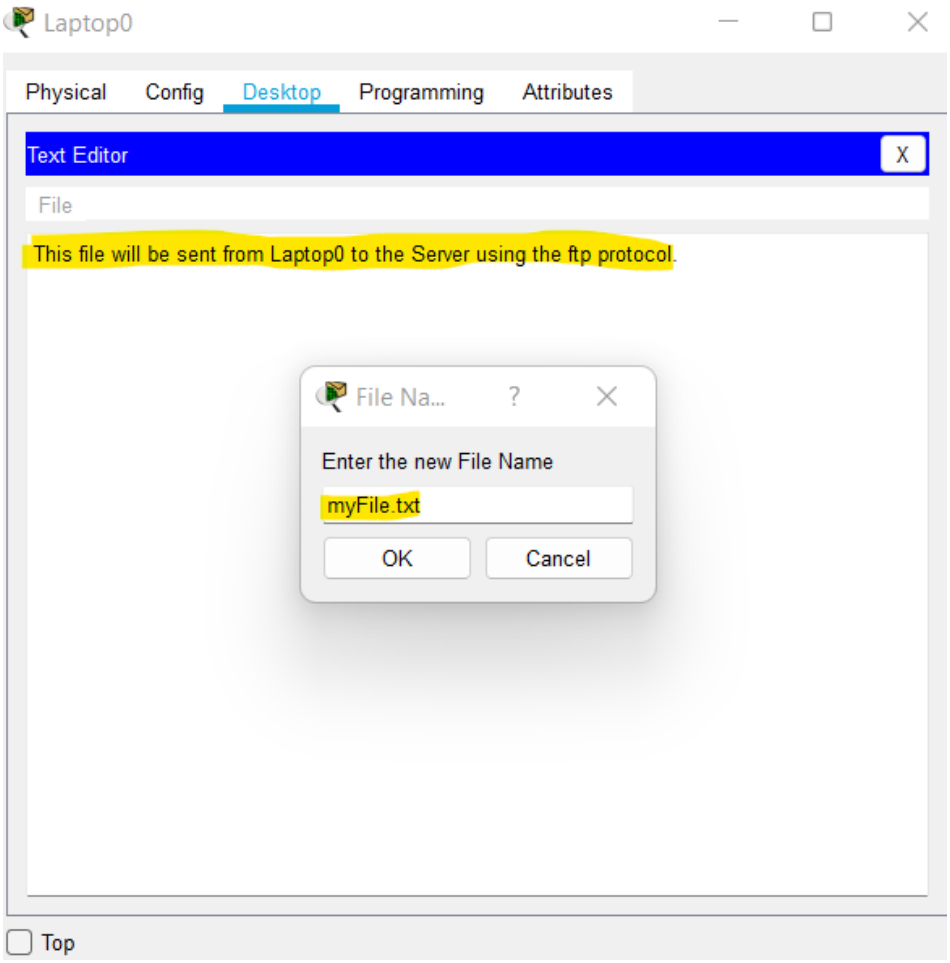


You are now in the FTP prompt.

Laptop0 has an FTP client which can be used to read, write, delete and rename files present in the FTP server.

Step4: Create a file in the Laptop then upload it to the server using FTP.

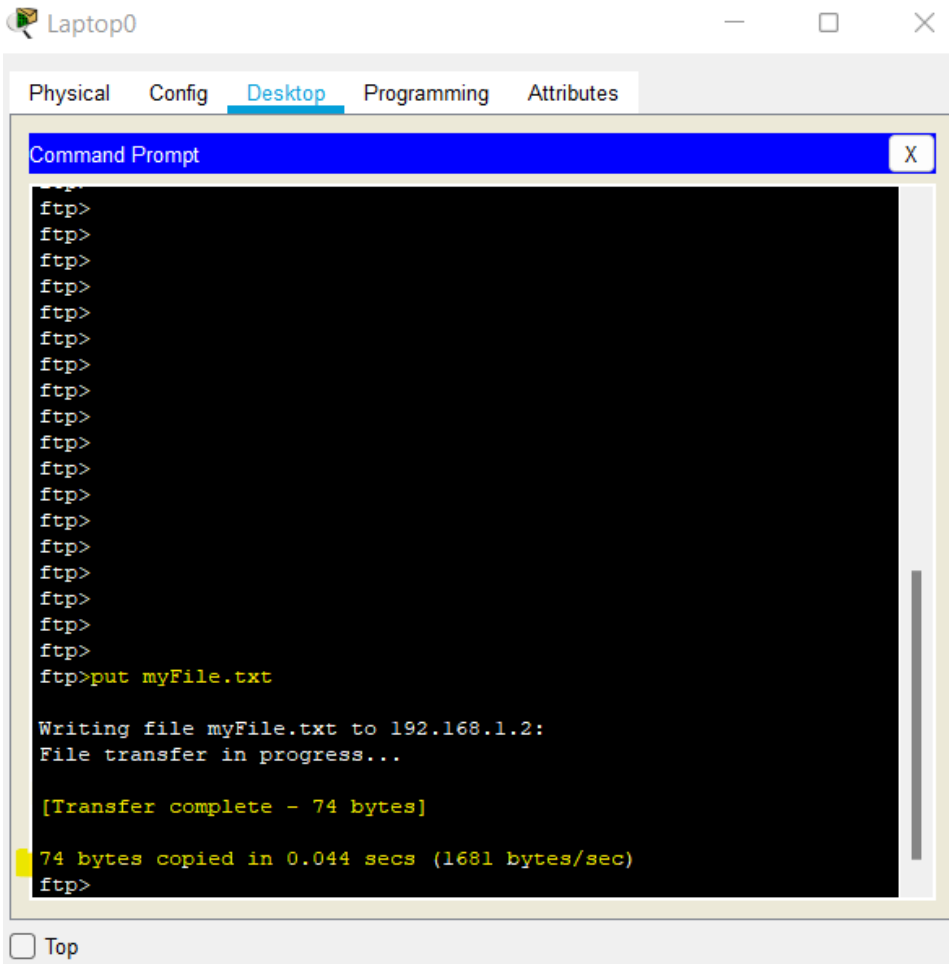
Open the Text Editor from **Desktop** and then create a new file with the name myFile.txt.



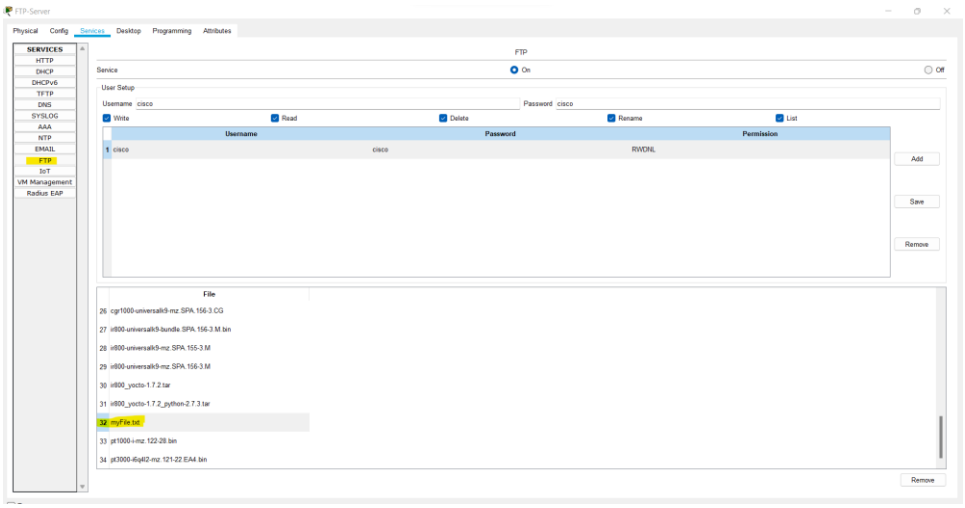
Step5: Upload the file using the **put** command.

We are in the /ftp directory of server so when we upload the file that will goes into that directory.

=> put myFile.txt



Let’s cross check this by going into the server configuration. Go Into the **Services->FTP.** Slide down you will find a **myFile.txt** that you uploaded.



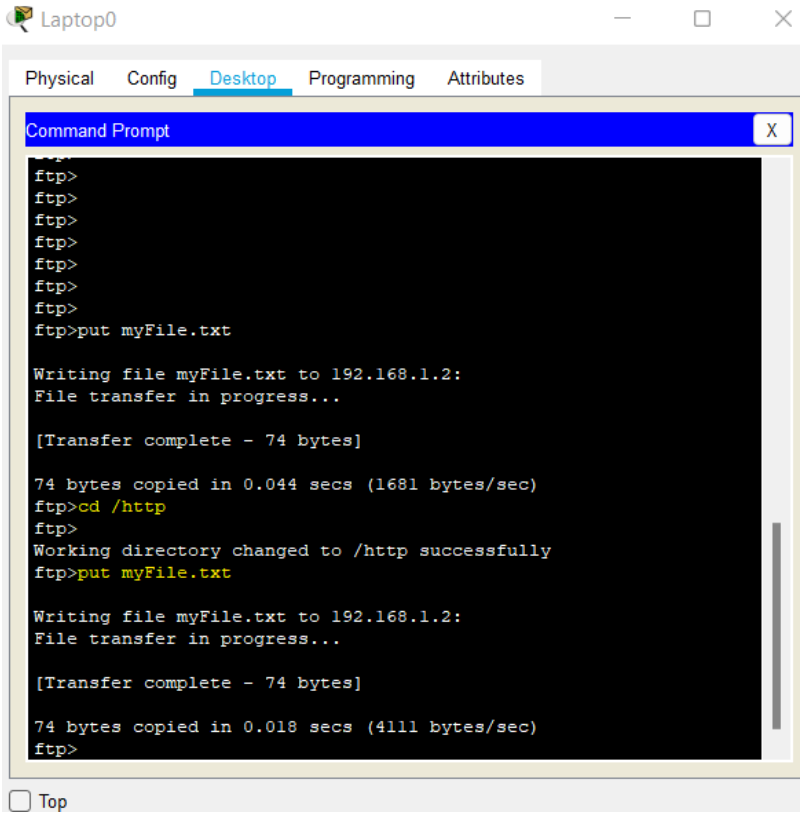
Uploading the File to the Http Directory

We are directed to the **ftp** directory. Let’s say we want to add another page to our website. So, for that we may want to upload that page index file to the http directory so that http can access it and show that page on screen. So, let’s upload the file into the http directory.

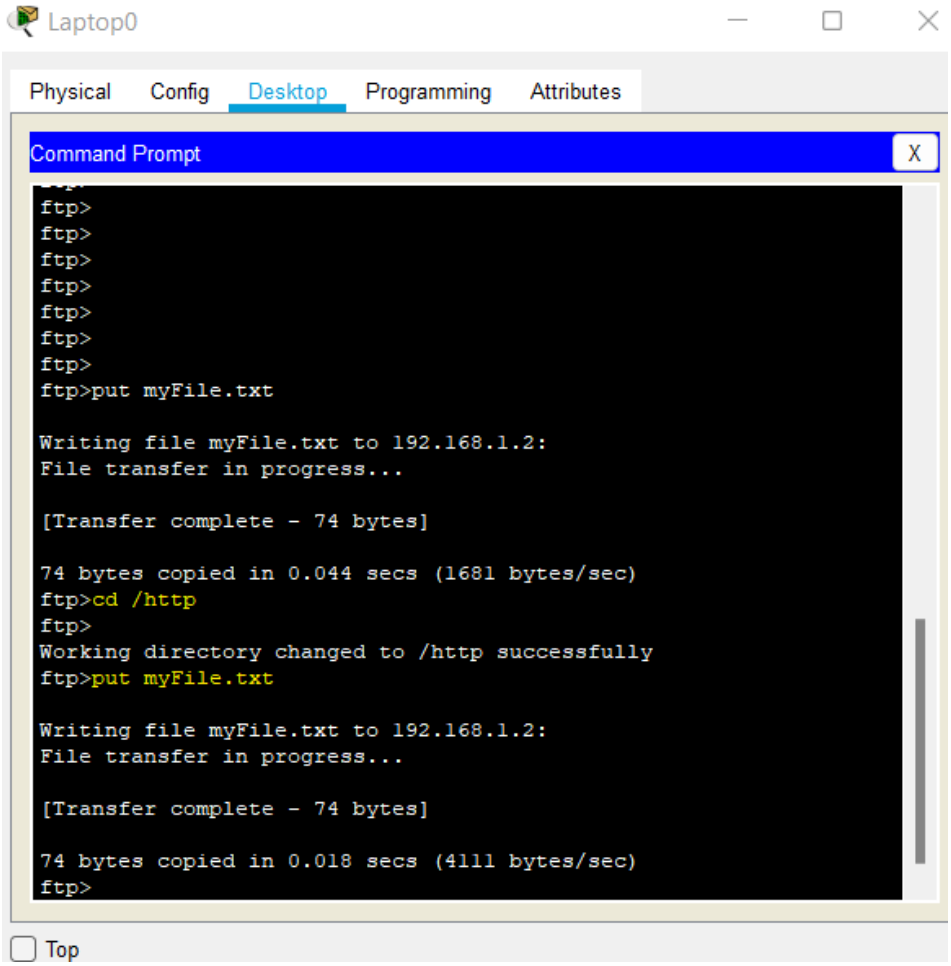
Type the following Commands in the command Prompt.

=> cd /http

=> put myFile.txt


Laptop0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
ftp>
ftp>
ftp>
ftp>
ftp>
ftp>
ftp>
ftp>put myFile.txt
Writing file myFile.txt to 192.168.1.2:
File transfer in progress...
[Transfer complete - 74 bytes]
74 bytes copied in 0.044 secs (1681 bytes/sec)
ftp>cd /http
ftp>
Working directory changed to /http successfully
ftp>put myFile.txt
Writing file myFile.txt to 192.168.1.2:
File transfer in progress...
[Transfer complete - 74 bytes]
74 bytes copied in 0.018 secs (4111 bytes/sec)
ftp>
Top

Now go the **FTP-Server->Services->HTTP.** You will find the myFile.txt there.

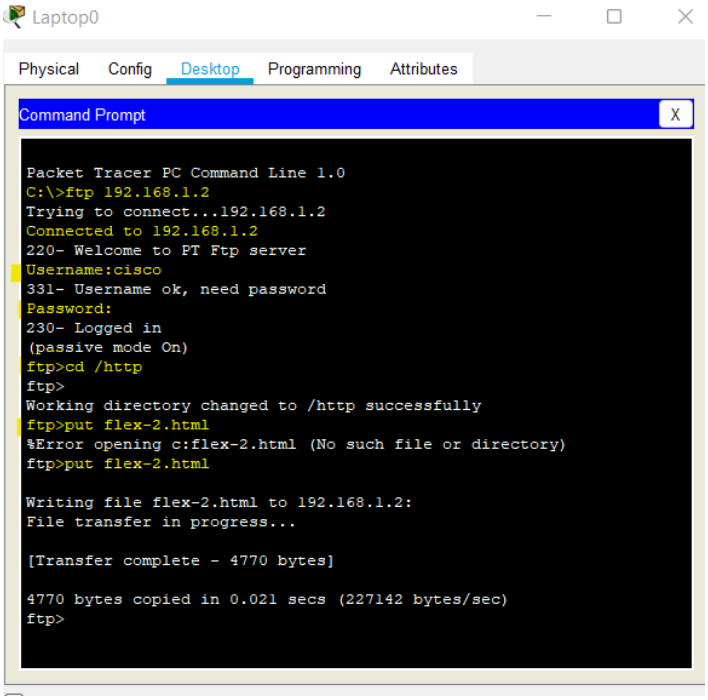


Task: Create and Upload html file to HTTP server directory Using FTP.

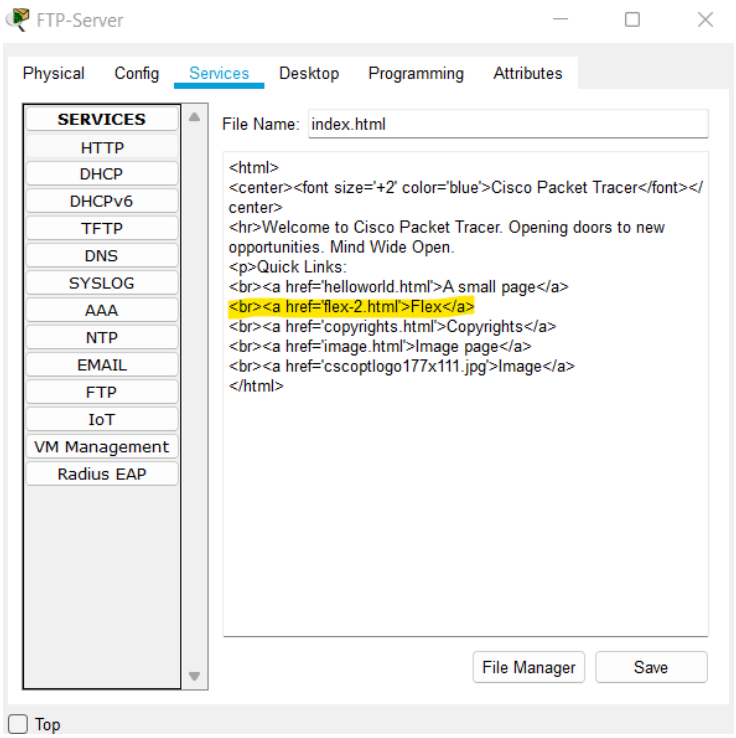
Now let's take a scenario that we want to add a new page. So, for that let's upload the **HTML** file to the **HTTP** and then add that file to the **index.html**.

So we are in the http directory.

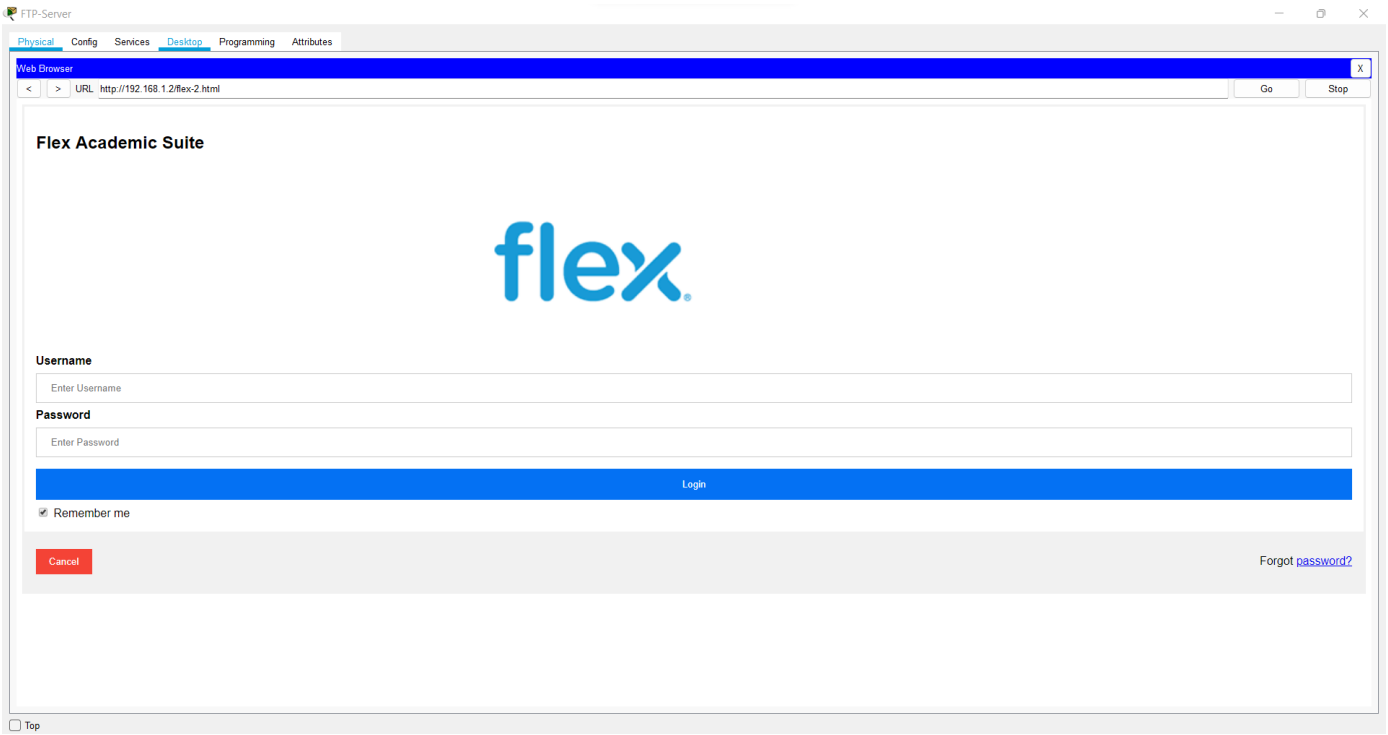
Step1: Create the HTML file with the name **flex-2.html** and put some html code in their and put that file into the http directory using the steps shown above.



Check File Uploaded Successfully or Not. Then add that file link to the **index.html file.**



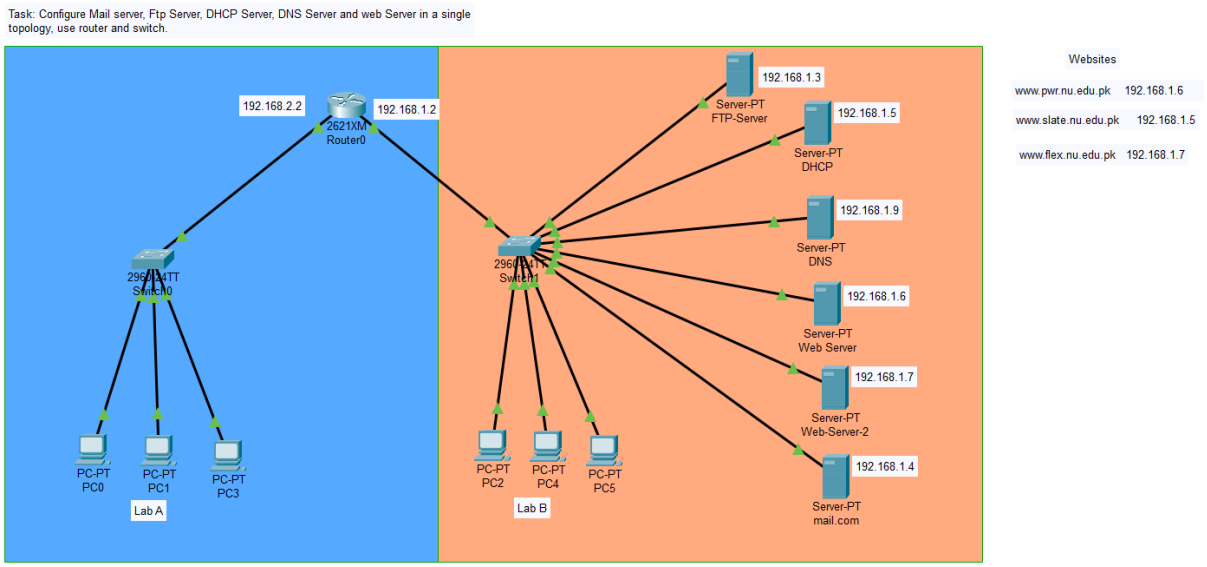
Let’s see if the page is visible or not. Open the **Web Browser** and then type the server IP address. You will find the link with the name **Flex** just click on it you will be redirected the Flex page and all the code you written the **flex-2.html** will be shown to you.



Task: Configure Mail server, Ftp Server, DHCP Server, DNS Server and web Server in a single topology, use router and switch.

Scenario: We have two labs and there are three PC's in both the Labs A and B. We want three websites to be accessed on both of these Lab PC's and network IP of both the Labs are different. We want Email communication between both the Lab PC's and also All the PC's can transfer file to the server called FTP and other PC's can get these files from their. All the PC's will get assigned IP's using the DHCP Server.

Step1: Create This Topology.

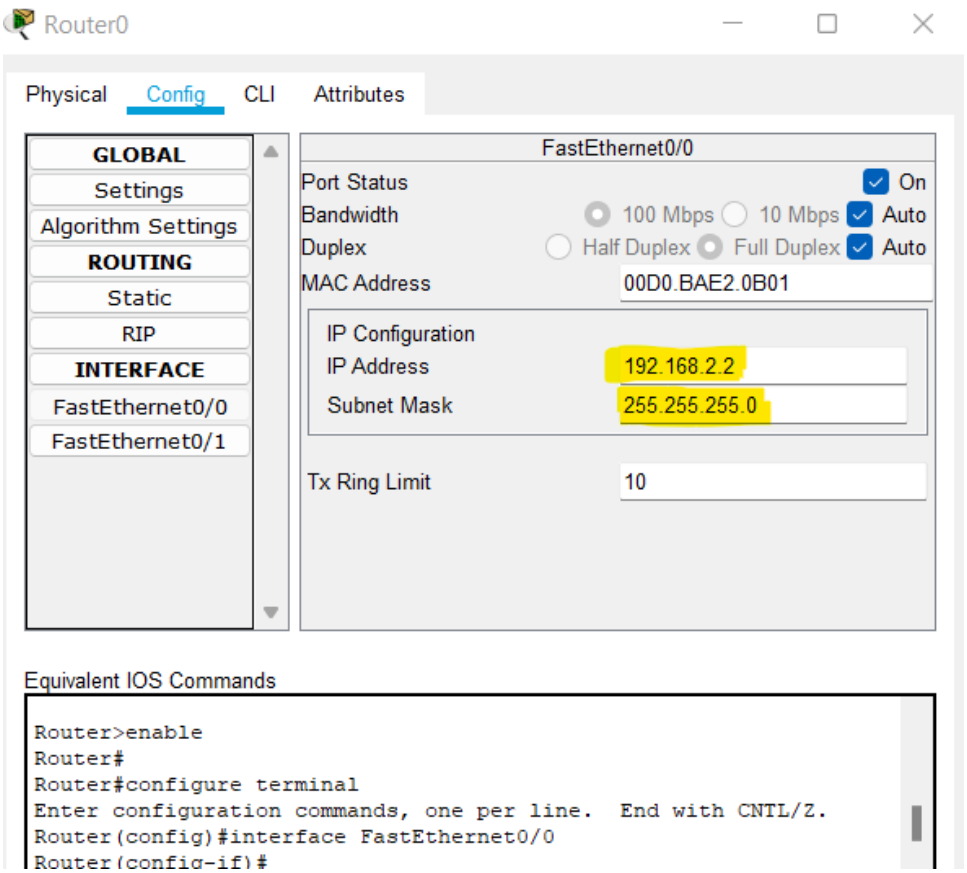


First of all I am going to setup folowing server

1. DHCP
2. DNS
3. Web Server

After Setting up all these servers then I will setup the Mail Server and FTP server.

Step2: Assign Ip Addresses to the Router.

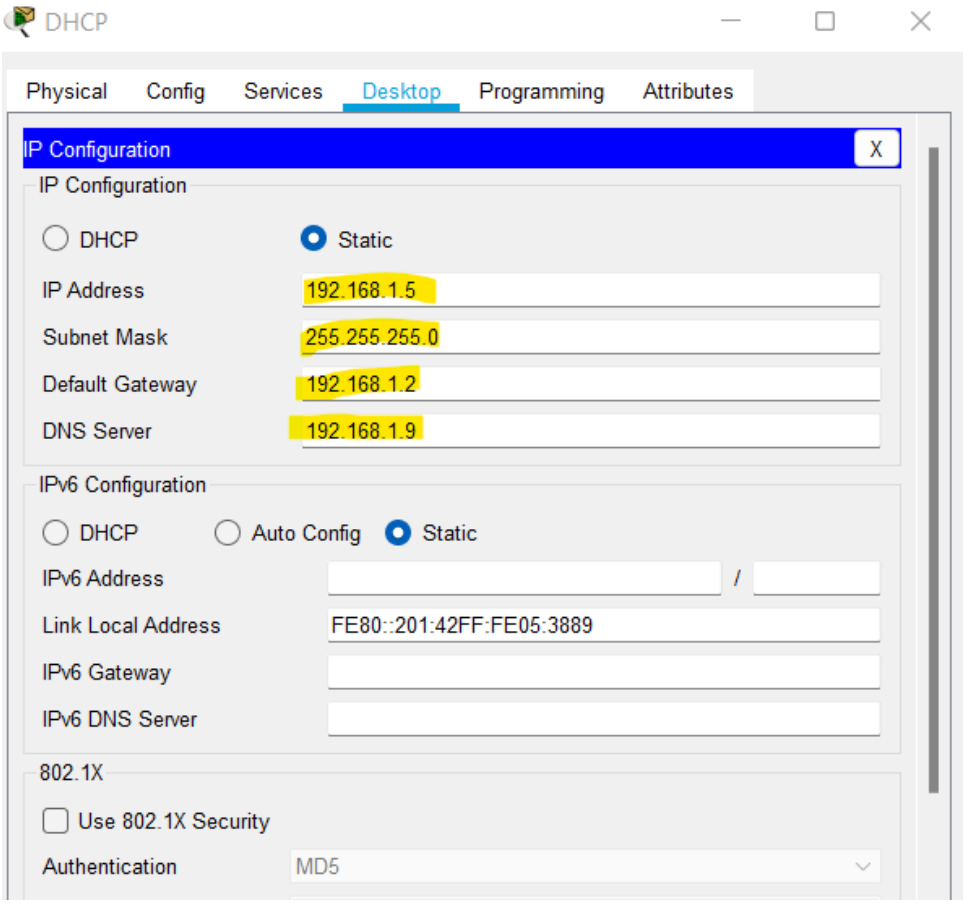


Step3: Go to router CLI and Add Pool P1 and P2.

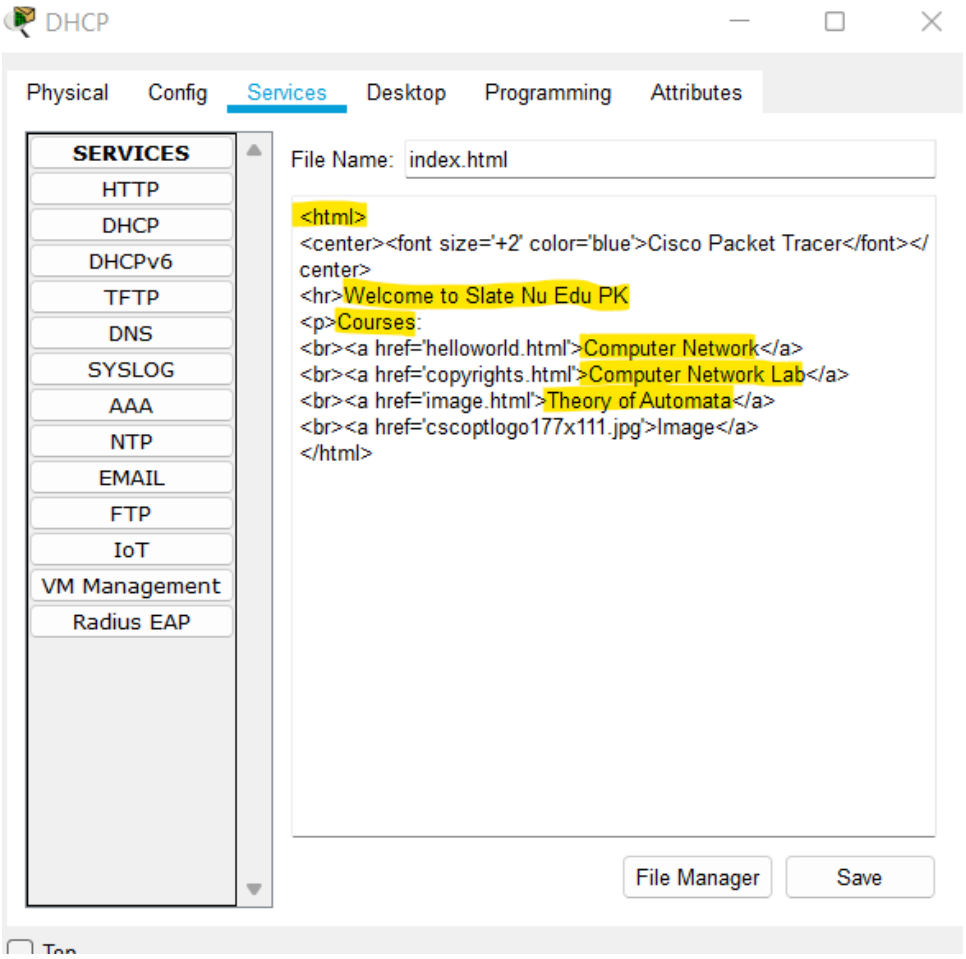
```
Router#
Router#
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#
Router(config)#ip dhcp pool P1
Router(dhcp-config)#network 192.168.1.0 255.255.255.0
Router(dhcp-config)#default-router 192.168.1.2
Router(dhcp-config)#ip dhcp pool P2
Router(dhcp-config)#network 192.168.2.0 255.255.255.0
Router(dhcp-config)#default-router 192.168.2.2
Router(dhcp-config)#%DHCPD-4-PING_CONFLICT: DHCP address
conflict:  server pinged 192.168.2.2.
```

Step4: We need three servers to have three websites. Assign the given IP addresses to the three servers and edit the index file as per your need.

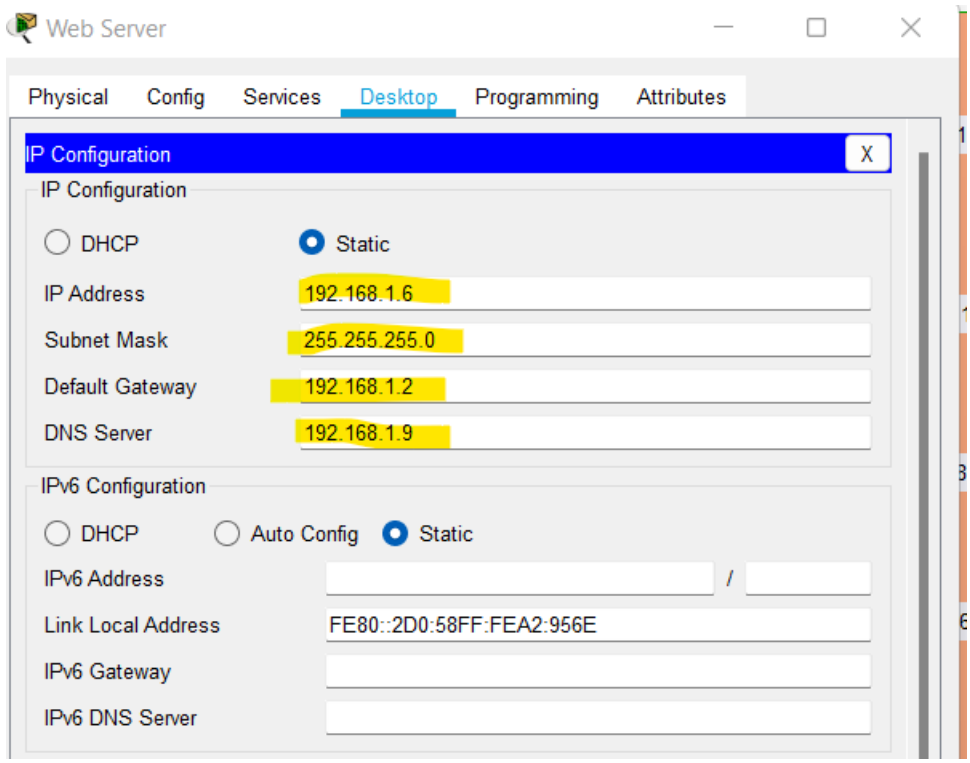
First Edit DHCP server 192.168.1.5 => slate



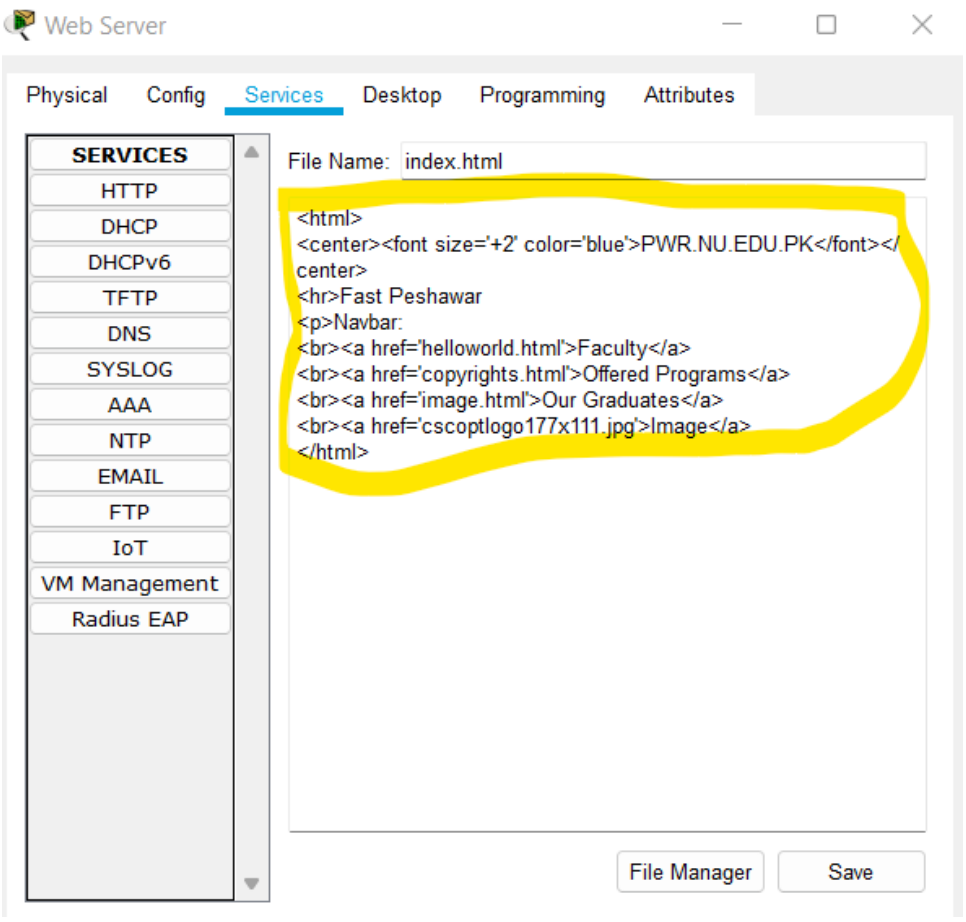
Go to the services and then Edit the index.html file.



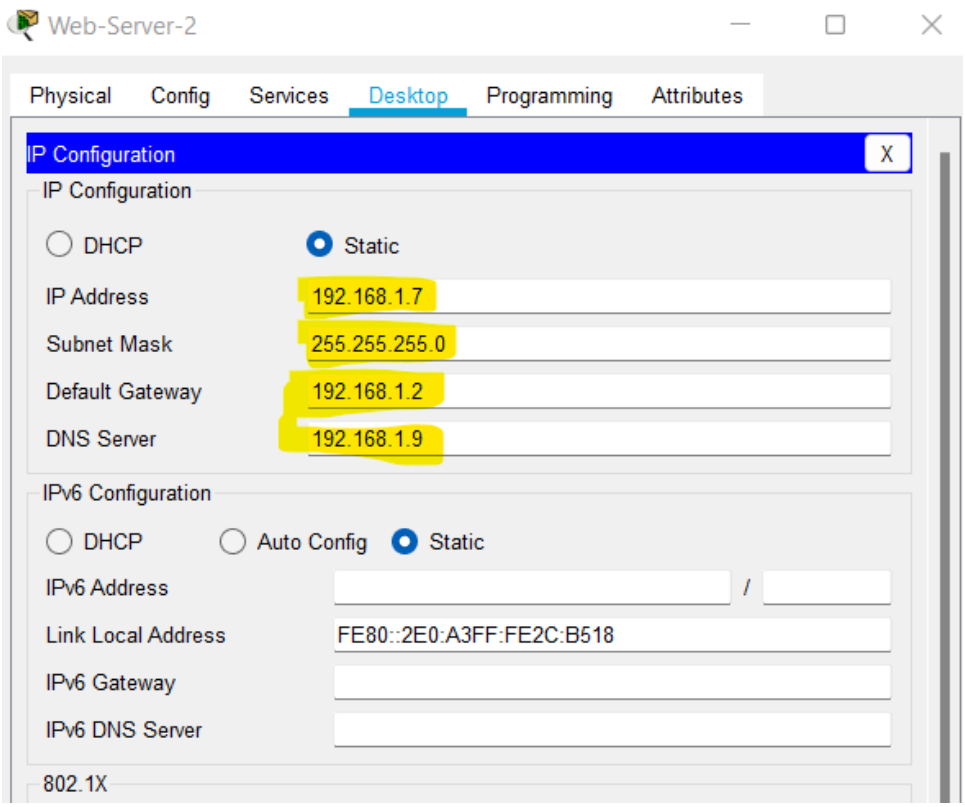
Second Edit Web Server server 192.168.1.6 => pwr .



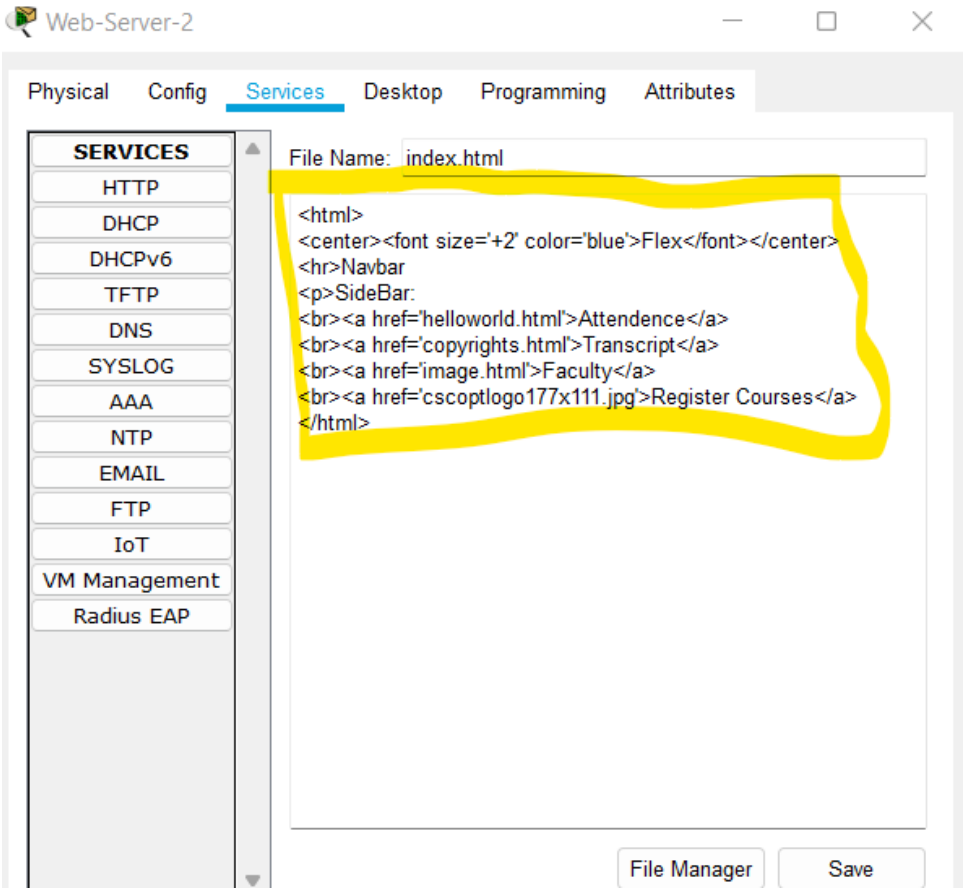
Go to the Services Tab and Edit the index.html file as per your need.



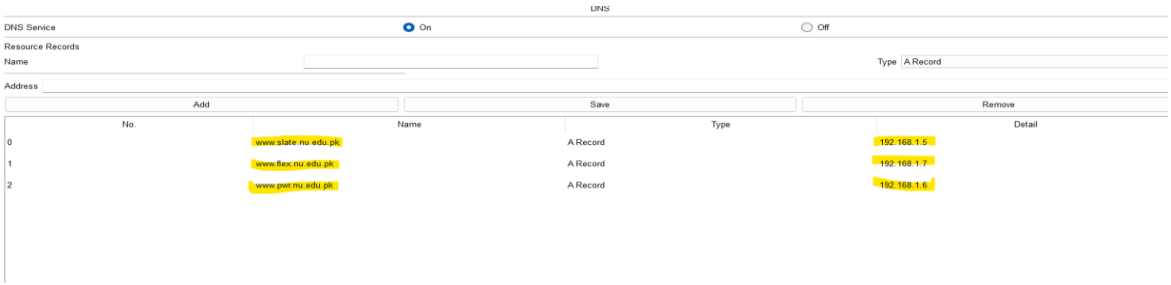
Third Edit Web Server-2 server 192.168.1.7 => flex.



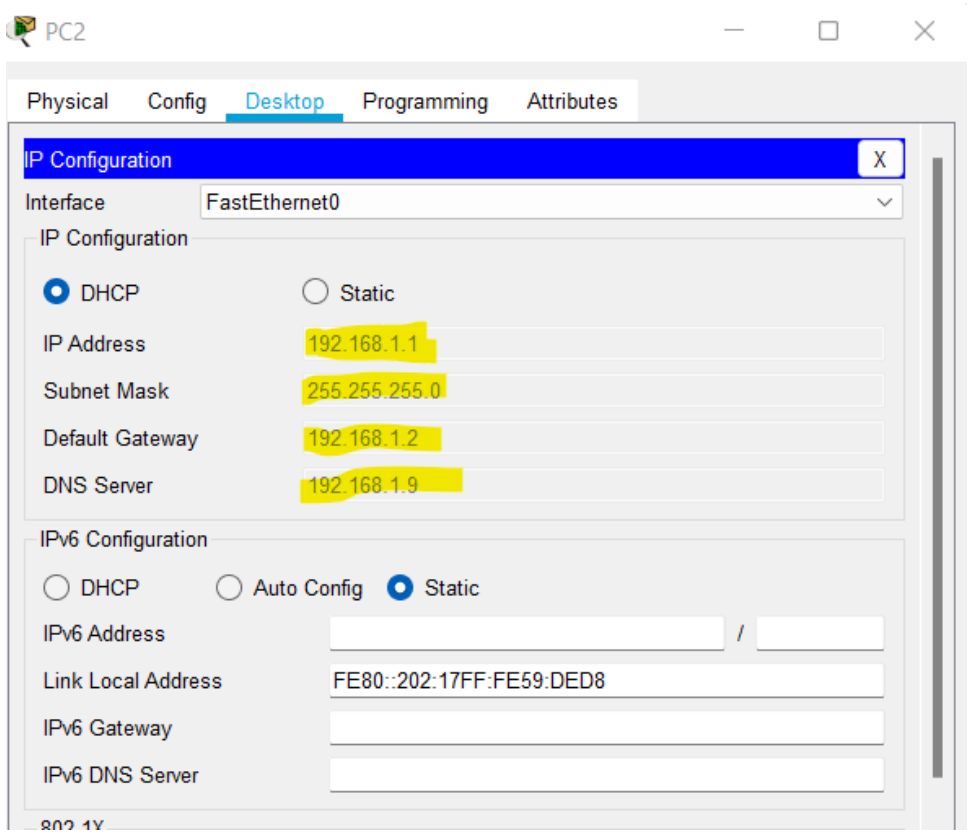
Then Edit the index.html file.



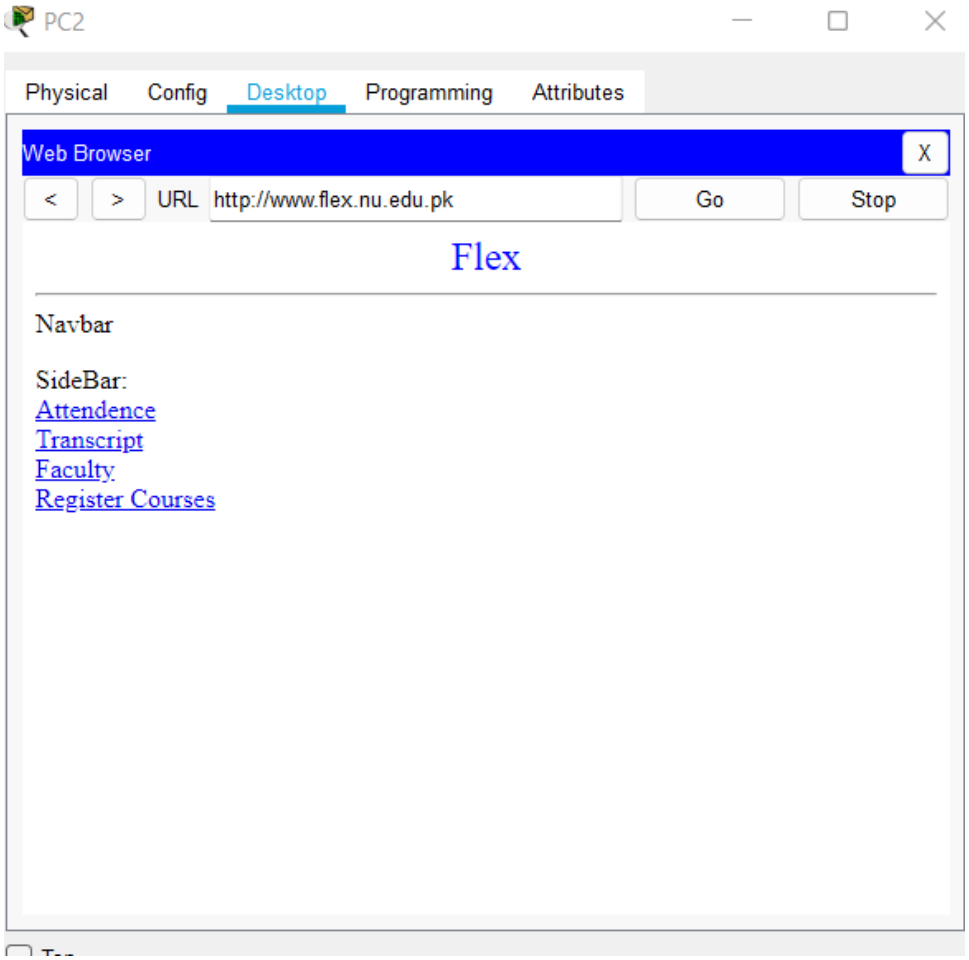
After All this done now On the http and https service in the DNS server and then add the websites and the servers IP addresses.

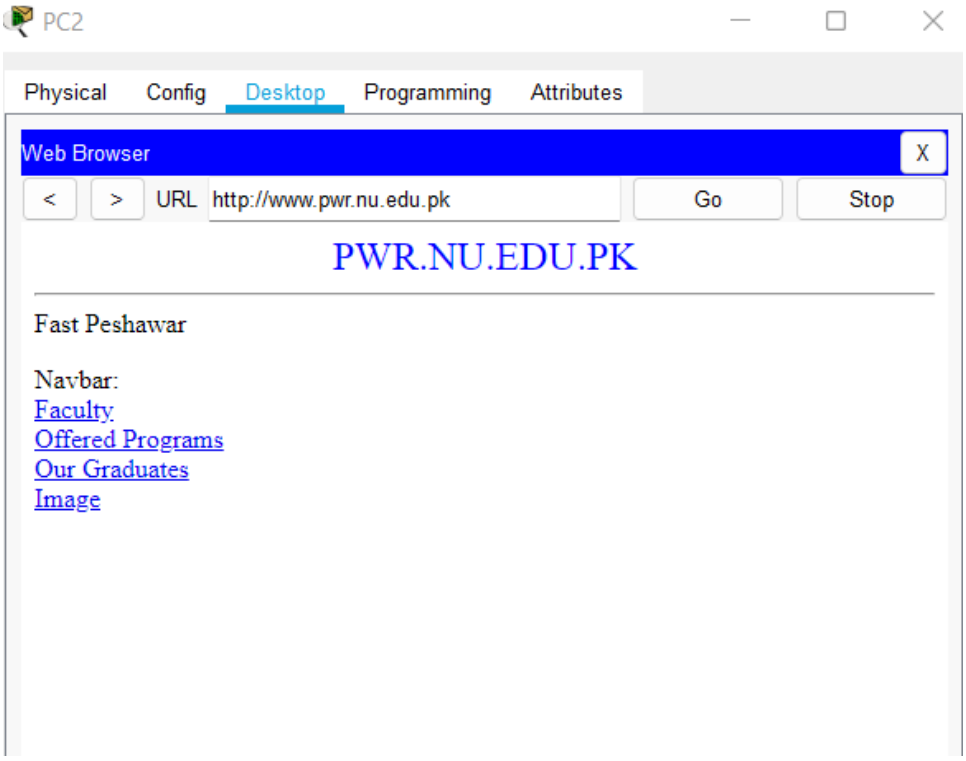


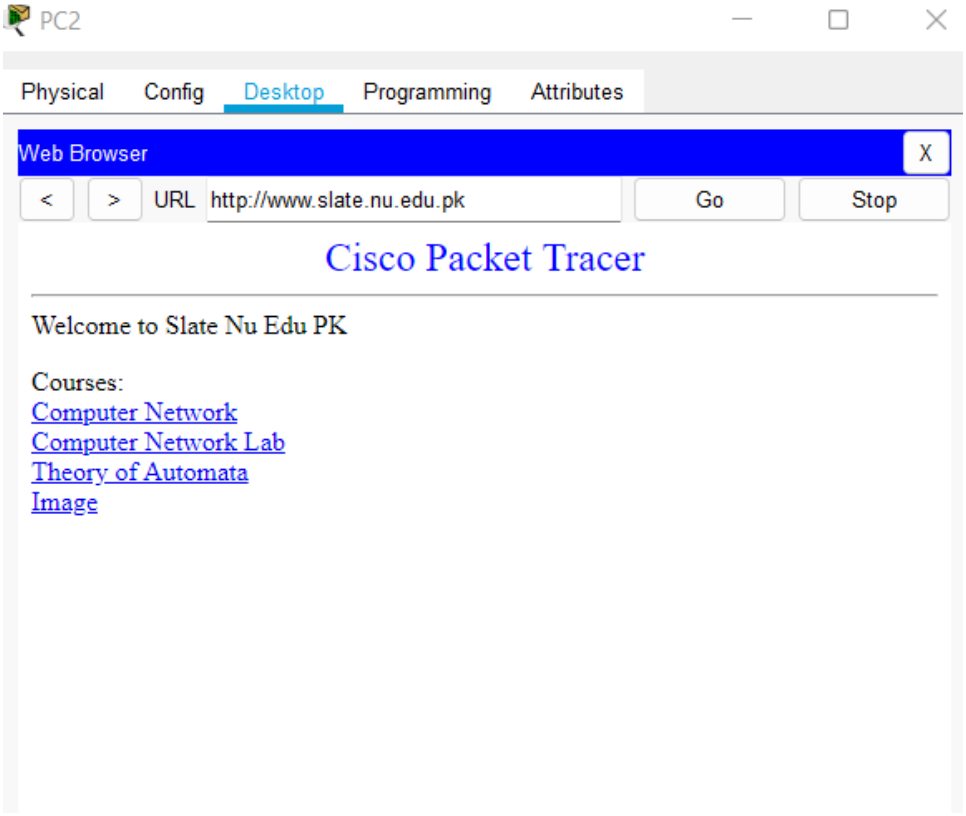
Now to Go the any Lab PC and then assign IP using the option DHCP.



Now open the browser and enter the website url.

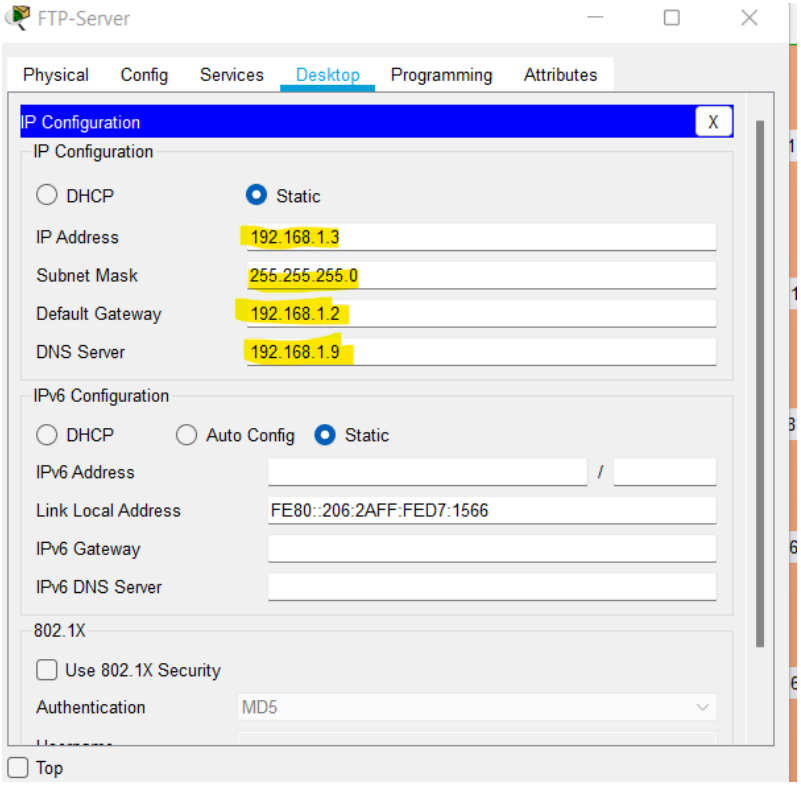

PC2
Physical
Config
Desktop
Programming
Attributes
Web Browser
X
<
>
URL
http://www.flex.nu.edu.pk
Go
Stop
Flex
Navbar
SideBar:
Attendence
Transcript
Faculty
Register Courses


PC2
Physical
Config
Desktop
Programming
Attributes
Web Browser
X
<
>
URL
http://www.pwr.nu.edu.pk
Go
Stop
PWR.NU.EDU.PK
Fast Peshawar
Navbar:
Faculty
Offered Programs
Our Graduates
Image

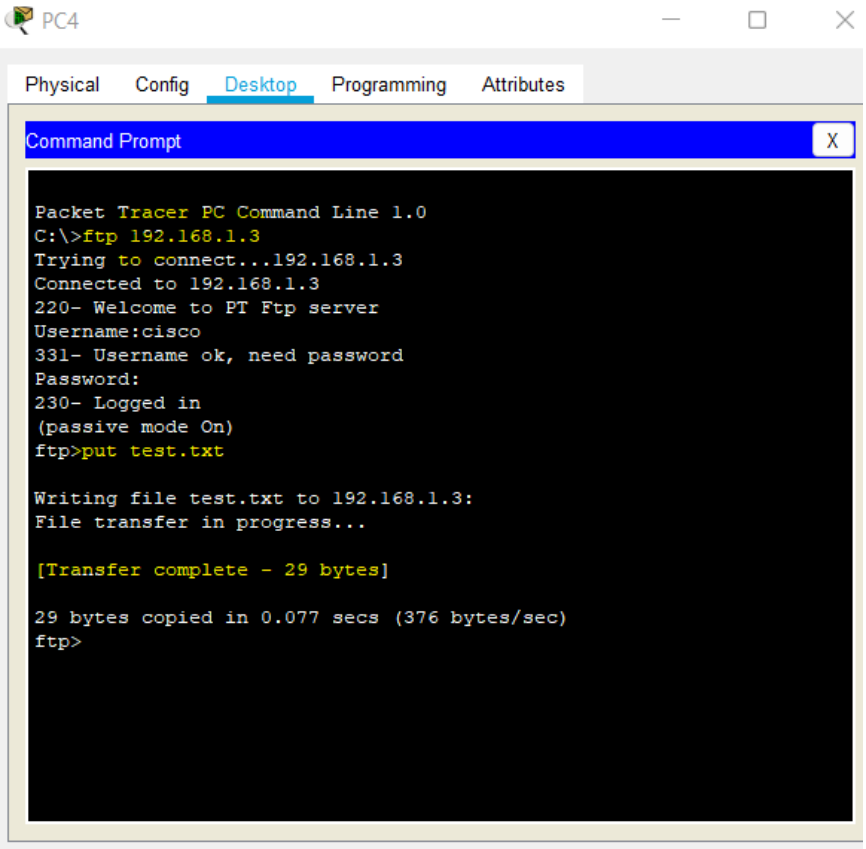

PC2
Physical
Config
Desktop
Programming
Attributes
Web Browser
X
<
>
URL
http://www.slate.nu.edu.pk
Go
Stop
Cisco Packet Tracer
Welcome to Slate Nu Edu PK
Courses:
Computer Network
Computer Network Lab
Theory of Automata
Image

After successfully completed the DNS, Web and DHCP Server Now create the ftp server.

1. First of all go to the configuration of the ftp server and assign IP address, subnet mask, default gateway and then DNS server Ip address.
2. The Ftp server IP address will needs the same network to which end of the router it is connected. Like In my case the ftp server connected to the **Fa0/1** so the network will be 192.168.1.0. So, the IP address you are assigning must have to same network.

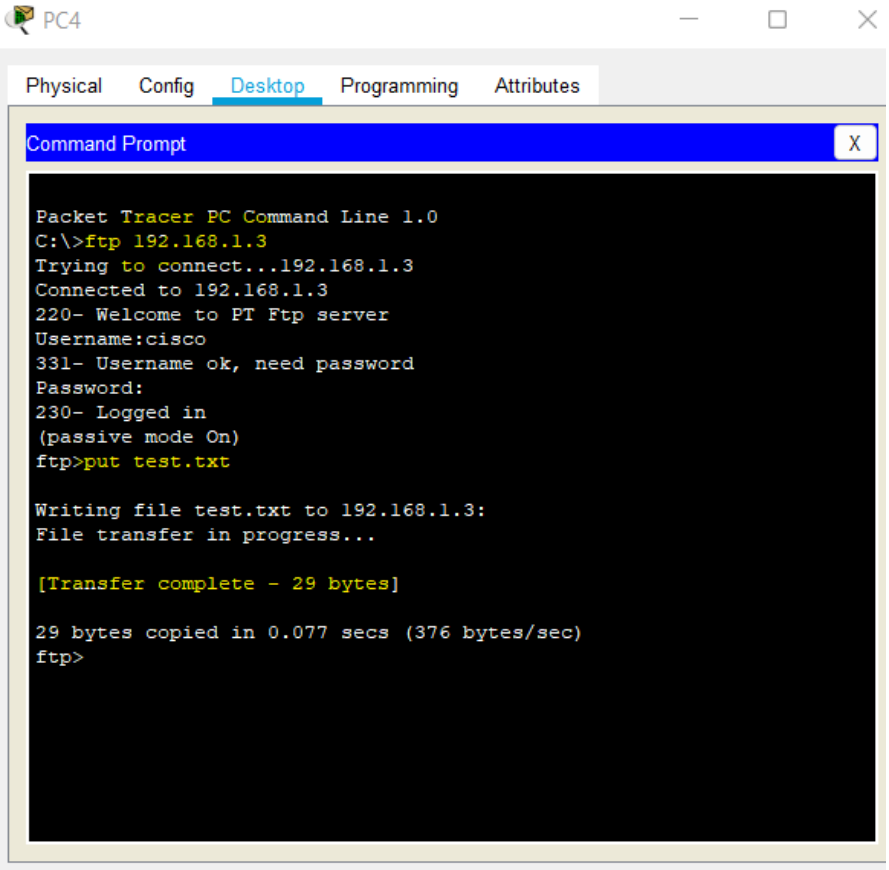


Let's connect to the ftp server and then upload the file from PC4.

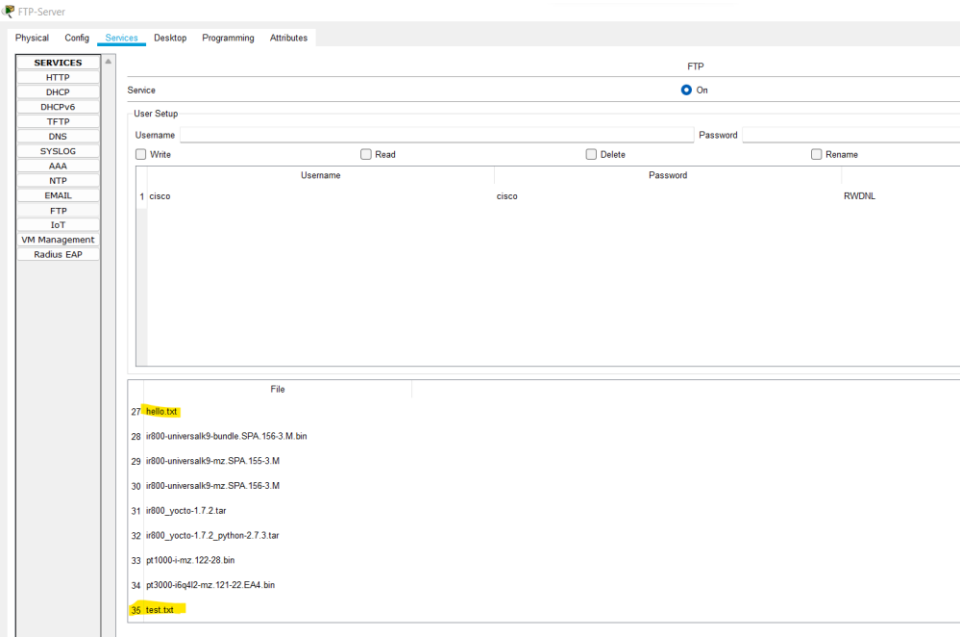


File Transfer successfully done.

Let’s try from another PC.



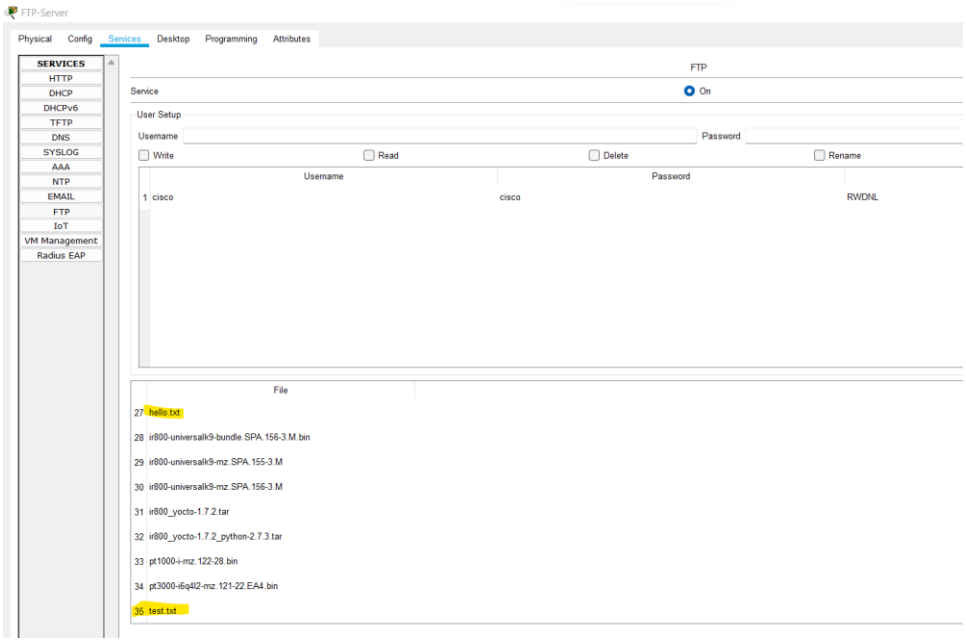
GO to the FTP server -> Services -> FTP. Then you will find these putted files their.



Mail Server Configuration.

Step1: Configure IP addresses on the PCs, DNS Server and the Mail Server

We have already done the DNS server configuration and for the PC's we have already done the DHCP Server. So now configure the Mail Server.

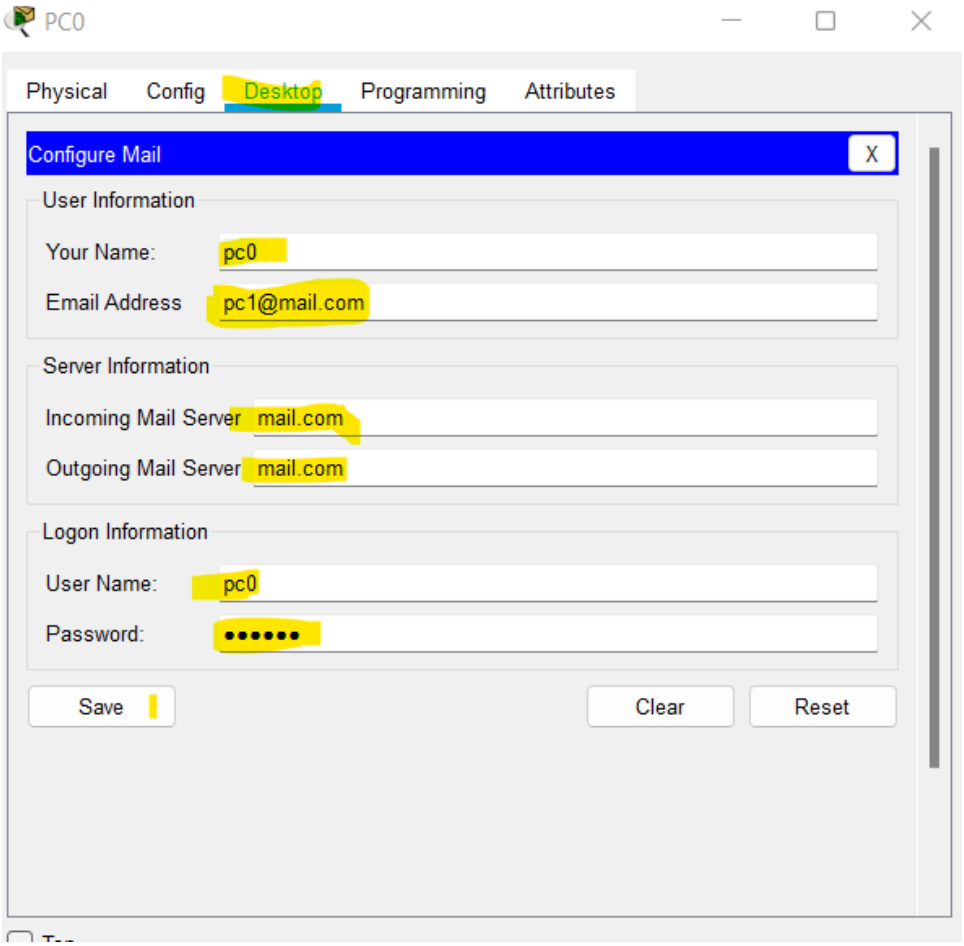


Step2: Configure mail clients on the PCs and mail service on the generic server.

I am doing for PC0 same goes for all the other PC's.

Click on PC -> Desktop -> Email -> Configure Email.

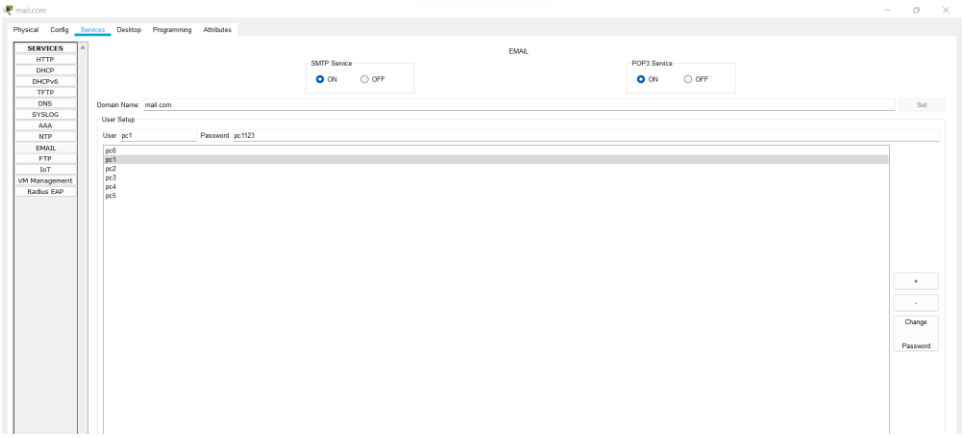
Add username, password and mail server. We are using the **mail.com** server.



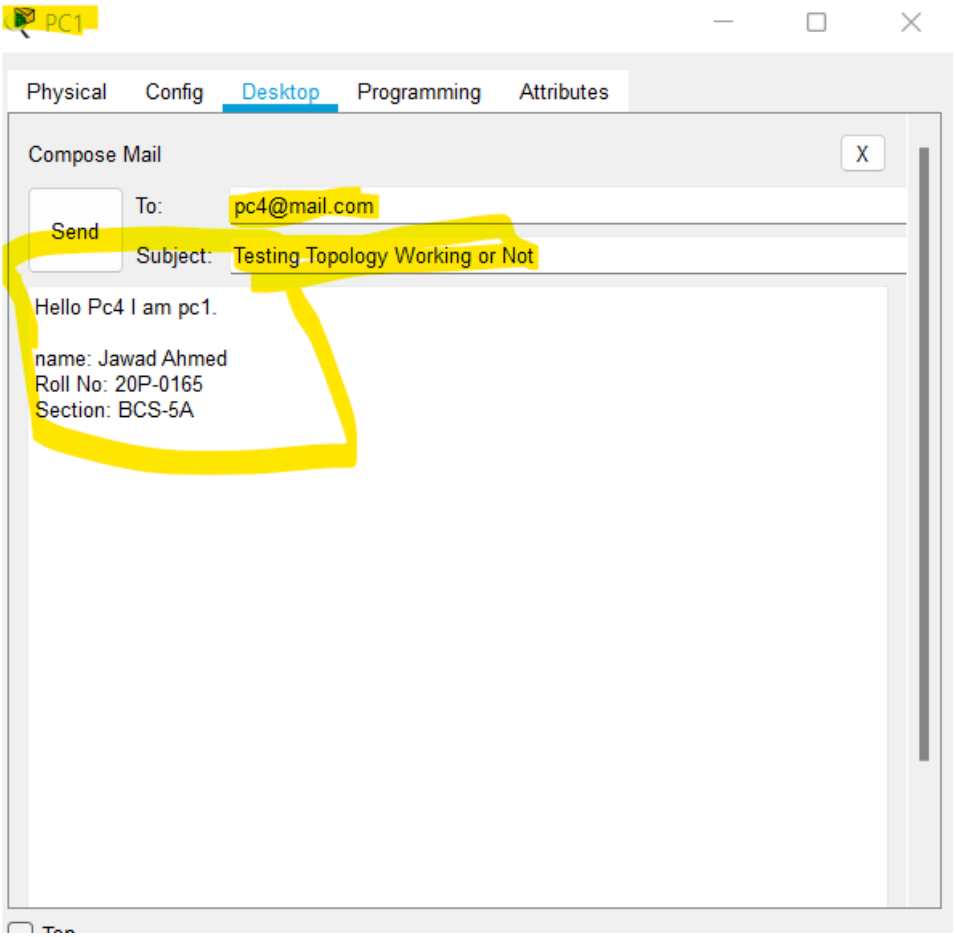
Do it same for all the other PC's. Now let's add all these users in the mail server with the passwords.

Go to Mail Server -> Services -> EMAIL.

Then add all username and passwords responding to the users.



Step5: Let's test this by sending email from PC1 to PC4.



Step6: Verify Email received at the PC4 end or not.