

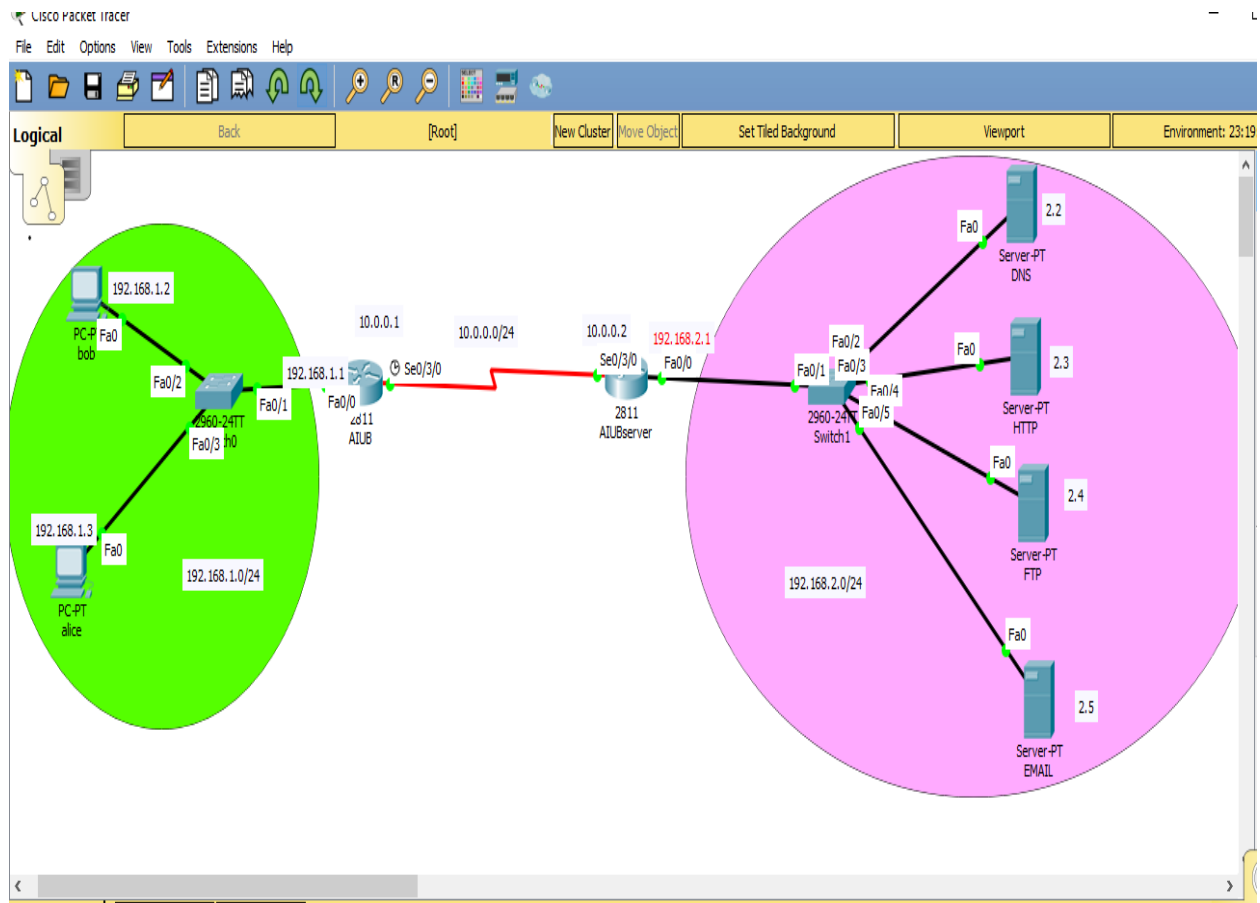
LAB MANUAL 03

Computer Network

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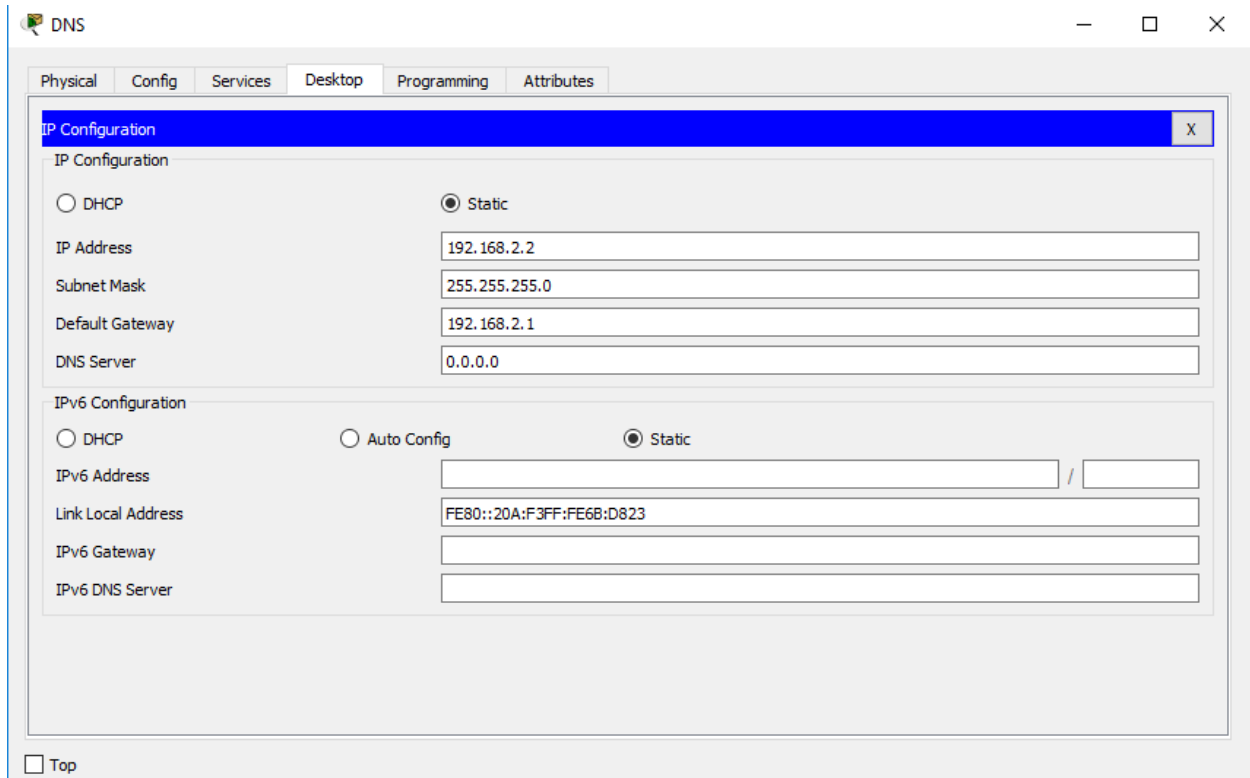


Draw the topology and according to this picture. Take four servers DNS, HTTP,FTP, EMAIL

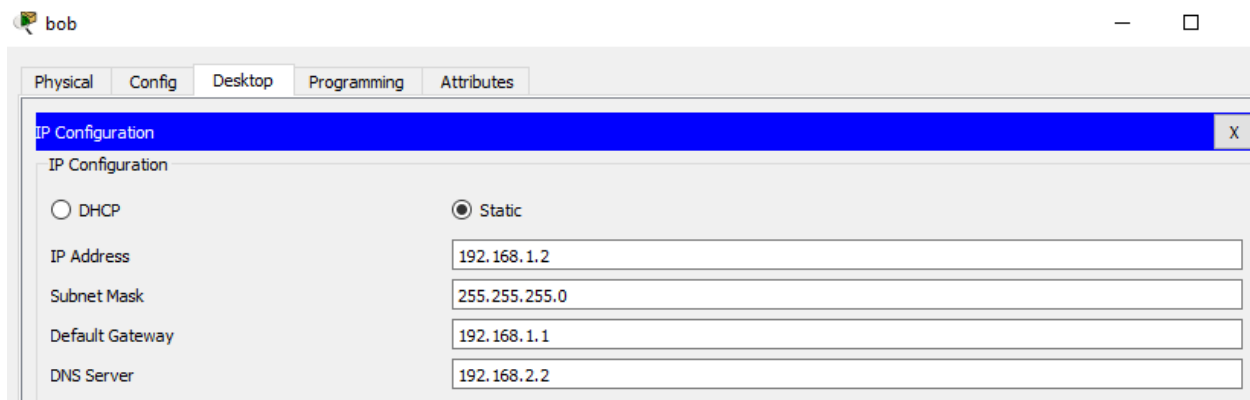
In this manual, we will see server connection.

Whenever we write a url address on our browser, the request first goes to DNS server. If he DNS server has the ip address of that http server then it redirects the request to the requested http server and then information is being fetched on your pc.

At first Click the DNS server and configure .

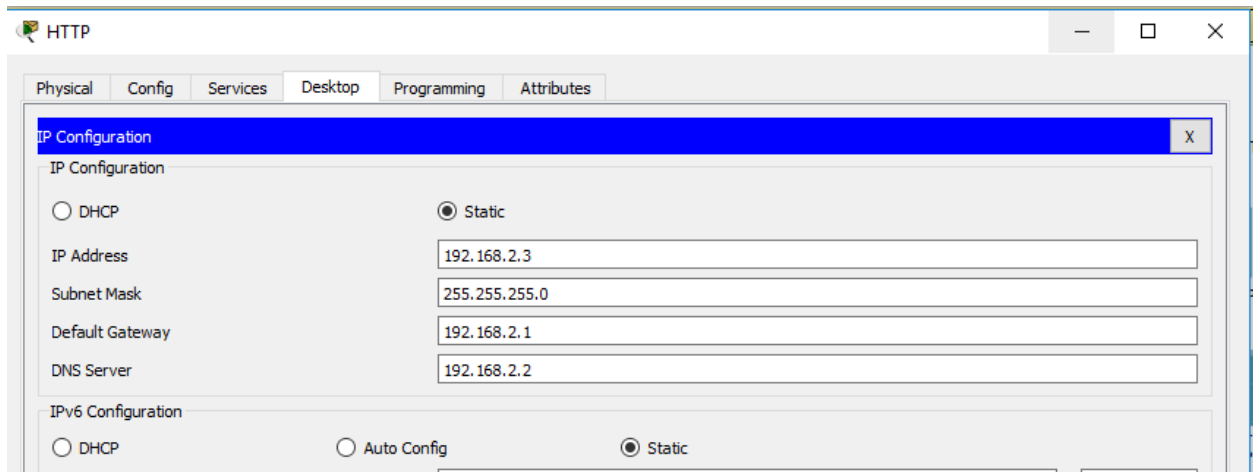


No go back to the PCs and add DNS server ip in the configuration.



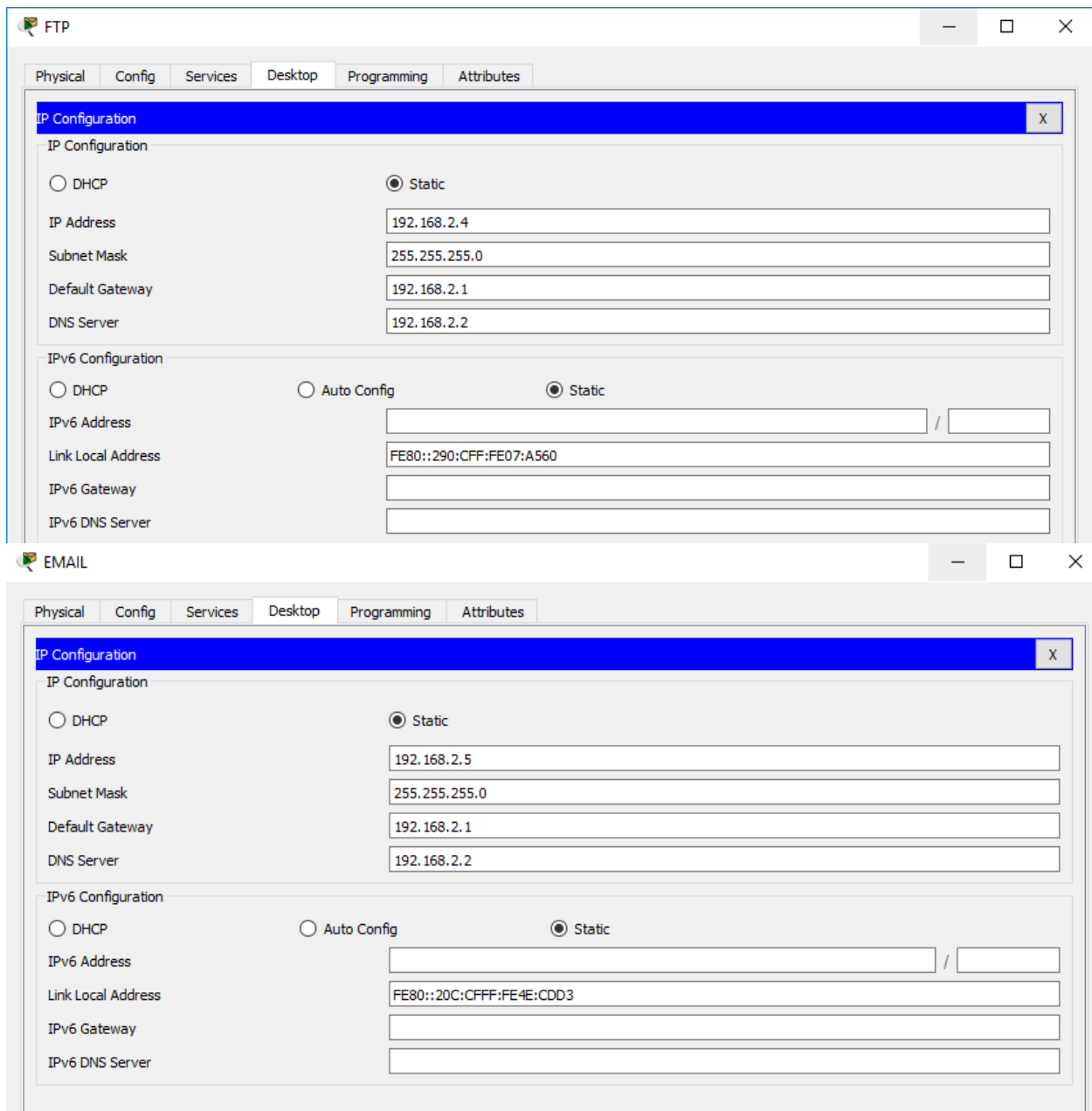
Similarly do in in other PCs.

Then click HTTP server and configure.



See, Here DNS server ip can not be blank. You will have to put DNS server ip also.

Then Configure FTP server, Email server



Now, Go back to DNS server. Click on the service option. Except DNS , all other service should be off.
In the HTTP service section, write

Username: www.aiub.edu

Address: 192.168.2.3

And then click "Add".

Here the ip address is the http server's ip address.

DNS

Physical

Config

Services

Desktop

Programming

Attributes

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

DNS

DNS Service

☒ On ☐ Off

Resource Records

Name

www.aiub.edu

Type

A Record

Address

192.168.2.3

Add

Save

Remove

No.	Name	Type	Detail
-----	------	------	--------

DNS

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SERVICES

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EMAIL

FTP

IoT

VM Management

DNS

DNS Service

☒ On ☐ Off

Resource Records

Name

Type

A Record

Address

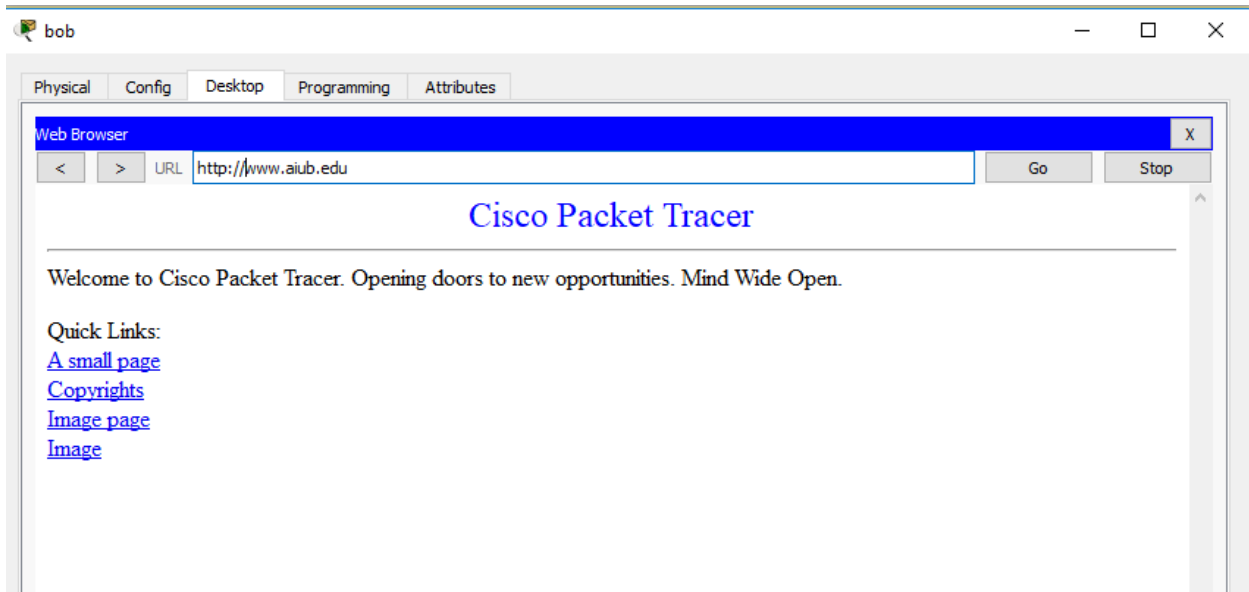
Add

Save

Remove

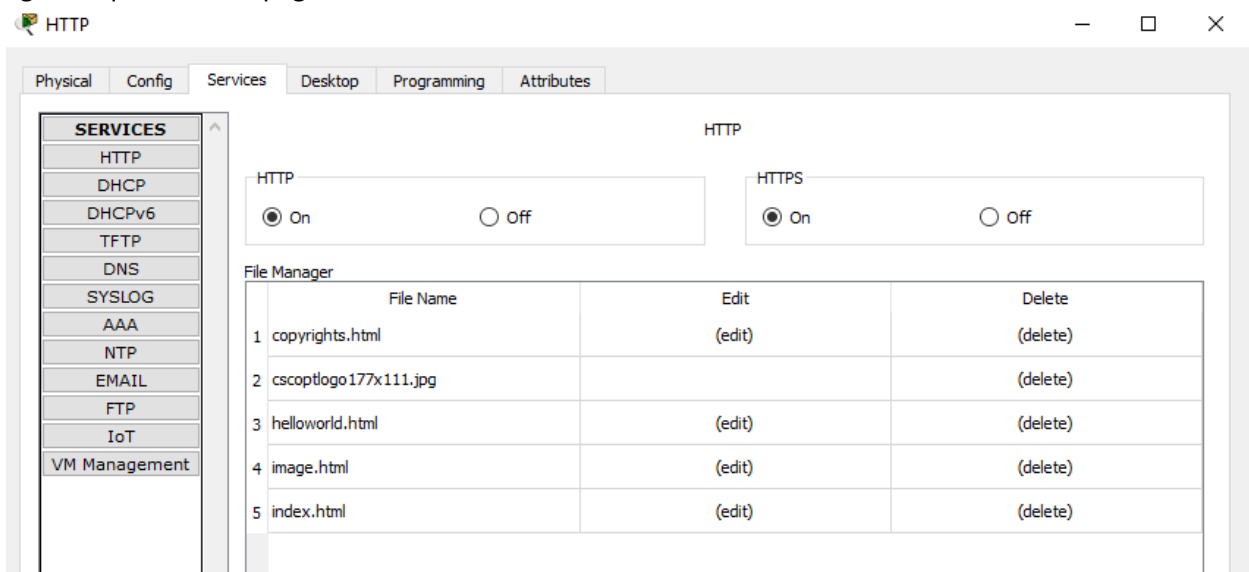
No.	Name	Type	Detail
0	www.aiub.edu	A Record	192.168.2.3

Now click a PC and open web browser. Type only www.aiub.edu and enter. And you will see the requested page.



The content of this page is written in HTTP server's index.html page.

You can edit that page clicking on "edit" according to your wish and you will see the edited one if you again request for the page.



Physical

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SERVICES

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TFTP

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AAA

NTP

EMAIL

FTP

IoT

VM Management

File Name: index.html

```
<html>
<center><font size='+2' color='blue'>Cisco Packet Tracer</font></center>
<hr>Welcome to Cisco Packet Tracer. Opening doors to new opportunities. Mind Wide Open.
<p>Quick Links:
<br><a href='helloworld.html'>A small page</a>
<br><a href='copyrights.html'>Copyrights</a>
<br><a href='image.html'>Image page</a>
<br><a href='cscoptlogo177x111.jpg'>Image</a>
</html>
```

File Manager

Save

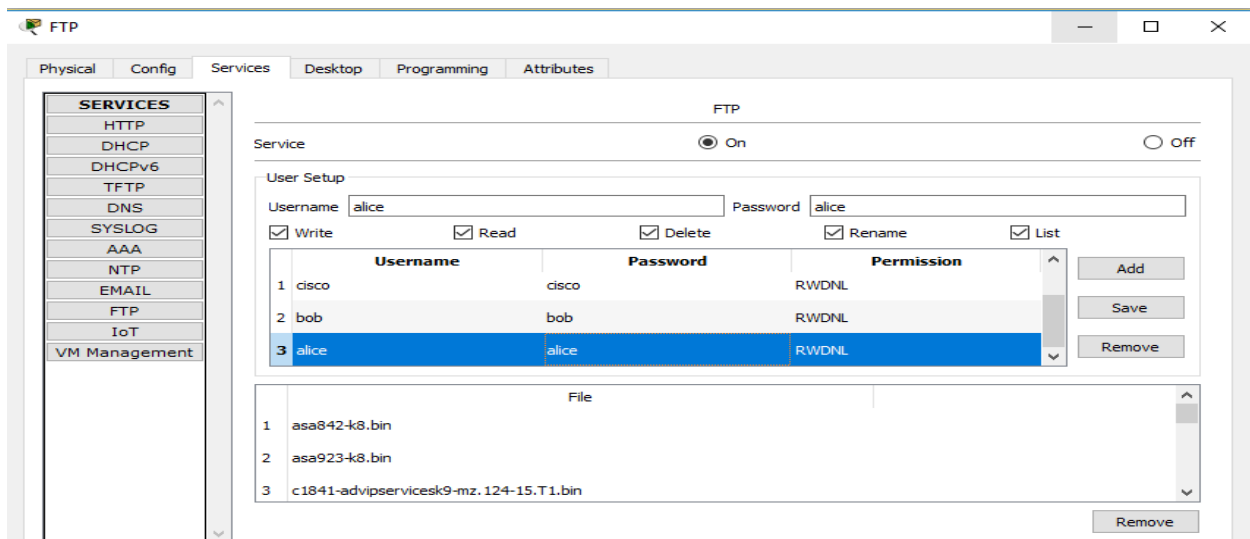
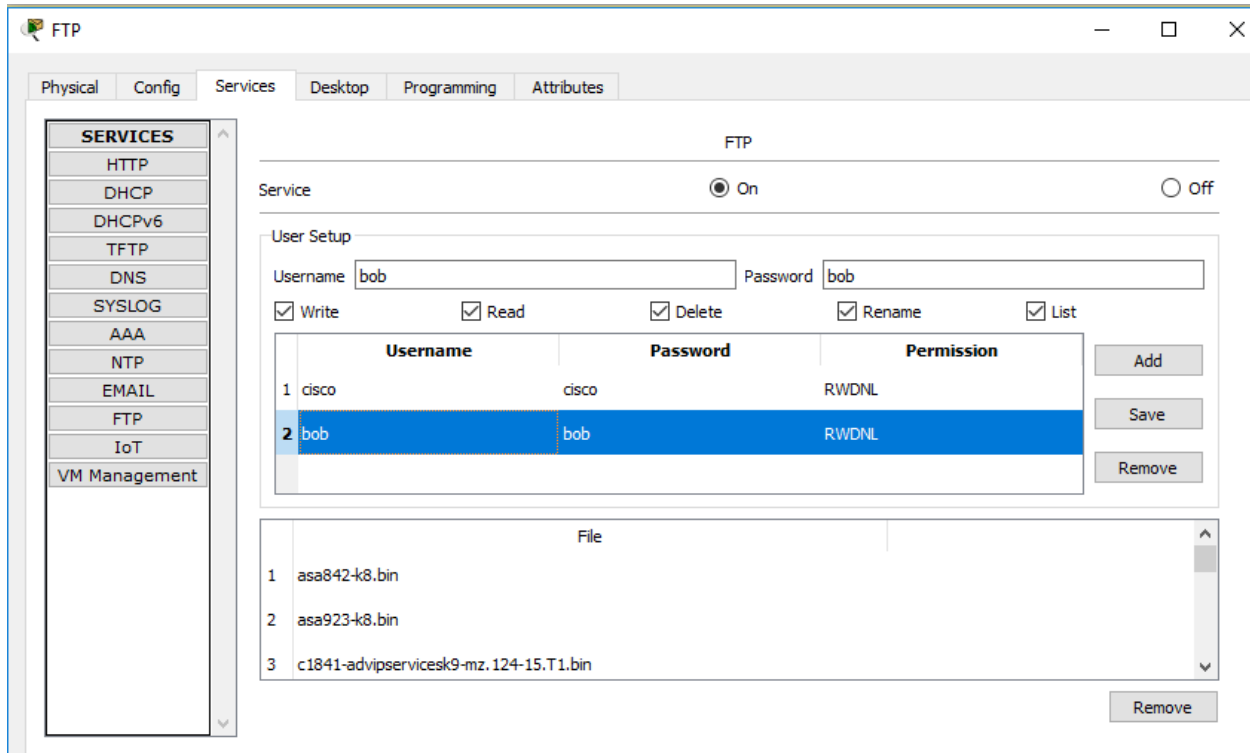
Then click FTP server and open service panel. Then type

Username: bob

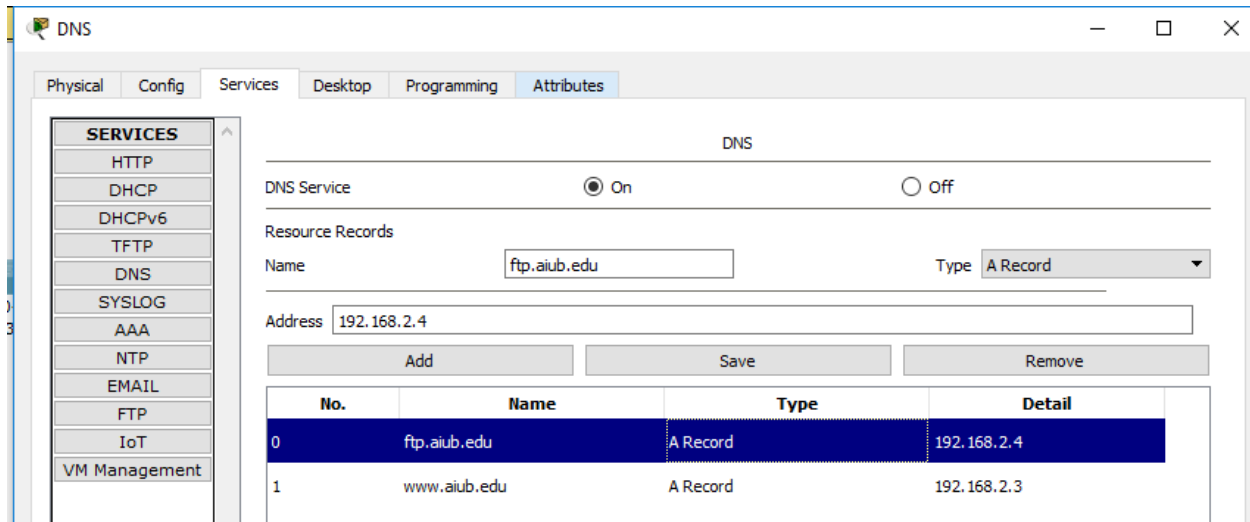
Password: bob

Set the privileges of read, write, delete etc. And click “Add”.

Thus you can create users for ftp server.



Then Go back to DNS and add another username and address for FTP. FTP address will be the ip address of the ftp server.



Then Open a pc, click command prompt and write

>ftp [ftp.aiub.edu](ftp://ftp.aiub.edu)

Username: bob

Password:bob

```
C:\>ftp ftp.aiub.edu
Trying to connect...ftp.aiub.edu
Connected to ftp.aiub.edu
220- Welcome to PT Ftp server
Username:bob
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
```

Logging in, You can access the files on that local server.

Some commands for ftp:

ftp> dir (to see the list of files)

ftp> get filename.txt (any existing filename to download)

ftp> put filename.txt (click on a pc, open text editor in the desktop option. Write something and save by ctrl+s and set a file name and save. Then to upload it write the command put)

ftp> rename old filename new filename (example: rename filename.txt newfile.txt)

ftp>delete filename.txt

Now, Click on email server. And go to the service option. Except email, all services should be turned off.

Then put Domain Name: gmail.com (as your wish)

N.B: Keep it in mind, after giving domain name , you must have to click SET . Otherwise it won't work.

Then create users- bob and alice or whatever you wish. Click the + button to add any user in this list.

The screenshot shows the 'EMAIL' configuration window with the 'Services' tab selected. On the left, a 'SERVICES' list includes HTTP, DHCP, DHCPv6, TFTP, DNS, SYSLOG, AAA, NTP, EMAIL, FTP, IoT, and VM Management. The main area is titled 'EMAIL' and contains two service sections: 'SMTP Service' and 'POP3 Service', each with 'ON' and 'OFF' radio buttons. Below these is a 'Domain Name' field containing 'gmail.com' and a 'Set' button. The 'User Setup' section has 'User' and 'Password' input fields. A list box below these fields is currently empty. To the right of the list box are three buttons: '+', '-', and 'Change Password'.

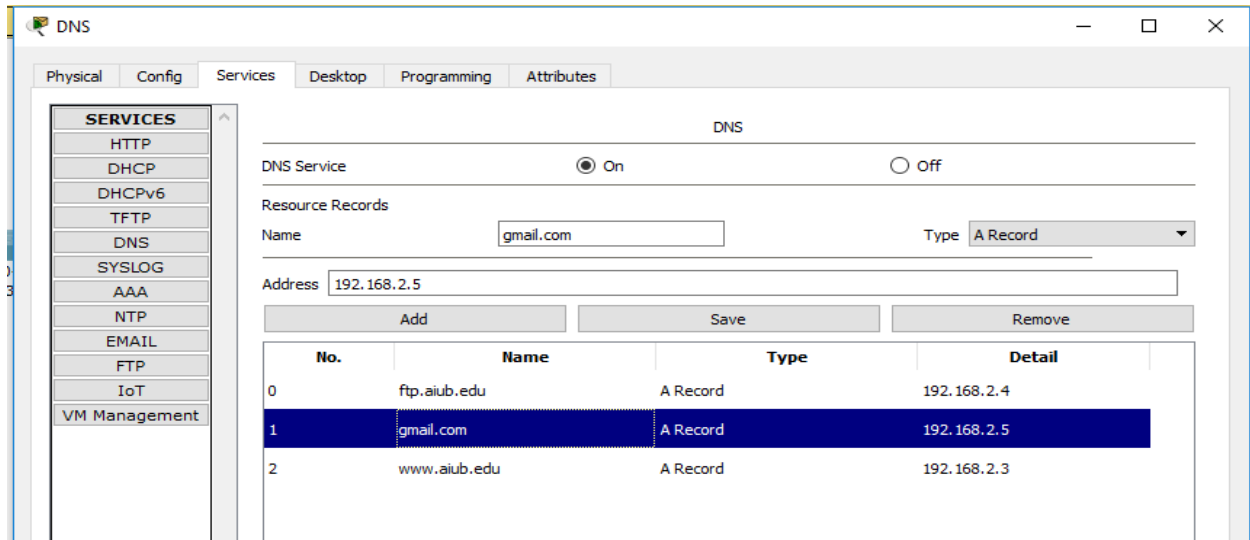
This screenshot shows the 'EMAIL' configuration window after adding a user. The 'User' input field now contains 'bob', and the 'Password' input field also contains 'bob'. The list box below the input fields now contains the name 'bob'. The '+', '-', and 'Change Password' buttons remain on the right.

This screenshot shows the 'EMAIL' configuration window after adding a second user. The 'User' input field now contains 'alice', and the 'Password' input field also contains 'alice'. The list box below the input fields now contains two entries: 'bob' and 'alice', with 'alice' highlighted in blue. The '+', '-', and 'Change Password' buttons remain on the right.

Now again Go back to DNS server and add email server to the list. Add domain name in the username and address would be the ip address of email server.

Username: gmail.com

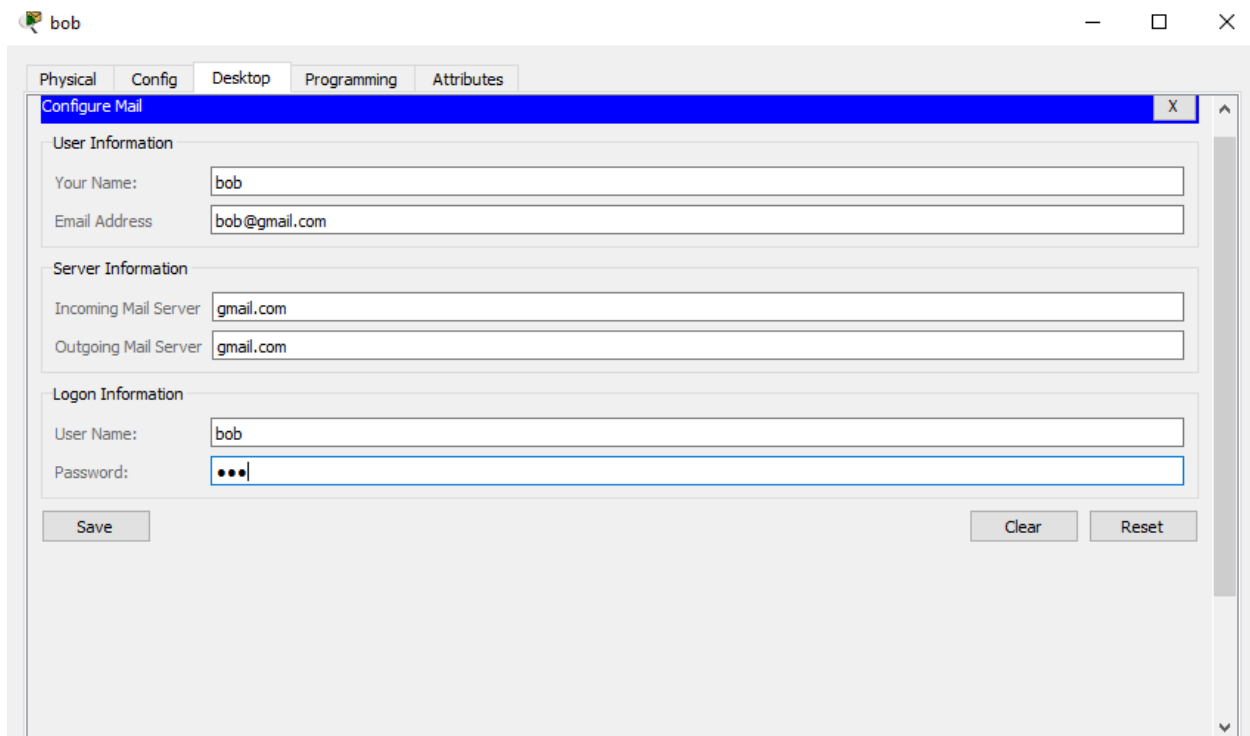
Address: 192.168.2.5



To check if email works-

Click a PC , rename it bob. Then in bob's PC , open email from the desktop option.

Fill up the blanks like this picture below:



Don't Forget to click "Save".

Then open another PC named Alice and like bob's PC, configure the email section.

The screenshot shows a window titled 'alice' with a tabbed interface. The 'Config' tab is selected, and a 'Configure Mail' dialog box is open. The dialog has three sections: 'User Information' with fields for 'Your Name' (alice) and 'Email Address' (alice@gmail.com); 'Server Information' with fields for 'Incoming Mail Server' (gmail.com) and 'Outgoing Mail Server' (gmail.com); and 'Logon Information' with fields for 'User Name' (alice) and 'Password' (masked with dots). At the bottom are 'Save', 'Clear', and 'Reset' buttons.

Save it.

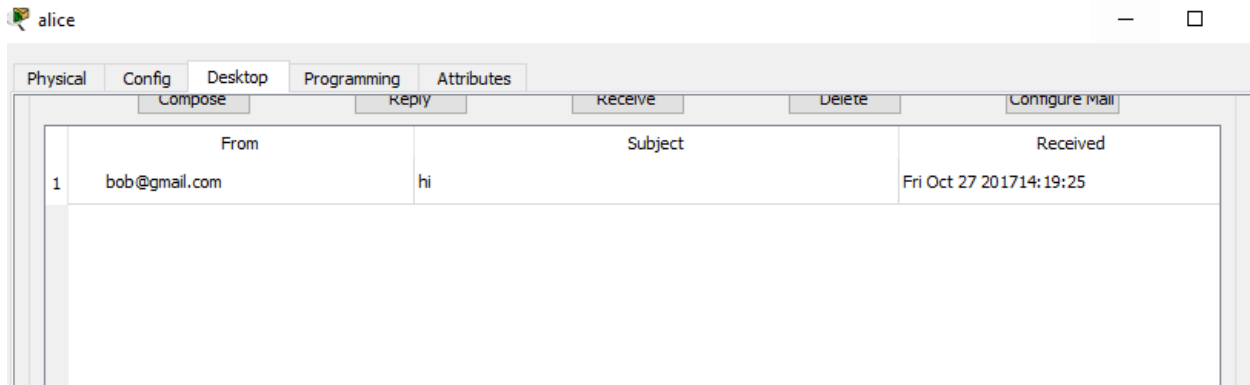
Then try sending mail from alice to bob or bob to alice.

The screenshot shows a window titled 'bob' with a tabbed interface. The 'Config' tab is selected, and a 'Compose Mail' dialog box is open. The dialog has a 'Send' button and fields for 'To:' (alice@gmail.com) and 'Subject:' (hi). Below these fields is a text area containing the word 'hello'.

To see the status of the sent mail, scroll down after clicking Send.

The screenshot shows a status message box with the following text: "Sending mail to alice , with subject : hi .. Mail Server: gmail.com", "DNS resolving. Resolving name: gmail.com by querying to DNS Server: 192.168.2.2", "DNS resolved ip address: 192.168.2.5", and "Send Success."

You can check from alice's PC clicking Receive that whether the mail has been received or not.



Router Configuration LOG:

```
Fri Oct 27 13:03:28 2017 Router0 Router>en
Fri Oct 27 13:03:40 2017 Router0 Router#conf t
Fri Oct 27 13:03:46 2017 Router0 Router(config)#hostname AIUB
Fri Oct 27 13:06:04 2017 Router0 AIUB(config)#int f0/0
Fri Oct 27 13:06:15 2017 Router0 AIUB(config-if)#ip address 192.168.1.1 255.255.255.0
Fri Oct 27 13:06:21 2017 Router0 AIUB(config-if)#no shut
Fri Oct 27 13:06:25 2017 Router0 AIUB(config-if)#exit
Fri Oct 27 13:17:24 2017 Router0 AIUB>en
Fri Oct 27 13:17:29 2017 Router0 AIUB#conf t
Fri Oct 27 13:17:48 2017 Router0 AIUB(config)#int serial 0/3/0
Fri Oct 27 13:18:10 2017 Router0 AIUB(config-if)#ip address 10.0.0.1 255.255.255.0
Fri Oct 27 13:18:16 2017 Router0 AIUB(config-if)#bandwidth 64000
Fri Oct 27 13:18:22 2017 Router0 AIUB(config-if)#clock rate 64000
Fri Oct 27 13:18:26 2017 Router0 AIUB(config-if)#no shut
Fri Oct 27 13:18:32 2017 Router0 AIUB(config-if)#exit
Fri Oct 27 13:18:46 2017 Router0 AIUB(config)#enable password cisco
Fri Oct 27 13:18:53 2017 Router0 AIUB(config)#line console 0
Fri Oct 27 13:19:02 2017 Router0 AIUB(config-line)#password 123
Fri Oct 27 13:19:05 2017 Router0 AIUB(config-line)#login
Fri Oct 27 13:19:08 2017 Router0 AIUB(config-line)#exit
Fri Oct 27 13:19:22 2017 Router1 Router>en
Fri Oct 27 13:19:25 2017 Router1 Router#conf t
Fri Oct 27 13:19:36 2017 Router1 Router(config)#hostname AIUBserver
Fri Oct 27 13:40:16 2017 Router1 AIUBserver>en
Fri Oct 27 13:40:19 2017 Router1 AIUBserver#conf t
Fri Oct 27 13:40:28 2017 Router1 AIUBserver(config)#int f0/0
```

Fri Oct 27 13:40:48 2017 Router1 AIUBserver(config-if)#ip address 192.168.2.1 255.255.255.0
Fri Oct 27 13:40:54 2017 Router1 AIUBserver(config-if)#no shut
Fri Oct 27 13:40:57 2017 Router1 AIUBserver(config-if)#exit
Fri Oct 27 13:41:05 2017 Router1 AIUBserver(config)#int serial 0/3/0
Fri Oct 27 13:41:28 2017 Router1 AIUBserver(config-if)#ip address 10.0.0.2 255.255.255.0
Fri Oct 27 13:41:48 2017 Router1 AIUBserver(config-if)#no shut
Fri Oct 27 13:41:53 2017 Router1 AIUBserver(config-if)#exit
Fri Oct 27 13:42:20 2017 Router1 AIUBserver(config)#enable password cisco
Fri Oct 27 13:42:30 2017 Router1 AIUBserver(config)#line console 0
Fri Oct 27 13:42:36 2017 Router1 AIUBserver(config-line)#password 123
Fri Oct 27 13:42:38 2017 Router1 AIUBserver(config-line)#login
Fri Oct 27 13:42:49 2017 Router1 AIUBserver(config-line)#exit
Fri Oct 27 13:42:51 2017 Router1 AIUBserver(config)#exit
Fri Oct 27 13:42:52 2017 Router1 AIUBserver#conf t
Fri Oct 27 13:42:55 2017 Router1 AIUBserver(config)#exit
Fri Oct 27 13:43:02 2017 Router1 AIUBserver#exit
Fri Oct 27 13:43:15 2017 Router0 AIUB>en
Fri Oct 27 13:43:21 2017 Router0 AIUB#conf t
Fri Oct 27 13:43:42 2017 Router0 AIUB(config)#ip route 192.168.2.0 255.255.255.0 10.0.0.2
Fri Oct 27 14:01:43 2017 AIUB AIUB>en
Fri Oct 27 14:01:48 2017 AIUB AIUB#conf t
Fri Oct 27 14:02:09 2017 AIUB AIUB(config)#ip route 192.168.2.0 255.255.255.0 10.0.0.2
Fri Oct 27 14:02:20 2017 AIUBserver AIUBserver>en
Fri Oct 27 14:02:28 2017 AIUBserver AIUBserver#conf t
Fri Oct 27 14:02:56 2017 AIUBserver AIUBserver(config)#ip route 192.168.1.0 255.255.255.0 10.0.0.1