Green University of Bangladesh

Department of Computer Science and Engineering (CSE)

Faculty of Sciences and Engineering

Semester: (Spring, Year:2022), BSc. in CSE (Day)

LAB REPORT - 02

Course Title: Computer Networking Lab

Course Code: CSE-312 **Section:** PC-201 DB

Student Details

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Lab Date: 28-11-2022

Submission Date: 15-12-2022

Course Teacher's Name: Rusmita Halim Chaity

[For Teachers use only: Don't Write Anything inside this box]

Lab Report Status

Marks: …… **Signature:** ……

Comments: …….. **Date:** ……..

1. TITLE OF THE LAB EXPERIMENT

Configuration of SMTP (Simple Mail Transfer Protocol) and FTP (File Transfer Protocol) Server in two networks using Cisco Packet Tracer.

2. OBJECTIVES/AIM

- To build and design network.
- To learn about step-by-step configuration of SMTP and FTP Server.
- To transfer mail from one computer to another computer of same or different network.
- To learn how to upload a file to the FTP Server.
- To learn how to rename and delete a file in an FTP server.
- To learn how to download a file from the FTP Server.
- To learn how to see all file list from the FTP Server.

3. PROCEDURE / ANALYSIS / DESIGN [2 marks]

From this experiment we will create two networks where we can use SMTP for mail and FTP for file transfer. The Simple Mail Transfer Protocol (SMTP) is an internet standard communication protocol for electronic mail transmission. Mail servers and other message transfer agents use SMTP to send and receive mail messages. The File Transfer Protocol (FTP) is a standard network protocol used for the transfer of computer files between a client and server on a computer network. To use FTP in Packet Tracer, its service must be enabled first. Then, a username, password, and permission (write, read, rename, delete, and list) have to be created. After connecting the server, FTP commands such as put, get, rename, dir, and delete can then be applied for the file operation. They will work based on the given permission to the username.

Figure_01: File Transfer

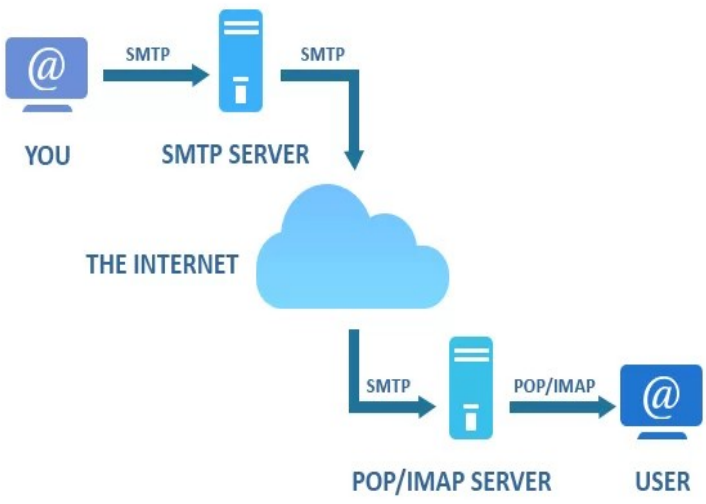

Figure_02: Mail Transfer

4. IMPLEMENTATION

First, we will design two networks that has FTP and SMTP server,

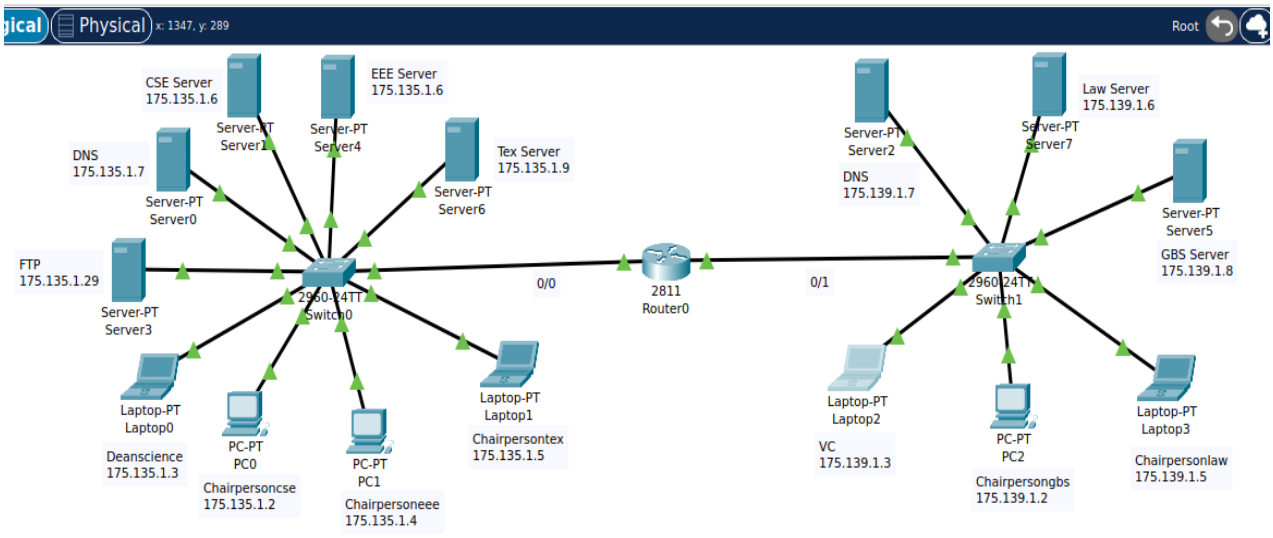

Figure_03: Two networks with FTP and SMTP server

Configuration for Devices,

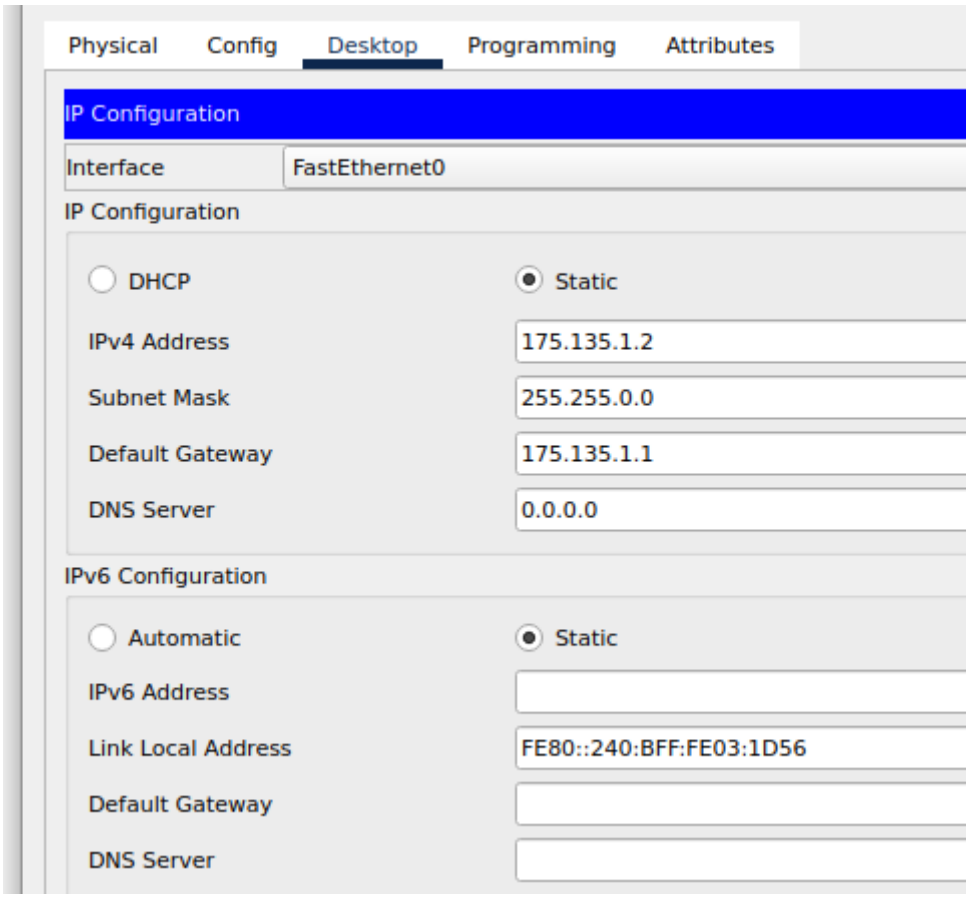

Figure_04: Device IP Configuration

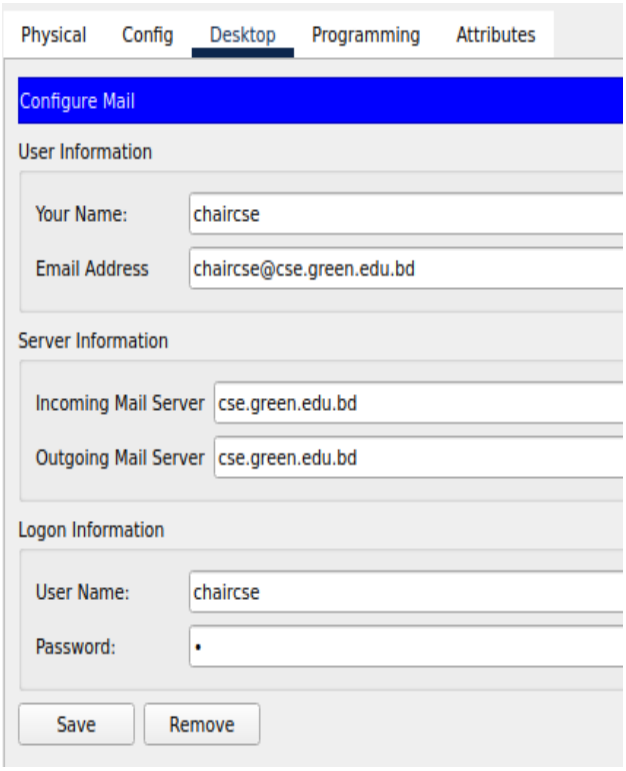

Figure_05: Device mail Configuration

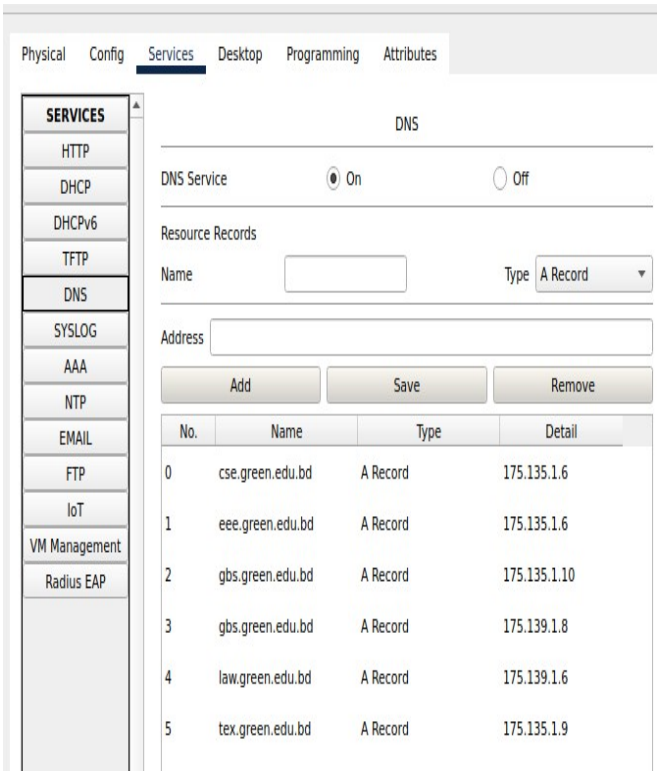

Figure_06: DNS Configuration

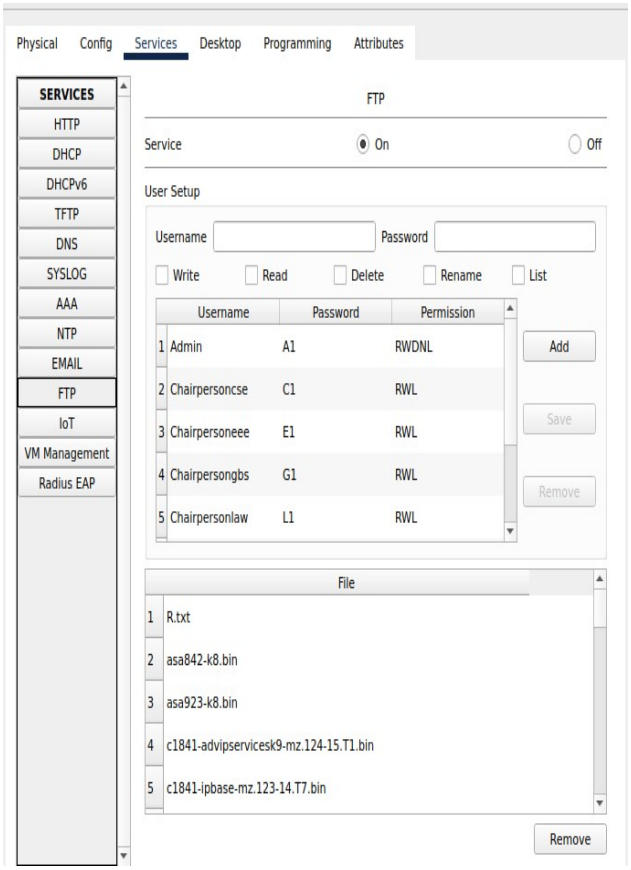

Figure_07: FTP Configuration

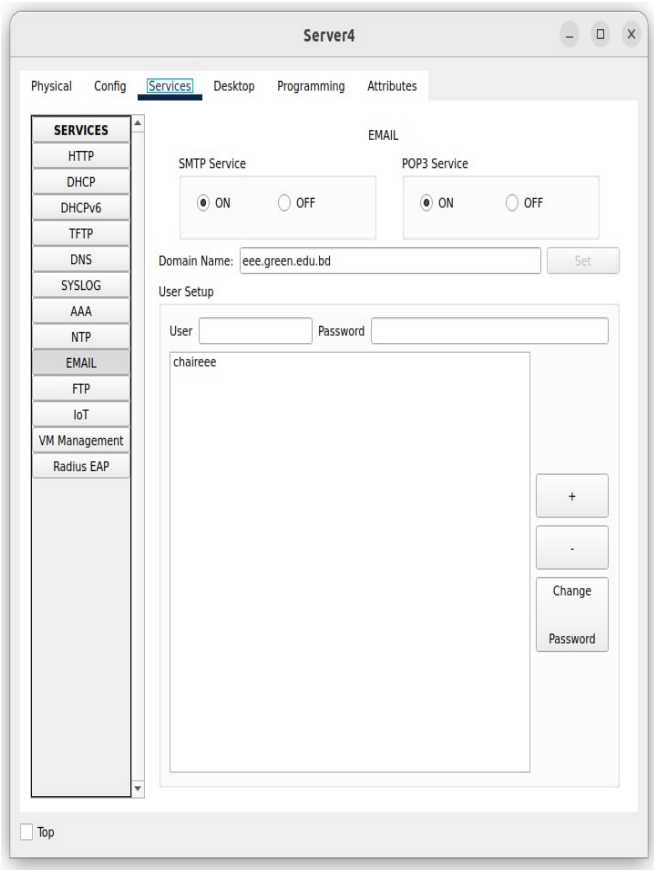

Figure_08: SMTP Configuration

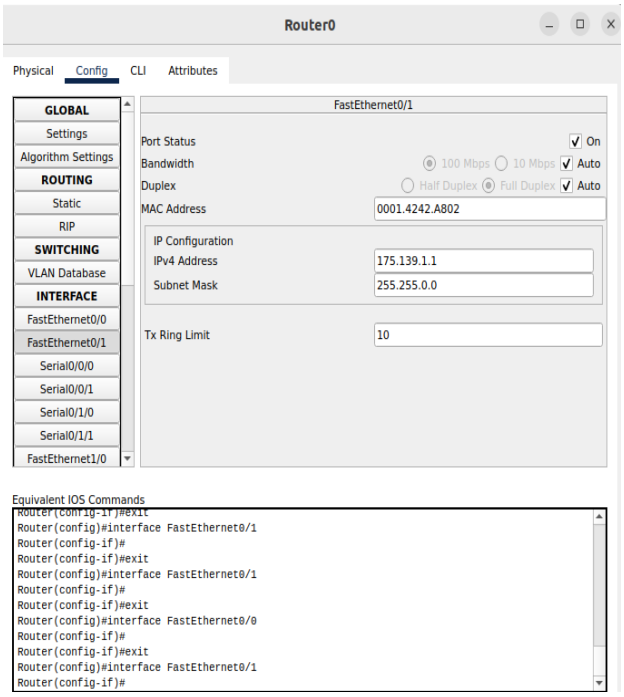

Figure_09: Router IP Configuration

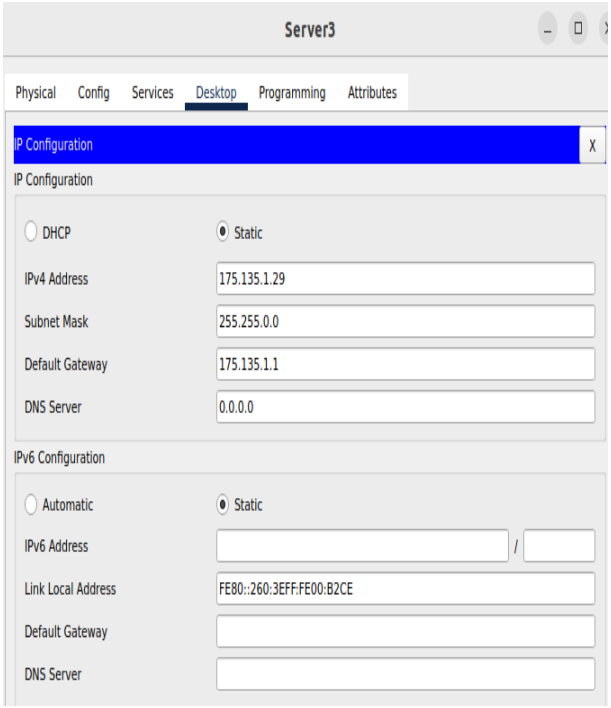

Figure_10: Server IP Configuration

5. TEST RESULT / OUTPUT

For SMTP,

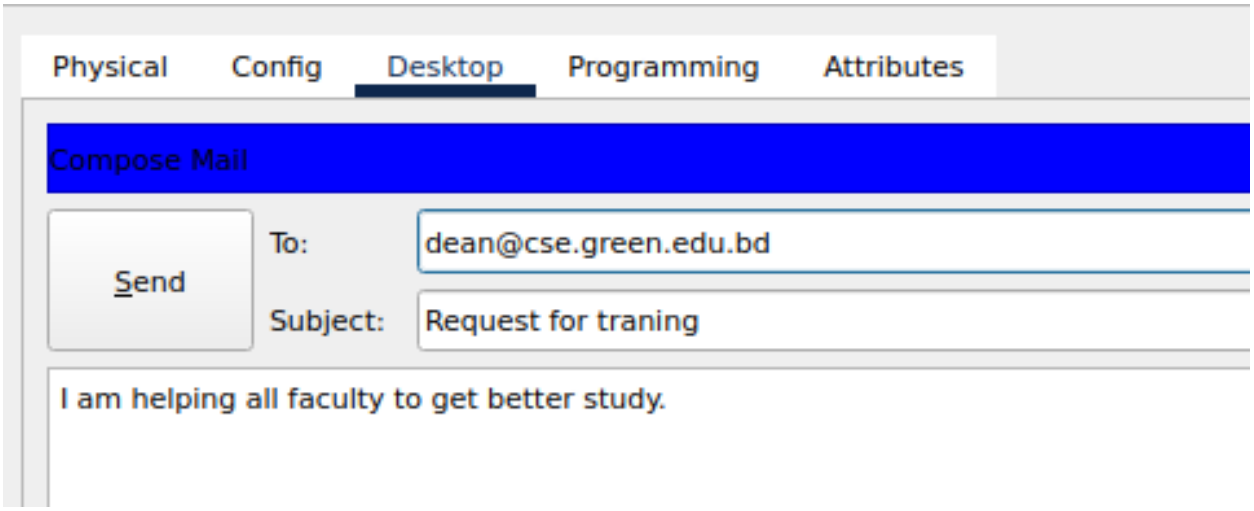

Figure_11: Send Mail

From this Figure_11 we send a mail from VC to DEAN. We use unique mail id to identify them. They are stayed in different network.

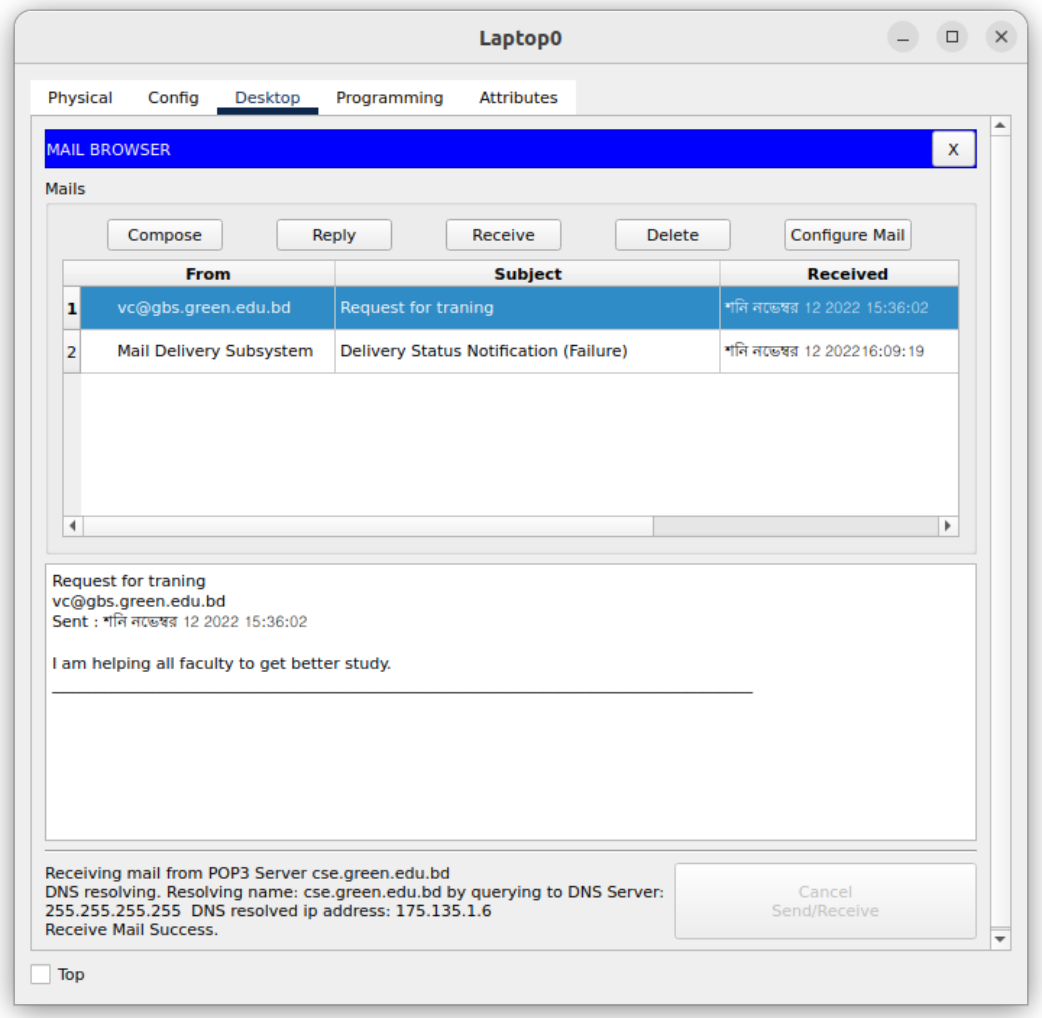

Figure_12: Receive Mail

From this Figure_12 we dean take a mail from VC . We can also see the mail's message.

For FTP,

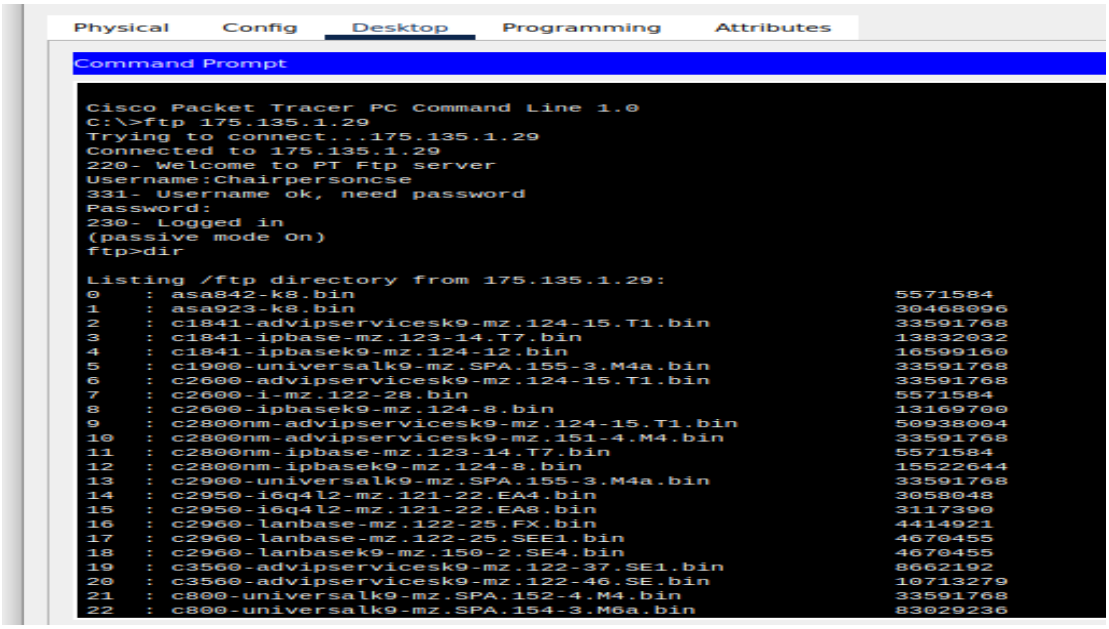

Figure_13: Connect FTP and see file

From this Figure_13 we will connect FTP server using IP address and UserName and Password and we can also see the all file of this server using dir command.

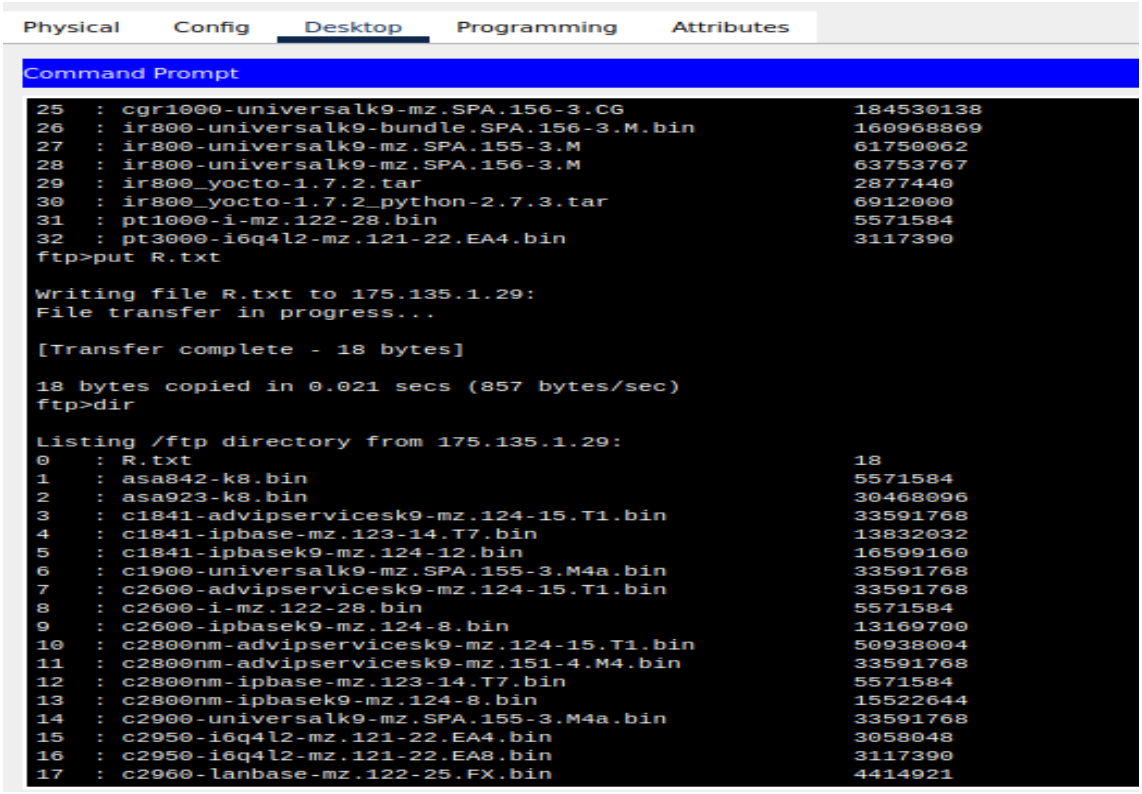

Figure_14: Create .txt file and upload file

From this Figure_14 we will create a R.txt file using TextEditor and we can also upload that file of this server using put command.

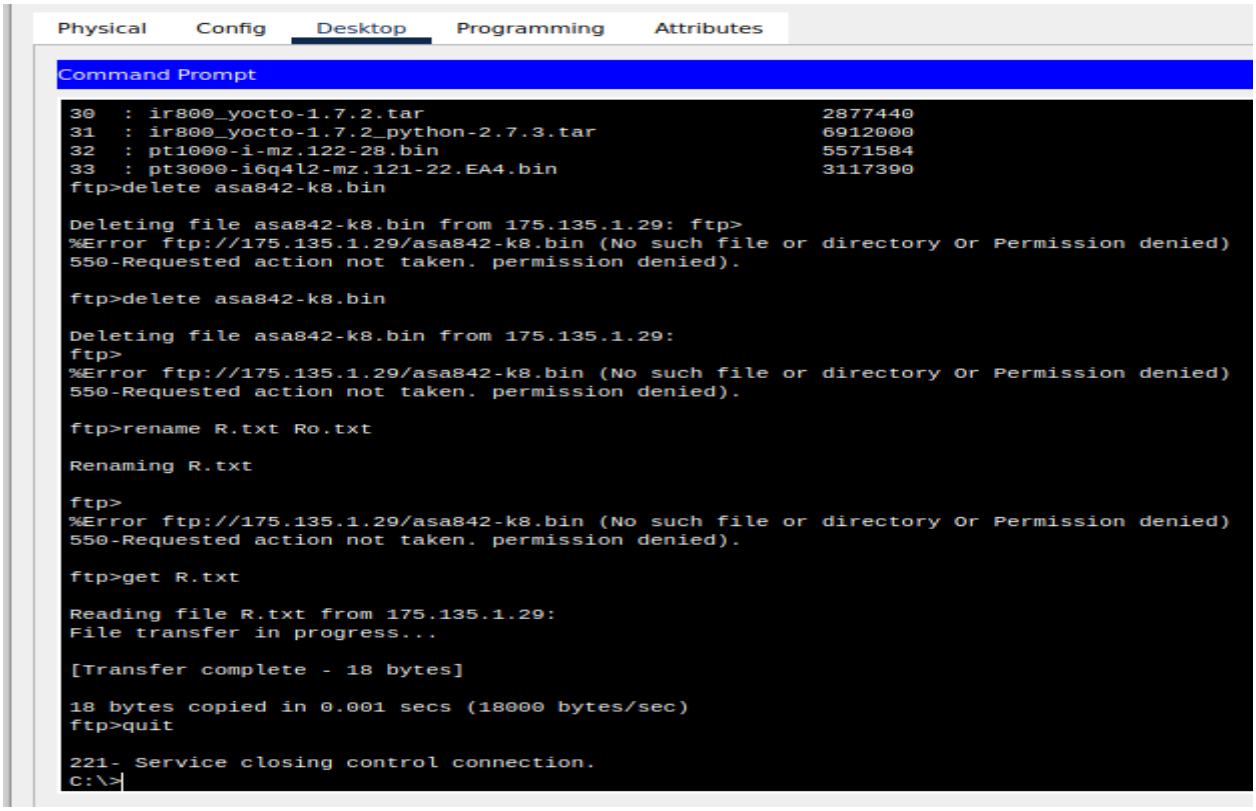

Figure_15: Delete, Rename, Get file and Quit FTP server

From this Figure_15 we will delete asa842-k8.bin file using delete command then we will rename R.txt file using rename command. But that Computer has no permission so it can’t it. Next we will get R.txt file using get command and finally we quit this server using quit command.

6. ANALYSIS AND DISCUSSION

This experiment mainly based on Cisco Packet Tracer. Based on the focused objective(s) to learn the step-by-step configuration of FTP server and SMTP server. This task will help us
to learn how to use the FTP services to transfer files between clients and the server and how to transfer mail from one network to another network. The main hard part of this experiment is successfully completed two networks. We face some problem for configuration devices(Server). Now, we get so many knowledge to create a complete relation between two networks.

7. SUMMARY:

In this experiment we create two networks and those are connected with router. To create a relational network where we can use SMTP for mail and FTP for file transfer. We use SMTP for transfer mail one devices to another. To begin with, SMTP and POP3 (Post Office Protocol 3) services should be enabled to ON first. SMTP is a protocol for sending an email, while POP3 is the 3rd version protocol for holding and receiving an email. FTP is used for transferring of computer files between a client and server. To use FTP in Packet Tracer, its service must be enabled first. Then, a username, password, and permission (write, read, rename, delete, and list) have to be created. After connecting the server, FTP commands such as put, get, rename, dir, and delete can then be applied for the file operation. They will work based on the given permission to the username. Those SMTP and FTP are most important part to create a good network. That;s why this experiment is very interesting and helpful for future.