

## Ex.2 Secure File Transfer Application

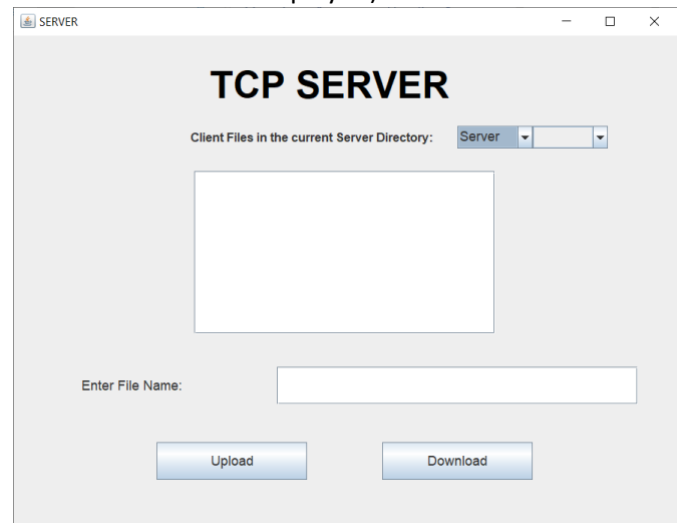
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RegNo :- 123003269

Branch :- CSE

**CASE A:-** Server Not Connected to Any of the Client. (Server's Java Source files Not Displayed)

```
C:\Windows\System32\cmd.exe - java Server
C:\Users\unive\Desktop\Assignment2>javac Server.java
C:\Users\unive\Desktop\Assignment2>java Server
Sep 23, 2021 9:55:22 AM Server infoLog
INFO: Client Status thread Running...
```



**CASE B:-** Server Connected to 1<sup>st</sup> Client(Unique Folder is Connected to That Particular Client)

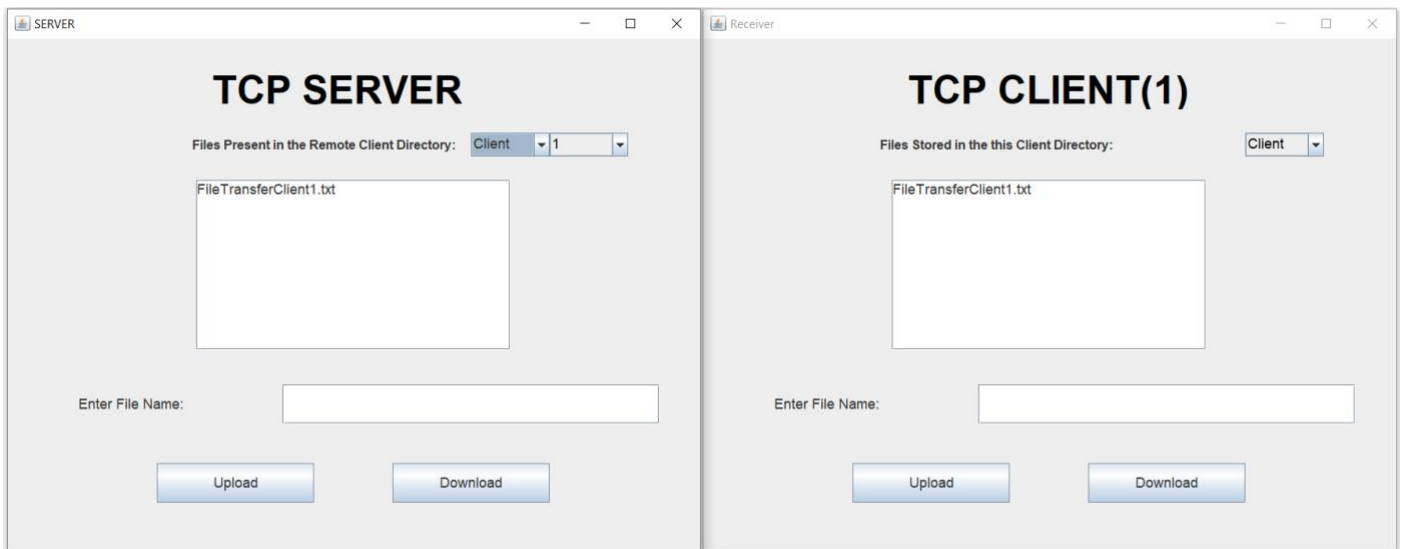
> Assignment2				
Name	Date modified	Type	Size	
449868502127001	23-09-2021 10:08	File folder		
ClientDisconnected.class	23-09-2021 09:55	CLASS File	1 KB	
ClientFileStatusInServerStorage.class	23-09-2021 09:55	CLASS File	3 KB	
ClientHandler.class	23-09-2021 09:55	CLASS File	7 KB	
Server\$1.class	23-09-2021 09:55	CLASS File	3 KB	
Server.class	23-09-2021 09:55	CLASS File	10 KB	
Server	23-09-2021 00:54	JAVA File	28 KB	
ServerDirectoryToClientUpdater.class	23-09-2021 09:55	CLASS File	3 KB	

Here the Client(1) Currently has No Files in Server

```
C:\Windows\System32\cmd.exe - java Server
C:\Users\unive\Desktop\Assignment2>javac Server.java
C:\Users\unive\Desktop\Assignment2>java Server
Sep 23, 2021 9:55:22 AM Server infoLog
INFO: Client Status thread Running...
Sep 23, 2021 10:08:09 AM Server infoLog
INFO: Connection Established with a client
Sep 23, 2021 10:08:09 AM Server infoLog
INFO: ServerDirectoryToClientUpdater Started...
Client:- ClientContinousFiles
```

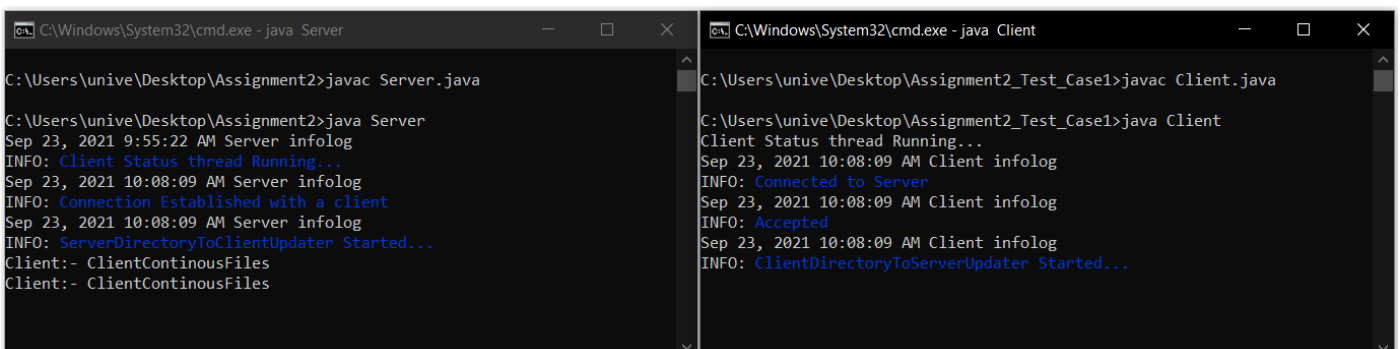
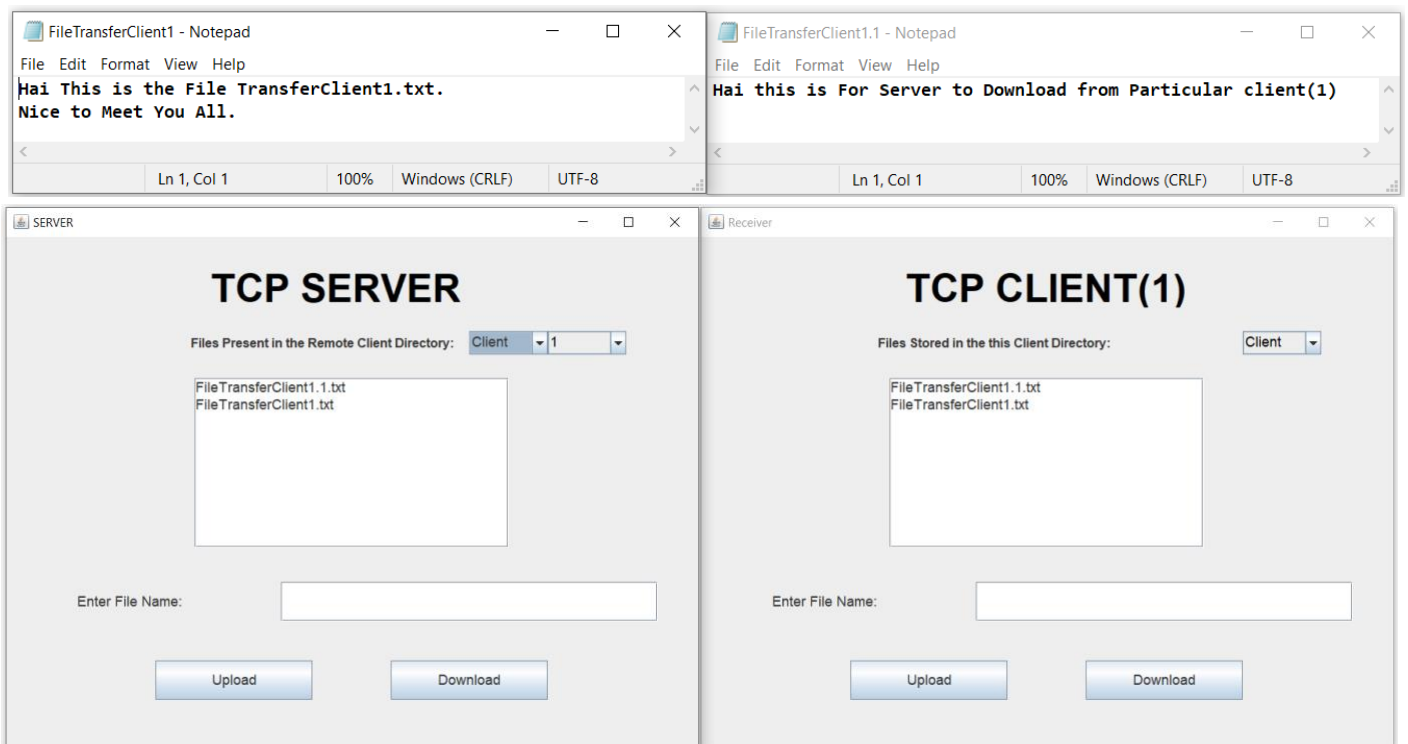
```
C:\Windows\System32\cmd.exe - java Client
C:\Users\unive\Desktop\Assignment2_Test_Case1>javac Client.java
C:\Users\unive\Desktop\Assignment2_Test_Case1>java Client
Client Status thread Running...
Sep 23, 2021 10:08:09 AM Client infoLog
INFO: Connected to Server
Sep 23, 2021 10:08:09 AM Client infoLog
INFO: Accepted
Sep 23, 2021 10:08:09 AM Client infoLog
INFO: ClientDirectoryToServerUpdater Started...
```

Here Server can see What is Present in Client and Client Can see the Files Stored locally With it.

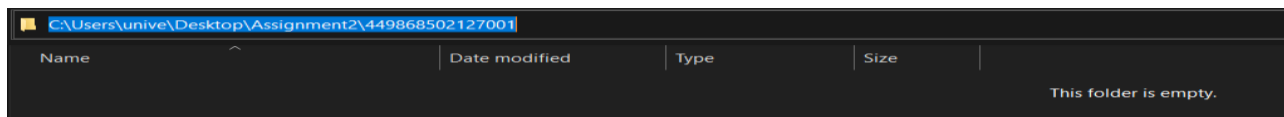


### Case C:-

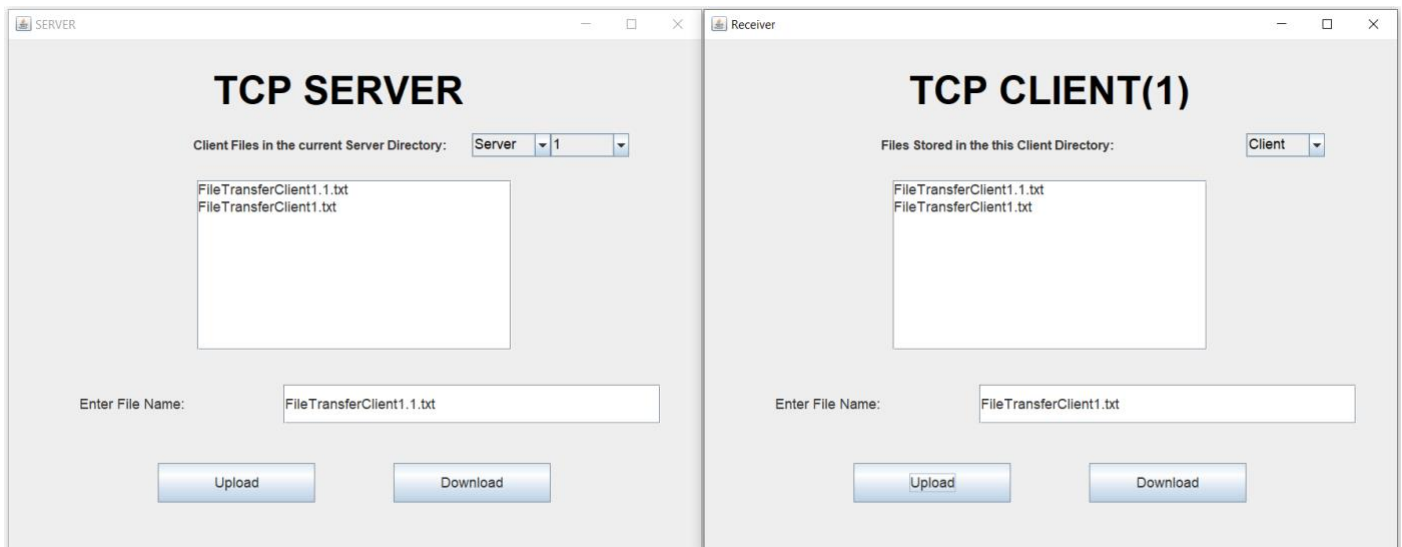
Adding New File in Client gets Reflected in Server Presenting and Client Current Storage



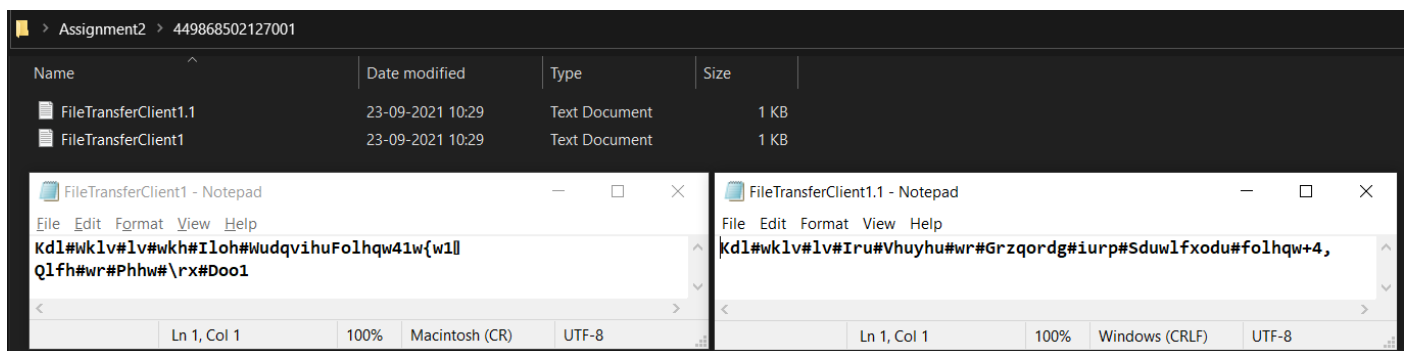
Initially



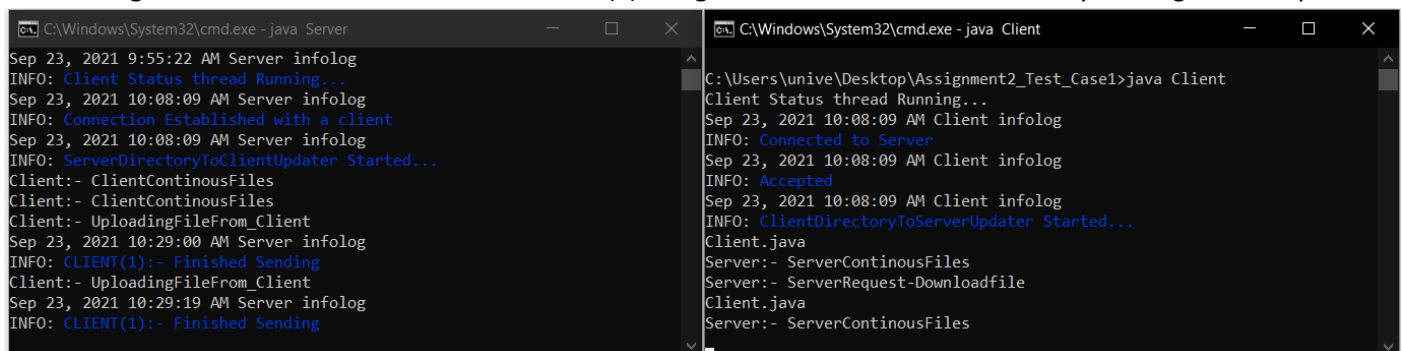
Later on :- Now Client Uploads FileTransferClient1.txt and Server Downloads FileTransferClient1.1.txt



Encrypted Files(Using Hill Cypher) is being sent to Server from Client and Stored There

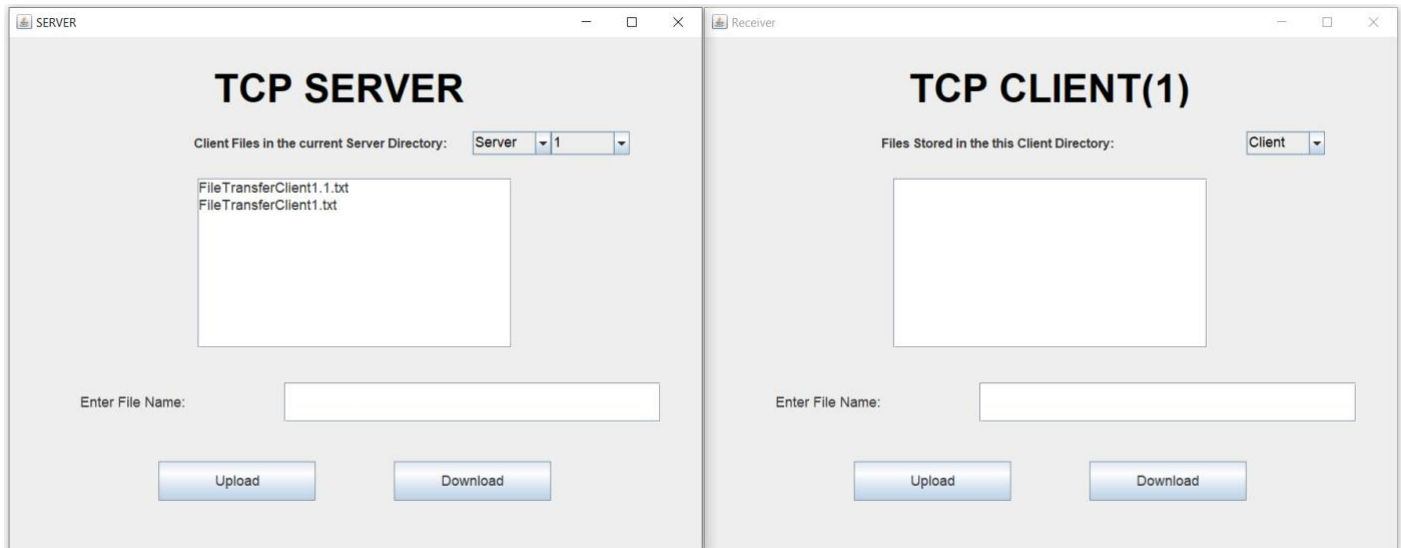


The Changes in Server folder is reflected to Client(1) using "ServerContinuousFiles" and by clicking Server-Option.

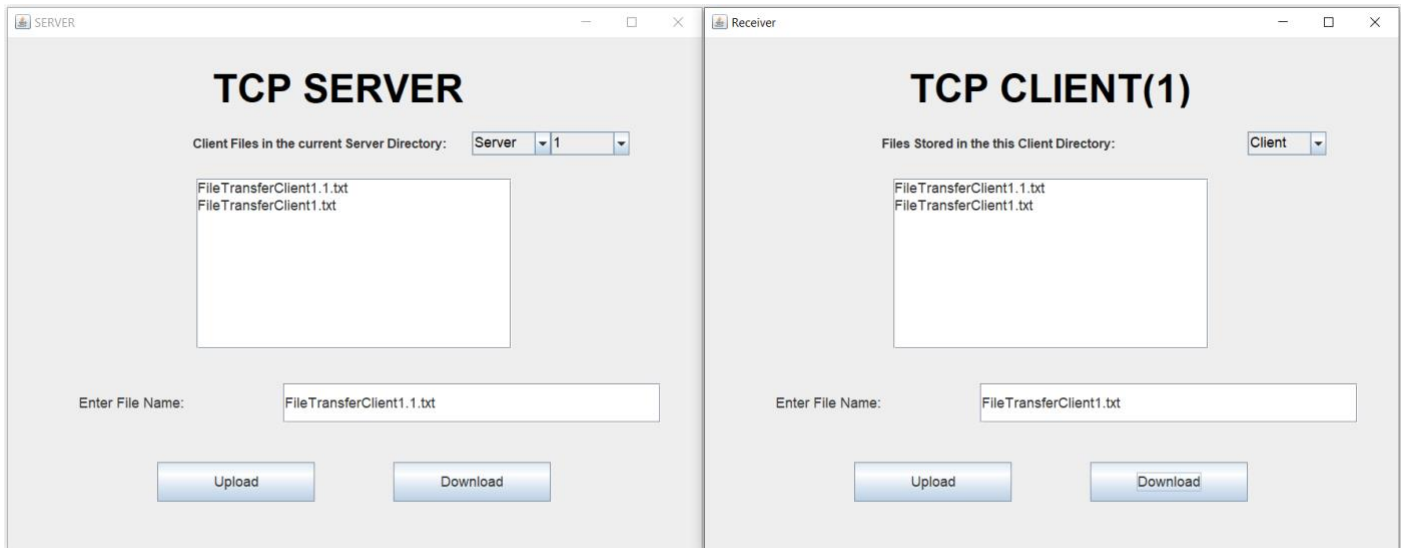


## Case D:-

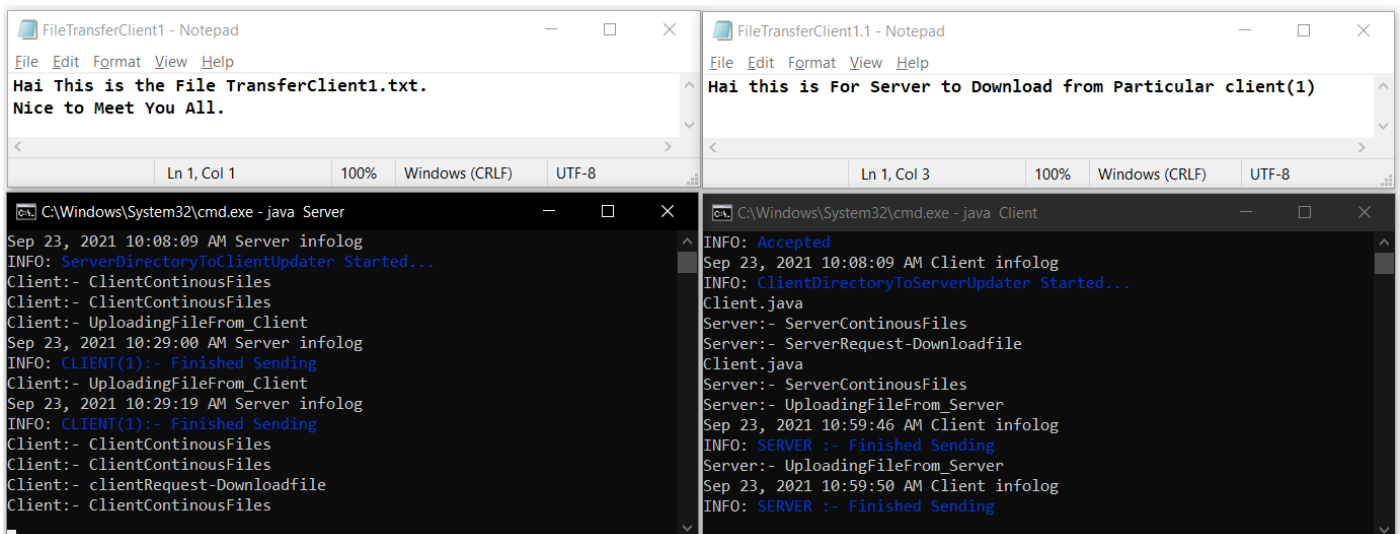
Deleting the Files FileTransferClient1.1.txt and FileTransferClient1.txt from Client Directory

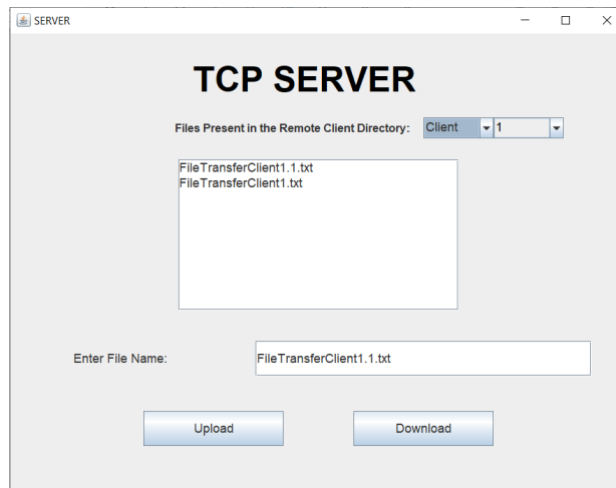


Now Uploading FileTransferClient1.1.txt from TCP SERVER and Downloading FileTransferClient1.txt from TCP CLIENT.



Here the Files are Received to Client and Being Decrypted. (ClientContinuousFiles Sent to Server as Client Directory Updated)





### CASE E:-

When Trying to connect another client in same folder by same system. (The Client is Terminated)

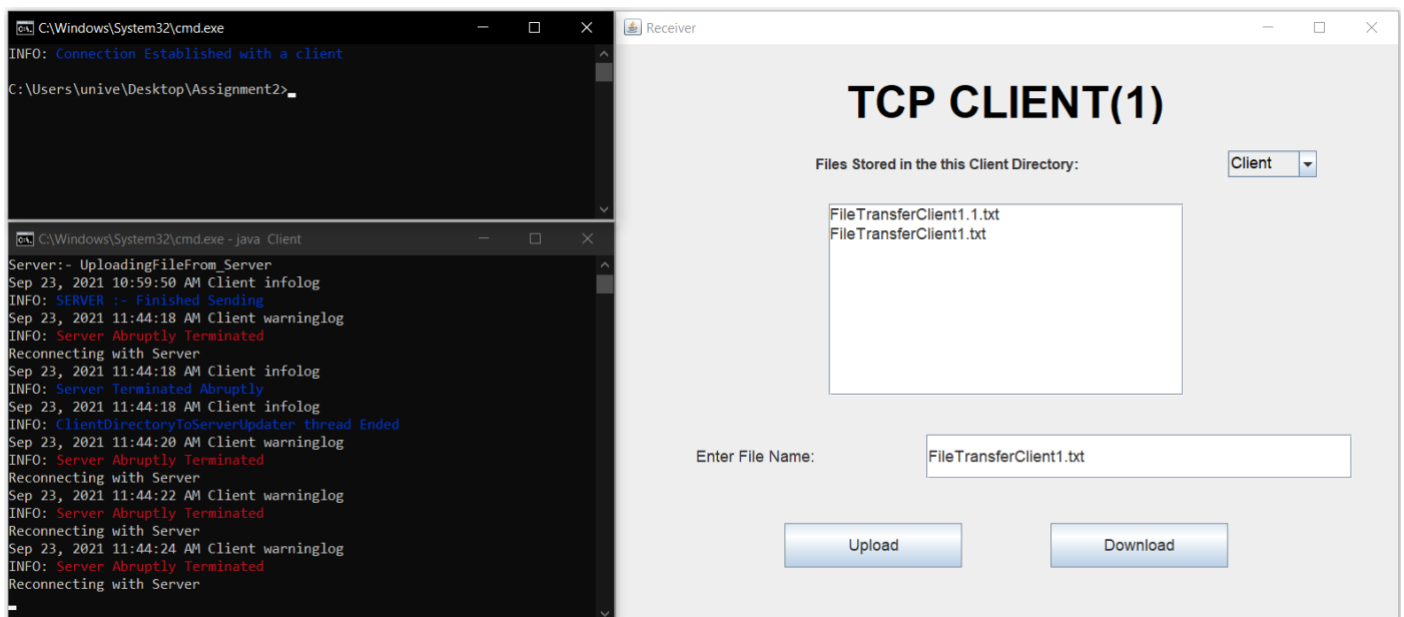
```
C:\Windows\System32\cmd.exe

C:\Users\unive\Desktop\Assignment2_Test_Case1>java Client
Client Status thread Running...
Sep 23, 2021 11:23:35 AM Client infolog
INFO: Connected to Server
Sep 23, 2021 11:23:35 AM Client warninglog
INFO: Rejected
Sep 23, 2021 11:23:35 AM Client warninglog
INFO: Client already running on the folder

C:\Users\unive\Desktop\Assignment2_Test_Case1>
```

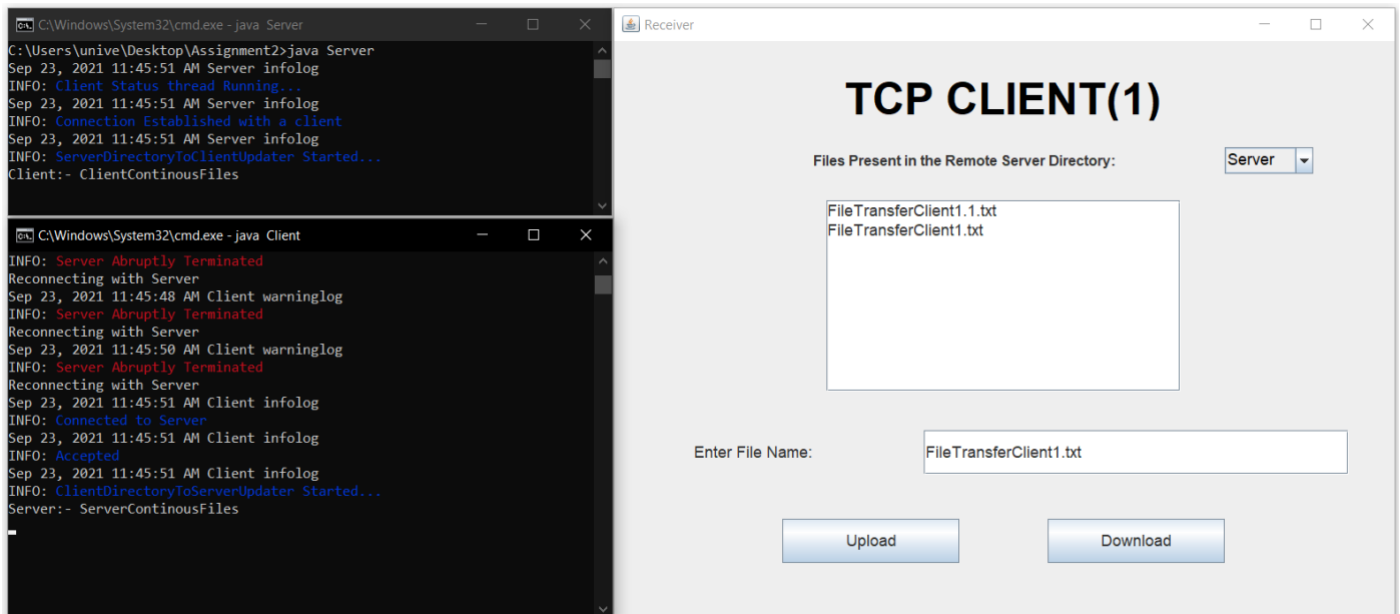
### CASE F:-

When Server is Disconnected from Client



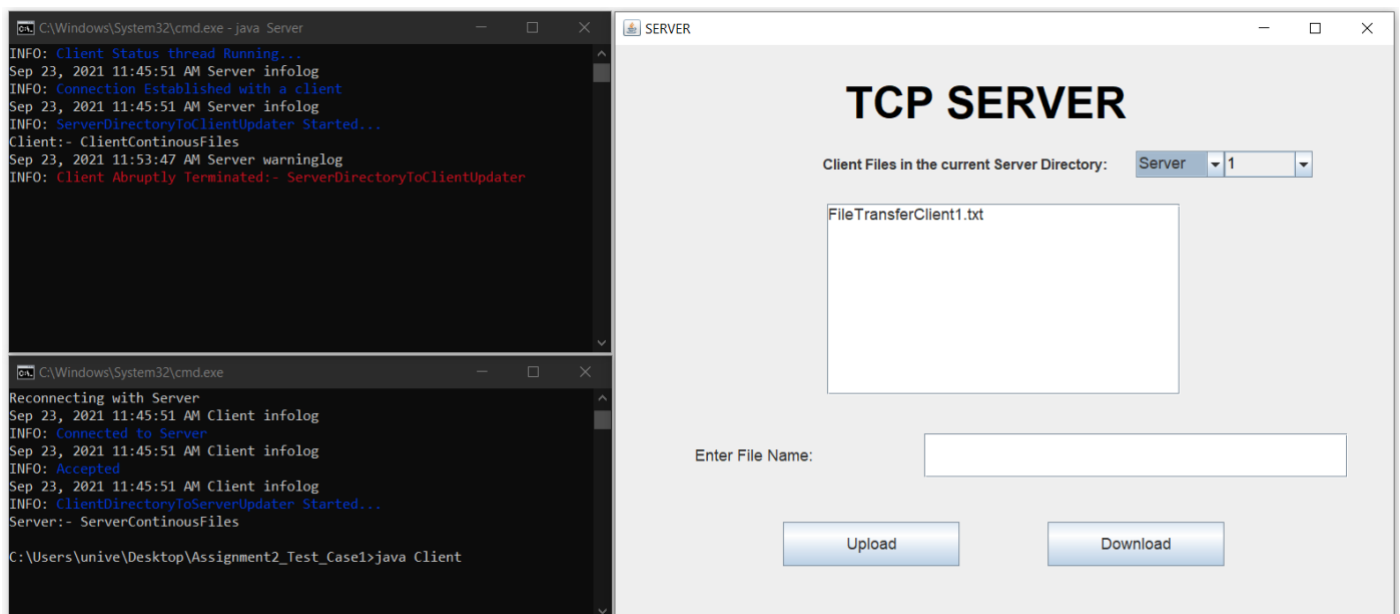
When Reconnecting from Client.

The Server Reconnects Without Changing the Client Number(TCP CLIENT(1)) and Files Saved by Client on Server (Maintaining Consistency with the Client)

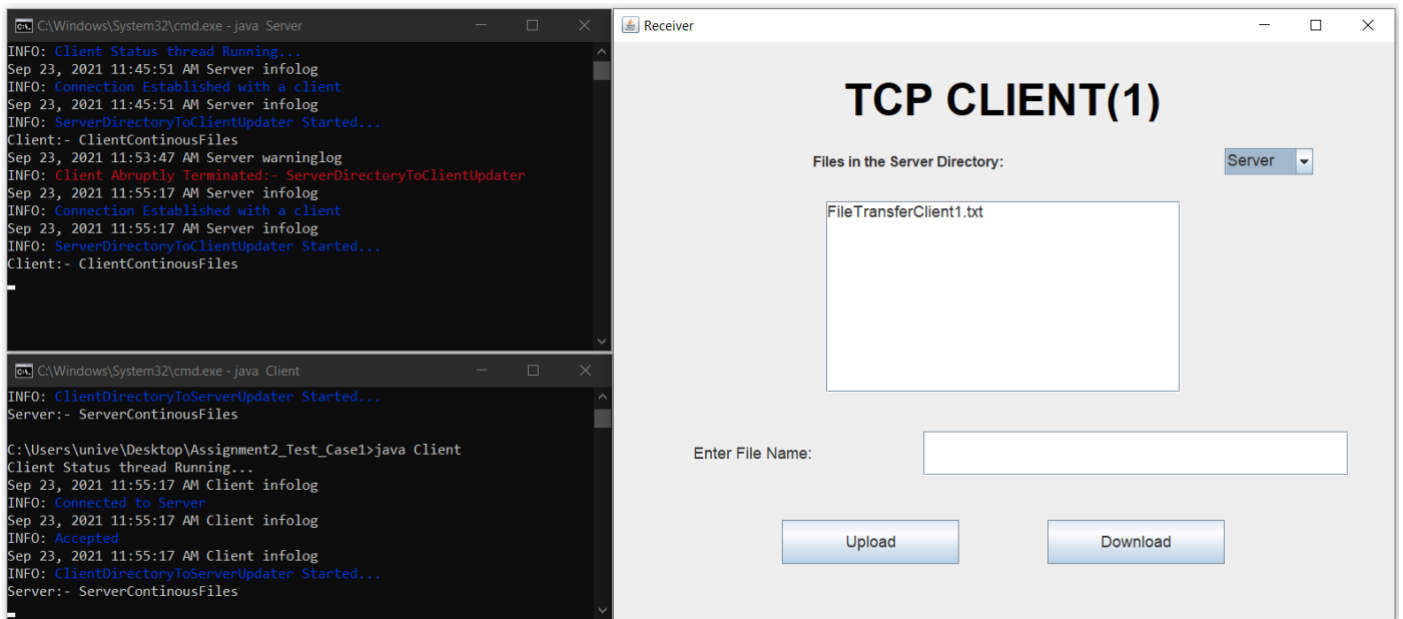


## CASE G:-

When Client Gets Disconnected. (and Server deletes FileTransferClient1.1.txt)

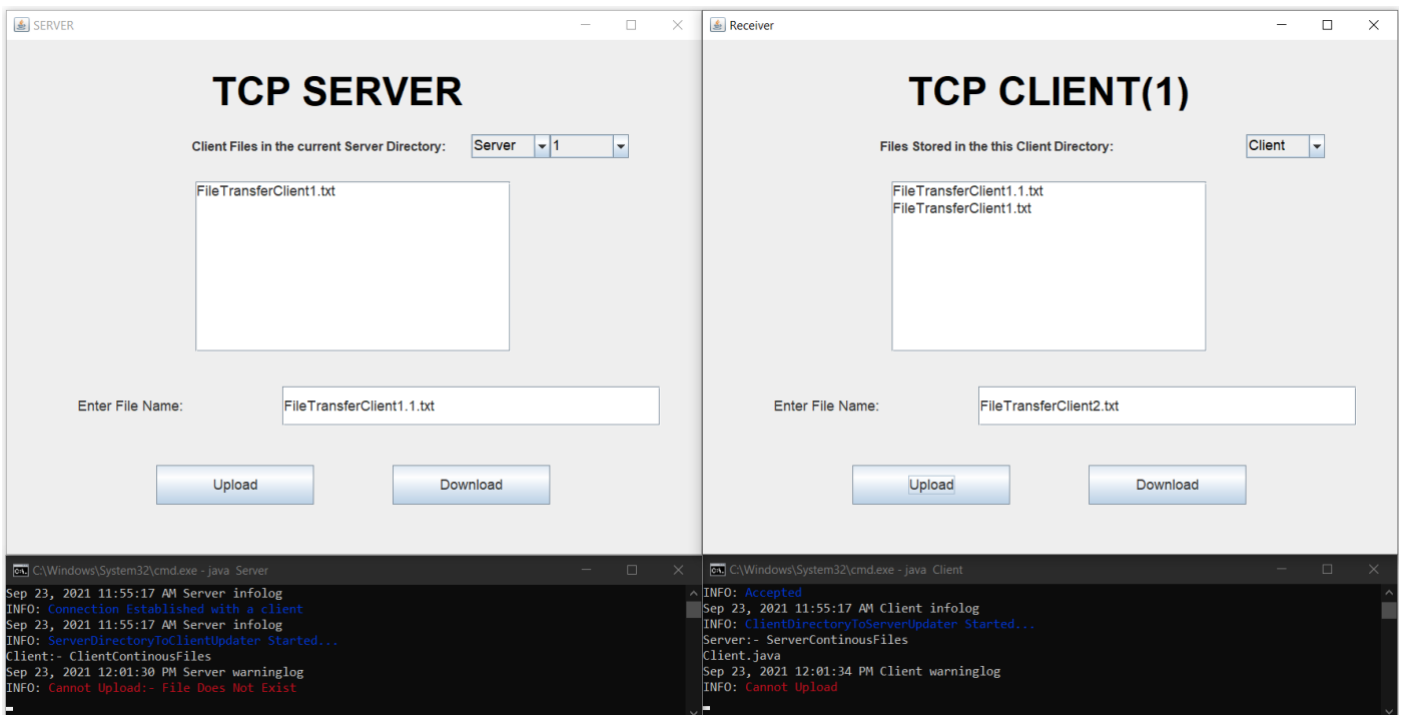


When Client Connects Back(Client Number is not Changed) and Respective Files in Server is shown. Thus maintaining Consistency.

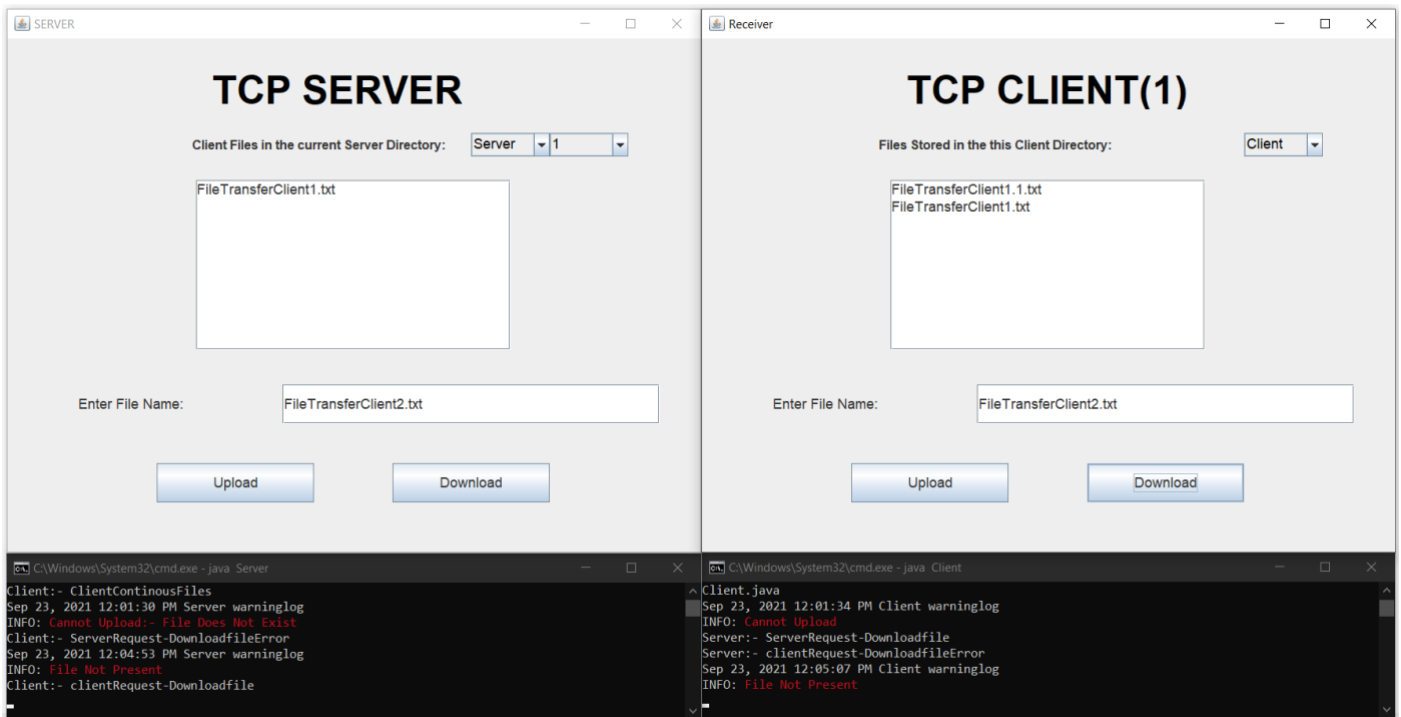


## CASE H:-

When Server and Client Tries to Upload files not present with them.



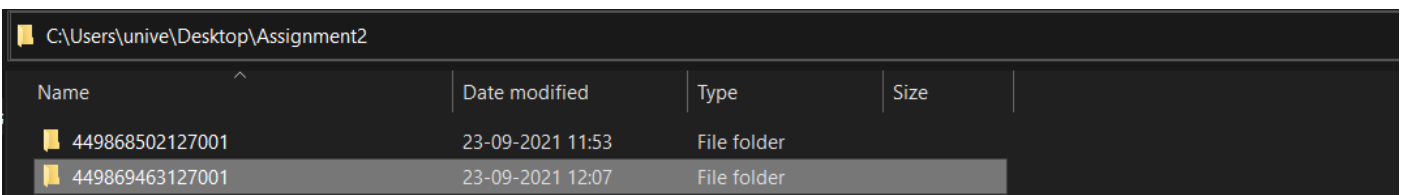
When Server tries to Download Files not present in Client, and Client tries to Download Files not present in Server.



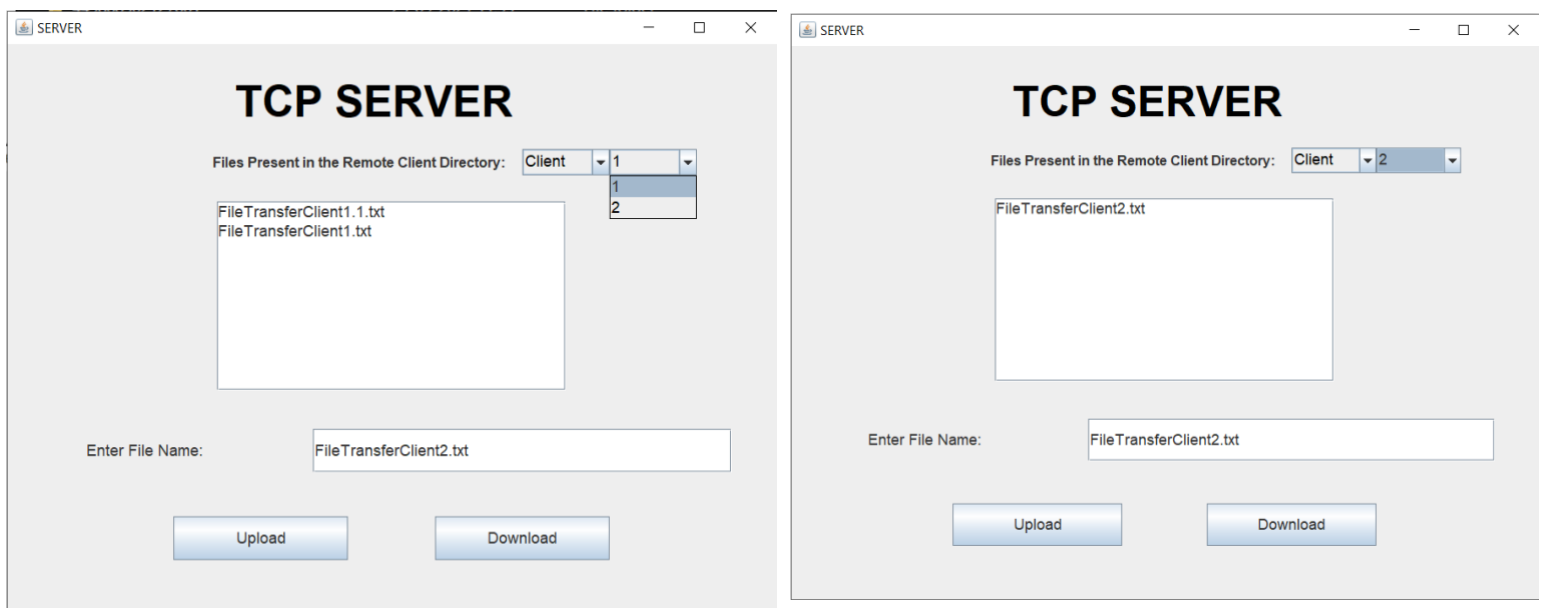
### CASE I:-

When Another Client Connects

Unique Folder Created For it

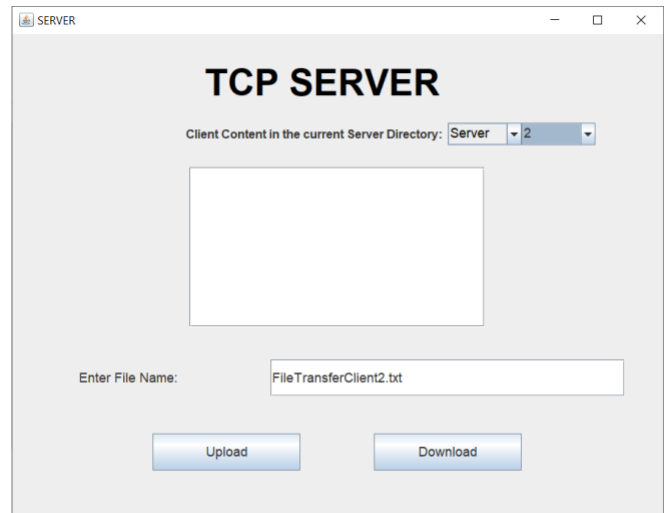
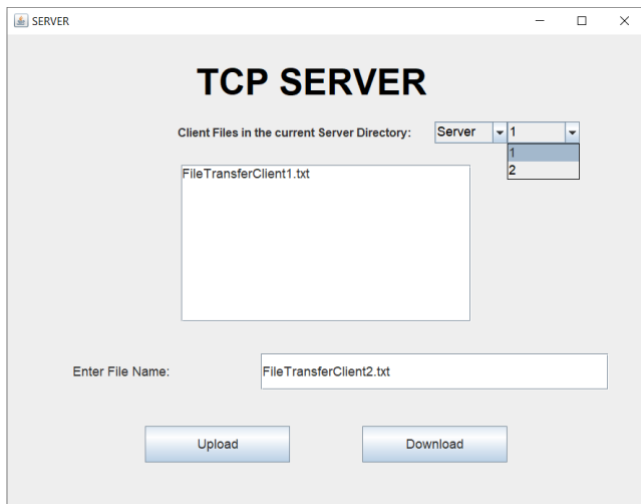


Server Clearly Differentiate the files in 2 Different Remote Client.



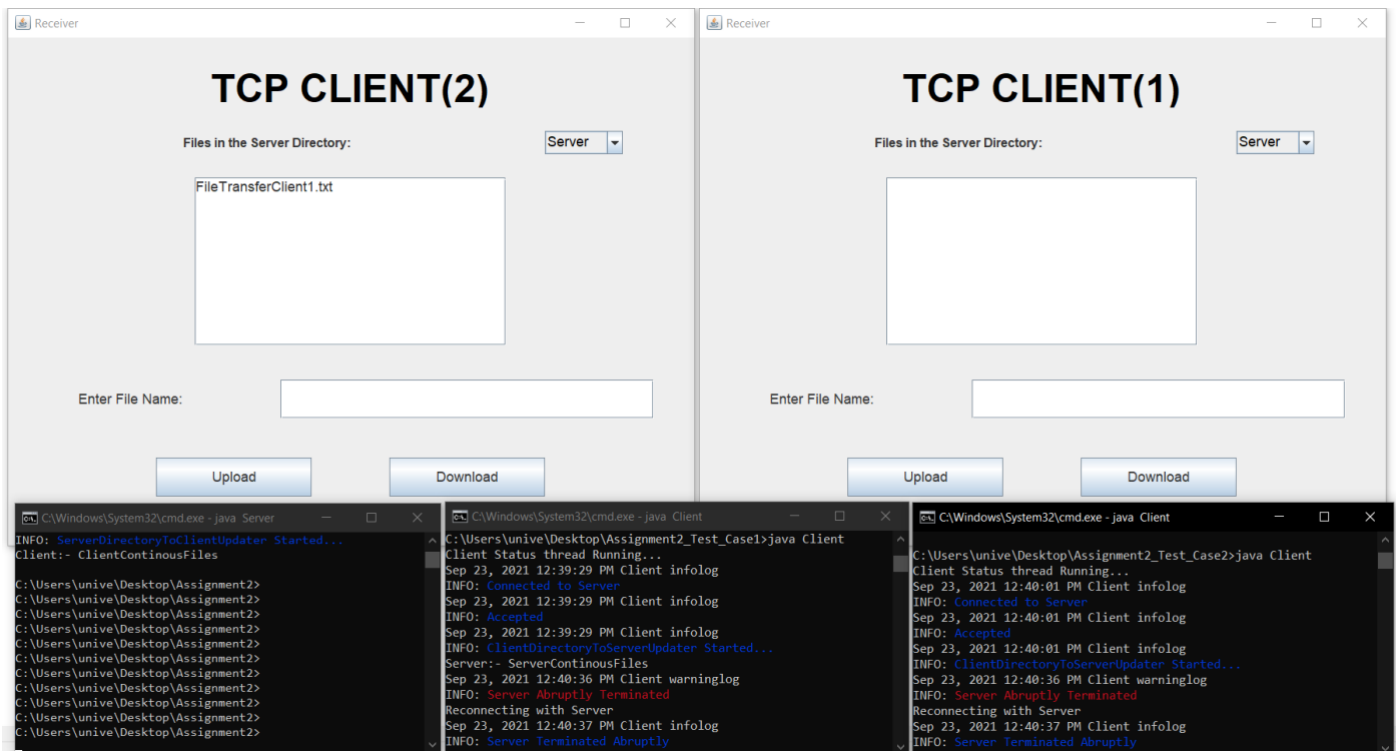


Similarly The Storage of client files is clearly Differentiated.



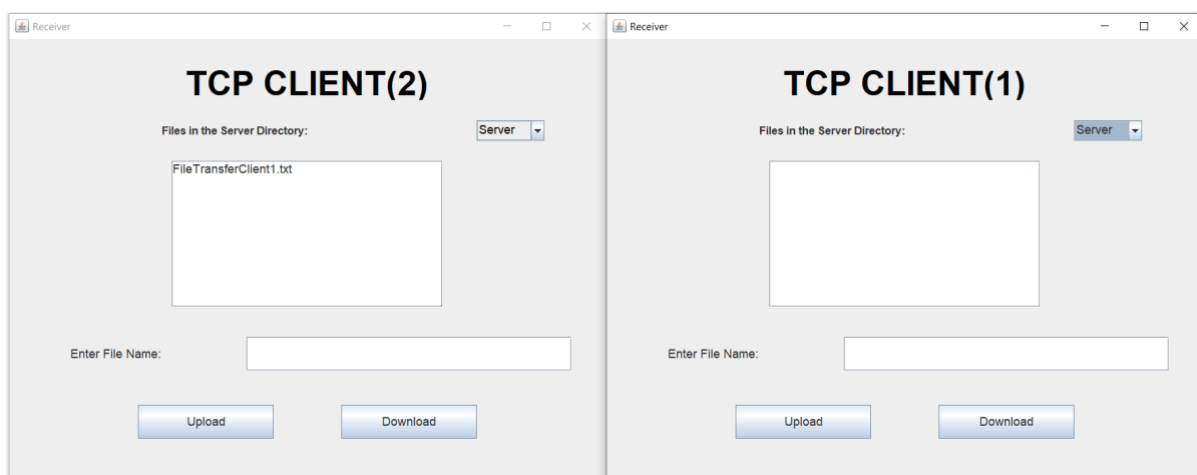
### CASE J:-

When the server is disconnected when 2 clients connected



### When the Server Reconnects when 2 clients connected

“ClientNumber” And “ServerFiles” are not changed thus maintaining Consistency.



**CASE K:-** The Client Started Before Server Connection. Recognizes that Server has not yet started for the Client.

