**CMPE 207 Final Project Report**

Multithreaded File transfer Server and Client

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**Project Option**

Application Track

**Project Functionality**

A Multithreaded File Transfer System over TCP was implemented using python socket library. The Server can handle multiple Clients concurrently with the help of Multithreading. The Clients can request to view the list of files on the server, upload files to the server or delete files from the Server. TkInter was used to enable GUI at the Client side for easier use. Also for registration and sign in process MySQL and PyMySQL was used as database and database connector.

The following functionalities are provided by the Server to the clients. The DELETE is exclusively for super users.

LIST: List all the files present on the server

UPLOAD: Upload a file to the server

DELETE: Delete a file from the server if the client is authenticated as a super user

LOGOUT: Disconnect from the server

HELP: Show a list of all the commands

**Challenges faced**

I faced an issue with Mysql connector to run the stored procedure. I used a different library called PyMySQL and fixed that.

Another issue I faced was the update to remove the selected file on combobox. After further research, I found a way to bind a callback function to the change of value.

**Citations**

<https://pythonbasics.org/>

<https://docs.python.org/3/howto/sockets.html>

<https://github.com/E-Renshaw/ftp-socket-server-python/tree/master/Client>

<https://dev.mysql.com/doc/connector-python/en/>

<https://doc.qt.io/qtforpython/>

<https://docs.python.org/3/library/tkinter.html>

https://stackoverflow.com/