**COSC 4333 Group 6 Project**

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**Introduction**

The objective of system is a multithreaded FTP server that enables client-server communication through message-oriented structure. The FTP server will allow four operations: uploading a file, download a file, deleting a file, and renaming a file. Also, it will accept multiple concurrent operations for the multithreaded FTP server.

**Use Cases and Diagrams**

**List of use cases for the system:**

* Client can upload a file to the server
* Client can download a file from the server
* Client can delete a file in the server
* Client can rename a file in the server

**Basic course of events**

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| --- | --- |
| **Client** | **Server** |
| Client accesses the server | Server displays choices for operation |
| Client choice is selected | Server request file name for operation |
| Client input is completed | Server receives command, validates information, and executes operation |
| Client receives response from server | Server waits for next command |

**Implementation**

The program was written in C language, and it runs on a UNIX system. The program is compiled by running the command gcc -o projectName projectName.c -pthread, and the program was tested running on a UNIX system with the command ./projectName [port]. Sequence diagram to show the client interaction with the server to complete multiple concurrent operations for the multithreaded FTP server.