Operating Systems

Project

Your project is to write a Multi-threaded TCP Server Application which allows multiple client applications to transfer files to and from the server. The client application can use command line input from the user to implement user functions.

The service should allow the users to:

1. Authenticate between the client application and the server application.
2. Copy a selected file from the server. (e.g. get file1.txt)
3. Move a selected file to the server. (e.g. put file1.txt)
4. List all the files in the current directory of the server.
5. Move to a different directory on the server.
6. Make a new directory on the server.

Server Application Rules

1. The server application should not provide any service to a client application that can complete the authentication.
2. The server should hold a list of valid users of the service and the root directory (location) of their files.
3. Each users should have a completely separate location for their files. (i.e. Users can not share files or folders)
4. User should not be able move backwards beyond their root directory, for example if the user's root directory is C:/FTP/Martin then the user can read/write/view the contents of C:/FTP

Project Submission

Each student should submit the code developed to support both the server and client sides of the application (Note: The code must be written in Java or C). In addition to the code each student should submit a project document explaining the various design decisions that were made during the project, how the server was configured and how their code works.

Submission Deadline

Project Submissions to be submitted to martin.hynes@gmit.ie by 5pm on the 8th January 2015