

CS610 – Project #3

Sample Project:

Create a Dropbox®-like client-server application (with a few security enhancements).

Description:

Add functionality to your application so that it supports the syncing of files between multiple clients run by the same user. The client should run continuously on two or more computers. Whenever a file is added, deleted, or modified in the Dropbox®-like folder on one computer, that change should be propagated to the server and then from the server to any other computers on which the user is logged in. **Think very carefully about how you will handle this before you start coding.** How will a client know that a local file has changed and needs to be sent to the server? What if the computer making the change and/or one of the user's other machines is offline when the file changes? At the end of this project, the Dropbox®-like folders on each of a user's computers should stay in synch with one another so that making a change on one of the user's machines is eventually propagated to all of the user's machines.

Deliverables:

Submit a design document and a tarred copy of your code using the “Project 3” link under “Assignments” in Canvas.

- Your design document should explain the high-level design of the functionality you added for this project. Do not append this to your design document(s) for previous projects and do not re-explain to me the functionality you implemented previously (assuming it hasn't changed – if your design and implementation has changed significantly then you will need to cover that in your Project 3 design document). Make sure to describe any non-standard libraries you use and how you use them. You don't have to tell me about iostream, fstream, or any other standard programming libraries, but if you use socket, cryptographic, or other “specialized” libraries please describe them.
- Your tarfile should include a file named README that explains how to compile and run your programs, how to use the client, and any known bugs either contains. Leave your server running on stu until your project has been graded.
- I will probably need at least two client accounts in order to test your programs.