CS412 Final Project Design Proposal

Benjamin Searight

3/26/24

The project is to implement a “coin-flip” game with betting features. The client must include user authentication, a leaderboard, and functioning GUI. The server must drive game logic, hold and manage players and authentication, handle multiple concurrent players, and communicate with the client via sockets.

Client Logic:  
- Communication with Server via sockets

- User Authentication with local password hashing

- Temporary Local Storage that will send/fetch server info

- Leaderboard displaying players and cash balances

- GUI will drive all other logic

Server Logic:

- Multiple Concurrent Socket Connections with players

- Database containing player info, including password hashes and balances

- Optionally consider including leaderboard data

- Actual Game and Betting Logic

- No Back-End Support

Client GUI:  
- Login Pane

- Menu Window

- Gameplay Window

- Betting Pane

- Leaderboard Pane

Code Format:  
- Both Client and Server will use a MVC design pattern.

- Controller will handle socket connections on both ends

- Model will store player data on both ends

- Server will not need a View

- Use a Player class to hold player information, used on both ends

- Server holds game logic and betting logic in separate classes