Names:
Dylan Drain
Maia Cho
Matthew Rosenthal
Anh Nguyen
Yoon Jung (YJ) Lee
Saleem Bekkali

Connect Four

Summary

We plan to implement a multi-user connect-four game, where two players will be able to play over a network. The playing field will be a 10x10 board of open slots, and the objective is to place four consecutive tokens, vertically, horizontally, or diagonally. Authenticated users will be able to play with another user of their choice and will have access to special connect-four tokens they can use while playing. Unauthenticated users will only be able to play with random users, and will only be able to use standard red and yellow connect-four tokens.

Requirement	Implementation
Data Structures	❖ Playfield could be represented as a 2D array of 'tokens'. This may be implemented with a concurrent CopyOnWriteArrayList of the 'Token' class, since multiple threads will interact with the playing field. ❖ Saving usernames/passwords: HashMap ❖ Saving token 'designs': HashSet or ArrayList implemented in a 'Token' class
Multi-threaded	Two players competing, with each player as a thread.
Networking	Multiplayer. Two separate computers could connect to each other and play
User Login Functionality	Guests play random opponents. Logged in users can choose who to play by nickname.