

Multiplayer Battleship Game

The battleship game has been modified from being a single player, where a player plays against the computer, to a multiplayer game. The game can now be played between two players from the same computer. The game state is managed by the client-side script, `app.js`, the script handles user interactions, and also game state management. It is also responsible for initializing the battleship grids and updating them dynamically during gameplay.

The scripts also establish WebSocket communication with the server. This connection helps real-time updates of the shots fired and the game status. An example of this can be seen when a player fires a shot, the client emits a fire event to inform the server, which then relays the action to the opponent, maintaining synchronized gameplay between clients. The script is also responsible for the ship dragging mechanics and win condition checks. Overall, the client-side script serves as the interface between players and the game logic, orchestrating gameplay interactions and updating the UI in response to player actions.

The server side is managed by, `server.js`, which focuses on handling WebSocket connections, player management, and game synchronization. It is also responsible for relaying game events such as firing between the players and maintaining game state consistency and synchronization across clients. It also implements a timeout functionality for 10 minutes to disconnect inactive players to prevent prolonged idle connections. The combination of both `app.js` and `server.js` allows for the game to have real-time interactions.