



Multiplayer Battleship

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Overview

- Classic Battleship on Macbook
- Play with another player on a local network
- Position your fleet on a grid
- Try to guess opponent's fleet position and sink their Battleship!

Challenges



Battleship protocol – Must restrict players to one guess per turn.



Changing scenes – Must be able to change between “Waiting for Opponent” and “Your Turn!” without losing progress.



Database – Must be able to “get” and “set” locations to determine “hit” or “miss”.



Player Privacy – Must be able to track player’s fleet locations and attempts without revealing opponent’s location

Battleship Protocol

- Change scenes between each turn to prevent multiple guesses.
- Display player's fleet and fleet status as sprites during "Opponent's Turn" scene.
- Display target field and hit / miss marks as sprites during "Your Turn" scene.
- Display Score in both Scenes.

Changing Scenes

Store game data (fleet positions, hit / miss marks, score) outside of the scenes.

When a scene changes from “your turn” to “waiting for opponent”, store game data locally to repopulate “your turn” scene on the next round.

Database

- Each player will have a Player class, a Target class, and an Opponent class, defined locally but stored on a cloud machine.
- May use Amazon Web Services to host a game server.
- Alternatively, players can directly access each other's location's and compare with their target location to determine hit or miss.



- The Player class will have accessors and mutators.
- The Opponent Class will only have accessors.
- At the end of their turn, the player's Opponent class will be compared to the opponent's Player to determine "hit" or "miss" status.
- Ex. if jeff.opponent.position == geoff.player.position {
 target.position.hit
 }
 Else { target.position.miss }

Player Privacy