Week 9 & 10: Project

Time to combine everything we learned in the final project. We have been working on applying Typescript in the context of game time to make one of our own.

Final Project: Assignments

Pick one of the following games and create a front-end application to play it. There is no need to implement multiplayer, a game is only played against the COMPUTER. Where the COMPUTER acts as an OPPONENT it does not need to be advanced; it can make decisions randomly, the only requirement is that the MOVE is valid according to the game rules.

Requirements

- Keep track of a SCORE

Battleship
https://en.wikipedia.org/wiki/Battleship_(game)

The COMPUTER places the BATTLESHIPS randomly on a 10x10 GRID. Display a GRID to the PLAYER, and prompt the PLAYER to select a square. After the selection display if it was a HIT, when you picked the same location as a BATTLESHIP or a MISS.

By default the PLAYER has a score of 100 when starting the game. With each move the score is subtracted by 1. The game is over when all BATTLESHIPS have been SUNK, the remaining score is the final SCORE.

Optional

- Play a sound when you hit a BATTLESHIP.

Concentration game
https://en.wikipedia.org/wiki/Concentration_(card_game)

The COMPUTER generates a 10x10 grid and puts the OBJECTS (an OBJECT is an item in a PAIR) in a random location.

By default the PLAYER has a score of 100 when starting the game. With each move, selecting a pair the score is subtracted by 1. The game is over when all PAIRS have been found, the remaining score is the final score.

Optional

- Pull in random PICTURES from an API.

Connect Four
https://en.wikipedia.org/wiki/Connect_Four

The PLAYER can choose if they are RED or YELLOW, RED starts the game. The COMPUTER and PLAYER each take a turn. The game is over when either the PLAYER or COMPUTER connects 4.

Each time a PLAYER wins a game the SCORE is increased by 1. When the PLAYER loses a game the score resets to 0. The score before the rest of the final score.

Mastermind
https://en.wikipedia.org/wiki/Mastermind_(board_game)

Optional

- Add a TIMER and a max time to make a move.

Hangman
https://en.wikipedia.org/wiki/Hangman_(game)

Optional

- Use an external API to fetch words from. E.g. https://www.wordsapi.com/