Team emptyString
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Final Project Proposal

MineSweeper

MineSweeper is a classic computer game which involves a field of squares which may or may not be hiding mines underneath them. If the player clicks on a square, they reveal the square. If there is a mine underneath, the player will lose. If not, the player will either reveal an empty space, or a number, which corresponds to the amount of mines in the 8 spaces adjacent to the square(including diagonal). If the player right clicks on a mine, they can place a flag on it to mark it. If the player reveals every space which is not a mine, or flags every mine, the game is won. Each minefield is randomly generated, and there will be different difficulties involving different field sizes, and different amounts of mines corresponding to each field size. This will be done in Processing. We will also keep track of times, and other relevant statistics for the player.

AI Player:

- After creating a playable Minesweeper(or the core components at best), we would also create an AI capable of solving Minesweeper.

<u>Overview:</u>

- Driver class - contains array of Squares children classes and will perform the functions
- Square class - parent of NumberSquare and Mine, contains coordinate location of Square
- NumberSquare class - child of Square class, will expose number if clicked.
- Mine class - child of Square class, will explode if clicked
- Solver class - class which will contain methods to complete the minesweeper game