Jordan Holly Senior Project

Hawiar Hussein Project Specification

**Minesweeper**

**Project Summary**

Our project for senior project is going to be a new creative take on the classic game Minesweeper. Minesweeper is a game we’ve both played and enjoyed for several years, but always felt could be improved. A major part of our project will be implementing Minesweeper. The culmination of our knowledge these past 3 years should prove helpful in achieving this portion of the project. Furthermore, we wish to add several more features to the game of Minesweeper to enhance the game, add to its replayability value, and open the game to less experienced players.

**Project Goals**

One of our main goals for this project is to test our knowledge and skills and implement a working version of Minesweeper’s gameplay without any outside help. We understand the concept and logic behind the game enough that we feel that we could effectively replicate the game at its most basic, not including its graphics and designs. Another goal is to actually make the game look nice as well. Neither of us are very experience with in-game graphics so we are looking forward to exploring the depths of our creativity and learning new technologies that will help us achieve an aesthetically pleasing game. Another goal is to expand the game of Minesweeper and add more features. Just creating a replica of Minesweeper would create a very boring project, so we hope to add enough to the game so that it feels fresh to older users and grabs the interest of new players.

**Project Features**

* A main website where users can create accounts, keep track of their progress, and view a leaderboard of high scores.
* Minesweeper’s gameplay:
  + Easy, Medium, Hard, and Custom amounts of playable tiles.
  + Numbered tiles that indicate the amount of deadly tiles surrounding it.
  + An in-game timer.
  + The ability to flag tiles as a warning or question mark.
  + Customizable amount of deadly tiles.
* Our additional features:
  + An in-game scoreboard.
  + A hint button that points out unsafe tiles, but affects your overall score.
  + Unlockable rewards.
  + Time-based bonus points.

**Limitations**

Of course, expanding on a tried and true game for over 20 years we’re gonna hit some speedbumps. One case of this is adding rewards for users to unlock. This feature has never been implemented so it will be difficult for us to make the unlockables meaningful. These unlockable features will definitely create an incentive for users to play more of the game. However, we aren’t sure to make them score based rewards, amount of time played, skill, or all of the above. The rewards will most likely be special skins and sprites to encourage more gameplay to diversify the playing field.

**Github**

https://github.com/hawiar/hj-project