

## **Functional Overview**

My project is a multiplayer, online minesweeper game. Players play minesweeper on a big, expanding field, and when tiles are revealed and flags are placed, they earn points. However, if bombs are hit, their scores get reset.

More specifically, the game will consist of territories, where each player can choose their own color. By revealing tiles adjacent to their territory, players can increase the size of their areas. However, if a player loses after hitting a mine or quits the game, it becomes neutral land, and the next player to expand their territory into it takes over.

The intended audience consists of people with internet literacy who are above the age of 13: it's mostly focused on people who already know how to play minesweeper.

## Design Overview

In the following pages, black parts are black, the flags in the corners are red, and the bars on top are gray:

### Login Page

P MINES

LOGIN

REGISTER

USERNAME

PASSWORD

LOGIN

### Game Page

P MINES

LEADERBOARD  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
...  
YOUR NAME



CURRENT SCORE

BEST SCORE

CURRENT MULTIPLIER

### Settings page

P MINES



NAME

USERNAME

PROFILE



BEST SCORE

FLAGS PLACED

TILES REVEALED

MINES HIT

STATUS



EMAIL

PASSWORD

OLD PASSWORD

SAVE

ACCOUNT

LOG OUT

## **Design Testing Results**

My design was tested by Liz and Vidisha; much of the feedback I received had to do with clarity in gameplay and in the settings:

- Liz felt that navigating to the settings menu was too difficult
- Liz did not understand the sections in the settings menu
- Vidisha did not understand how the games worked
- Vidisha had trouble changing the profile picture

To make gameplay more clear, I there will be an instructional popup outlining the basic rules of minesweeper

To make the settings menu more clear, I changed the method by which the menu is opened: now, it is opened by clicking the profile picture. I also added labels to each section in that page, as the previous logo-only design was too vague.

**Prioritization of Features:**

Definitely Will Implement	Will Implement If I Have Time
Login and registration	Settings page
The game itself	Profile picture
Leaderboard	Personal statistics
Score tracking	Mechanism for changing login details

**Database Design:**

Table	Columns
users	ID, Username, Email, Password
info	User ID, Name, Score, Flags, Tiles, Mines

**Proposed implementation schedule**

Feature	Date
Login and registration	Friday, November 1
Sessions	Monday, November 4
Streams	Thursday, November 7
Client-side game board	Monday, November 11
Basic game functionality	Thursday, November 14
Working game	Monday, November 18
Leaderboard	Thursday, November 21
Settings page	Monday, November 25

**Potential Showstoppers and Open Questions:**

- It'll be pretty difficult to complete this project in php; I will probably have to use Node
- I don't have much experience with sessions in Node
- I haven't decided how I'm going to display the game board: in a canvas or directly with html
- Dynamically generating parts of the board might be problematic