

# Software Requirements for Minesweeper

## Minesweeper

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### Overview

This document describes requirements for the software implementation of the classic game of Minesweeper. This game is a self playing game, no need for anyone or the computer to be playing against. A description of the game plus the requirements of this implementation are provided below.

### The Game

On a 10 X 10 grid try and avoid hitting the bombs. Click on a box and the box will let you know if there is a bomb in the proximity, and how many bombs. The goal is to figure out where the bombs are, without them being detonated. If it detonates, YOU LOSE.

### Goals

1. Avoid detonating a bomb.
2. Place flags on all the bombs.
3. Do it in the least amount of clicks possible

### Software implementation

#### UI elements

The software will present the Minesweeper game with the UI elements listed below.

1. 10 X 10 Grid of buttons, with 10 randomly placed bombs
2. A text box on top counting the amount of clicks
3. A label to display game status
4. start/ restart button on top

#### Game Process and Rules

- The game starts when the player clicks Start or clicks on a box. The game status message is "Click Start or on a box to begin Game."
- While the game is in progress the message box should say "game in progress."

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- With each click the click count should go up by 1.
- If you click on a bomb, the game ends and the message box should say “game over, Try again.”
- Player wins if all the bombs are the only remaining boxes. The message box should say “Congratulations, You won.”
- When a box is clicked it should say a number of how many bombs are within the 8 boxes around it. If there are no bombs round that box it should fill in the boxes around it.