Assignment 1 – Mine Sweeper Game!
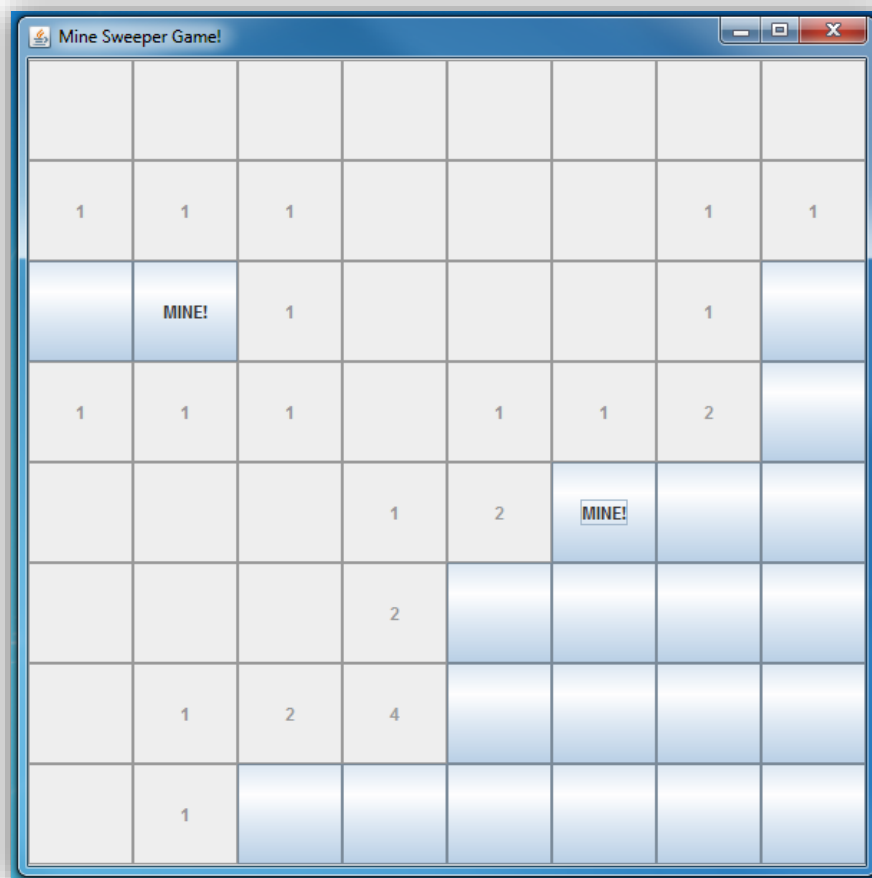
Worth: 12.5%
Due: September 20th, end of day
Teams: To be done individually or in teams of 2 maximum

Score breakdown

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8 points	Functionalities
3 points	Program aesthetics and Usability
1.5 points	Coding Style

Mine Sweeper clone is a small game famously part of the Windows Operating System. The goal of the game is to clear every tile on the board, without pressing tiles containing a mine. For this assignment, you will have to implement a clone of the game.

Main Menu

The game will start with a menu containing a "New Game" button, a label to show messages to the user, and 2 labels to show the number of games lost and won.

- When the application starts, the message will show Press 'New Game' to start!
- When pressing New Game, a game window will show up and the button will be disabled until the game is finished.
- You can use the GUI Builder to generate the main menu, or do it exclusively by code. You won't be penalized for the aesthetics of the Main menu.
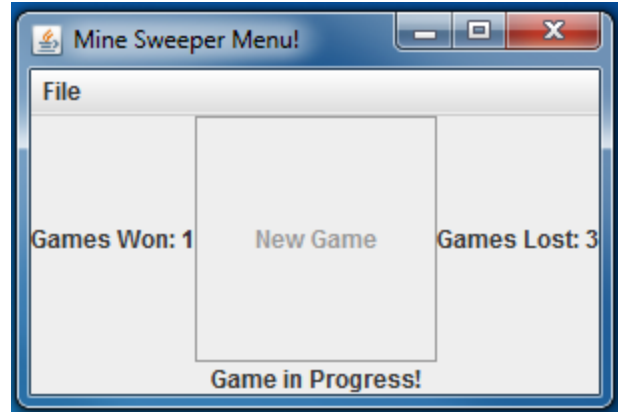
Game Play

Board initialization

The board for your Mine Sweeper game will be of size 8 x 8 and will contain 10 randomly positioned mines at each new game. Each tile should be represented by a button.

Game turn

In order to progress the game, you must click on one of the tile, and the tile will show the number of adjacent cells containing a mine (including diagonals). If the number is 0, the tiles will propagate until numbers are shown adjacent to mines.

Tagging Mines

If you know a tile contains a mine, you can hold CTRL and click on the tile button. In that case, you will set the label on the button to show a 'MINE!' message. If you CRTL-click this tile again, the 'MINE!' message will disappear.

Losing the game

If you click on a tile containing a mine, you lose the game. On the Menu, the numbers of total number of games lost will be incremented and the new game button will be enabled again.

Winning the game

If you click on all the tiles except the ones containing mines, you win the game. On the Menu, the number of games won will be incremented and the new game button will be enabled again.

Submission

For submission, only one team member must submit a zipped Netbeans Project containing the game, before the deadline shown on Omnivox. For late submission, a penalty of 1% per hour late will be applied. To get your marks, you will need to demo your application to your teacher.