Sudoku Application

By Noel Flores and Tori McManus

Goal of Project

Create an executable application to play Sudoku and possibly have additional features that tracks data about the game such as

- Clock for how long it takes the player to complete the game
- Counter to count the number of moves the player takes
- Option to see what the previous move was played
- Option to search a specific number in each of the 3x3 squares

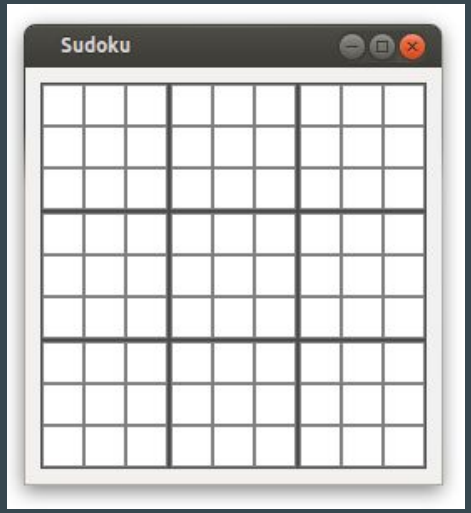
Technical Approach

- Using 2d Array to store the elements of numbers
- Using a counter for the clock to continuously run counter for the player's moves
- Using Classes and objects in order to create/solve the board
- A search algorithm (ex: linear) to find the specific number in each of the squares

Software Tools

Qt is a cross-platform software development tool used for developing graphical user interface (GUI) applications integrated with code applications

Example of a GUI



Visual Studio Code is a light-weight software development code editor with many extensions to extend its functionality

Questions?

Sudoku Part 2

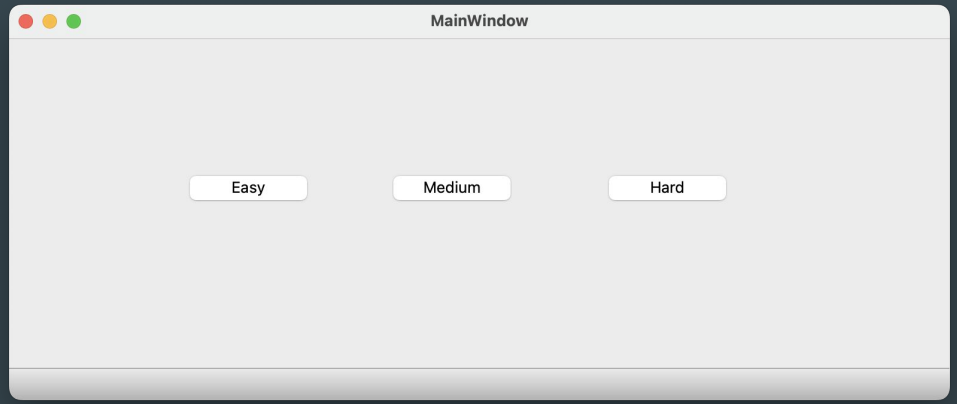
Main Window

After executing the application, the user can choose which difficulty level to play the sudoku game.

Easy = 20 numbers removed, 3 lives

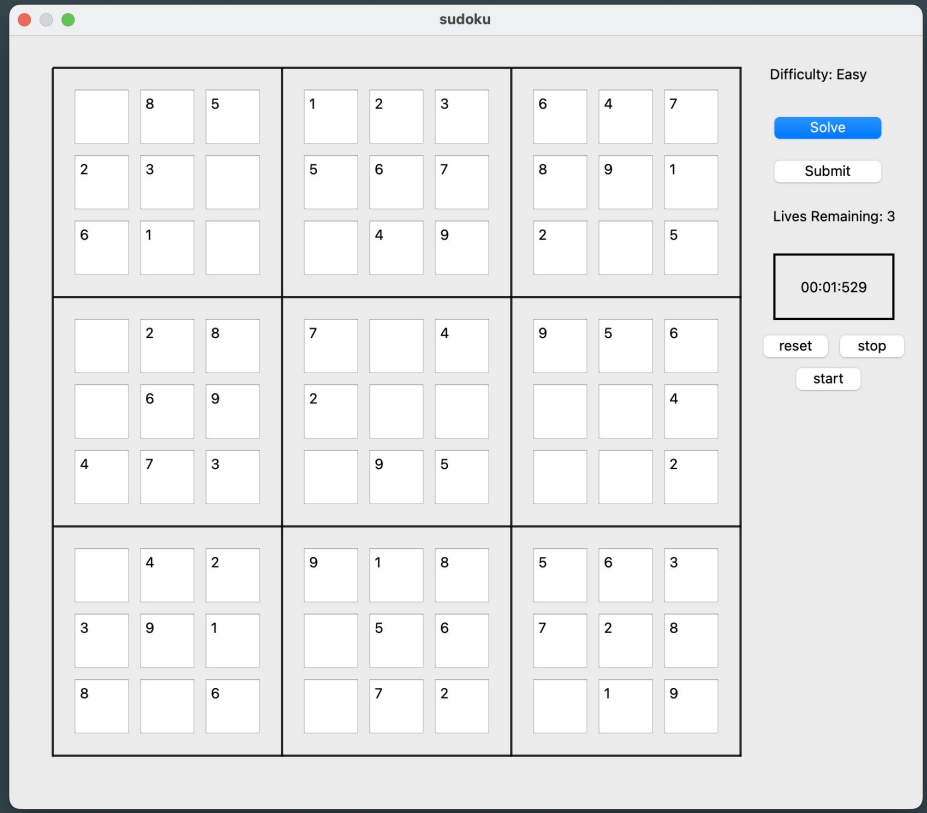
Medium = 35 numbers removed, 2 lives

Hard = 50 numbers removed, 1 life



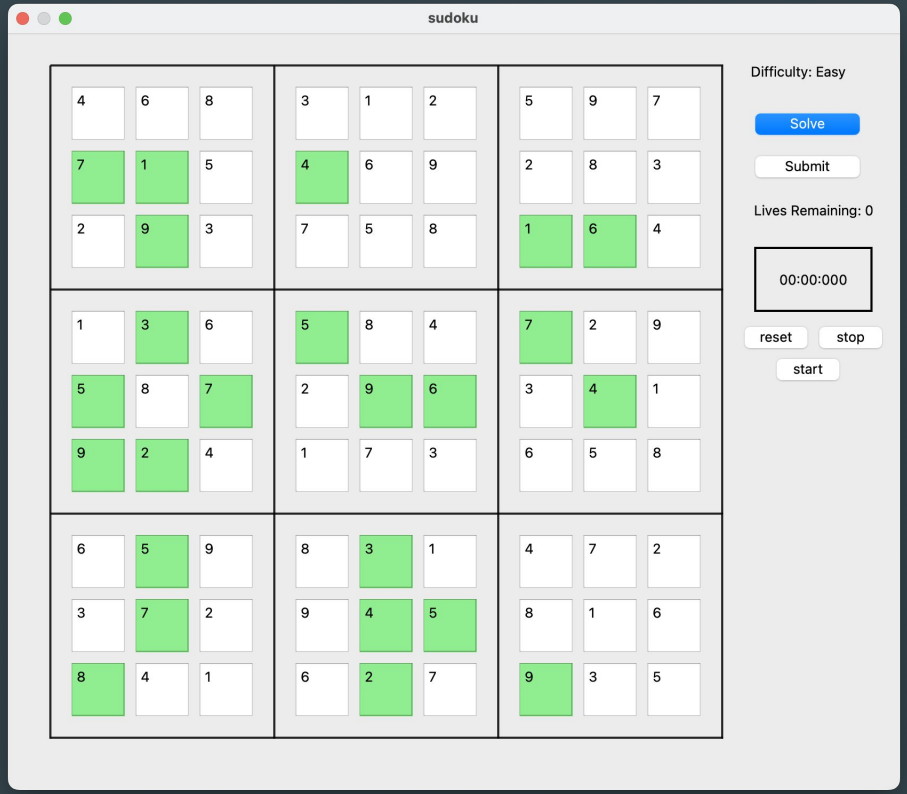
Sudoku Board

- Randomized numbers generated for board
- Solve button to solve the puzzle
- Timer to track how long the user takes to complete the game
- Limited amount of lives depending on difficulty



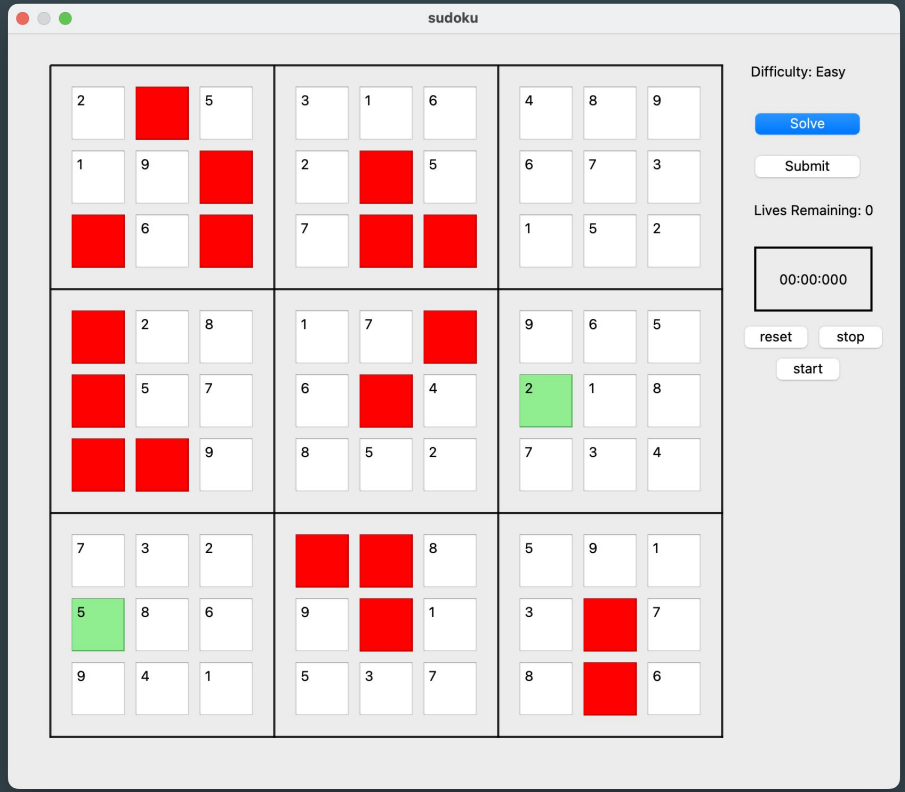
Solver Button

Solver Button used to solve the puzzle



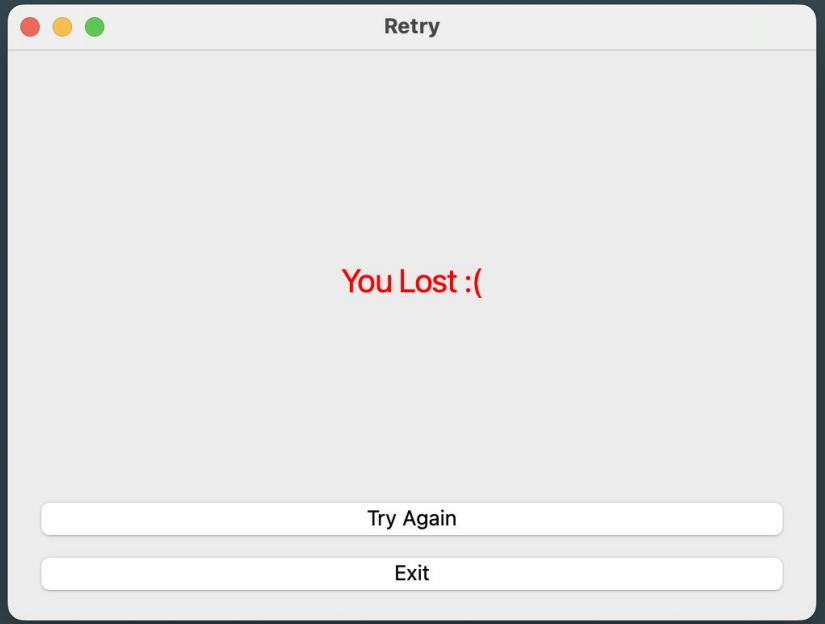
Submission Button

- After the user submitted several numbers
- Green means the number is correct
- Red means the number is incorrect



Losing

If all lives are lost, this results in losing



Winning

If the user completes the game, it results in the winning screen :)