

Models:

Cell: Models one cell of the sudoku board

MainGame: Is the class that makes a sudoku game and controls it

Sound: Plays the sounds

SudokuInitializer: Makes a `int[][]` showing a valid sudoku board

SudokuSolver: Solves sudoku boards to guarantee valid boards and if the user wants to solve the game

View:

MainGUI: The mainGUI, responsible for making the other GUI elements and the main game

BoardGUI: creates the board on the mainGUI

KeypadGUI: Creates the keypad used for entering guesses into the board

Responsibilities:

Cell:

- Stores the value of the cell (or 0 if it is empty)

- Updates the value of the cell when it is changed

MainGame:

- Checks if the value of the cell is valid (i.e., if it does not already exist in the row, column, or block)

- Creates the Sudoku board

- Initializes the Sudoku board with a valid puzzle

Sound:

- Plays the sounds for the game

SudokuInitializer:

- Generates a valid Sudoku puzzle

- Returns the puzzle as an `int[][]`

SudokuSolver:

- Solves a Sudoku puzzle

MainGUI:

- Starts the game

- Creates the main GUI window

- Creates the BoardGUI and KeypadGUI

- Handles user input from the main GUI window

- On winning plays a sound

BoardGUI:

- Displays the Sudoku board
- Allows the user to enter guesses into the board

KeypadGUI:

- Handles user input
- Solves the Sudoku board if the user wants to (with SudokuSolver)
- Displays the keypad used for entering guesses into the board