**BACKGROUND AND MOTIVATION**

People of all linguistic backgrounds can enjoy Sudoku because it is language-independent. It may be used by a large audience regardless of age, education level, or cultural background because it doesn't call for specific equipment.

Sudoku puzzles can occasionally be found in educational settings like schools and brain training programs. To educate critical thinking and problem-solving techniques, they provide a pleasant and interesting method.

Sudoku puzzles may be solved quickly, making them the perfect kind of entertainment for quick breaks or while waiting.

Sudoku is a dynamic puzzle with changing approaches and methods of solving it. Both casual gamers and devoted fans will find the game to be engaging and constantly evolving as a result.

**PROBLEM STATEMENT**

Because sudoku is a mind-stimulating game, we decided to make one. As you become immersed in a puzzle's solution, the game sharpens your logical reasoning abilities, which helps you become more adept with numbers. This facilitates decision-making. Sudoku not only keeps you engrossed in the game for hours, but it also improves your ability to make decisions and manage your time.

**APPROACH**

THE “HOW”

* The rules for sudoku are simple. A 9×9 square must be filled in with numbers from 1-9 with no repeated numbers in each line, horizontally or vertically. To challenge you more, there are 3×3 squares marked out in the grid, and each of these squares can't have any repeat numbers either.

THE MILESTONES

* We used java to develop the game.
* First thing we did was to create a 9x9 grid to represent the sudoku board
* We implemented validation checks to ensure that user inputs adhere to Sudoku rules.
* We created a function to display the Sudoku grid to the user.