

Overview:

This program is designed to validate the correctness of Sudoku grids provided in a text file format. It checks whether the rows, columns, and 3x3 boxes of the grid adhere to Sudoku rules, ensuring a valid solution.

Input File Format:

The program expects the Sudoku grid in a text file with 9 rows and 9 columns. Use numbers to represent the Sudoku grid, separating each number with a space or a newline.

For example in sol01 through sol03:

sol02.txt :

```
5 2 4 7 1 8 9 3 6
8 3 6 4 5 9 2 1 7
9 1 7 2 6 3 8 4 5
7 5 3 1 9 6 4 2 8
4 9 1 8 2 5 7 6 3
6 8 2 3 7 4 5 9 1
2 7 5 9 3 1 6 8 4
1 4 9 6 8 7 3 5 2
3 6 8 5 4 2 1 7 9
```

Output: The program will display the input Sudoku grid and report any invalid rows, columns, or boxes. If the solution is valid, it will display "The solution is valid."

Notes

Ensure the input file contains a 9x9 grid of numbers representing the Sudoku puzzle. Invalid rows, columns, or boxes will be displayed with appropriate error messages.