

Test Cases

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

This Sudoku is correct. It runs smoothly and has no errors. The program's output is that this is a **winning** Sudoku.

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

This Sudoku is incorrect. It runs smoothly and realizes that is incorrect during the checkSudoku method. The program's output is that this is a **losing** Sudoku.

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

This Sudoku has a **missing line**. During the method readSudoku the program throws an exception and outputs that the file cannot be read as this is an **invalid** Sudoku.

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

This Sudoku has a **missing number**. During the method readSudoku the program throws an exception and outputs that the file cannot be read as this is an **invalid** Sudoku.

5) 5 33 4 6 7 8 9 1 2
 6 7 2 1 9 5 34 4 8
 1 9 18 3 4 2 5 6 7
 8 5 9 7 6 1 4 25 3
 4 2 6 8 15 3 7 9 1
 7 1 3 9 2 4 8 5 67
 9 6 1 5 3 7 2 8 49
 2 8 7 4 1 9 6 3 54
 96 1 2 3 4 5 6 7 9

This Sudoku has **numbers greater than 9**. During the method readSudoku the program throws an exception and outputs that the file cannot be read as this is an **invalid** Sudoku.