CSCI-UA.0101-002: Optional Assignment 8: Sudoku Validator

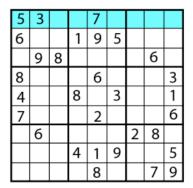
Due Monday, December 11th at 11:59 p.m.

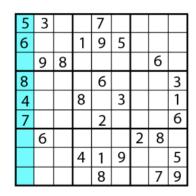
Instructions:

- The project directory folder for this assignment is called A8_project_directory_NYUnetID. Rename NYUnetID with your own NYU NetID. For example, my NetID is gp2442, so I would rename my project folder "A8_project_directory_gp2442".
- The project directory contains a project directory containing two subdirectories, namely lib and src. The source files are in src/edu/nyu/cs/NetID. Make sure to rename the subdirectory /NetID to your actual NYU NetID.
- Complete the code according to the instructions in this document.
- Submit a zip file named "A8_complete_NYUnetID" containing your project folder called "A8_project_directory_NYUnetID". Again, NYUnetID should be replaced with your NYU NetID.

Sudoku Validator (10 points)

Sudoku is a 9×9 grid divided into smaller 3×3 boxes. Some cells, called fixed cells, are populated with numbers from 1 to 9. The objective is to fill the empty cells, with the numbers 1 to 9 so every row, every column, and every 3×3 box contains the numbers 1 to 9. See the figure below.





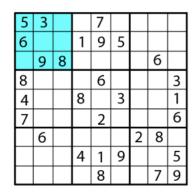


Figure 0.1: Example of a Sudoku square. Every row, every column, and every 3x3 box must contain the numbers 1 to 9.

Once a solution to a Sudoku puzzle is found, how do you verify that it is correct? One approach is to check that each cell is a number from 1 to 9, and the cell must be unique on every row, every column, and every small box.

Requirements

Simply complete the two methods readASolution and isValid inside the source file CheckSudokuSolution.java. You will get full marks (10 points) if the program works correctly, you will get 6 points if the program does not work due to one or two minor errors, and zero otherwise.