CS 46B
Fall 2019
Homework 7: Simpledudoku

Due: 11:59 PM, October 31.

INTRODUCTION:
In this lab you will write a backtracking algorithm to solve a simple puzzle that is similar to Sudoku. In "Simpledoku" you have to fill an empty square grid of n x n cells, with each cell getting one of the digits 1 through n. A number may not be repeated in any row, in any column, in the long top-left-to-bottom-right diagonal, or in the long top-right-to-bottom-left diagonal. Try it on paper first. You'll find that the 4x4 puzzle is very easy, but things get harder as the grid gets bigger. Many students report the 6x6 is harder than they expected, but 7x7 is easier than 6x6.

ASSIGNMENT:

1) Create an enum, called Evaluation, that defines 3 constants: ACCEPT, ABANDON, and CONTINUE (just like the example in lecture).
2) Finish the SimpledokuGrid.java starter file, completing code as instructed by the comments. Be careful with generateNextGrids()! You have to generate some new instances of SimpledokuGrid … don't just change values in the "this" instance.
3) Finish the SimpledokuSolver.java starter file, completing code as instructed by the comments. Test your code by changing the int passed to the ctor call in the first line of main.
4) Run the grader bot (SimpledokuBot) to see your grade. This assignment is not checked for style or comments. By now you are expected to have good style and comments because that's what Java Jedi do.

SUBMISSION: As usual, export your sources from Eclipse. Be sure your jar contains all your sources. You will receive zero points if your jar doesn't contain sources. No work will be accepted after the deadline except for documented emergencies.