CS194: Smarter Sudoku Generator

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Checkpoint 2:

- Solver has been completed and can solve nearly any problems without guessing.
- Generator made that uses the solver.
- Applet uploaded.
- Created a simple difficulty estimator.
Solver

- After reading input, solver is called.
- Each method is repeatedly called until no cells are changed.
- Repeat this loop until no cells at all are changed.
- If done, return so.
- If not, make a guess, and then attempt to solve it again.
Generator

• Method:
  – Randomly guesses a number and cell.
  – Try to insert the number into the cell. If it is impossible, try again.
  – Try to solve the puzzle without guessing.
  – Repeat until puzzle can be solved.

• Mostly generates simple puzzle.
Applet

- Uploaded to my personal webspace.
- Simply uses the Generator + Solver to solve the puzzle based on the numbers within text fields.
**Difficulty Estimator**

- Uses the solver and counts number of times each method is used.
- Returned difficulty is the result of the following equation:

\[ \sum \text{METHOD\_BIAS} \times \text{numTimesMethodIsCalled} \]