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Report: Implement SUDOKU Solver

Explanation
The problem is implemented based on the idea in this paper:
https://www.lri.fr/~conchon/mpri/weber.pdf

In brief, we represent each possible digit *d* in a cell *i, j* as variable *x[i,j,d]*. Following are propositional clauses:

- For each $1 <= i, j <= 9$, we have:
  - a clause $x[i, j, 1] \vee ... \vee x[i, j, 9]$ to ensure that cell *[i, j]* contains at least one of the nine digits.
  - And 36 clauses: $x[i, j, d] \vee x[i, j, d']$ with ($1 <= d, d' <= 9$) to ensure that cell *[i, j]* does not contain two digits at the same time.

- For each row, column or block, stating that nine grid cells *x[1], …, x[9]* contain distinct values. Then for each $1 <= i < j <= 9$, we have, $x[i] \neq d \vee x[j] \neq d$ for all $1 <= d <= 9$

In addition, we also need clauses for cells contain number provided in the Sudoku puzzle.

How the program works
Here are the 4 steps performed during the execution of the program.

1. *Read input file*
2. *Generate CNF file*
3. *Run miniSAT against CNF file*
4. *Read miniSAT output file and display the result to user (and save to file as well)*

Input file
Use 0 for empty box. An example of sudoku input file content:

```
6 0 0 0 0 0 7 0 0
0 0 0 1 6 2 3 0 0
0 0 0 3 5 7 0 8 2
0 8 0 9 3 1 0 4 7
0 7 0 0 0 0 0 1 0
9 4 0 7 8 5 0 3 0
7 9 0 8 1 6 0 0 0
0 0 4 5 7 9 0 0 0
0 0 8 0 0 0 0 0 9
```

MiniSAT path
Please be noted that you have to update your miniSAT execution path to make sure the program will run properly.

How to run the program

```
ruby sudoku.rb <INPUT_FILE>
```

**Development enviroment*
+ Mac OSX Yosemite
+ Ruby 2.2.0