Assignment 2

October 24, 2018

Deadline: **1st November**

1 Objective: Implement a SAT solver using the method of Semantic Tableaux

Your program should:

- Accept inputs in the DIMACS format;
- Emit output exactly in the same format as that of minisat.

You clearly define heuristics for (and write it as part of the README file):

1. Selecting a clause for decomposition;
2. How a clause is decomposed (i.e. which disjunction in the clause is used for decomposition).

Add a counter to count the number of steps (number of decompositsions) required for your implementation of semantic tableaux for solving a given formula. Report the number of steps required to solve your Sudoku formulation submitted as assignment 1.

2 Deliverables

The following should be archived and uploaded either as a .tar.gz or .zip file; no other format is allowed.

1. The program source code. Do not include the source of the SAT solver or any executable in your package. You may assume that the SAT solver is placed in the same directory as your program for execution.
2. A README file (a plain text file) describing how to build and run your program. You should mention the heuristics used to select a clause and literal for decomposition.