Question:

Implement a SAT solver. Given a formula in the DIMACS representation, your implementation should return:

1) a model if the formula is satisfiable

2) report that the formula is unsatisfiable

You are free to use any language and algorithm (Semantic Tableau, Analytic Tableau, DPLL or a combination).

Deliverables

- The source code of your implementation.
- A brief report (less than 5-pages) describing your implementation, assumptions, and limitations.
- A set of test cases (at least 5) with the expected output. (tests folder).

The quality of all the above would affect your marks. The quality of all the above would affect your marks.

Submission Format

Your submission **MUST** be in the following format:

- The submission should be a **zip** file.
- The zip file should be named as **assignment**_"**number**"_"**Roll-of-student1**"_"**Roll-of-student2**".
- Both students in the group must submit the assignment.
- Zip the content of the source as is and submit.
- Please note that your submission will **NOT** be graded if you do not follow the format. Furthermore, we will use the **Readme** file provided by you to build and run your code. Therefore, please make sure that the Readme is clear. We cannot grade your submission if we cannot run it on our system.

Some important comments

- Before doing anything "extra" (which might fetch bonus marks), first, complete the basic expectations from your implementation.
- Programs are expected to display their results in a user-friendly manner; a user would never like to use a program that simply spits out a bunch of numbers. So, display the results from your programs suitably.
- Discussion is healthy, copying is not. You are encouraged to discuss the assignments, but you must implement the assignments individually. If any two students are found with "similar" pieces of code, both of them will be failed (with no concern as to who was the source).
  (https://www.cse.iitk.ac.in/pages/AntiCheatingPolicy.html)