Project TeamworkTemplate

Version 1 9/11/24

A ***separate copy*** of this template should be filled out and submitted by each student, regardless of the number of students on the team. Also change the title of this template to “Project x Teamwork <team> - <netid>”

1	Team Name: I did not work in a team but for the sake of naming the template: DB
2	Individual name: Dania Benecke
3	Individual netid: dbenecke
4	Other team members names and netids - N/A
5	Link to github repository:
6	Overall project attempted, with sub-projects: 2-sat solver
7	List of included files (if you have many files of a certain type, such as test files of different sizes, list just the folder): (Add more rows as necessary)

File/folder Name	File Contents and Use
Code Files	
dpll_dbenecke.py	Final code, it tests weather CNF’s are satisfiable or not by implementing the DPLL algorithm.
Test Files	
check-dbenecke.csv	Final test case for the whole program, contains 100 test cases following the CNF project file format
check-sample-dbenecke.csv	Individual test case. I worked on figuring out how to solve one CNF first and then made it for several ones. Thus, this was the file I used to test only one CNF
Output Files	
output_correctness_dbenecke.txt	Has the final output with its respective input which is the file check-dbenecke.csv.
output_xsat_dbenecke.txt	Has the output obtained for the x axis of the satisfiable plot, which the number of literals.These values were obtained using the plotcode_data_dbenecke.py file.

output_ysat_dbenecke.txt	Has the output obtained for the y axis of the satisfiable plot which is the time taken. These values were obtained using the plotcode_data_dbenecke.py file.
output_xunsat_dbenecke.txt	Has the output obtained for the x axis of the unsatisfiable plot, which is the number of literals. These values were obtained using the plotcode_data_dbenecke.py file.
output_yunsat_dbenecke.txt	Has the output obtained for the y axis of the unsatisfiable plot which is the time taken. These values were obtained using the plotcode_data_dbenecke.py file.
Plots (as needed)	
plots_dbenecke.xlsx	Contains an excel sheet with the x and y values for both the unsatisfiable and satisfiable cases. It also contains a plot graph for only the satisfiable, only the unsatisfiable and one for both.
plotcode_data_dbenecke.py	This is the code used to obtained the x and y values for both the unsatisfiable and satisfiable cases. It practically has the dpll algorithm but I use functions from the time library to measure the time taken to run the dpll algorithm.

8	Individual Student time (in hours) to complete: 20
9	Your specific activities and responsibilities: Everything, since I worked individually
10	What was personally learned (topic, programming, algorithms): I learned the DPLL algorithm and how to handle a stack-like lists in python for backtracking and recursion.
11	How team was organized, and what might be improved.: I didn’t work in a team, but as an individual I should have started a day or 2 earlier since it ended up being way more difficult than expected.
12	Any additional material: