Assignment 1 – part 4

Write a class called DPSolver<yourName> with the following functionality:

1. Write a function that reads the formula by passing the filename to a Formula<yourName> object.
2. Write a recursive function, dpSolver(Formula f) that takes the formula and attempts to satisfy it. Read the assignment handout to clearly understand the recursive process. Decide
3. When to terminate the recursive program (base case). If the formula is empty the recursive call returns true and terminates the program.
4. When to terminate a recursive call (another base case). If the formula has an empty clause then the recursive call returns false and terminates the call.
5. (When to backtrack and what to do after backtracking)

1. Backtrack to the first available unassigned variable and set it to true. Another call to the recursive function is instantiated. If this results in an empty formula then the recursive call returns true and terminates the program.
2. Otherwise, reset the variable to false. Another call to the recursive function is instantiated. If this results in an empty formula then the recursive call returns true and terminates the program.
3. If both of the above cases fail then unassign the variable and return false.
4. write solve(Formula<yourName> f) to initiate the recursive call and to output appropriate messages. Output could be either a statement saying that the formula was satisfiable or unsatisfiable. In the case of satisfiable, output the final assignments of values to the variables.