Theory III: 3-In-A-Row Solver

**Programming Language:** Java

## Included Files:

**Main.java:**

This is where the Grid and DataHandler objects are created and the solve() function is called

**Grid.java:**

This class contains the methods for constructing the Grid object and populating it with data from an array. It also contains all of the functions for solving the puzzle; this includes the code to check the conditions of the Grid and also the DPLL-based algorithm to find a solution.

**DataHandler.java:**

This is the class devoted to handling the input of data from the file defined by the user. DataHandler.java contains the functions for parsing the file data and arranging it in the desired array style as well as the constructor methods for the class.

## Solution Explanation

My solution to the problem consists of two parts: checking the state of the grid against the set of conditions we are given and using a DPLL-style algorithm when the problem can no longer be solved by just checking these conditions.

### Condition-Checking

//stuff about affected squares and depth trees

### Solution-Searching

//other stuff about state transition