Project Write up for Constraint Satisfaction Problem Solver

* Compilation and Running
  + This project was built using eclipse and Java 7.
    - You can import the project using the standard dialog in eclipse.
  + To run, use the command: “java –jar inputFile.txt output.txt”
* Description of our approach
  + Our approach to designing a solution for this project is the “fail fast to succeed sooner” method. Essentially we tried everything at first to see what would work. Eventually we decided to implement Backtracking first, because it was the easiest and most readily produced.
    - Backtracking ended up revealing some serious flaws in our codebase however. We realized that we had not designed objects and methods that make this task an easy one, but we were able to make changes and get it working nonetheless.
    - One thing we noticed is that when we got back a bad inputs our program would have to try every possible combination of bags and items, which is on the order of millions for some problems.
  + Next we implemented Minimum Remaining Values + Degree Heuristic
    - The way we implemented this was relatively easy. The point of MRV + DH is to choose the next variable you are going to assign to an assignment intelligently to reduce the number of overall steps you’ll have to take.
  + Then Least Constraining Values
  + Then Forward Checking