HW8 Report
Group 66

Currently our program is organized into five separate files, block, coordinates, move, tray, and solver.java. Our program utilizes four files to store, create, and change objects and their corresponding data.

Our first file (Block.java) is a simple class with two constructors to initialize blocks assigning them a height and width as well as a set of coordinates. Block.java is also called on to change the position of the block by updating its coordinates. Block.overlap will also check to see if a move or placement of a new block will overlap another. We also use the standard @Override equals method to check if two blocks are equal.

Coordinates.java is a class that simply assigns an x and a y value for coordinates of the tray.

Move.java is another simple class with a single method taking in two parameters one being the block you wish to move and the second being the coordinates of that block and where it will be moved to.

Tray.java creates trays with given blocks from a file. Tray.buildTray reads the file and creates a tray with the given dimensions and block placements. By popping off the first line of the file we have the given dimensions of the tray while the rest of the lines will place the blocks onto the tray. tray.getMoves creates a linked list of all possible moves for all blocks. The rest of tray.java contains a series of methods to place, remove, and checks to see if a block already occupies a space on the board utilizing the overlap method in block.java.

Furthermore solver.java sets out to solve the puzzle only executing when two files are passed in, the first being the current tray and the second being the solution tray. We are currently working on an algorithm to find an efficient way to solve a puzzle.