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<center>Rubix Cube Simulator</center>

For our final project, we're planning to use Processing as a tool to visualize a Rubix Cube. The cube will be interactive and the user will be able to move it in every way that it can be moved in real life. We know through research that both of these can be done with methods like box(), and utilizing the coordinates of the screen. With this, the user can attempt to solve one of the few preset cubes that we'll create manually beforehand. However, this simulator will also have an option for the user to input a specific arrangement of a Rubix Cube(assuming its valid), onto a blank cube. After doing that, the user can once again try to solve it on their own.

The last functionality that we want to implement, but feel like would potentially cause a lot of trouble, is creating a rubix cube solver. After the user inputs their own rubix cube onto the blank cube, we hope to have something like a solve button in order to show a solution to the specific arrangement given. Though this may be difficult, all three of us know how to solve Rubix Cubes, and that knowledge could prove helpful to implementing such solving algorithms in code. Not to mention, the use of 2D arrays for storing the sides, backtracking for the actual solving, and heaps for storing the numerous algorithms could be potential implementations.

If time permits, we may also add a 2x2 cube along with the standard 3x3 cube.