**Status Report #1**

**Date:** 4/29/22

**To:** Mr. Fulk

**From:** Susanna Tang, Kayla Chen, Ashley Chen

**Subject:** Status Report 4/14-4/29 Week 1

**Accomplishments:**

**All:**

* Met over spring break over Zoom for 90 minutes each day because we know we are going to be really busy after
* Helped debug and brainstorm ideas/processes
* 4/14 — Came up with general idea for the project and confirmed the idea with Mr. Fulk
* 4/17 — Wrote a full pseudocode for all classes, methods, and fields
* 4/17 — Wrote classes AllLevels, Levels, and Tube
* 4/18 — Researched and came up with how to create TubeShape class
* 4/19 — Created and initialized all 12 predetermined levels with colors
* 4/20 — Wrote class diagram, which outlined all of our classes, methods, and fields
* 4/23 — Coded game algorithm so that we are able to play each game separately

**Susanna Tang:**

* 4/17 — Wrote the descriptions for all classes, methods, and fields
* 4/17 — wrote 3 level methods in AllLevels
* 4/19 — Wrote the GUI to draw the colors and outlines of each Tube
* 4/20 — fixed problem of tube not deselecting
* 4/21 — Added mouse click event to select and deselect tubes
* 4/21 — Wrote the code to animate the raising and un-raising of tubes when selected
* 4/26 — Wrote the code to continue to next level after completing current level
* 4/27 — Created the “restart” button and coded the algorithm to restart the current level
* 4/27 — Added mouse pressed and mouse released animation to click on “next” button

**Ashley Chen:**

* 4/17 — wrote 3 level methods in AllLevels
* 4/18 — Found coordinates and layout for levels with 5 tubes
* 4/19 — Found coordinates and layout for levels with 7 and 9 tubes
* 4/19 — added colors to tubes for four levels
* 4/19 — Wrote for loops to draw all tubes of each level
* 4/25 — Researched Graphics 2D
* 4/27 — Created the “next” button background and border
* 4/27 — Created and placed the text for the “congratulations” banner

**Kayla Chen:**

* Hosted and planned Zoom sessions during Spring Break
* 4/14 — Created a Google Drive folder and put necessary docs and templates in it
* 4/18 — Found coordinates and layout for levels with 5 tubes
* 4/19 — Found coordinates and layout for levels with 7 and 9 tubes
* 4/17 — wrote 3 level methods in AllLevels
* 4/20 — wrote the for loop to detect all mouse clicks and game algorithm
* 4/27 — Created and placed the text for the “next” button
* Update testing log frequently (problems and solutions)
* Update Project Plan tasks frequently

**Problems/Risks:**

(we have a testing log for this)

1. We had issues with making the rounded rectangle shape for the test tubes. GUI was a lot harder than expected.
2. Issues with color order in the stack (test tube) and color positions not changing when clicked
3. Certain methods not working (deselect, etc).
4. Many small errors leading to game not working properly
5. Trial and error takes a large amount of time for the graphics and text on the screen to look aesthetically pleasing

**Possible future problems**:

1. Pouring animation may be extremely difficult (we will set over a week for this)
   1. How to make it look like the water is gradually decreasing?
   2. How to change the angle of the test tube and move it to the correct location?
   3. Have to rotate all the colors inside the tube as well as the tube itself?
   4. How to make a line of liquid falling out of the tube?
   5. How to make it look like the amount of liquid in the tube is increasing?
2. AP Week (possible absences, not enough time to work)

**Next Steps:**

1. Write code for mystery levels (colors that are not on top will be white and will change to their color only when they are at the top)
2. Pouring Animation (expecting to take a long time)
3. Figure out people’s schedules during the week