**Changes and Usage Instructions**

**URL to test the project**

**<**URL**>**

**Youtube video link**

<URL>

**Setup – Instructions for installation and running of the project**

The project should run as is. Debugging info is available in the console by pressing the debug button. Just go to the url specified to use the application. An explanation of detailed use is provided in the video. To fill in cells click on them. The data of the cell will be recorded and added to the output. This output can also be saved into a file or copied to the input and used to automatically populate the table. Various functions can be used to animate the board. Animate function translates the cells across the board. The randomize button flashes random hex colors in the cells or the currently running animation. There are controls to control the speed and cycle length of the animation. The reset pattern button clears the board and stops animations. There are also pre-drawn shapes that can be animated via the animate button.

**Description of Changes**

* Added functions to handle animations
* Added helpers to make animation functions customizable
* Added functions to control the animations parameter - speed, cycle length, playing & pausing
* New stying was added to make the board aesthetically more pleasing
* New buttons were added to interact with new API functions
* Added a debug mode which when selected outputs some changes to console

**Original APIs Used**

* The original function to initialize the board is used. It has been altered slightly to make the board size fixed at 8x16 (processInput())
* A slightly modified function for handling click events is also used from the original API. (clickedCell())
* The function to reset the table is used as is, no changes (resetGrid())

**Changes to API – Description of each function you created in your code**

|  |  |
| --- | --- |
| randomize () | Flashes random colors on the board. If an animation is already running it only flashes colors on the animating cells. |
| createToScreen () | Allows the user to input values that will be populated into the board. |
| getRandomColor () | Used by randomize () to change the colors to a random hex value. |
| animateGrid () | Used to do a translation animation on the currently drawn values. |
| button\_animation () | Used by the shape buttons to pre-drawn shapes. |
| play () | Button to toggle playing and pausing of the animation. |
| resetGrid () | Clears the grid of any patterns. |
| Helpers | These functions are purely helpers to the aforementioned functions. They will be listed with brief descriptions.  input () - Grabs input from the coordinate input box  output () - Grabs output from the coordinate output box  set\_repeat () - Sets the cycle length for the animation  speed (action) - Sets the speed of the current animation  button\_randomize () - Event handler for randomize  toggleDebug () - Turns debug mode on or off. Debug mode logs certain events to the console.  main () - Initializes the board |