Color Matching Game

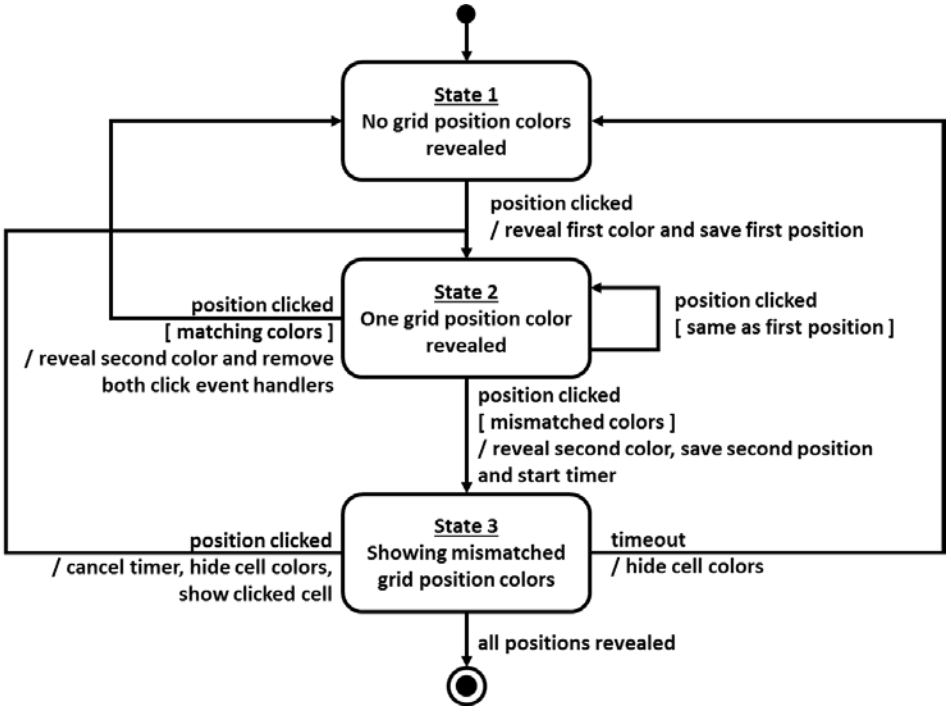
Write a classic memory color matching game. Start with an empty 10 by 10 grid with hidden colors randomly assigned to each grid position. Clicking on one grid position will reveal the underlying color. Clicking on a second grid position will reveal the second color. If the colors match, the grid positions continue to display their colors and no longer respond to clicks. If the colors do not match, grid position colors are hidden again after a 1 second delay.

Requirements

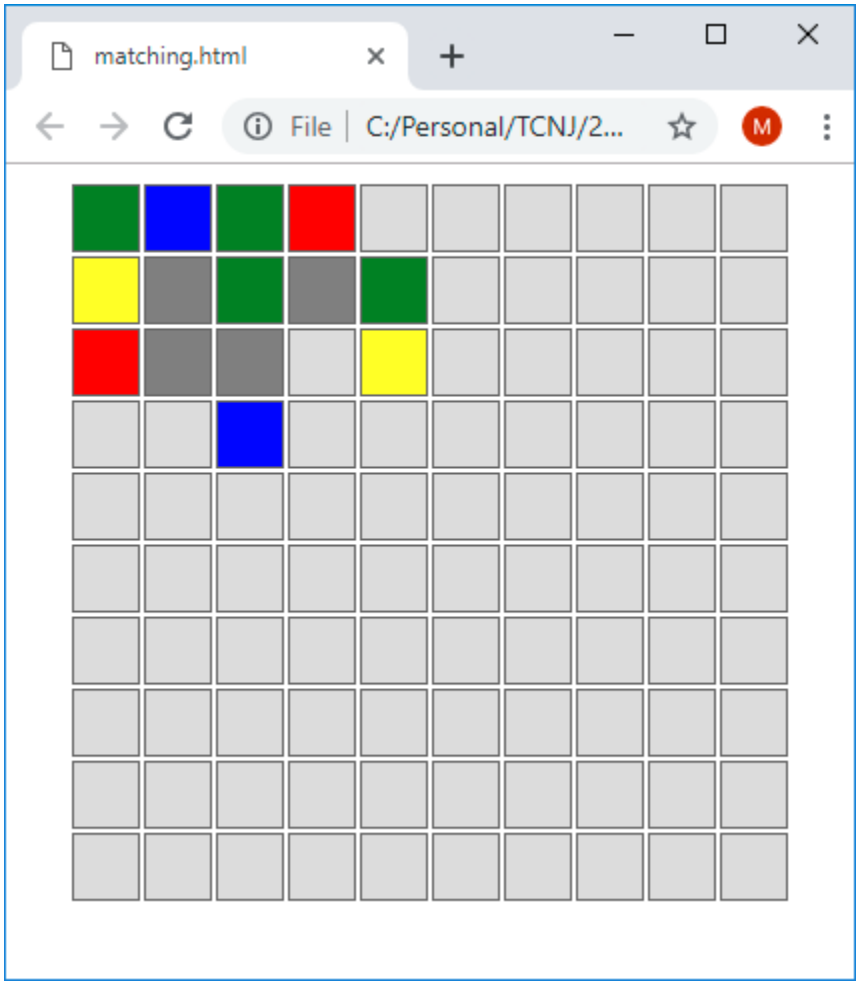
1. You may use HTML and/or SVG to build your game.
2. Use at most 5 or 6 predefined colors.
3. You may build the game grid and assign colors at random when the page loads.
4. You are required to ensure that every grid position has a match. Assign cell colors in pairs.
5. Use `setTimeout()`/`clearTimeout()` to delay and re-hide colors of mismatched grid positions.
6. Do nothing if the same grid position is clicked twice in a row.
7. If two grid positions clicked in succession have matching colors, remove click event handlers to prevent grid positions from being clicked again.
8. If two grid positions clicked in succession have mismatched colors, wait 1 second to allow player to memorize color and then hide colors.
9. If a cell is clicked while waiting for the timer to timeout, cancel the timer and jump to the second state.
10. All code must be within an IIFE to avoid polluting the global scope.
11. You MUST enter header comments into your JavaScript file including (1) File name, (2) Your name, (3) Description and or purpose of the assignment.
12. You MUST comment your code, explaining what you did in each section.
13. Submit your HTML and/or JavaScript files using Canvas under the appropriate assignment.

Hints

- Use one function to handle all click events.
- Manage the game by tracking its current state. Decide what to do next in your click event handler function based on the current game state.
- Consider using the following state machine diagram.



This is how my solution looks.



Finishing Up

- You MUST enter header comments into you JavaScript file including (1) File name, (2) Your name, (3) Description and or purpose of the assignment.
- You MUST comment you code, explaining what you did in each section.
- Submit your single JavaScript file using Canvas under the appropriate assignment name.