cs002 Homework 4
Javascript

Introduction

With HTML and CSS, you've learned how to make a static web page. HTML defines the content of web pages, and CSS specifies the layout of web pages. Next, we will learn to make our web pages interactive with **Javascript.**

This homework must be completed by yourself, without the help of any other students or resources not mentioned in the resource section.

Do not copy-and-paste from this PDF into your code. Typically quotes do not copy over correctly.

Assignment Goals

- Use JavaScript display changes - changing HTML and alerts
- Allow user interaction with onclick, onmouseover, onmouseout, onkeydown
- Use variables and functions to make code cleaner
- Image rollover and color changes

Required Tasks

Kari (Jack-Jack's babysitter) is desperately trying to find ways to entertain Jack-Jack. She decides to look online and comes across a colorful static webpage. Unfortunately, this is not enough to pique Jack-Jack's interests.

We have provided you HTML and CSS files - do not alter these files.   Your job is to create a Javascript file to make the currently static webpage into an interactive webpage for Jack-Jack to play with while his family is off fighting villains. Some of the requirements are as follows:

1. When Jack-Jack visits your site, he should see an alert saying, "Hello, Jack-Jack!"
2. When Jack-Jack clicks the "Click Me!" button, the text of the button should become "Thanks for clicking me!"
3. When Jack-Jack mouses over the top-right rectangle, the background-image should be set to an image of your choice, and when he mouses out of the rectangle, the image should disappear.

Hints:

- You will want to change the backgroundImage of the div with Id "div2"
- You can refer to this link on how to set the background image of an HTML element. For the purposes of this assignment, you will most likely want to do something similar to:

```
this.style.backgroundImage = "url('name_of_image_here')";
```

4. The bottom-left rectangle should change colors over time (at least 3 colors)
   a. *Bonus*: make it change colors over time indefinitely and not just once
5. When Jack-Jack presses the right arrow key, the square colors should rotate clockwise.

   Hints:

   a. Set the `onkeydown` event for the `document` to a `function` that takes in an `event` parameter.
   b. Within the function for the onkeydown event, you should check for the keyCode for the right-arrow (39). This will look like this:

   ```
   if (event.keyCode == 39) {
        // put code in here
   }
   ```

   c. Next, get the four div elements with background colors by their ids and store them in variables (refer to how you used the `getElementById` function in the lab)
   d. You can get and set div elements' background colors by accessing: "*element*.style.backgroundColor" where *element* is the variable you created in Step C
   e. For debugging: It may be easier to test if this works if you comment out your code for #4
6. In comments for each of the functions you write, describe what each of them does. Be sure to include if you did the bonus opportunity.

Be sure to use variables and functions as needed when making these changes, as well as to check the console to ensure you aren't submitting code with any errors!

If you have questions, please stop into office hours.

Resources
All previous CS002 Labs or Homeworks, and any resources permitted by those (W3Schools, http://www.w3schools.com/js/js_timing.asp may be useful)

NO OTHER OUTSIDE RESOURCES MAY BE USED.

Submission:

For this assignment, your handin should include the original HTML and CSS files in addition to your JavaScript file. Also, please include your image file if relevant.

All homeworks will be submitted on Canvas. Make sure to save it as a zip file, saved as **firstname_lastname_06javascript.zip**. Within your zip file, be sure to name each document in a way that clearly indicates what it is.

If you need an extension for this assignment due to sickness, injury, or etc. please contact BOTH Don and the cs002 TAs via email. Please contact the cs002 TA's if you have any further questions.

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