Lab 7 Instructions, Web Page I/O, Group B
CS 133JS, Beginning Programming: JavaScript

Overview

The objective of this lab is to give you practice:

- Getting references to DOM objects
  - getElementById
  - querySelector
- Adding events to elements

- Writing event handlers
- Getting values from input elements
- Setting the innerHTML of elements

Part 1: Exercises

1. Download Web Page Input and Output Exercises.
2. Open the source code in an editor and put your name and the date in the head element.
3. Follow the instructions in each comment that starts with TODO. The comments will tell you where and how to write your code.

Part 2: Web Apps

You will modify your two web apps from lab 2 so that they use input elements and buttons instead of prompts for getting input.

I. A web app for calculating cost per mile

1. Modify the web page from lab 2 so that it has input elements and a button for entering the two numbers.
2. You can use the .js file you created for lab 2 that has a function for calculating cost-per-mile in it. You'll need an event handler for the button's onclick event.

<u>A true/false quiz web page</u>

1. Modify the web page from lab 2 so that it has an input element and a button for the answer to each quiz question.
2. You can use the .js file you created for lab 2 for checking the answers.

Implementation:

- When you can, use combinations of selectors with *querySelector* instead of id attributes to simplify the code.
- Use constants for any repeated numbers or strings.
- Avoid repeated blocks of the same code—use functions instead.
- Look at the example: <u>Math Quiz – simple version</u> to see one way of implementing a quiz. This example is ok, but it gets user input using a separate event handler for each button and it has six blocks of code that are very similar—almost repeated code. Can you improve on this?

Challenge:
See if you can write one event handler that works for all the buttons. Look at the example: <u>Math Quiz – advanced version</u>. This example uses just one event handler and reduces the repeated blocks of similar code by using an array of objects to hold quiz information.

Submitting your lab work on Moodle

There is no beta version or code review from a lab partner required for this lab assignment.

<u>Production Version</u>
You may revise your beta version before submitting the production version. On the code review form you received from your lab partner, complete the "Production" column to show what you did or did not revise.

Upload the following to the *Lab Production Version* assignment:

1. The html file for part 1.
2. A zip file containing the four files for part 2.
3. A code review <u>of your own code.</u>