Lab 2 Instructions for Group B–JavaScript Functions
CS 133JS, Beginning Programming: JavaScript

Overview
The objective of this lab is to give you practice:

- Writing functions
- Calling functions
- Linking to a JavaScript file
- Interacting with HTML elements

Part 1: Exercises

Do the exercises listed on the [Function Exercises](#) page.

Part 2: Web Pages

For part 2, you will create two web pages.

A web page for calculating cost per mile

Create a web page that a person can use to calculate the cost of gas per mile driven.

1. Create a .js file and put the function you wrote in part 1 for calculating mpg in it.
2. Modify the function so that it will calculate the cost per mile. You will need to add a third parameter for the price of a gallon of gas. The formula for the calculation will be:
    *costPerMile = pricePerGallon * gallons / miles*
3. Create a HTML web page and add:
    a. code to the head element so that this page can use your js file.
    b. a title and a heading.
    c. provide some brief instructions to the user.
    d. get input using JavaScript prompts or input elements and convert the strings to numbers.
    e. call the function and display the returned cost per mile on the web page.

Implementation notes:

- Use prompts to get the user's input.
- Use `parseFloat()` to convert the string values from the prompts to numbers. See [this tutorial](#) to learn how and why to use `parseFloat()`.
- Use `getElementById` and `innerHTML` to show the result on the web page.

Written by Brian Bird, Lane Community College, spring 2020, updated spring 2023.

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 A true-false quiz web page

Create a web page that presents seven true or false questions on any topic you choose. An example topic might be musicians. You could ask questions like, did _____ sing the song _____ ?

1. Create a .js file, and in it write a function that:
    a. Has two parameters:
         i. The user's answer (true or false).
         ii. The right answer.
    b. Checks to see if the answer is right.
    c. Returns ether the word "right" or the word "wrong".
2. Create a HTML web page with seven questions.
3. Add a script element to the HTML file that:
    a. Uses JavaScript prompts or input elements to ask the user for an answer and calls the function you wrote.
    b. Code in the script element will put the right answer, and whether right was right or wrong, in an HTML element under the question on the web page.

Submitting your lab work on Moodle

Beta Version

Post the following in the *Lab Beta forum*:

1. The web page files (.html and .js) you created for part 2.
   (Zip the files for you web pages and attach them to the post.)
2. A code review of your lab partner's web page for part 2.
   (Review one of your lab partners' web pages using the Code Review Form provided.)

Code Review
1. Submit a copy of the code review above to the *Lab Code Review assignment*.

Production Version
Based on the review and helpful advice from your lab partner, you may revise your web page. On the code review from your lab partner, complete the "Production" column to show what you revised. Upload the following to the *Lab Production Version* assignment:

1. The .html and .js files for part 1.
2. The web page files (.html and .js) you created for part 2.
3. The code review <u>from</u> your lab partner with the <u>"Prod" column filled in by you</u>.

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