

Lab 2 Instructions for Group A –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.

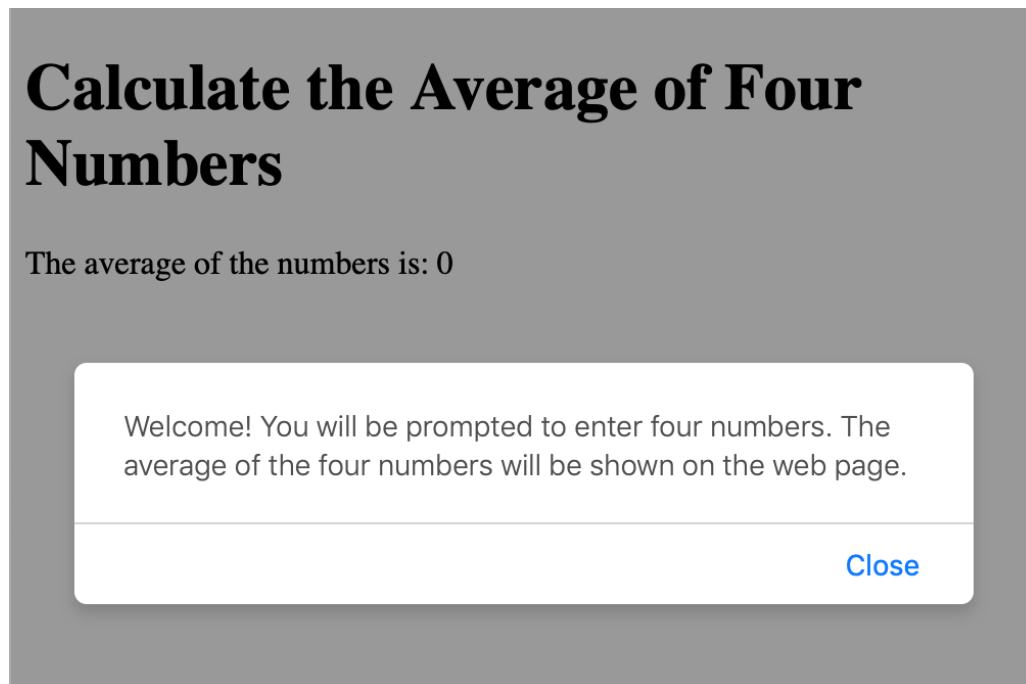
Part 2: Web Pages

For part 2, you will create two web pages.

I. A web page for calculating an average

Create a web page that a person can use to calculate the average of four values.

Here is an example of what the page might look like when you first open it:



1. Create a .js file and put the function you wrote in part 1 for calculating averages in it.
2. Modify the function for calculating averages so that it will calculate the average of four values (instead of three).

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3. Create a web page and add code to the head element so that this page can use your js file.
4. Add HTML code to the web page to:
 - a. Give the page a title and a heading.
 - b. Provide some brief instructions to the user.
 - c. Get the numbers to be averaged using JavaScript prompts or input elements and convert the strings to numbers.
 - d. Call the function to calculate the average and display the average on the web page.

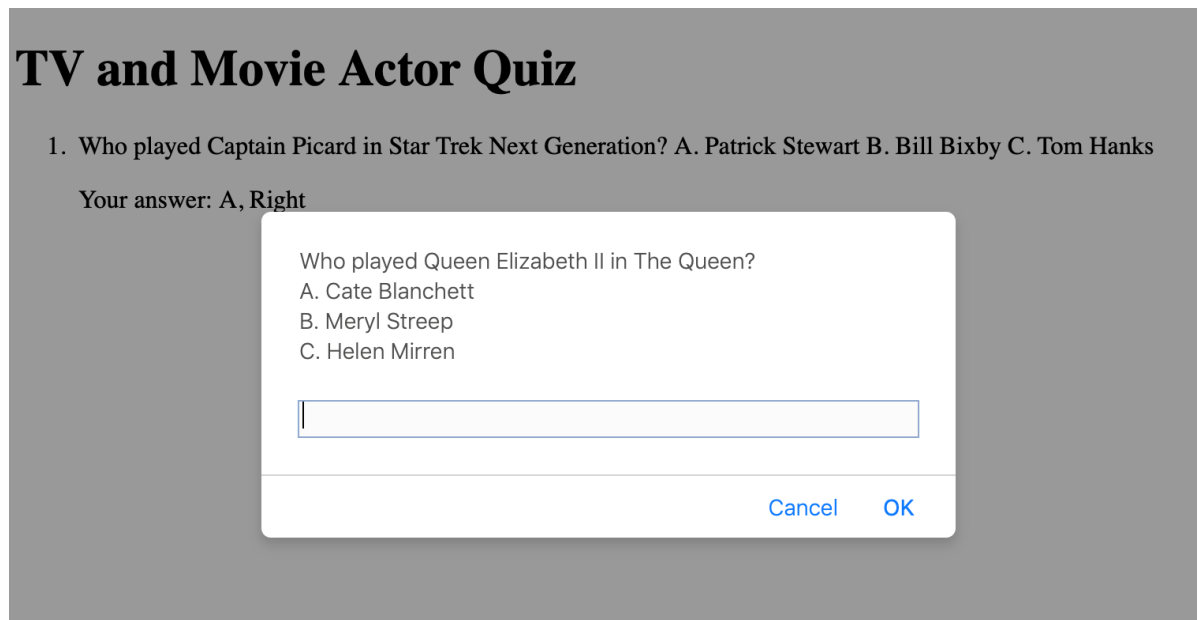
Implementation notes:

- 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.

II. A multiple-choice quiz web page

Create a web page that presents seven multiple-choice questions on any topic you choose. An example topic might be actors. You could ask questions like, who played the character of _____ in the movie _____?

Your web page could look something like this after you've answered the first question and the second dialog has popped up:



The screenshot shows a web page with a dark gray background. At the top, the title "TV and Movie Actor Quiz" is displayed in a large, bold, black font. Below the title, the first quiz question is listed: "1. Who played Captain Picard in Star Trek Next Generation? A. Patrick Stewart B. Bill Bixby C. Tom Hanks". Below the question, the text "Your answer: A, Right" is shown. A white dialog box is centered on the screen, containing the question "Who played Queen Elizabeth II in The Queen?" and three multiple-choice options: "A. Cate Blanchett", "B. Meryl Streep", and "C. Helen Mirren". Below the options is a text input field. At the bottom right of the dialog box are two buttons: "Cancel" and "OK".

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1. Create a .js file, and in it write a function that:
 - a. Has two parameters
 - i. The user's answer (a, b, or c).
 - ii. The right answer.
 - b. Checks to see if the answer is right.
 - c. Returns either the word "right" or the word "wrong".
Hint: use the ternary operator to do this.
2. Create a web page with seven questions, each with three choices for an answer.
 - a. Add one or more script elements to the body of the page that:
 - i. Get the user's answer
 - ii. Call the function you wrote.
 - iii. Put the right answer, and "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 from your lab partner with the "Prod" column filled in by you.