CMSY 172 – Lab 8 Requirements

You are currently working as a developer at a small web development firm. The design team has developed a prototype interface for numeric input that needs to be tested. You have been assigned to write a test script that validates the numeric input when input is entered and the check number button is clicked.

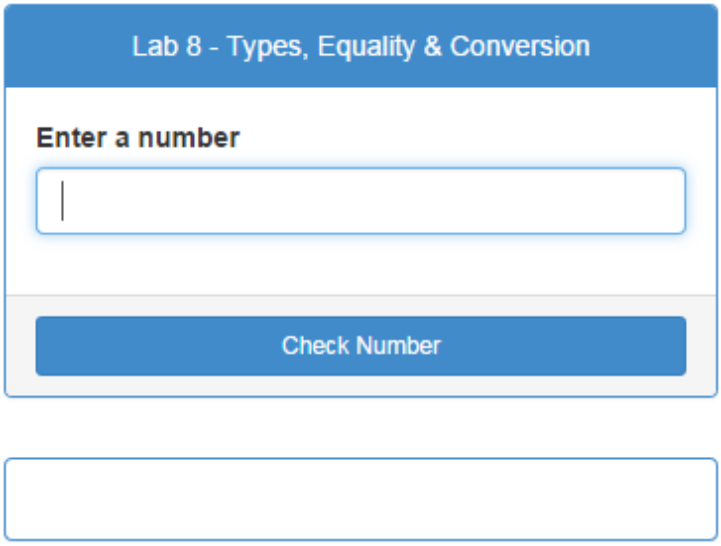

Figure 1 - Prototype Interface

The design team has provided you with a project folder that includes all of the necessary resource files. Use the **lab8.js** file located in the js sub-folder to write your test script. **Do not modify any other resource files**.

The test script has the following processing requirements:

1. It must verify that the user has input a value before further processing.
    a. Display an error message if there is no input value. (Page 3 - figure 2)
2. The value entered must then be tested to ensure it is a number.
3. Based on the result of the number test: display a message that states whether or not the input is a valid number. (Page 3 - figure 3 & 4)

The script must employ the following JavaScript & DOM functions, methods, and properties:

- getElementById() method (DOM)
  - → Use the HTML form input control with the id **valueToCheck** to get the input value using the control's value property.
  - → Use the HTML paragraph element with the id **output** to display your valid/invalid message using the innerHTML property.

- value property (DOM) - used by the getValue function to get the input value from the form field
- string trim method (JS) - used to trim whitespace from beginning/end of input value
- isNaN function (JS) - used to test if the input value is a numeric value
- innerHTML property (DOM) - used by the outputMessage function to display output messages

The script must include the following functions for processing (stubs are provided in the lab8.js file):

- getValue() form event handler function: used to get the input value from the form and then pass the input value to the validInput function. Trim all white space from the input value before passing it to the validInput function.
- validInput() function – used to validate that the input value is not empty and is a numeric data type.
  - ➔ Has one parameter: the input value to verify
  - ➔ Called from the getValue function.
  - ➔ Uses the outputMessage function for output messages.
- outputMessage() function – used to display valid/invalid input messages.
  - ➔ Has one parameter which will hold a string passed in by the validInput function. The string will be one of the three messages indicated below in figures: 2, 3, and 4.

Figure 2

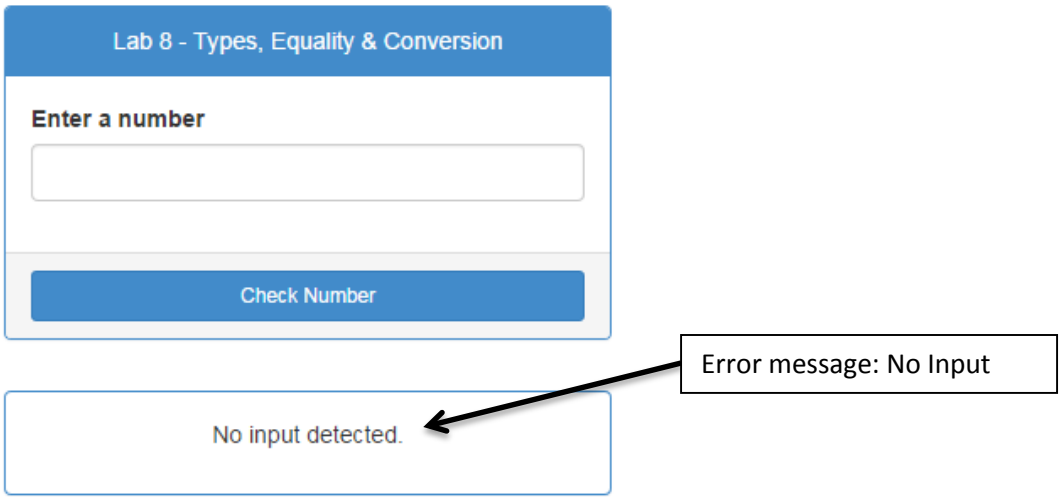

Figure 3

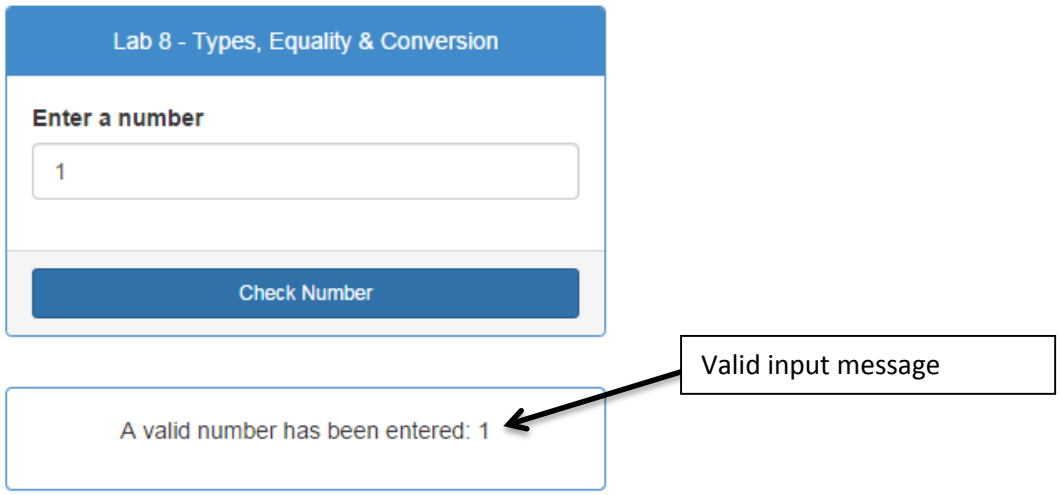

Figure 4