BACHELOR OF SCIENCE IN COMPUTING AND DIGITAL MEDIA
YEAR 2

APPLIED DIGITAL MEDIA 1

ASSESSMENT 2 – JAVASCRIPT – GROUP A

ADDITIONAL INFORMATION PERTAINING TO THIS ASSESSMENT:

- The maximum duration of the assessment is 1 and a half hours.
- You can use the Internet to access Moodle and other sources, but not for messaging/communications purposes.
- Network is monitored during assessment.
- No talking during the assessment.
- Phones must be put on silent and away for duration of the assessment.
- Once you have completed and submitted the assessment you are required to leave.

EXAMINATION FORMAT

5 Questions in Total
Attempt All Questions
All questions carry equal marks.

TIME ALLOWED: 1.5 HOURS

Note 1: For each question, have separate HTML and JavaScript files, and ensure they are linked.
Note 2: Include comments in your code.

Question 1

Use JavaScript to prompt a user to enter a number. Check the number entered is 10 or less. If it is, then print out to the web page the statement "Assessment 2" 10 times. If the number is not 10 or less, then print nothing to the screen. See figure 1 below for example.

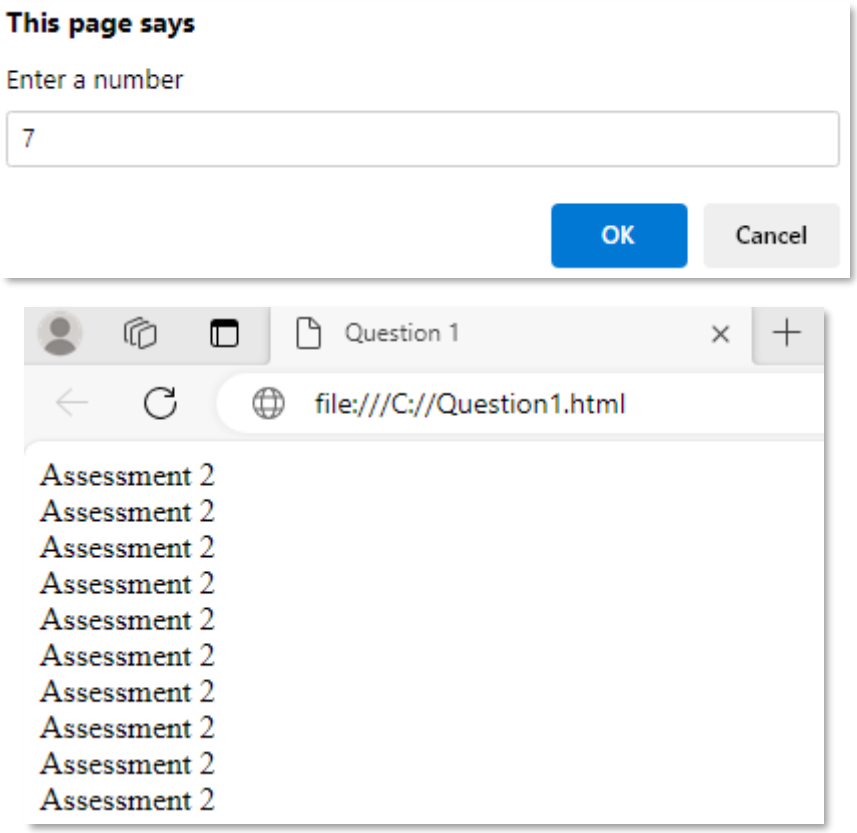

Figure 1 – The value 7 is entered at the prompt and “Assessment 2” is output 10 times to the web page as 7 is less than 10.

Question 2

Use JavaScript to prompt a user what day of the week it is. Check if the day entered is Wednesday. If it is, then print out the statement "Correct, it is Wednesday" using an alert. If it isn't, then print out a message indicating it is not using an alert. For example, if the user enters "Friday" at the prompt, then an alert appears with the message "Incorrect. It is Wednesday, not Friday". See figure 2 below for example.

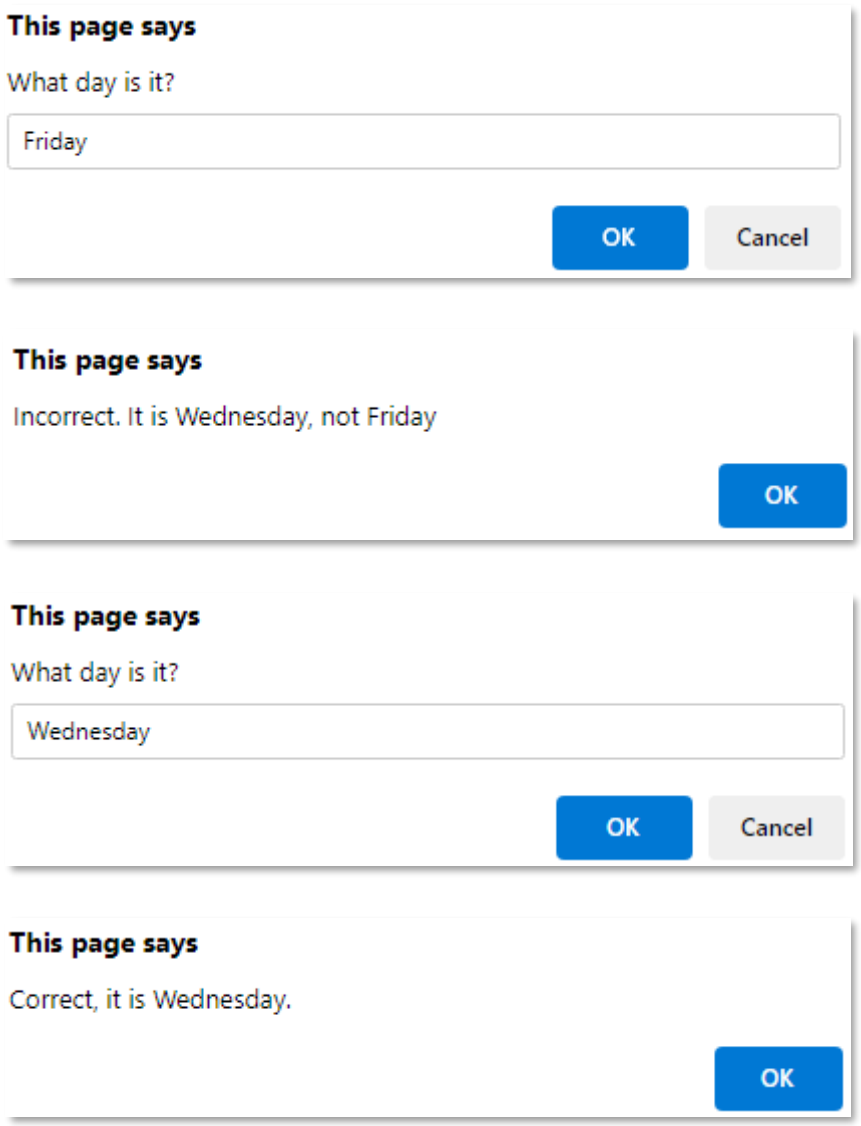

Figure 2 – Two examples. First prompt, enter Friday, get an alert indicating it is Wednesday and not Friday. Second prompt, enter Wednesday, get an alert indicating it is Wednesday.

Question 3

Use JavaScript to create a function named doubleUp(x). This function can be passed a single value, x. The function should multiply this value by 2 and return the result. Use a prompt to ask a user to enter a number. Pass the entered number to the function, and then display the result returned by this function on the web page. See figure 3 below for example.

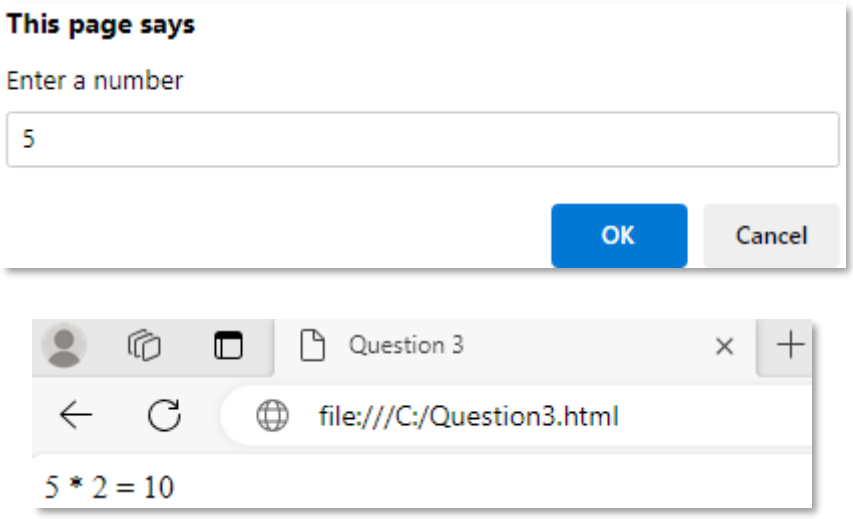

Figure 3 – Value of 5 is entered at the prompt, then passed to function which doubles this value to 10 and returns it. Result is printed to the web page as shown.

Question 4

Consider the following array:

let array = [110, 11, 101];

Write JavaScript code to do the following:

a. Print the contents of this array to the web page.
b. Print out the contents of the array in ascending order. **Hint**: use the sort function (click here for information on the sort function).

An example output is shown in figure 4 below:

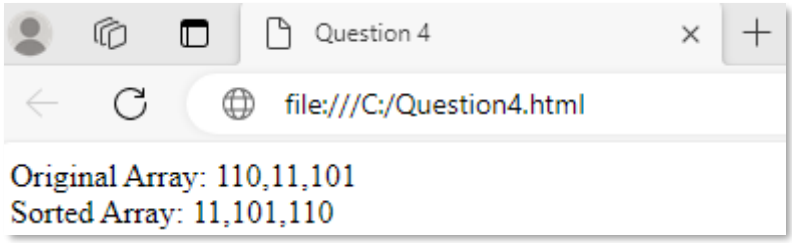

Figure 4 – Original array and sorted array printed out to web page.

Question 5

For this question, download the Question5.zip file which is included with this assessment on Moodle. Unzip this file. It contains two files, Question5.html and Question5.js. Open both these files in an editor and complete the following tasks:

1. Write a JavaScript function named product, which is invoked by clicking the Product button. This function should read all the values typed into the input fields by the user. The function should multiply the numbers entered by the user together and display the result of this multiplication in an alert box. See figure 5a for example output using the alert box:

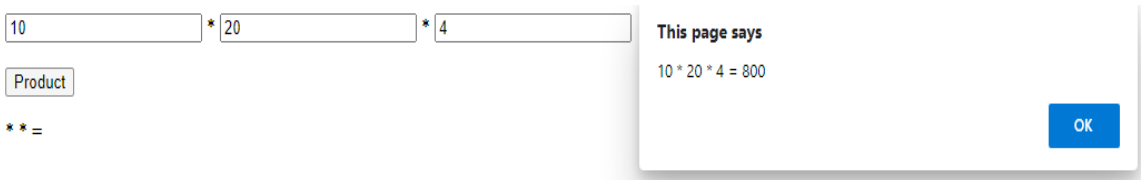

Figure 5a – Example alert after user enters 10, 20 and 4 in the input fields on the web page and clicks the Product button.

2. Modify the function named product, created in step 1, to update the content of the span elements, so that the values entered in the input fields by the user, and the answer generated in step 1 are presented on the screen. Use the document.getElementsByTagName() method to target and update the content of the span elements. See figure 5b below for an example of the updated web page as a result of running the product function by clicking the Product Button:

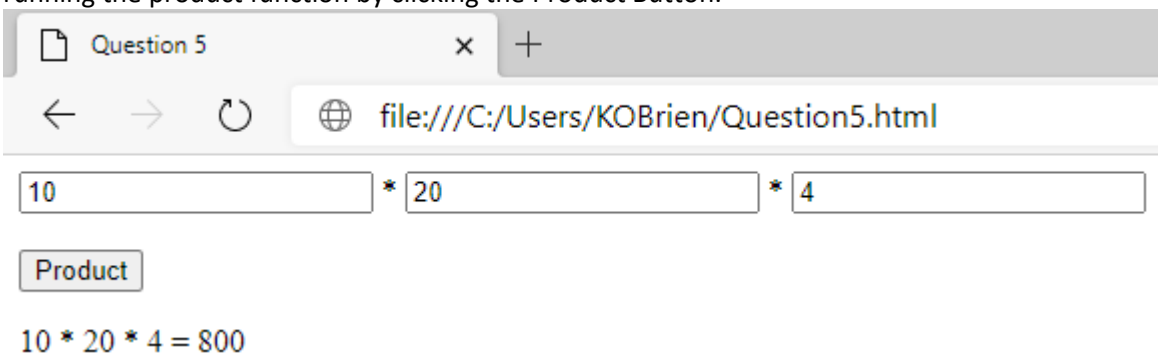

Figure 5b – Updated web page after clicking Product button and clicking the ok button on the alert box generated in step 1. Note the values input by the user are now displayed on the page along with the result of the multiplication. These values are included as content in the span elements.

Add all files from the assessment to a zip file and upload it using the link available in Assessment 2 section on the Module Moodle page.