

WEB222 - Assignment 1: JavaScript – the basics

Due date

All Sections: Saturday, Sept 23, 2017 - 23:59

Grade value: 4% of your final course grade

Objective

Practise JavaScript basic syntax, built-in functions, and user defined function.

Specifications

Write a JavaScript program **Assignment1.js** to perform the following tasks. No validation is required for user input – assume that the user will enter valid information.

Open a Firefox Scratchpad. Create comment line(s) for each of the Tasks in Assignment1 using block comments, indicating the start point of each Task. e.g.

```

/*****
 * Task 1
 *****/

```

To run part (e.g. the code for Task 1) of your JavaScript code in Scratchpad, you need to highlight that part of code and click on the **Run** button. Variable values will be kept in memory after a piece of code is run. So, usually, you need to initialize variables to ensure the part of code can repeatedly give the same result.

Task 1: Student info

- Store the following information in variables: **student name**, **number of courses** (currently taking), **program**, **having a part-time job** (true/false).
- Output your student info to the browser console like so: "My name is ??? and I'm in ??? program. I'm taking ??? course in this semester." (NOTE: The "???"s should be replaced with variable or calculated values - this also applies to all other outputs containing ??? listed in this Assignment).
- Store the string "have" or "don't have" into a variable based on the value of the variable storing whether or not you **have a part-time job** (true/false).

- d. Output your updated student info to the console like so: "My name is ??? and I'm in ??? program. I'm taking ??? course in this semester and I ??? a part-time job now."

Task 2: Birth and graduate year

- a. Store the current year in a variable.
- b. Prompt to user "Please enter your age:" and store the input value in a variable.
- c. Output the birth year to the console like so: "I was born in the year of ???."
- d. Prompt to user "Enter the number of year you expect to study in the college:" and store the input value in a variable.
- e. Output the graduate year to the console like so: "You will graduate from Seneca college in the year of ???."

Task 3: Celsius and Fahrenheit temperatures

- a. Store a Celsius temperature into a variable.
- b. Convert it to Fahrenheit and output "??°C is ??°F".
- c. Store a Fahrenheit temperature into a variable.
- d. Convert it to Celsius and output "??°F is ??°C."

Note: visit [this page](#) for temperature conversion formula.

Task 4: Even and odd numbers

- a. Write a for loop that will iterate from 0 to 10. For each iteration, you should check if the current number is even or odd, and output to the browser console (e.g. "5 is odd").

Task 5: Larger or largest number

- a. Write a function named **largerNum** using the declaration approach, the function:
 - takes 2 arguments, both numbers,
 - returns the larger (greater) one of the 2 numbers.
- b. Write a function named **greaterNum** using the expression approach, the function:
 - takes 2 arguments, both numbers,
 - returns the greater (larger) one of the 2 numbers.
- c. (**New, optional**) Write a function named **largestNum** using any approach, the function:
 - takes any number of arguments, all numbers, e.g. 2, 5, 7,... ..,
 - returns the largest one of the these numbers.

- d. Call these functions twice with different number parameters, and log the output to the web console with descriptive outputs (e.g. "The larger number of 5 and 12 is 12.").

Task 6: Evaluator

- a. Write a function named **evaluator** that:
 - takes unknown number of arguments which are all number scores,
 - returns true if the average of these number scores is greater than or equal to 50. Otherwise return false.
- b. Call these functions 3 times with different number parameters, and log the output to the web console with descriptive outputs.

Task 7: Grader

- a. Write a function named **grader** that:
 - takes a single argument which is a number score,
 - returns a grade for the score - "A", "B", "C", "D", or "F".
- b. Call these functions 3 times with different number score, and log the output to the web console with descriptive outputs.

Task 8:

- a. Write a function called showMultiples using the declaration approach, the function:
 - Takes 2 numeric arguments (num, numMultiples) – assume the user is entering valid (positive) whole numbers
 - Outputs all of the multiples of the num argument from 1 to numMultiples: for example, if num = 5 and numMultiples = 4, the function would output:

5 x 1 = 5

5 x 2 = 10

5 x 3 = 15

5 x 4 = 20

Assignment submission

- Save your file as **Assignment1.js**. And add the following declaration at the top of your code:

```
/* *****
```

```

*                               WEB222 - Assignment 1
* I declare that this assignment is my own work in accordance with Seneca
* Academic Policy. No part of this assignment has been copied manually or
* electronically from any other source (including web sites) or distributed to
* other students.
*
* Name: _____ Student ID: _____ Date: _____
*
*****/

```

- Submit your Assignment1.js to the Blackboard (My.Seneca).

Important note

- NO LATE SUBMISSIONS for assignments. Late Assignment submissions will not be accepted and will receive a grade of zero (0).
- After the end (23:59) of the due date, the assignment submission link on the Blackboard will no longer be available.
- All WEB222 assignments are subject to change after release. It's your responsibility to keep your assignment assignments up to date before the assignment is submitted.