## 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.

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\* Task 1

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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**

1. Store the following information in variables: ***student name***, ***number******of******courses*** (currently taking), ***program***, ***having******a part-time******job*** (true/false).
2. 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).
3. 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).
4. 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**

1. Store the current year in a variable.
2. Prompt to user “Please enter your age:” and store the input value in a variable.
3. Output the birth year to the console like so: "I was born in the year of ???."
4. Prompt to user “Enter the number of year you expect to study in the college:” and store the input value in a variable.
5. 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**

1. Store a Celsius temperature into a variable.
2. Convert it to Fahrenheit and output "??°C is ??°F".
3. Store a Fahrenheit temperature into a variable.
4. Convert it to Celsius and output "??°F is ??°C."

Note: visit [this page](http://www.manuelsweb.com/temp.htm) for temperature conversion formula.

**Task 4: Even and odd numbers**

1. Write a for loop that will iterate from 0 to 10. For each iteration, your 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**

1. 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.
2. 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.
3. (**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.
4. 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**

1. 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.
2. Call these functions 3 times with different number parameters, and log the output to the web console with descriptive outputs.

**Task 7: Grader**

1. 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".
2. Call these functions 3 times with different number score, and log the output to the web console with descriptive outputs.

**Task 8:**

1. 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:

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\* 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.

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\* Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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* 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 available.
* All WEB222 assignments are subject to change after released. It's your responsibility to keep your assignment assignments up to date before the assignment is submitted.