WEB222 Assignment 1

Submission Deadline:

Assessment Weight:

6% of your final course Grade

Objective:

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

Specification:

Write a JavaScript program **assignment01.js** to perform the following tasks. **No validation is required** for user input – assume that the user will enter valid information.
Create comment line(s) for each of the Tasks using block comments, indicating the start point of each Task. e.g.

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

Task 1: Description as Comments

In a comment section, describe the following terms with examples (Your code example may appear in comments).

a) Infinity
b) Undefined
c) NaN

Task 2: Conversion

a) Using appropriate method, convert 1010 (binary) to decimal, AF (hex) to decimal and 713 (Octal) to decimal. Output appropriate messages to the console for each conversion.

Task 3: Celsius and Fahrenheit temperatures

a) Store a **Celsius temperature** in a variable.
b) Convert it to **Fahrenheit** and output: **"???C is ???F". //??? Represents the value**
c) Store a **Fahrenheit temperature** into a variable.
d) Convert it to Celsius and output: **"???F is ???C."**
Note: visit **www.manuelsweb.com/temp.htm** for temperature conversion formula.

Task 4: 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) Call these functions twice with different number parameters, and log the output to the web console with descriptive outputs each time (e.g. "The larger number of 5 and 12 is 12.").

Task 5: Evaluator

a) Write a function named **Evaluator** using the **declaration approach**, the function:

· 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 25. Otherwise return false.

b) Call this function **3 times** with different number parameters, and log the output to the **web console** with **descriptive outputs each time (e.g**. "Average grater than or equal to 25: false");

Task 6: ShowMultiples

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

b) Call this function 3 times with different number parameters, and log the output to the web console with descriptive outputs each time.

Task 7: Closure/Self Invoking

Use JavaScript Closure/self invoking method to do the following:

a) Name the outer function as 'Increment".
b) Store 100 as a counter in the outer function.
c) Increment the counter by 100 in the inner function and return.
d) Call "Increment" three times and store the returned value in a variable each time.
e) Log the final value in the web console (400 is the final value for the third call).

Special Note: You are not allowed to use prompt / alert anywhere in your code. All input data should be hard coded so that one run generates uninterrupted output data for all 7 tasks. Make sure output does not throw undefined anywhere.

Lab Submission:

· Save your file as **assignment01.js**. add the following comment declaration with your info at the top of your code (**failure to do so will result in zero mark for the entire assignment**):

```
/*********************************************************************************
* WEB222 – Assignment 01
* 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 **assignment01.js** to the Blackboard / My.Seneca

Important Note:

· **NO LATE SUBMISSIONS** for assignments. Late submissions will not be accepted and will receive a **grade of zero (0)**.

Evaluation Rubric

(Partial marking may be possible if any of the task is not complete but attempted, any 'undefined' in output will result in -0.25 marks)

Criteria	Marks
Task 1	0.5
Task 2	0.5
Task 3	0.5
Task 4	0.5
Task 5	1
Task 6	1
Task 6	1
Task 7	1