INT222 Lab 1 – Section A

Submission Deadline:

Monday, September 26th, 2016 @ 11:59 PM

Assessment Weight:

5% of your final course Grade

Objective:

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

Specification:

Write a JavaScript program **lab01.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 lab2 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

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

b) Output your student info to the browser console as: "**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 lab).

c) 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 as: "**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 as: **"You were born in the year of ???."**

d) Prompt to user “**Enter the number of years you expect to study in the college:**” and store the input value in a variable.

e) Output the graduate year to the console as: "**You will graduate from Seneca college in the year of ???.**"

Task 3: Celsius and Fahrenheit temperatures

a) Store a **Celsius temperature** in 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 **www.manuelsweb.com/temp.htm** 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, your code should check if the current number is **even** or **odd**, and output that information 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) 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** 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 50. Otherwise return false.

b) Call this function **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** using the **expression approach,** the function:

- 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: 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.

Lab Submission:

- Save your file as **lab01.js**. add the following declaration at the top of your code:

```
/*******************************************************************************
*                INT222 – Lab 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 **lab01.js** to the Blackboard (My.Seneca)

Important Note:

- **NO LATE SUBMISSIONS** for labs. Late Lab submissions will not be accepted and will receive a **grade of zero (0)**.
- After the end (11:59PM) of the due date, the lab submission link on the Blackboard will no longer be available.