

Assignment 1: Essential Java Script (15%)

This assignment includes number of different works. Make sure you start working on it from the day it is assigned for you. In this programming assignment, we ask you to create a set of JavaScript functions and objects, then demonstrate that they operate correctly. You can use any editor to write the functions.

Mandatory notice:

- All the function should be written in this single JS file only. For this assignment multiple JS file is not necessary however you can have multiple html files.
- It is highly recommended for you to create your own CSS file instead of embedding others style like bootstrap and others.

This is a coding assignment, so all the rules about best coding practice apply. Your code is evaluated for **correctness** (does it achieve the task it is supposed to) and for **hygiene** (is it clear, well-commented, and easy to follow). There is no point in writing accurate code that nobody else can understand. Some tips to ensure good code hygiene:

Add documentation about you on the very top of your code. Something similar to

```
/**
 * @name: Assignement1
 * @Course Code: SODV1201
 * @class: Software Development Diploma program.
 * @author: Your Full Name.
 */
```

- Add intelligent comments that explain your logic for each code
- Add intelligent comments before expressions, methods, functions and classes to outline what they do
- Use sensible variable names that match the purpose of a variable
- Use whitespace between functions and code blocks and indent consistently

Details:

Assignment Type: **Individual**

Original Work: **Required **** do not copy online examples or your friends work ******

Submission: **D2L**, SODV1201_A1_FirstName_filename.js

Due Date: **Check the course outline on D2L**

Grading:

Each correct implementation would give you 10 marks. Total marks are 50.

Questions:

1. Create a single personal profile page about yourself with any kind of style. This page should include one picture, 1 or 2 paragraph, and header with navigation bar and footer.
 - a. The navigation bar will be used to create a link to another pages that you will create for the other questions.
 - b. The footer of your page should include current date and copy right information
2. Build a Mark to Grade converter application page with the following specification and create a link to it in your profile page
 - a. The MarkToGrad function scrapes the student mark out of the mark-input-box element and verifies it is **realistic**.
 - b. A Mark must be **number only, nonnegative, and less than 101**.
 - c. If an invalid mark is entered, it displays a message back to the user in the .validation message element.
 - d. Messages should be informative... return as many different messages as you can to guide the user what kind of erroneous value has entered
 - i. If the user entered any value above 90 Grade A should be displayed as a result
 - ii. If user entered any value above 80 Grade B should be displayed
 - iii. If user entered any value above 70 Grade C should be displayed
 - iv. If user entered any value above 50 Grade D should be displayed
 - v. If user entered any value above 50 Grade F should be displayed
 - e. Hint1: In JavaScript, we can use the global parseInt function to try and convert a string to a number.
 - f. Hint2: Feel free to use Exception handling
 - g. Hint3: Use HTML and JavaScript
3. Create a new page and write a program which display list of staff information with sorting capability by name and salary.
 - a. Sample dataset is provided. You can simply copy that. No File reading/writing is needed
 - b. For this question you are expected to apply the concept of JavaScript object, Array and function
4. Create a new page temperature and apply the concept of JavaScript named function to create a program that can accept a temperature input in degree Fahrenheit and convert it into degree Celsius and from Celsius to Kelvin based on a button click event.
5. Create a stylesheet and add different style to your pages.