

SECV1223, Web Programming

Semester 2, 2021/2022

Individual Assignment

Overview

This is an **individual** assignment. You will be **creating a profile page (or pages)** using **HTML** and styling the page(s) with **CSS**. Finally you will be adding behaviour and interactivity to your profile page with **JavaScript**.

Compulsory Requirements

You must adhere the following non-negotiable requirements:

Requirement	Description
Must use native HTML, CSS and JS	That means, you cannot use any library or framework such as w3css, bootstrap, react.js, vue.js, etc, or pre-processor such markdown, SASS, etc.
Must be type-coded .	That means, you cannot use any automatic HTML generator.
Each assignment should be unique .	That means, your profile page should not have the same content with your friends and should not produce the same design
Your content should not be too simplistic .	Avoid producing your profile page with simplistic contents and very little amount of elements. Although your submission fulfill the basic requirements, too simplistic content and design will be seen as less effort being put in.

Assessments

This assignment carries **15%** weightage for the final result of this course. The breakdown percentage is given in the following table. The details of each item are described in the following sections.

Category	Assesment Item	Percentage
A	HTML	4%
B	CSS	7%
C	JS	4%
	Total	15%

A. HTML Requirements

- You need to use various HTML elements.
- You must use these elements within suitable context. For example, you use tables for presenting data in a tabular form. However, you do not use tables for layout purposes.
- Compulsory elements to be included: as shown in the table below.:

Assesment Item
Use image elements.
Use hyperlink elements.
Use data related elements such as headings, paragraphs, tables, etc.
Use user input elements such as button, text box, drop down list, radio button, etc.
Use layout elements such as div, header, nav, etc

B. CSS Requirements

- You must apply the principle of **separation between content and presentation**. In this regard, you want to put all your CSS styles in a separate file from your HTML files.
- You must produce **TWO (2)** different designs for your profile page (i.e. two separate .css files), with each design represents a different layout presentation of the same content. Compulsory elements to be included: as shown in the table below:

Assesment Item
Use various CSS Selectors : Compulsory: ID, class and pseudo-class selectors .
Use various CSS Properties : Compulsory: background , box related properties (such as <code>border</code> , <code>margin</code> and <code>padding</code>), and display related properties (such as <code>display</code> and <code>position</code>)
Use any method or technique for creating layouts such as block, float, flexbox or grid

Assesment Item

Apply graphic design principles such as using colors, layout and composition, image and typography properly. Watch the videos related to this topic (refer to the [Reference and Resources](#) section)

C. JavaScript Requirements

- Add functionality and interactivity to your profile page by adding a GPA calculator application using JavaScript. The files (GPAcalculator.html and GPAcalculate.js) can be obtained at e-learning. Refer to the assessment item below and complete the task.
- After finishing the task in the assessment item below, style the GPA calculator page by adding CSS (the styling should coordinate with the styling of your profile pages).
- Link the GPA calculator page to your profile page. The calculator should be accessed from a link or a button on the profile page.
- Test the page. Fill in your expected marks for each subject, and click the button to calculate your expected GPA for the semester. Ensure to include these files in your final submission of this individual assignment.

Assesment Item

Examine both GPAcalculator.html and GPAcalculate.js. You will find that the concept of Document Object Model (DOM) has been applied in the code.

Several **DOM Methods** and **Properties** were used including ***getElementById()***, ***createElement()***, ***appendChild()***, ***borderColor*** etc.

Try to run the GPAcalculator.html. The GPA calculation form have the functionality to add more subjects than the current default subjects. It also allows the user to delete subjects.

All fields for the GPA calculation form includes validation – all fields are required to be filled in and must be in correct format (only numbers for mark field, etc...)

Your task is to try to understand the code in both files and describe your understanding in the form of code documentation - by adding description of what the code does in the comment block space. You only need to do this in the GPAcalculate.js file.

Submission

- Deliverables: HTML, CSS, JS, image and other file(s) bundled in a compressed file such as zip, rar, etc. You need to make sure of the file paths.
- Submit to e-learning.
- Deadline: **Wednesday 12 June 2022 11:59 P.M.**

References and Resources

Web Related

- [W3 Schools](#)
- [Mozilla Web Doc](#)

CSS Related

- [CSS Tricks](#)
- [How to center elements](#)
- [How float property works \(Video\)](#)

JS Related

- [Basics on DOM](#)
- [Properties and Methods of DOM](#)

Graphic Design Related

- [Color Theory \(Video\)](#)
- [Layout and Composition \(Video\)](#)
- [Images \(Video\)](#)
- [Typography \(Video\)](#)

Online Tools

- [Interactive CSS Cheatsheet](#)
- [Color generator](#)
- [Adobe Colors Explore](#)

Icons and Image Stocks

- [Smart PNG and JPEG compression](#)
- [Icons for everything](#)
- [SVG Icons](#)

Fonts

- [Google Fonts](#)
- [Adobe Fonts](#)