



Swinburne University of Technology Sarawak
Faculty of Engineering, Computing and
Science

School of Information and Communications Technologies

COS10026 Web Technology Project
Assignment 1 - Semester 1, 2025

Late submission penalty is 10% of the total available marks per day
This is a GROUP (3-4 students) assignment.

Contribution to Final Assessment: 40%

Hurdle Note: You must meet the Essential Requirements of this assignment to be eligible to submit Assignment 2, and to be eligible to pass this unit.

Purpose of the assignment

This assignment will familiarize you with the techniques and skills involved in designing and creating static webpages, utilizing validated HTML and CSS created with a standard text editor. You will deploy these web pages on Unix/Apache Server. This should be done in a way that keeps HTML content and CSS presentation separate, as discussed in the lectures. **No PHP and JavaScript are to be used in this assignment.**

Case Study Scenario:

In this project, you are required to come out with the web pages for user/visitor and admin (in assignment 2).

Brew and Go. Coffee is a local Kuching-based brand specializing in coffee drinks. In addition to coffee, their menu also includes non-coffee and hot beverages.

Established in 2021 as a home-based business, Brew and Go Coffee expanded by opening its first stall at One Jaya in 2023. Recently, they launched a second stall at Plaza Merdeka and are now seeking opportunities for further growth.

The owners, Mr. Daryl and Ms. Jennifer are looking for ways to better promote their business and reach a wider customer base.

Your task is to help them create an attractive website to connect with customers and assist in business administration. The website should include features such as a membership program and job application portal for those interested in joining their team.

More information can be found in the case study document.

In this assignment you will develop a prototype of the Website. General requirements for the structure, presentation and content of the pages of the Web site are described below.

In order to meet the **essential requirements** of this assignment, all pages must:

- have content relevant to your products offered including text and image
- must include the HTML markup required
- must validate to HTML5 without errors
- must be styled by a validated CSS file
- must have a <head> with Title, Meta tags as specified in template (including author)
- must be linked to each other via a menu
- must be deployed on XAMPP.

Essential Requirements

Note: You should design the layout of your Web pages on paper or using first before implementing them.

HTML Elements

Webpage(s) must be developed using HTML5 to describe the content and logical structure. Pages should not contain any deprecated elements/attributes. The following HTML elements should be used in the assignment

- General
 - Comment, Head, Title, Meta, Body
- Content
 - Heading levels, Paragraph
 - Ordered list, Unordered list, Table, Image and Anchor
 - A Form, with form control elements
- Structure
 - Header, Navigation, Footer, Article, Section, Aside

Other elements such as division, span, block quotes, strong, emphasis, among others can be used if deemed necessary and appropriate for the content. Do not use iframe elements in your assignments.

All Web pages should have a consistent layout and navigation. Where “in-house” **templates** have been defined in this unit (e.g. for meta-data; tables; etc.) these should be followed. These include accessibility alternatives.

The HTML in your Web pages **must**

- i. validate against the W3C HTML5 validator (<http://validator.w3.org/>)

CSS Requirements

Note: No style markup should be included in your HTML file.

The pages in your web site must be styled with CSS and have a consistent ‘look and feel’, particularly with code such as menus, headers and footers. While the emphasis of this assignment is on the appropriate application of techniques rather than graphic design, your pages should follow basic usability / accessibility principles, e.g. distinguishable foreground and background colours, and font readability, etc.

You are to create your own **single external** stylesheet to implement your design. The following CSS

Selectors should be used:

- element, #id, .class, grouping, contextual
- pseudo class or element

The following CSS property groups should be used:

1. Web Typography
 - Colour
 - Fonts
 - Alignment
2. Visual Formatting
 - Box model and layout
 - Width, Height
 - Borders
 - Background image
3. Fluid Page Layout (on page resize)

Specific CSS rules to apply for the following pages:

Index page	Service pages
<ul style="list-style-type: none">• Display a background graphic• The footer text must be in <i>italic font</i> and centred in the footer.	<ul style="list-style-type: none">• <h1> elements should have their font variant, size and family etc. using the short-hand font property.• The <aside> should be 30% of the width of page and float to the right.• The <aside> should have colored border with an appropriate margin and padding.• The footer should cover the full width of the page.•

Other CSS selectors and properties can also be used if deemed necessary and appropriate for the presentation. *Your menu should have its own set of styles applied.* **CSS should be commented** at beginning of the CSS file to identify author and purpose, and individual line comments should be used as necessary to explain particular styles and explain where they are applied.

For this assignment you should create a **single** CSS file that applies to *all* your Web pages. This file should be named **style.css**.

Hint: CSS validators will validate against a particular version of CSS e.g. CSS2.1 or 3. This assignment should be valid CSS2.1 or CSS3. Make sure that you are checking your CSS using the correct version of the validator. For example, if you include CSS3 markup and validate as CSS2.1 it will show errors. (Best to pre-set the version in the Web Developer tools – see the note on Blackboard). Do not include any proprietary CSS mark-up, such as –moz- or –webkit-etc.

Team Task

Content and presentation of Web Pages

1. Introductory homepage (index.html)

This page should contain appropriate title and graphic related to the project. This page should also contain a menu that links to the other pages on your Web site. This menu should appear on every page of your website.

2. Product Selection pages (product1.html, product2.html, product3.html, product4.html)

The content should be appropriately structured with headings, sections, asides, lists etc.

The pages must contain:

- Hierarchically structured headings of at least 2 levels (e.g. make sure your H2 is below an H1)
- More than one <section>
- An <aside> with appropriate content, i.e. a section of a page that consists of content that is tangentially related to the content
- At least one appropriate related to your topic. This image should be in a <figure> element with <caption>
- At least one ordered list
- At least one definition list.

Sources / References:

- You can refer to materials (not copy and paste) and images from other web sites. In this case, the source of all materials must be acknowledged. This acknowledgement should be immediately after the material and include a hyperlinked URL to the original source. The text of the hyperlink reference can be a short name but the hyperlink must work.

3. Activities (Coming_Soon.html, Current.html, Pass_Activities.html)

Under tutorial section, you are required to create the following 3 pages:

- Display the activities on: Coming Soon, Current Activities and the Pass Activities.

The content should be appropriately structured with headings, sections, asides, lists etc.

The pages must contain:

- Hierarchically structured headings of at least 2 levels (e.g. make sure your H2 is below an H1)
- More than one <section>
- An <aside> with appropriate content, i.e. a section of a page that consists of content that is tangentially related to the content
- At least one appropriate related to your topic. This image should be in a <figure> element with <caption>
- At least one ordered list
- At least one definition list.

Sources / References:

- You can refer to materials (not copy and paste) and images from other web sites. In this case, the source of all materials must be acknowledged. This acknowledgement should be immediately after the material and include a hyperlinked URL to the original source. The text of the hyperlink reference can be a short name but the hyperlink must work.

4. Join Us page (joinus.html)

This page has a form that allows a user to place any order. The form will have a number of input fields. The name, type and data format of these input fields are as follows (you are allowed to modify to match your business type).

- a. **First name:** *text* type, maximum of 25 characters, alphabetical characters only
- b. **Last name:** *text* type, maximum of 25 characters, alphabetical characters only
- c. **Email address:** *email* type
- d. **Address** (group these inputs with a fieldset and label)
 - a. **Street address:** *text* type, maximum of 40 characters
 - b. **City/town:** *text* type, maximum of 20 characters
 - c. **State:** use a *select* type to select from all states and federal territories in Malaysia
 - d. **Postcode:** exactly 5 digits
- e. **Phone number:** *text* or *tel* type, maximum of 10 digit. Use a placeholder.
- f. **CV upload:** a field which allows the user to upload a word file or pdf file.
- g. **Photo upload:** a field which allows the user to upload a photo file with less than 200kbs.

5. Enquiry page (enquiry.html)

This page has a form that allows a user to place any order. The form will have a number of input fields. The name, type and data format of these input fields are as follows (you are allowed to modify to match your business type).

- h. **First name:** *text* type, maximum of 25 characters, alphabetical characters only
- i. **Last name:** *text* type, maximum of 25 characters, alphabetical characters only
- j. **Email address:** *email* type
- k. **Address** (group these inputs with a fieldset and label)
 - a. **Street address:** *text* type, maximum of 40 characters
 - b. **City/town:** *text* type, maximum of 20 characters
 - c. **State:** use a *select* type to select from all states and federal territories in Malaysia
 - d. **Postcode:** exactly 5 digits
- l. **Phone number:** *text* or *tel* type, maximum of 10 digit. Use a placeholder.
- m. **Enquiry:** use a *select* type to select from the list (Membership, Products, Pop-up Market activities)

All form values 'required'. **The user should not be able to submit the form if any of the required fields is blank.** Use HTML5 form validation to check the format and completeness of the form.

6. Membership Registration page (registration.html)

This page has a form that allows a user to place any order. The form will have a number of input fields. The name, type and data format of these input fields are as follows (you are allowed to modify to match your business type).

- a. **First name:** *text* type, maximum of 25 characters, alphabetical characters only
- b. **Last name:** *text* type, maximum of 25 characters, alphabetical characters only
- c. **Email address:** *email* type
- d. **Login ID:** *text* type, maximum of 10 characters, alphabetical characters only
- e. **Password:** *text* type, maximum of 25 characters, alphabetical characters only

All form values 'required'. **The user should not be able to submit the form if any of the required fields is blank.** Use HTML5 form validation to check the format and completeness of the form.

7. Login page (login.html)

This page has a form that allows a user to place any order. The form will have a number of input fields. The name, type and data format of these input fields are as follows (you are allowed to modify to match your business type).

- a. **Login:** text type, maximum of 10 characters, alphabetical characters only
- b. **Password:** text type, maximum of 25 characters, alphabetical characters only

All form values 'required'. **The user should not be able to submit the form if any of the required fields is blank.** Use HTML5 form validation to check the format and completeness of the form.

Individual Task

8. Profile pages for individual member (individual task)

One profile Web page must be created. Information in these Web pages **must be consistently formatted** with CSS in the following way:

Information	Format requirement
Your name	Centre aligned to the page, bold, font size 200%
Student number	Arial font (default to San Serif if Arial not available)
Course you are doing	Colour specified as a RGB number
Photo of you	<ul style="list-style-type: none">FloatingGroove border with 20px paddingSize in bytes less than 100k
A mailto link to their email.	Centred at the bottom of page in the footer

It should also include personal profile, such as resume, interests, or information that is related to you. This extra information gives you an opportunity to extend the techniques you apply in your assignment, and should include:

- Demographic information about you
- Description of hometown
- A great achievement in your life (so far)
- A list of your favorite books, music, movies, or games

Using a table for the extra information given above with the following required formatting:

- Centred Headings in bold
- Table cells have a background colour specified in hexadecimal number

Project Report

The project report is an individual task. Your report must be professionally written (600 – 1200 words). Table below presents the suggested structure for the report and some sample content for each section of the report.

Component	Content
Title	<ul style="list-style-type: none">• Report title• Your name• Student ID
Introduction	<ul style="list-style-type: none">• Website introduction• Objective of the report• Outline of the report's structure
Website content	<ul style="list-style-type: none">• Introduce the purpose of each page and main content of each page• Some technical details on how you use HTML markups• A site map
Website style	<ul style="list-style-type: none">• Introduce the presentation of your website• Some technical details on how you use CSS markups• Screenshots to show the design/user interface
Key features	<ul style="list-style-type: none">• Highlight the key/innovative features of the website• Describe your enhancement (if there is any)
Conclusion	<ul style="list-style-type: none">• Summary of the report• Recommendations for future improvements
References	<ul style="list-style-type: none">• List of reference materials if used

Team Task

Short Video (Team Task)

Create a short video to introduce and demonstrate your web application.

- Upload your video to youtube.
- Create a hyper link in the index.html page of your website, link it to your youtube video.
- Every team member must present in the demonstration video for a similar amount of time
- The total length of the video should be between 10 to 12 minutes.

Deliverables

The marks are allocated 50% for team tasks and 50% for individual task in this assignment.

- The web application (team task)
- The short video (team task)
- Project report (individual task)

Enhancements to the Specified Requirements

Note: Make sure you meet all essential requirements before attempting this.

You can develop enhancements on your Web site that go beyond the requirements specified above. This is an opportunity to demonstrate your ability to discover techniques from a range of sources and apply them in a standards compliant manner.

These enhancements need to be implemented on your *existing* Web pages (index.html, <service pages>.html, order.html, and <about me pages>.html). The extra feature needs to enhance your Web site in a relevant way.

On a separate Web page called **enhancement1.html** list and describe each enhancement you have made and how you have significantly extended the basic HTML and CSS beyond what is covered in the Labs. Hyperlink from the list to where the feature is implemented on your Web site. If it is a CSS feature, hyperlink to an example of the html that is selected by the CSS rule.

Any enhancements that are not listed and linked on the Enhancements page will not be assessed. Note: Do not implement your extra features within the enhancement1.html page.

Examples of HTML/CSS enhancements you might make that will contribute a higher mark include:

- Embedding External Content in your webpage i.e. Google Maps (about.html), related Youtube video, Photo gallery engine, widgets etc.
- Effective and appropriate use of other HTML5 elements not covered in tutorials (e.g. Canvas, Video, Audio). Note: some HTML5 elements may not be fully supported by Firefox, so make sure you check first as the assignment will be tested on Firefox.
- An additional CSS file(s) that presents your Web site specifically for mobile phone / tablet sized displays.
- Additional CSS properties or selectors (e.g. support for interactivity) not covered in the tutorials. For example the use of CSS pseudo-elements and classes, child or siblings combinators, attribute selectors, etc.
- Additional comments in the CSS files to show how to edit the declaration values to, for example, change the colour scheme. Comments must be in the context of its application, and not general comments.

Note: Do not include JavaScript in this assignment.

Your Enhancement page **must** list the enhancements you have implemented. For each feature briefly explain:

- how it goes beyond the basic requirements of the assignment
- what code is needed to implement the feature
- if you have sourced your technique from a third party the source of this technique (e.g. URL)
 - **must be cited.**
- **a hyperlink to where you have applied that extension in your Web site** (this is need so the tutor can quickly assess your enhancements during the demonstration).
- All enhancements must be able to run on Chrome or Firefox. Make sure you check this.

To gain a full 20 marks for a feature it must:

- Be relevant to / enhance the content of the Web site
- Be well described (as explained above)
- Be non-trivial. Judging this will be at the sole discretion of your tutor/marker. As a guide if the enhancement has only taken a couple of lines of code it is likely to be trivial.

A maximum of 4 enhancements will be assessed.

Web Site Folder Structure and Deployment Requirements

Create a website structured as described below. You can create additional HTML files for your content (depending on what your content requires), but the following is needed:

assign1/	<i>You must have this folder – case sensitive!</i>
index.html	
product1.html	<i>etc...</i>
enquiry.html	
aboutme1.html	<i>etc...</i>
enhancements.html	
...other html pages	<i>(if any)</i>
images/	<i>Folder for images for your page content</i>
styles/	<i>Folder for style.css other css files</i>
styles/images/	<i>Folder for images referred to by your css files e.g. background</i>
xml/	<i>Folder for the XML version of the webpages</i>

Notes:

- HTML files should only be in the root “yourname_assign1/” folder – not anywhere else.
- All images used for the content should be stored in the “assign1/images/” folder.
- There should be a “style.css” file in the “assign1/styles/” folder.
- All links to your files (CSS or images) should be relative. Do not use absolute links, as these links will be broken when files are transferred for deployment/marketing. No marks will be allocated for broken links.

Assignment Submission

An electronic copy of your assignment should be submitted through Canvas at <https://www.swinburne.edu.my/canvas/> on or before the due date.

- Make sure all your files are in the correct folders and compress your root folder contains all your sub-folders with HTML, CSS, and images into a zip file named “**yourname_assign1.zip**”.
- You can submit a maximum of 3 times through Canvas. The latest attempt will be marked.
- Note that all deliverables must be submitted as softcopy. You are only required to submit the hardcopy of your report, marking scheme and assignment cover sheet.