ICT726

Web Development

Assignment 3

Static Website

March 2025

Individual Assessment:

Weightage: 35%

Submission deadline: Week 7

This assessment relates to the following Learning Outcomes:

A. Create web pages which demonstrate a working knowledge of HTML, CSS, Web media, Web forms, error handling, and validation of user input

B. Create and demonstrate functional and usable data-driven websites which comply with accessibility, usability, privacy, ethical and other web standards

Overview

In this assignment, you are required to design and develop a website for the business assigned to you in following list (Assessment 3 Topic List). The labs will help you to acquire the basic knowledge to complete the website. It is highly recommended that you complete your lab work each week. You can also refer to online resources. The following are two great websites to check while coding

1. http://www.w3schools.com
2. https://developer.mozilla.org/en-US/docs/Learn

Website Requirements

You must adhere to the following requirements when developing your website.

Home Page Requirement

- The filename for the homepage should be *"index.html"*.
- The purpose of the website should immediately be clear from homepage
  - It must contain the title of business.
  - A short paragraph (20-50 words) about the business.
- Make this page more creative than the rest of your web pages. Add images, visually appealing design. Try to reflect your style and nature of the business. First impressions count!

Contact Page Requirements

- Give this page an appropriate filename, title, heading (and subheading if required).

- You should include relevant text with links to contact business such as email and social media.
- This page must have an HTML Contact Form using the <form> element: It must:
  - Be well-designed and styled with CSS, and its intent must be clear;
  - Use HTML5 built-in form validation and/or JavaScript to validate the data;
  - Output error messages/user feedback when there is user input errors or form submission success.

Requirements of additional web pages

- Design and develop at least three additional web pages to provide detailed information about the business's services, products, or offerings. You are given creative freedom to choose the pages that you feel are appropriate for your business with only a few specific requirements

- Suggestions for additional pages may include About Us, Services/Products, Testimonials, Blog, etc.

Note that some of these suggestions above would technically require server-side scripting to fully function. In these cases (such as a blog, products, etc.), create a prototype of this web page, focusing on design and layout, with sample content in place. You don't need to worry about the dynamic data.

Content

- Give appropriate filenames, titles, headings (and subheadings if required) related to their content. Use at least three pieces of media (image/video/audio).

- There should be one media page which showcases some photos/videos related to your business.

- The media page must have some interactive visual features such as thumbnail images that display larger versions when clicked.

Header

- To identify the website as your dedicated website, provide a relevant heading / title banner and/or image/logo

Navigation

- There should be a clear, intuitive and consistent navigation structure on the website**.**

● You need to think about how you will provide navigation to the user, and whether some pages may be categorized together or not.

Footer

● An appropriate and intuitive footer must be included on your website.

General Requirements

● You are not allowed to use any existing templates, or frameworks such as bootstrap etc. You will receive a ZERO score for HTML and CSS marking criteria if you do so.
● You are expected to create your own website from scratch using HTML, CSS and JavaScript. (*Lab and lecture materials and resources can be used to get help BUT do not use design or layout form lab exercises).*
● This assignment is to develop a static website so do not use any server-side scripting languages, such as PHP, ASP, etc.
● Your design should focus on design rules learned during this course such as
   o Rules of good visual design;
   o Usability guidelines related to color, typography, placement of objects, readability and balance.
   o A solid understanding of the use of other elements such as; contrast, white space, layout, alignment, etc.
● All text should follow the rules of writing for the web.
● Images, sound, and other media file sizes optimized for download and display.
● Well-designed unique and creative websites will be awarded appropriately.

HTML Requirements

● All your html files must use HTML5 syntax.
● The structure of your website should be built using HTML5 tags styled with CSS where applicable. Avoid a <div> where a standard semantic tag would be appropriate and use id and class where necessary.
● Any HTML <form> used on the site should be well-designed and styled with CSS. Functionality of such forms may be limited (**no PHP**), and only have partial functionality, but should be fully designed, and may contain data validation, error messages, user feedback etc. (either in a pop-up window, simple dialog boxes written with JavaScript, and/or built-in HTML5 validation)

CSS Requirements

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- All content should be formatted and styled using an external cascading stylesheet (CSS). A max of 2 external stylesheets are allowed. Lower scores awarded if you exceed this.
- Must incorporate at least THREE of the CSS3 styles in a way that improves your web design: Transitions, Transforms (scale, skew, and/or rotate), Rounded Corners, Multi-Column, Opacity, Shadows, or Gradients

JavaScript / jQuery Requirements

- JavaScript, jQuery and their libraries are allowed to be used (and some image galleries may require these languages) as long as it is all functional on the client side.

Responsive Design Requirements :

- Utilize media queries to create a responsive layout for various screen sizes.
- Test and ensure usability across different devices such as desktops, tablets, and mobile phones.

Accessibility Requirements:

- Ensure all elements have appropriate alt attributes for images.
- Implement ARIA for improved accessibility. You need to read the accessibility guidelines provided on Moodle. Also check (https://web.dev/learn/accessibility/aria-html) for this assignment.
- Consider proper contrast for your website to meet the needs of color-blind users or people who have difficulty seeing low-contrast colors.

Hosting

- You are required to host your websites using a platform of their choice, such as GitHub Pages, Netlify, or any other hosting.

AI Assistance and Progression

To ensure originality and a high-quality learning experience, students are encouraged to explore and utilize AI tools in a responsible and educational manner. This section outlines how AI can be integrated into your workflow, along with progression milestones to track your development effectively.

Declaration of AI Use:

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- If you use any AI tools (e.g., for generating content, code snippets, or design suggestions), you must declare this in your final report.

- Provide details on how you customized and adapted the AI-generated content to make it unique and reflective of your personal understanding.

Customization and Personalization:

- AI-generated content should serve as a starting point. You must significantly customize and refine it to demonstrate your individual creativity and comprehension.

- Show the initial AI-generated drafts alongside the final customized versions in your report to illustrate the changes made.

Ethical Use of AI:

- Ensure that the AI tools are used ethically and do not replace your individual effort. AI should assist and enhance your work, not perform it entirely.

- Be mindful of academic integrity and avoid over-reliance on AI to complete core aspects of the assignment.

Progression Milestones:

Week 4: First Draft Submission:

- Submit a first draft of your website design, including wireframes of all planned pages. These can be hand-drawn or created using a design tool like Figma.

- Include a brief description of the features and layout planned for each page.

- Explain any AI assistance used in this stage and how you plan to customize the generated content.

Week 7: Final Submission

- Provide a comprehensive report detailing the entire development process, including the use of AI tools.

- Include initial AI drafts, customized versions, and explanations of how you integrated AI assistance into your workflow.

- Demonstrate the evolution of your project from the initial design to the final product, emphasizing personal contributions and customizations.

Report Requirements

1. Introduction:
   - Introduce the business and provide an overview of the website structure.
   - Explain specific design decisions and challenges faced during development.
2. AI Assistance Declaration:
   - Detail any AI tools used, initial outputs from these tools, and how they were customized.
   - Provide side-by-side comparisons of AI-generated drafts and the final customized content.
3. Accessibility and Usability:
   - Discuss how accessibility and usability considerations were incorporated into the website design.
   - Describe steps taken to ensure the website is responsive and user-friendly across different devices.
4. Screenshots and Visuals:
   - Include screenshots of your website pages, highlighting key features and design elements.
   - Provide visual evidence of progression from wireframes to the final design.
5. Reflection and Learning:
   - Reflect on the overall experience, what you learned, and how AI tools contributed to your development.
   - Discuss any feedback received during the design review and how it influenced the final product.

*(**<u>Note:</u>** Upload the media files of your project in a separate Google Drive folder and share the link in the report. Make sure you have given the tutor an access to this folder.)*

Submission Guidelines:

1. Submit the report and all your code files in a zip folder on Moodle. *(The large media files should be uploaded in the separate Google drive folder and link should be shared in the report.)*
2. You need to provide the link to the website in Moodle.
3. Submit your files before the deadline to avoid late submission penalty.
4. You should maintain academic integrity and not your code will be checked for similarity with other students and online repositories.

Marking Rubric

Criteria	Fail (0 – 49%)	Pass (50 – 64%)	Credit (65 – 74%)	Distinction (75 – 84%)	High Distinction (85 – 100%)
Functionality **(8 marks)**	Website is barely functional with major errors or omissions	Website meets some of the functionality specified with more than one major error or omission	Website meets most of the functionality specified with one or more major errors or omissions	Website meets most of the functionality specified with only minor errors or omissions	Website meets all of the functionality specified
Layout **(4 marks)**	The layout and navigation is confusing	The layout or the navigation is confusing	Good layout and navigation	Very good layout and navigation, closed to professional standard	The layout and navigation is professional
Rich media **(3 marks)**	No rich media included	Media included, but not the best choice of media and format (e.g., takes long to load)	Media included, but not the best choice of media or format (e.g., takes long to load)	Good choice of media and format	Professional inclusion of rich media in the most optimal format
Code Quality **(3 marks)**	Code is poorly structured, difficult to read, and contains significant errors or non-adherence to best practices.	Code is somewhat organized but could be improved for readability and adherence to best practices.	Code is generally well-structured and readable but has some minor errors or inconsistencies in best practices.	Code is well-organized, easy to read, and follows best practices with only minor exceptions.	Code is exceptionally well-structured, highly readable, and demonstrates a thorough understanding of best practices.

Responsiveness (4 marks)	Website does not adapt well to different screen sizes and devices, resulting in poor user experience on mobile or other devices.	Website adapts somewhat to different screen sizes but may have some layout issues or usability problems on smaller screens.	Website adapts well to most screen sizes but could be further optimized for smaller screens or specific devices.	Website adapts seamlessly to different screen sizes and devices, providing a consistent and positive user experience across all platforms.	Website is designed with a mobile-first approach and adapts effortlessly to any screen size or device, showcasing exceptional responsiveness and flexibility.
Accessibility (4 marks)	Accessibility considerations are missing or poorly implemented	Some accessibility features implemented but not fully functional	Most accessibility requirements met, minor issues remain	Accessibility is well integrated, with only minor exceptions	Accessibility is exceptional, meeting or exceeding all relevant standards and guidelines
Hosting and Deployment (2 marks)	Website is not hosted or improperly hosted	Website is hosted with minor issues present		Website is professionally hosted with seamless accessibility	
AI Use and Customization (3 marks)	No AI use declared or improper use of AI tools	Minimal customization of AI-generated content	AI-generated content is customized but lacks depth	AI is used ethically, with significant customization	AI tools are creatively and ethically used, showing deep customization and personal understanding
Report and Documentation (4 marks)	Incomplete or poorly organized report	Report is complete but lacks depth in analysis	Report is complete with a good level of analysis and reflection	Comprehensive report with detailed analysis, including AI and hosting aspects	Exceptional report, with deep reflection on AI use, customization, accessibility, and hosting process
Total mark out of 35					