



**ASIA PACIFIC UNIVERSITY OF TECHNOLOGY AND INNOVATION
RESPONSIVE WEB DESIGN & DEVELOPMENT
GROUP ASSIGNMENT**

Intake : UCDF2405ICT
Lecturer :
Date Due : Week 13
Date Assigned : Week 3

Course Learning Outcomes	Assignment Component
CLO1 Explain the Internet Infrastructure and web page development (A3, PL08)	Documentation
CLO2 Develop a responsive website using client-side scripting applying HCI principles for various user clients (C3, PLO3)	Implementation

ASSIGNMENT BRIEF

Your Web Development Team have been assigned to work as part of a web development team for two distinct web application projects. Both applications should provide specific functionalities that align with their respective goals. Your task is to design and develop the initial stages of these applications, ensuring they meet the outlined requirements.

Project 1: Sustainable Living Community Web Application

Scenario:

Your team is tasked with creating a web application aimed at promoting sustainable living practices within a community. The application should include tools and resources that encourage eco-friendly behaviors such as recycling, energy conservation, community gardening, and eco-friendly product swaps. The application must be user-friendly, engaging, and informative.

Requirements:

1. **Title Selection:** Choose an appropriate title for the application that reflects its focus on sustainability.

2. Key Features:

- **Recycling Programs:** Provide information on local recycling programs, collection schedules, and how users can participate.
 - **Energy Conservation Tips:** Offer users tips and actionable steps for reducing energy consumption in their homes or workplaces.
 - **Community Gardening:** Implement features that allow users to join local gardening projects, share gardening tips, or even exchange home-grown produce.
 - **Eco-Friendly Product Swap:** Allow users to list and exchange eco-friendly products with others in the community.
3. **User Experience:** The design should prioritize accessibility and ease of navigation, ensuring that users can quickly access the information they need.
4. **Mobile Responsiveness:** Ensure that the web application is fully functional across devices (desktop, tablet, and mobile).

Projects 2: Productivity Enhancement Web Application**Scenario:**

Your team is tasked with creating a web application designed to enhance productivity for individuals and teams. The application should include features that help users manage tasks, track time, set goals, collaborate effectively, and analyze their productivity. The application must focus on providing tools that streamline workflows and improve overall efficiency.

Requirements:

1. **Title Selection:** Choose an appropriate title for the application that reflects its focus on productivity.
2. **Key Features:**
 - **Task Management:** Allow users to create, track, and prioritize tasks. Implement features like deadlines, reminders, and task categories.
 - **Time Tracking:** Include a time tracking tool to help users track the time spent on various tasks and projects.
 - **Goal Setting:** Provide users with the ability to set long-term and short-term goals, track progress, and receive reminders.
 - **Collaboration Features:** Enable team collaboration by allowing multiple users to work on shared tasks and projects with features like comments, file sharing, and real-time updates.
 - **Productivity Analytics:** Offer insights and analytics that help users track their productivity over time.
3. **User Experience:** The design should be simple and clean, minimizing distractions while maximizing task efficiency.
4. **Mobile Responsiveness:** Ensure that the web application is optimized for all devices, enabling users to manage tasks on the go.
5. ****Minimum 2 user roles should be included in the system.**

You have the freedom to choose either one of the web title of the application. However, it should adhere to the following guidelines:

- **Client-side scripting:** The application should effectively utilize client-side scripting languages, specifically HTML, CSS, and JavaScript.
- **Server-side scripting:** PHP should be used as the server-side scripting language.
- **Database Management:** MySQL should be employed for database management.
- **Interface Design:** The interface design should adhere to good design principles.
- **Responsive Website:** Website should be responsive where it should display properly in smaller screen and bigger screen like mobile, tablet and desktop.
- **Navigation:** The application should feature a fully functional and user-friendly navigation system.
- **Multimedia Content:** Where necessary, appropriate multimedia content should be incorporated.

Please note that your team has complete discretion in determining the scope and contents of the chosen title. This discretion should be reflected in the application's design and functionality. Please select your group number on the Moodle course page. Each group should consist of **3 to 4 members**.

REQUIREMENTS

The usage of Web page creation tools and templates are NOT permitted. You have the option of developing the website using the following tools:

- Visual studio code
- Notepad++
- Sublime

DOCUMENTATION (40%)

1. Proposal (Due Week 5)

- Title of the Web site.
- Objectives of the project.
- Flow chart.
- Storyboards.
- ERD Diagrams.
- Wireframe.
- Activity Diagram.
- Navigational Structure.

2. Report (Due Week 13)

Write a report (2000 words) which includes the following:

- Format:
 - Typeface: Please use Times New Roman. You may use bold, italic, and underlined text for emphasis and to enhance readability.
 - Font size: The standard font size should be 12, except for titles and headings.

- Spacing: Maintain a spacing of 1.5 lines between the texts within a paragraph.
- Alignment: The text should be justified.
- Headers and footers can be utilized for additional information.
- The document should be numbered for easy reference.
- A cover page is required. Your cover page should include the following details:
 - Your Name and ID
 - Intake code
 - Subject
 - Project Title
- Recommended Content
 - **Table of Contents:** The table of contents should list each topic title along with its corresponding page number.
 - **Introduction/Project Plan:** This section should introduce your project, including its objectives, scope, end-user specifications, and the major functions of the web application.
 - **Background Analysis & Requirement Gathering** includes an understanding of the overall context in which the website will operate. The analysis may include studying existing websites or applications to identify best practices, industry trends, and potential challenges. Requirement Gathering focuses on capturing and documenting the specific requirements and expectations of the client. It involves engaging with stakeholders, such as clients, end-users, and subject matter experts, to elicit their needs and preferences.
 - **Design:** Produce storyboards, flow chart and a site focus stating your objectives to the site using the principles shown in the lecture. You are required to discuss the design decisions made and the reasons for them.
 - **Implementation** - Discuss the steps on how you implement the system.
 - **Workload Matrix** – Is a table or chart where you organize the tasks and learning steps you need to complete for your project among your team members.
 - **Conclusions** – This section reviews and evaluates the works you have conducted. You can validate the website whether it has achieved the formulated objectives. Also, you are required to discuss limitations of the website and ways to address these issues in the future.
 - **References:** A referenced report, including bibliography, on the future of the internet, mainly focusing on web sites and their use to business and future technology that are being developed for business use. Strictly APA style referencing

IMPLEMENTATION (50%) (Due Week 13)

The website should include the following:

- Appropriate graphics, including some you have created.
- All website file should be in HTML 5 format and responsive depend on the devices size for example mobile and desktop.
- Style sheets can be embedded, inline or external.
- Valid and appropriate usability / accessibility for the target audience
- Website must be responsive and display correctly in smaller screen and bigger screen like mobile, tablet and desktop.

This section will be assessed by a **15 minutes** demonstration.

SUBMISSION

1. Documentation must be submitted to Moodle.
2. All other necessary files to run the website and project documentation must be submitted to Moodle as a zipped folder.

PRESENTATION (10%)

You are required to present your website to the lecturer, and the presentation will be judged accordingly. You can use any of the presentation software, e.g. PowerPoint.

ASSESSMENT CRITERIA

The assignment is weight at 100%. Group efforts will be assessed based on the following criteria.

No	Criteria	Mark Allocated	Score	Grade
Documentation (40%)				
1	Introduction Criteria: <ul style="list-style-type: none"> • Clarity of Introduction: Evaluate the clarity and conciseness of the project introduction. (4) • Purpose Statement: Assess if the introduction effectively outlines the purpose and scope of the project.(4) 	8	0	
2	Background Analysis & Requirement Gathering Criteria: <ul style="list-style-type: none"> • Depth of Analysis: Evaluate the depth and thoroughness of the background analysis related to the project. (4) 	8	0	0

	<ul style="list-style-type: none"> • Requirement Gathering: Assess how well project requirements are documented and justified. (4) 			
3	Storyboard and Modeling Criteria: <ul style="list-style-type: none"> • Storyboard Quality: Evaluate the clarity and effectiveness of the storyboard in illustrating the user experience flow. (4) • Modeling: Assess the accuracy and completeness of any models (e.g., data models, process models) included in the documentation. (4) 	8	0	F-
4	Screenshots, Evaluation & Future Enhancements Criteria: <ul style="list-style-type: none"> • Screenshots: Evaluate the relevance and clarity of screenshots included to illustrate key aspects of the project.(2) • Evaluation: Assess the effectiveness of the project evaluation section in analyzing strengths and weaknesses.(4) • Future Enhancements: Evaluate the feasibility and creativity of suggested future enhancements.(2) 	8	0	
5	Conclusion, References & Documentation Standard Criteria: <ul style="list-style-type: none"> • Conclusion: Evaluate the completeness and effectiveness of the project conclusion. (4) • References: Assess the quality and relevance of the references cited throughout the documentation.(2) • Documentation Standard: Evaluate adherence to documentation standards (e.g., formatting, citation style).(2) 	8	0	
Implementation (60%)				
6	Responsive web page presentation (Layout and Design), Navigation Structure & Usability Criteria: <ul style="list-style-type: none"> • Layout and Design: Evaluate the visual appeal, consistency, and aesthetics of the website layout. (4) • Navigation Structure: Assess the ease of navigation, clarity of menus, and accessibility of links.(3) • Usability: Evaluate how user-friendly the interface is, considering intuitive design principles and user expectations.(3) 	10	0	
7	Multimedia Elements & Originality Criteria: <ul style="list-style-type: none"> • Multimedia Integration: Evaluate the use of multimedia elements such as images, videos, and 	10	0	0

	audio.(5) • Originality: Assess the creativity and uniqueness of the multimedia content used.(5)			
8	HTML & CSS Criteria: • HTML: Evaluate the use of HTML markup for structure, semantics, and accessibility.(5) • CSS: Assess the use of CSS for styling, layout management, responsiveness, and adherence to best practices.(5)	10	0	F-
9	Features using JavaScript Criteria: • JavaScript Functionality: Evaluate the implementation of interactive features and functionalities using JavaScript.(5) • Performance: Assess the efficiency and responsiveness of JavaScript code, considering loading times and user interactions.(5)	10	0	
10	Features using PHP Criteria: • Functionality: Evaluation the implementation of the PHP whether the PHP scripts do what it intend to do.(6) • Code Quality: Evaluate the structure and readability of the code.(2) • Security: Assess the data validation and error handling(2)	10	0	
11	Presentation	10	0	F-
	Total Mark:	100	0	F, Fail
	Percentage (%):	100	0	

GRADING CRITERIA**DISTINCTION: 75% - 100%**

Distinctive work will exhibit a high level of penetration and discernment in analysis and outstanding cogency and clarity in communication, design, implementation and testing of the prototype. The supporting report should be exceptionally well-substantiated in its analysis, reasoning, and conclusions within each area.

In addition, at the advanced level the student will demonstrate an exceptional ability to synthesize innovative perspectives of the topic with work from other parts of the discipline.

CREDIT: 65% - 74%

A student should be able to show further evidence of knowledge, understanding and application of the module material, through analysis, design, implementation and testing of the prototype. The supporting report should be well written and supported throughout in its analysis, reasoning and conclusions.

An advanced level will be indicated by the student's reference to and integration of material from previous programmes of study.

PASS: 50% – 65%

The student will show the ability to select and apply appropriate techniques for analysis, design, implementation and testing of the prototype.

There should be satisfactory evidence of knowledge, understanding and application of the module material in the supporting report. Generally, the report will be less effective in conveying meaning

MARGINAL FAIL: 40%-49%

There should be basic evidence of knowledge, understanding and application of the module domain shown in the application of the design, implementation and testing of the prototype. Generally, the report will be less effective in conveying meaning.

FAIL: 0%-39%

Work at this level will generally be of low standard where it may even fail to meet at least 50% of the basic requirements listed above. Work that is not documented adequately, lacks referencing and does not display proper program structure would fall in this category. During demonstration, the student is not able to explain briefly the work that has been done.