

CIT6224 Web Application Development

Trimester: Aug-Sep 2024 (2420)

Assignment (60%)

Topic:

MMU Community Service

ASSIGNMENT BRIEF

Form a group of 3 to 4 members only and fill up the details of your group on the this Excel spreadsheet: [Forming Groups](#).

Your web development team is tasked with developing a fully functional online platform that empowers communities to connect and access a variety of support services. This platform should serve as a central hub for promoting and facilitating community-based initiatives, encompassing a diverse range of needs such as educational support, health and wellness, social services, transportation and entertainment, recreation and more. The platform should be user-friendly, visually appealing, and easily navigable for both service providers and community members.

To run this web app, you must have installed a virtual server i.e. WAMP/XAMPP (Windows), MAMP (for Mac) on your PC.

You have the freedom to choose the 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.
- **Server:** WAMP/XAMPP/MAMP(Windows), MAMP(Mac)
- **Interface Design:** The interface design should adhere to good design principles.
- **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.

Each member is expected to develop a minimum of TWO web pages. Under the “Individual Contribution” assessment criteria, each group member must individually deploy at least THREE features to be assessed for this assignment. These features may include, but are not limited to, the following:

- ☐ e-Catalogue – with search function
- ☐ Shopping cart
- ☐ Services and supports – feedback forms.
- ☐ FAQ (submission by user)
- ☐ FAQ (updating by admin)
- ☐ News announcement
- ☐ Product Maintenance by admin – maintains record / checks status.
- ☐ Services Maintenance – Admin maintains news / edit, insert, delete news.
- ☐ User profile maintenance – user updates their own profile.
- ☐ Resource sharing - uploading / downloading files.
- ☐ Communication features – email, chat room, forum
- ☐ File Upload (photo for member or for news)
- ☐ Forms based authentication.

WEB APPLICATION REQUIREMENTS

The web application must fulfill the following criteria:

1) HTML, CSS & JavaScript

- Usable Interface: Design a visually appealing and intuitive user interface using HTML, CSS, and JavaScript to ensure easy navigation and interaction with the system.
- Use JavaScript for client-side validation.
- One webpage on group members’ details:
 - Information in this section should be structured using appropriate semantic markup and a table. This section should be styled appropriately to demonstrate your CSS skills.
 - Name: ABC
 - Student ID: XXX
 - Section: TC1L
 - Photo of you within an HTML figure element.
 - Contact: A mailto link to your student email.
- The site should be styled appropriately to demonstrate your CSS skills.
- User Interface (UI) frameworks, like Bootstrap, Foundation, Skeleton, Tailwind, Bulma, and others, should be customized to align with the specific project theme. Avoid relying solely on the default CSS provided by these frameworks. Students must implement additional CSS styling to ensure the website adheres to the corporate identity or purpose of the project.

2) PHP & MySQL:

- Use PHP to include common webpage code (e.g. menu, header, footer code)
- Include the ways that 'state' can be maintained between webpages.
- Your web application must be designed to accommodate various types of registered users. At a minimum, there should be two distinct user roles within the application.
- The web application should demonstrate database processing capabilities, including user login functionality and the ability to insert, read, update, and delete records.
- Form validation should be implemented to ensure data integrity. Use PHP for server-side validation to validate data sent in the "registration" form and if there are any errors, provide user feedback.
- Database Integration: Utilize MySQL to store data, user information and details. Implement proper database schema design to ensure data integrity and efficiency.
- Security Measures: Implement appropriate security measures, such as data validation, to protect against common web vulnerabilities like SQL injection and cross-site scripting (XSS).

DOCUMENTATION REQUIREMENTS

- Provide clear instructions on how to use the system, including registration, adding/editing, and searching. Include a brief overview of the project structure, technologies used, and any additional features implemented.
- Sources / References:
In this assignment, you may use material from other web sites, but the source of all material 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. (Normally permission must be given before re-publishing content, but your websites are not live, and are not published.)

Note: While the general idea of a community service app is not entirely novel, the specific features and implementation details can be customized to make the project unique. You are encouraged to add your own creative twists and functionalities to differentiate your solutions from existing ones.

Additionally, understand the importance of writing original code and avoid direct copying from online sources.

For your final submission you will need to submit the complete web application with functional requirements above completed, together with a technical report outlining

your web application. You will need to prepare a presentation to showcase and demonstrate your web application as part of the assessment too.

SUBMISSION

This assignment requires three components to be submitted:

1. Proposal (29 Aug 2024) (Week 3)

- Title of the Web Application
- Objectives of the web app
- Specifications for the end user

2. Preliminary Drafts (5 Sep 2024) (Week 4)

- Entity Relationship Diagram (ERD)
- Data Dictionary
- Wireframes for the primary layouts of the web pages
- Website Navigational Structure

3. Final Report and Web Application Project Files (24 Sep 2024) (Week 7)

The final report should include the following:

- Format:
 - Typeface: Please use Aptos. 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:
 - Each member's name and ID
 - Term: 2420
 - Subject: CIT6224 Web Application Development
 - Assignment Title:

Submission Guidelines:

- Submit the entire project folder, including all source code files, database schema, and any necessary configuration files.
- Provide clear instructions on how to set up and run the web application locally for testing purposes.
- Include a brief documentation file (e.g., README.txt or README.md) explaining the functionality of the application, how to navigate through it, and any additional features implemented.

Rules

- 1) You need to incorporate HTML, CSS, JavaScript, PHP, and database into the development of your web application. Web application frameworks are not allowed.
- 2) **Plagiarism is not tolerated.** If any web application and report is found to be a copied version of any other group or online source a **ZERO mark** will be given.
- 3) Every group is required to submit a **zip file** which contains the technical report and web app project (source code and database).
- 4) Deadline for Assignment is **23:59 on TUESDAY 24th September 2024**, after which you will need to choose a presentation slot for your group presentation on **26th September 2024**. During your presentation, you may be asked to explain your code to illustrate your understanding of your web app's code.
- 5) While the requirement is for you to come up with a web application, groups that came up with a mobile-friendly web app will have an advantage over the ones without.
- 6) Please refer to the attached marksheet for the assessment breakdown of the project.

Recommended Content

- **Table of Contents:** The table of contents should list each topic title along with its corresponding page numbers.
- **Introduction/Project Plan:** This section should introduce your project, including its objectives, scope, end-user specifications, and the major functions of the web application.
- **Design:** Please include the final version of Entity Relationship Diagram (ERD), Data Dictionary, Wireframes for the main layouts of the web pages, and the Website Navigational Structure that aligned with the final implementation. Each component should be accompanied by an appropriate description.
- **Implementation:** This section should provide a detailed explanation of the source code for the major features of the web application.
- **User Guidance:** Include screenshots of the user interface and descriptions of each.
- **Conclusions:** Summarize your project and discuss potential future enhancements.
- **References:** List all sources referenced in APA format.
All submissions must be submitted via eBwise.

PRESENTATION

- A presentation is scheduled to take place following the submission (Starting from **23 September 2024**). The allocation of presentation slots will be announced as we approach the end of the semester.

Evaluation Criteria:

- Refer to Assignment Marking Scheme file.