INF1005 - Web Systems and Technologies

Group Project

Overview

Objective

The purpose of this project is to provide students with practical experience applying the technologies and concepts learned in this module. You will design and develop a fully functioning, responsive, accessible, data-driven web application.

Organization

Working in teams, you are to build the website for a fictitious company/organization of your choosing (do not use real entities). You are free to have fun and be creative in selecting the type of business and the products and/or services it provides, however your web application must satisfy all of the requirements below.

General Requirements

- A main landing page that introduces the company/organization.
- A common menu that allows the user to navigate to the various sub-pages.
- Sub-pages covering the products and/or services that the company provides.
- Sub-page that provides more details about the company/organization (e.g., "About Us").
- Back-end functionality supporting the creation, storing and updating of data (e.g., user membership, product catalogue, shopping cart, blog posts, etc.).

Technical Requirements

- Responsive, device-independent, mobile friendly design utilizing HTML5, Bootstrap and CSS.
- JavaScript must be used for implementing dynamic client-side functionality.
- PHP and MySQL should be utilized to implement all back-end functionality, including comprehensive database operations (CRUD).
- Proper form validation and sanitization should be performed.
- Website should be secure from cross-site scripting and SQL injection attacks.
- User passwords should be protected appropriately.
- The website must adhere to W3C Web Validation and WCAG standards.

Optional Features

Beyond the minimum requirements, your team is free to implement whatever additional features you wish. You are advised to check with your instructor if you are considering using technologies not covered in the module. You may also refer to the FAQ in xSiTe for commonly asked questions.

Presentation

Teams will be required to demonstrate their website via a recorded presentation during the final week of the trimester. The focus of the presentation will be on individual contributions to the project. Details regarding the format of the recording and how to submit will be provided at a later date.

Report

Each group is also required to submit a report documenting their work. The report is due at the same time as the final project submission and should be uploaded to xSiTe along with the .zip file containing your project. Requirements for the report are as follows:

- The report should contain a cover page with the names of the members in your group (full name and matriculation number), the module code, your group number, and the title of your project.
- The report should describe the design and implementation of the system. Include details of the tools and methodologies used by the team.
- Each team member should list in point form the parts of the website that they worked on.
- All credentials needed for logging into the website (as customer, admin, employee, etc.) for testing & assessment purposes should be listed in the report.
- Soft copy of the report in PDF format should be uploaded to xSiTe along with the final project.

Peer Evaluation

Group members shall conduct peer reviews at the end of the project using the TEAMMATES application. Instructions for the peer eval will be released separately.

Submission Instructions

- Each group will be required to publish their website to a LAMP server running either on Google Cloud or another host of your choosing. **This server must remain available for at least two weeks after the submission deadline**, in order to allow time to assess the website.
- In addition to hosting your site on the web server, you are also required to submit a zipped copy of your project to xSiTe. Only one submission per group is required - do not submit individual versions of your work. Only the latest submission prior to the deadline will be graded.
- Please take careful note of the submission deadlines stated in the Dropbox - **late submissions will not be accepted**.

Policy Concerning Generative AI

Generative AI (gAI) tools, such as ChatGPT, GitHub Copilot, Gemini, etc., *may* be used, provided you adhere to the following conditions:

- gAI should only be used for generating specific functions or code fragments. For example, the following would be considered an acceptable prompt: "Write a function in PHP that takes a list of strings and sorts them in alphabetical order."
- gAI must *not* be used to create your entire project, whole web pages, or major portions of the work. For example, this prompt would NOT be acceptable: "Using PHP, HTML5, JavaScript and MySQL, create a standard e-commerce web application for selling cars."

- You are responsible for the correctness of all code submitted, including that generated by gAI, and you must understand and be able to explain all parts of your project.
- You are advised to check with your instructor before using gAI in your project.

Furthermore, if you utilize gAI tools when writing your Report, you *must* acknowledge this clearly and limit the usage of gAI content to no more than 10% of the entire paper. Refer to How to Cite GAI in the SIT Library guides for detailed policies that you should follow.

Assessment

The grade for the project will be comprised as follows:

	Group	Individual	Total
Completed Website	50%	10%	**60%**
Presentation	0%	20%	**20%**
Report	10%	0%	**10%**
Teamwork	0%	10%	**10%**
Total:	**60%**	**40%**	**100%**