Swinburne University of Technology Sarawak
Faculty of Engineering, Computing and
Science School of Information and Communications
Technologies

COS10026 Web Technology Project
Assignment 2 - *Semester 1, 2025*

Late submission penalty is 10% of the total available marks per day
This is a GROUP assignment.

Contribution to Final Assessment: 45%
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

In this part of the assignment you will further enhance the website you developed in Part 1. You will extend the functionality of the website creating server-side PHP scripts to process and store the data from the web form (enquiry form). It will involve the creation of simple MySQL tables to store, update, and retrieve information from a website.

There will be an opportunity to enhance your website beyond the basic requirements.

Team Task

Essential Specified Requirements
Note: Use only mysqli commands in this assignments.

1. Use PHP to reuse common elements in your Web site

PHP provides us with techniques to modularise and reuse our web application scripts. You need to refactor your web pages as follows:

- Your web site contains common elements such the menu, header and footer. Re-write your html pages so that static HTML elements common to your pages are sourced from the same PHP scripts.
- Name the include file(s) with a .inc extension (but don't forget to rename your main pages with a .php extension!).

2. Create database tables (enquiry, Join Us, Membership)

You should create the "`enquiry`", "`membership`", and "`JoinUs`" tables on a MySQL database which will record the data sent by the potential customers via the **Enquiry, Join Us, or Membership**. The data type of each field/column of this table should match appropriate validation rules. If no rule exists for a particular field, choose an appropriate data type. You may use auto-increment id or timestamp as the Primary Key for this table. When designing your data dictionary, you **must** make sure that all submitted enquiry details can be stored in this table.

3. Submitting the Join Us entry, enquiry entry, and membership entry (joinus_process.php & enquiry_process.php & membership.php)

In this section, you need to adapt the **joinus.html, enquiry.html, and membership.html** web pages you have coded in Assignment 1.

Rename the form page to **joinus.php, enquiry.php, and membership.php** respectively. These forms should have a submit button. On clicking this button, the data will be sent to the server where it is processed by **joinus_process.php, enquiry_process.php, and membership_process.php** respectively and stored in the `Job, Enquiry, and Membership` table.

An error message or notification should be displayed if the form validation fails. The **joinus_process.php, enquiry_process.php, and membership_process.php** pages should display confirmation to inform the user that the data has been successfully saved to the database.

4. Registration for user

The Registration UI page is created in assignment 1. In assignment 2, you are required to create a table **"user"** to store the user information. **No registration is needed for Admin.**

5. Login for user and admin

In assignment 2, you are to create the login UI and to make it function, you will need to match the login information with the data stored in the table for user.

For admin login, please use the following default username and password:
Username: Admin, password: Admin

Please take note, you need to create a table **"admin"** to store admin's user name and password. In PHP script, it should read the data from table and not hard-coded inside the script.

6. View Joinus entry enquiry, and membership (view_Job.php, view_enquiry.php, and view_membership.php)

After admin login, they will able to view all enquiries submitted by the users. To achieve this, you need to create another page called **view_job.php, view_enquiry.php, and view_membership.php.** This page should retrieve all the enquiry data from MySQL database and display the enquiries in a proper manner. You must ensure the information is arranged properly which is in compliance with the essential Web design and usability principles discussed in Lecture 3b.

Note: You should **not** place any redirect link from any pages in your website to this page. This is to prevent the public users to view all the enquiries. The shop owner has to type in direct URL to access this page (provide the link in the report).

7. Short Video (Team Task)

Create a short video to introduce and demonstrate your web application.
- o Upload your video to youtube.
- o Create a hyper link in the index.html page of your website, link it to your youtube video.
- o Every team member must present in the demonstration video for a similar amount of time
- o The total length of the video should be between 5 to 8 minutes.

Individual task

1. UI Testing (report)

UI testing is critical in web application development. Instead of having testers click through the application to verify data and action flows visually (manual testing), automated testing reduces costs and ensure actionable results whereby test scripts are written for each test case. In this task, perform a survey on the available tools used for automating Web UI testing. Write a report to describe on any TWO(2) of the available web UI testing tools that could be adapted in your assignment, and compare their advantages and disadvantages.

2. Project Report (Individual Task)

The project report is an individual task. Your report must be professionally written (600 – 1500 words). Table below presents the suggested structure for the report and some sample content for each section of the report.

Component	Content
Title	• Report title • Your name • Student ID
Introduction	• Objective of the report • Outline of the report's structure
The Website	• Website introduction

Your contribution	• List and discuss your main contributions
	   o Main functionalities of the website, including screenshots
	   o Technical details on the web site development
	• Highlight the key/innovative features of the website

Reflection and Discussion	• Reflections on your experience regarding professional purpose, teamwork and effective communication in this project
	• Discussion on ONE of the following web development related issues:
	   o Privacy, security, environmental sustainability, commercial or social issues.
	      ▪ E.g., in this project or in a similar future project, how did/will you consider the privacy, security, environmental sustainability, commercial or social issues?

Conclusion	• Summary of the report
References	• List of reference materials if used

Deliverables

The marks are allocated 50% for team tasks and 50% for individual task in this assignment.
- o   The web application (team task)
- o   The short video (team task)
- o   Project report (individual task)

Enhancements to the Specified Requirements
You should complete the Essential Specified Requirements before you attempt this part. See the marking in the Marking Scheme.

One third of the marks for this assignment are allocated to enhancements of your choice that go beyond the specified requirements above. In this assignment, we will **ONLY** consider PHP or MySQL enhancements. You are encouraged to be creative in thinking up possible enhancements.

The following is a list of *suggested* PHP / MySQL enhancements you might attempt that will contribute to a higher mark. To achieve high mark, they must be done as a complete module as suggested below:

- **User Management Module (10 Marks Max.)**
  - o   Implementing user authentication features for business owner / operator / Website administrator in enquiry to view and manage public enquiry.
  - o   Create, View, Edit and Delete user from the website.
  - Note:
  - o   Use the tables created above to complete the task.

- **Promotion and News update Module (5 Marks Max.)**
  - o   Allowing admin to create, edit/update, and delete the promotion and news from the database.
  - o   The changes will reflect on the web page.
  - Note:
  - o   All these modules required simple user authentication features.

- **Job application Module (5 Marks Max.)**
  - o   Allow users to submit their resume and photo by uploading the photo into the website.
  - Note:
  - o   All these modules required simple user authentication features.

- **Member top-up Module (5 Marks Max.)**
  - o   Allow members to do top up into their accounts.
  - Note:
  - o   All these modules required simple user authentication features.

- **Product Search Feature (5 Marks Max.)**
  - o   Allow Website users to search products or services offered based on their preference(s), filters or keyword(s) given by user.

- **Anti-Spam Feature (5 Marks Max.)**
  - Have access to the web site disabled for user a period of time on, say, attempting to spam or repeatedly submit the enquiry form.

- **Other possible enhancements (5 Marks Max. for each feature)**
  - If you plan such enhancements it would be worthwhile checking with your tutor first to ensure they are appropriate and are non-trivial.
  - Discuss and obtain agreement with your tutor for weight determination before implementing to avoid disappointment.

    - Email Verification
    - Cashier gets notified when customer orders
    - User dashboard for editing their profile. Reset password
    - auto send email updates aka spam

You must have another **PHP enhancement** page that lists the enhancements you have implemented. The filename of this page will be **enchancement2.php**.

For each enhancement, briefly explain:
- How it goes beyond the specified requirements of the assignment.
- What a programmer needs to do to implement the feature.
- Any enhancements that are not listed in this page will **not** be assessed.
- Only enhancements that are related to this website functionality will be assessed.
- Unless you choose to create one of the recommended module above where a max. of 20 marks have been allocated for a single module, a maximum of 2 different enhancements will be assessed. **Consult your tutor if in doubt.**

Web Site Folder Structure and Deployment Requirements

Your website folder structure should follow the same structure as in the previous assignment

All links to your files should be relative. Do not use absolute links, as these links will probably be broken when files are transferred for marking. **No marks will be allocated if links are broken**.

Assignment Submission

An electronic copy of your assignment should be submitted through Canvas on or before the due date.
- Make sure all your files are in the correct folders and compress the entire folder into a zip file named "**yourname_assign2.zip**". You are to include your report as well.