Swinburne University of Technology Sarawak
Faculty of Engineering, Computing and Science

COS10011 Creating Web Applications
Assignment 3 - *Semester 1, 2019*

Deadline: Week 12

Late submission penalty is 10% of total available marks per day

Contribution to Final Assessment: 10%

Warning: Please meet all the detailed requirements stated in the Marking Scheme document to avoid losing marks.

Purpose of the assignment

In this assignment, you shall further enhance the Web site you developed in Assignments 1 and 2 by using PHP and storing the server-side information in MySQL database. It will involve the creation of simple MySQL tables to store, update and retrieve information from a Web site using ***mysqli*** commands. This information would have been collected through your previous HTML forms.

You shall extend the functionality of the Web site you developed in Assignment 2 by enabling the online rental business owner/operator/ admin to view potential customers' inquiries previously submitted via the **enquiry.html** page. Similar to the previous assignments, there will be an opportunity for you to enhance your website beyond the basic requirements.

Essential Specified Requirements

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.

2. Create database table

You should create the "**`enquiry`**" table on a MySQL database which will record the enquiry sent by the potential customers via the **enquiry.html**. The data type of each field/column of this table should match appropriate validation rules defined in Assignment 2. 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 an enquiry

In this section, you need to adapt the **enquiry.html** web page you have coded in Assignment 2.

Rename the form page to **enquiry.php**. This form should have a submit button. On clicking this button, the enquiry data will be sent to the server where it is processed by **enquiry_process.php** and stored in the **`enquiry`** table.

As you have done in Assignment 2, your form should be validated again before saving the enquiry data into the database. An error message or notification should be displayed if the form validation fails. The **enquiry_process.php** page should display confirmation to inform the user that the data has been successfully saved to the database.

Data validation: While you will have done client-side validation in Assignment 2, in order to preserve the integrity of the server data you should also implement server-side data validation checking.

4. View enquiries

Your website should allow the online rental business owner to view all enquiries submitted by the potential customers. To achieve this, you need to create another page called **view_enquiries.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.

Enhancements

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 (20 Marks Max.)**
  - Implementing user authentication features for business owner / operator / Web site administrator in order to view and manage public enquiry.
  - Create, View, Edit and Delete user from the website.

  Note:
  - This module will require new table(s) to be created in MySQL database.
  - This module will require additional PHP form(s) and page(s) to be created.
  - Create a log out page with a link from the manage web page. Ensure the business owner / operator / Web site administrator must re-login to access this module after logging out.

- **Product Management Module (20 Marks Max.)**
  - Allow business owner / operator / Web site administrator to manage list of rented products and services offered by the Website.

  Note:
  - This module will require new table(s) to be created in MySQL database.
  - This module will require additional php form(s) and page(s) to be created.
  - This module will require a simple user authentication feature.

- **Other Conventional Modules (20 Marks Max.)**
  - News, Event, Promotion Management Module
  - Order & Delivery Management Module
  - ...

  Note:
  - All these modules required simple user authentication feature.

- **Product Search Feature (5 Marks Max.)**
  - 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.

You must have another **PHP enhancement** page that lists the enhancements you have implemented. The filename of this page will be **phpenhancements.html** (or **phpenhancements.php** if it includes php script).

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 4 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 blackboard at https://blackboard.swinburne.edu.my 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 “assign3.zip”. You are to include your report as well.
- You are given a maximum of 3 attempts to submit on the Blackboard.
- Note that the **hardcopy** of the report should be submitted. You need to submit an assignment cover sheet attached to your report.