**Department of Information and Technology**

**(Sha Tin)**

Higher Diploma in Software Engineering (IT114105)

Module Name : Internet & Multimedia Applications Development

Module Code : ITP4513

Submission Deadline : Week 47, **before 11:55pm, 17 Jul 2018, Tuesday**

Hand in Methods : *To be announced by the lecturer*

This Group Project : 30% of total module marks (*also it is part of EA components)*

**The result of EA will not be counted if you do not meet the minimum 70% attendance requirement (if any) governed by the general academic regulations of your programme/course unless approval of the campus principal has been granted.**

1. Objectives

In this project you are asked to :

* build a web application which provides different functions for Restaurant, *Manager, Suppliers* and *Warehouse Staff*
* apply software development skills to develop a web site which is user-friendly, interactive, robust and easy to maintain
* apply the knowledge you learned in this module to solve tasks which require your skills in HTML, CSS, JavaScript, PHP and simple SQL commands

1. A simplified scenario to show how the web application will be used
   1. There are four user roles for this Food Ordering System:   
      Restaurant, *Manager, Suppliers* and *Warehouse Staff*.
   2. Restaurant can create new order, list orders in warehouse, delete pending orders and modify restaurant descriptions.
   3. Managers can approve and delete pending orders, list all orders and add items to stock list.
   4. Suppliers can update delivery date, list approved orders, add stock that you can provide and delete old stock records.
   5. Warehouse staff can list delivering orders and update received date, modify the stock amount in warehouse, add and delete warehouse stock records.

In the following table, the functions designed for each user role are **only accessible by a logged in user of the correct user role**, unless it is specified in the described function.

1. Functions for the Restaurant *(25 marks)*

|  |  |
| --- | --- |
|  | Done By |
| * 1. Create new order   Can create a new Order with all necessary information.  **Required information**  RestaurantId, SupplierStockId, Amount, PurchaseDate  \* OrderId should be generate automatically by the system as Primary Key in Orders table.  \* The stock that restaurant can choose is from the SupplierStock table. |  |
| * 1. List orders in Warehouse   Can view the stock in the warehouse.  **Details can be viewed**  Stock name, amount |  |
| * 1. Delete your pending order   Pending order is the order that created but not approved by the manager yet.  You can list all your pending order and able to delete them.  **Details can be viewed**  OrderId, Supplier Name, Stock Name, Order Amount, Order Purchase Date, Order Delivery Date, Order Received Date |  |
| * 1. Modified your restaurant description   Can view the current restaurant description and modify it.  **Details can be modified**  Restaurant Name, Restaurant Description |  |

1. Functions for the Manager *(25 marks)*

|  |  |
| --- | --- |
|  | **Done by** |
| * 1. Approve pending order   Pending order is the order that created but not approved by the manager yet.  You can list all the pending orders pending orders and able to approve them.  **Details can be viewed**  OrderId, Supplier Name, Stock Name, Order Amount, Order Purchase Date, Order Delivery Date, Order Received Date  **Approving orders**  Update the Approved and ManagerId column in Orders. |  |
| * 1. List all orders   Can view all the orders  **Details can be viewed**  OrderId, Supplier Name, Stock Name, Order Amount, Order Purchase Date, Order Delivery Date, Order Received Date |  |
| * 1. Delete pending order   Pending order is the order that created but not approved by the manager yet.  You can list all the pending orders pending orders and able to delete them. |  |
| * 1. Add item to Stocks   Can add new item in to Stocks with all necessary information.  **Required information**  ManagerId, Stock name  \* StockId should be generate automatically by the system as Primary Key in Stocks table. |  |

1. Functions for Suppliers *(25 marks)*

|  |  |
| --- | --- |
|  | Done by |
| * 1. List approved orders   Can view all your approved the orders  **Details can be viewed**  OrderId, Stock Name, Order Amount, Orders Purchase Date, Orders Delivery Date, Order Received Date |  |
| * 1. Update the delivery date   Update the delivery date of an order. |  |
| * 1. Add stock into SupplierStock   Add the stock that you can provide into SupplierStock table.  **Required information**  Amount  \* Stock only can choose form Stock table.  \* No repeat stock can be add into SupplierStock table |  |
| * 1. Remove old stock in SupplierStock table   Can view & delete old stock in SupplierStock table |  |

1. Functions for Wearhouse Staff *(25 marks)*

|  |  |
| --- | --- |
|  | **Done by** |
| * 1. List delivery orders and update received date   Can view all delivering the orders and update its reveived date.  **Details can be viewed**  OrderId, Supplier Name, Stock Name, Order Amount, Order Purchase Date, Order Delivery Date, Order Received Date |  |
| * 1. Modify the stock amount in warehouse   Update the stock amount in warehouse  **Details can be viewed**  WarehouseStockId, Amount, Stock Name  \* Stock only can choose form Stock table.  \* No repeat stock can be add into WarehouseStock table |  |
| * 1. Add stock into WarehouseStock   Add the stock that you can provide into WarehouseStock table  **Required information**  Amount |  |
| * 1. Remove old stock in WarehouseStock table   Can view & delete old stock in WarehouseStock table |  |

1. Form your project group

Each student needs to form a project group, **the maximum number of students in each group is 4 (preferrably not less than 3)**. I strongly recommend you to form a group to complete this project as you can benefit from sharing skills/codes amongst your members, and you can learn to plan, coordinate, and integrate work done by each member.  
  
Study carefully the given ERD and table structures before you start the implementation.

1. Additional requirements of your project
   1. Your web site should only use PHP as the server-side programming language (i.e. not ASP, ASP.NET, JSP, servlet etc.), however, you may use JavaScript and CSS for specific purposes. The database server used must be mySQL (version 5.0 or above).
   2. In your PHP code, you must ensure to use the following *parameter values* for the following mySQL database functions :  
       $conn = *mysqli\_connect*($hostname, $username, $password, $database);  
      set to the values below in a PHP script which is *shared by* the web pages :  
       $hostname = "**127.0.0.1**";  
       $database = "**projectDB**";  
       $username = "**root**";  
       $password = "";
2. Items to submit
   1. A ***CD-ROM*** or ***DVD-ROM*** which stores a ***softcopy of all files*** for the whole web site. All files must be stored in non-compressed format (no .zip or .rar files please !)
   2. provide a SQL script file ***CreateProjectDB.sql*** to let the lecturer to re-create the database and test data
   3. for the SQL script file ***CreateProjectDB.sql***, it must contain *CREATE TABLE* commands to setup the database tables in **projectDB** database. Include necessary *INSERT* statements to add additional sample records you want to provide. The following is a sample SQL script :

drop database IF EXISTS **projectDB**;

create database **projectDB** character set utf8;

use **projectDB**;

You must specify the **InnoDB** engine for a database table :

ENGINE = **InnoDB**

Full explanation of different ***mySQL database engines*** :

<http://dev.mysql.com/doc/refman/5.0/en/storage-engines.html>

drop table IF EXISTS **Users**;

Create table **Users** (

userName Varchar(30) NOT NULL,

userPswd Varchar(10),

Primary Key (userName)) **ENGINE = InnoDB**;

INSERT INTO **Users** (userName, userPswd) VALUES

('admin1', 'secret1'),

('admin2', 'secret2');

* 1. a ***demonstration*** of your completed web site should be recorded by   
     a *30-day free-trial software Camtasia Studi*o 8  
     (<http://discover.techsmith.com/try-camtasia/clkn/https/www.techsmith.com/download/camtasia/>).   
     You should save different parts of your demonstration into different **.mp4** files. In a *Word* document named **video\_list.docx**, briefly describe the main content of each demo video file you have created. The video files will facilitate the lecturer to have in-depth evaluation of your web application. Here are some online tutorials for **Camtasia Studio 8** <http://www.techsmith.com/tutorial-camtasia-current.html> :  
     ***Getting Started: 1 - Record Full Screen*** :   
     <http://www.techsmith.com/tutorial-camtasia-record-full-screen.html>   
     ***Produce and Share an MP4 Video*** *:*<http://www.techsmith.com/tutorial-camtasia-produce-and-share-mp4-video.html>

1. Assessment criteria of your project
   1. The functions implemented can perform correctly in *general* and *special* situations
   2. *Enough detail* of database records and extensive *data validation*
   3. Techniques used to promote *code reusability* (e.g. share common PHP/JavaScript/CSS files amongst different web pages) and *standardize the user-interface* of the web pages
   4. Coding style (e.g. indentation, meaningful variable names, modularity by user-defined functions etc.) and meaningful *comment* is added to program codes
   5. *Creativity* to enhance implemented functions so that they become easy to use, more interactive to the users or can handle some problems in real life situation
   6. Screen design and overall *quality of the integration* of different functions in the web site
2. A guideline for web development

It is a step-by-step approach I suggested for inexperienced web developers to develop the web site easily :

* decide what information to be displayed and design a number of web pages in HTML code (not PHP code at this stage) to display the information
* think about the site structure by creating different sub-folders to store files of different purposes (e.g. **images** folder to store image files, **style** folder to store CSS files, **Connections** folder to store files which define the settings for database connection) and design the linkages between the pages. You can easily view the site structure using DW8's site map view
* create HTML web pages (don't add JavaScript so soon) and design the layout with HTML codes and CSS rules. It is a good practice to check your .html files can pass the XHTML validation after you complete a .html file
* when using CSS, it is preferred to create *external CSS files* (stylesheets) which can be reused in other web pages, so that other pages can have consistent formatting
* use DW CS6's template features which can help you to create a new page with a standard layout and also it provides common editable regions for web pages created from the same template.
* define frameset(s) and navigation bar or menu to link up different pages
* add JavaScript code to produce more interactive behaviours (such as validate data in the form, highlight a table row with different background colour when the mouse move over a table row). It is preferred to use *external JavaScript file* which will be reused in other web pages
* replace hyperlink text with image / button to beautify the links. Dreamweaver can help you to create nice Flash buttons easily
* finally, it comes to the hardest work, that is to convert some of the HTML codes into PHP codes in order to generate dynamic contents from data extracted from database, cookie and PHP pre-defined arrays ($\_POST, $\_GET, $\_COOKIE, $\_SESSION, $\_FILES, $\_SERVER etc.)

1. Penalty for plagiarism

* Each student has to submit his/her own work. Plagiarism (抄襲) will be treated seriously.
* All group projects that have been found involved wholly or partly in plagiarism (no matter these projects are from the original authors or from the plagiarists) will score ZERO marks. Furthermore, disciplinary action will be followed.

**Late submission will receive ZERO marks**