

PRINCIPLES OF INTERNET PROGRAMMING (IT205N)

ASSIGNMENT 2

SESSION : JANUARY – APRIL 2018



SEGi
College

Penang
A member of
SEGi University Group

NAME	1. 2. 3. 4.
STUDENT NUMBER	1. 2. 3. 4.
INSTRUCTOR	ANG JIAN XIANG (Ryan)



Student Particulars

Name	:	1. 2. 3. 4.
IC Number	:	1. 2. 3. 4.
Student Number	:	1. 2. 3. 4.
Course Programme	:	DIIT
Intake	:	
Subject Title	:	PRINCIPLES OF INTERNET PROGRAMMING
Subject Code	:	IT205N
Assignment Title	:	ASSIGNMENT 2 (GROUP ASSIGNMENT)
Name of Lecturer	:	MR ANG JIAN XIANG
Due Date	:	11 th April 2018, 6.00pm
College	:	SEGI COLLEGE, PENANG

Declaration by students:

We, _____ ,
hereby declare that the attached assignment is our own work and understand that if we are suspected of plagiarism or another form of cheating; our work will be referred to the lecturer who may, as a result recommend to the Examinations Board that my enrolment in the programme be discontinued.

Date

Signature of students



Assignment Allocation of Marks

No.	Description of criteria	Weightings	Marks Allotted by Lecturer
1	<u>PART A</u>	90%	
	Documentation:	35%	
	- Cover page, table of content	1%	
	- System wireframe	5%	
	- Interface design	5%	
	- Database design	15%	
	- System screenshots	5%	
	- References	2%	
	- Report formatting	2%	
	System:	55%	
	- Usability or Robustness	10%	
	- Adequacy/ Completeness	30%	
	- HCI Consideration	5%	
	- Error Handling/ Data Validation	5%	
	- Design Quality	5%	
2	<u>PART B</u>	10%	
	Presentation Skill	2%	
	Presentation Content (PowerPoint slides and system demonstration)	5%	
	Question and Answer (Q&A)	1%	
	Language	0.5%	
	Self-Confidence	0.5%	
	Team Work	1%	
	Total Mark	100%	
	Total Mark in 20%	20%	

Comment:

Lecturer's Name : Ang Jian Xiang
Date :



Assignment 2 Submission Date:
11th APRIL 2018 (FRIDAY, 6 PM)

Learning Outcome Assessed

- LO1 Applying the HTML elements and CSS for structuring and designing the webpages.
- LO2 Understanding and applying the use of JavaScript scripting techniques in web application.
- LO3 Developing web application using PHP.
- LO4 Connecting web application to MySQL database.
- LO5 Developing in project management skill and teamwork.

Description of Assignment

This is a group assignment. Students must form a group that consists of **not more than THREE (3)** members. For any group that is exceed the limit of members' number require the approval from your lecturer. Students are requested to develop a web-based **inventory management system**, which helping science lab to keep track of their stock. At the end of the semester, students are required to conduct a presentation on the demonstration of the system that your group developed. The report and system will carry 90% (as in **PART A**) and presentation is 10% (details are showing in **PART B**) of the total marks.

PART A [90%]

Functionalities for the *administrator*:

Create a facility that allows the administrator of the site to manage the stock for stock in and stock out and the users that held in the database. The components including:

1. **Add or edit an item:** The administrator can add an item by specifying the details of it (including its name, unit of measurement, category, status) and store the information into a database to open for stock out request from user. Each item can be divided into four categories, which are apparatus, consumable, equipment and reagent. Besides, the administrator able to edit the details of selected item and update in the database respectively.
2. **Update or stock up an item:** The administrator should able to stock up a registered item by specifying its quantity and expiry date. This is depending on the urgent request, monthly request or any item with low quantity found.
3. **Receive notification:** The administrator can receive notification from system for any expired item detected, so that, the administrator can alert on any of the expired item and change the status from available to unavailable. In addition, the system also able to send a notification when low quantity of an item found in the database.
4. **View stock out report:** A stock out report can be generated by the system with listing out all the stock out items (what, when and how many) that made by users in a certain month required. Sorting feature can be added to sort out the list based on some criterion



provided (for examples, name of item, date or quantity). A summary section is giving the information on the total amount of quantity left for each requested item.

5. **Add and remove user:** The administrator should able to add a new user and remove user. Register user by using the user's email and a temporary password is created by the system. After added the user into system, the system will email to user for the first-time login instructions and login credential. Besides, the administrator can remove the user who no longer using the system.

Functionalities for the *users*:

The inventory management system requires a system that can perform the following tasks for the users:

1. **Record the use of an item:** The user can make a stock-out request of an item to the system by providing the quantity needed (it must follow the unit measurement of the requested item) and its purpose.
2. **View the used item:** This feature allow user to track back the previous requested items in a table form.
3. **Login or logout from the system:** User can perform login and logout from the system. For first-time user who login to the system, they are required to update their personal details and change the password, the latest personal details and password will be updated in the database. Besides, the user also need a logout feature to control the accessibility.

You are required to design and create the MySQL database that suit to the requirements mentioned above.

For all areas of functionality that involve the user entering or selecting data (such as the administrator edit and the user edit), use appropriate server-side code (i.e. PHP) to:

- Check that the data entered or selected is valid before it is added to the database. This will include, as appropriate, validating that values have been entered (i.e. no empty fields), validating that the values entered for each field used are appropriate (i.e. validate data type or length etc.)
- Make data safe before it is added to the database to for example, reduce the likelihood of successful SQL injection attacks and cross-site scripting (XSS) attacks. This will include, as appropriate, using prepared statements, handling special characters and html, JavaScript and PHP entered by the user.

The system will, as a minimum, consist of:

- Home page/ Login page
- User page(s)
 - user profile, item request, view requested item history etc.
- Administrator page(s)
 - add or edit an item, stock up an item, stock out report, notification and add or remove user etc.



Consider the overall site design, usability and accessibility. There are no constraints on the overall design of your site or the methods used for navigation. However, marks will be awarded for a site which is well designed (i.e. incorporates latest web standards, good practice, usability factors including accessibility etc.) and has a professional feel.

Important notes

- Test your html code (including any generated using PHP) to ensure that is HTML5 compliant and validates using the W3C Markup Validation Service (this is available at <http://validator.w3.org/>).
- Test that any CSS code that you use is valid using the W3C CSS Validation Service (this is available at <http://jigsaw.w3.org/css-validator/>)
- The use of HTML generation tools such as Adobe Dreamweaver (other than in Code view - and even then the use of Dreamweaver layouts is not permitted), or other templates or files for either `html` or `css` not authored by you, is **NOT PERMITTED**. Anyone who is found to have done so will receive 0 marks for this assignment. You have been warned.
- You should test your web page using web browsers (e.g. Google Chrome and Microsoft Edge) and at different screen resolutions to make sure that it displays as you would expect it to.

PART B [10%]

You need to use PowerPoint to create a presentation slides and share on how your system flow with some screenshots for system demonstration. Reflect on what you have learned throughout this assignment and make a brief conclusion about the future improvement toward your system.

Grading Criteria

In general the marks are awarded as follows:

Percentage	Description
70%+	Well documented work that follows the requirements both in design and implementation to a high standard and which shows detailed critical understanding of relevant concepts with an excellent report and demonstration.
55%+	Work that follows the requirements both in design and implementation reasonably well and which shows good understanding of relevant concepts with a good report and demonstration.
40%+	Work displaying minimal functionality, and generally correct use of concepts with a reasonable report and demonstration.
30%+	Work displaying little or incorrect functionality, and a simplistic or partially incorrect use of concepts with a poor report and/or demonstration.
<30%	Work displaying no functionality, and a simplistic and incorrect use of concepts with a very poor report and demonstration.



For presentation, the distribution of marks are given as below:

Item	Marks
Presentation Skill	20
Presentation Content (PowerPoint slides and system demonstration)	50
Question and Answer (Q&A)	10
Language	5
Self-Confidence	5
Team Work	10
TOTAL	100
FINAL PERCENTAGE	10%

Group Members Work Contribution Form

In percentage, please indicate the work contribution of each member. This should be agreed by all group members. The total of all members work must add to 100%.


You must submit this form to your lecturer on the actual presentation day. Put your initials in the signature columns.

You must include this form in your report as well.

Team member name	Student Number	Individual overall work contribution (%)	Individual overall work contribution List of work	Signature
<i>Student:</i>				
<i>Student:</i>				
<i>Student:</i>				
<i>Student:</i>				
Total (100%):				



Submission Requirements

A word-processed, printed document containing all written components of the assignment signed and dated. The report length should not less than 5 pages. **Page number** should be typed on every bottom of page. For text document, **Times New Roman, 1.5 line spacing, 12 point** of font size and **justified** text. For source code, **Courier New** with **no line spacing**,  **Light Gray (Background 2)** as background, **10 point** of font size.

The report should include:

- PART A: The system wireframe, interface design, database design, output screenshots and group members work contribution form.
- PART B: Presentation slides with the content of system flow design, system demonstration with some screenshots, reflection and future improvement. The slides need to be printed in 6 slides per page.

Submit your source files and codes (PART A and PART B) in a compressed file (*.rar* or *.zip*) to the Blackboard.

For PART A, the scripts for all pages (including *.php*, *.html*, *.css*, *.js* etc.), the main page of your PHP script should named as “**index.php**” and all other source files like image files (*.jpeg* or *.png*), javascript files (*.js*), css file (*.css*) should put under different folders with proper naming, such as, images, scripts, css etc.

For PART B, attach the PowerPoint slides file (in *.pptx* and *.pdf*).

For documentation, submit the softcopy of your report (in *.docx* and *.pdf*).

Instruction of the Assignment

Hand-outs / Print Screens / Softcopies should be submitted within the deadlines. Please submit **softcopies (through BLACKBOARD SYSTEM) of your Assignment 2** before or on the date of submission.

Please submit assignment with the assignment cover page during the submission. All coursework should be submitted on the schedule dateline. Extensions are not normally granted, but in exceptional cases, limited extensions may be granted. In term of **late submission**, a **10% deduction per day** of total coursework marks (excluding weekends and public holidays). Late submission between **5 to 10 days will deduct a 50%** of the total coursework marks. Late submission **past 10 days and non-submission will result in an automatic 0%** for the coursework.