

Higher Diploma in Software Engineering (IT114105)
Coursework (Semester 4 - 2018/2019)
Enterprise Systems Development (ITP4511)

Students are required to

- Complete and upload software project and the related documents to moodle1819.vtc.edu.hk
- Hand in a hard copy report to drop-in box outside IT Departmental Office outside C440 (Attention to Lecturer: Mr. Jesse Shum)

Date of Submission: On or before **(TBC)**

Students are required to submit your work in Moodle platform and demonstrate your assignment during lab session. Late assignment submission will **NOT** be allowed. The late assignment will score **Zero** mark.

A. Scenario

“Takeaway King” is an online portal for browsing takeaway menus of Hong Kong restaurants. The existing website is built with static HTML pages. Now, the website is facing the following challenges:

1. The website updates are done by the administrator manually. However, such an update process is very slow and tedious. The not-yet-updated information caused a lot of trouble to the restaurant owner.
2. Lack of searching function makes the visitor hard to find the right restaurant or takeaway menu.
3. The administrator does not know the way to improve the services as no visitor statistic collected.

In order to improve the system, the owner of “Takeaway King” is going to invite you to rebuild the entire website. The website content is expected to be generated dynamically. Also, the content update should be done by an in-house content management system (CMS). Both the administrator or restaurant owner can update information through the system. To simplify the process, the takeaway menus will be uploaded to the system in PNG or JPEG format.

Besides, the new system should come with a comprehensive search function. The user can search for a takeaway menu by various criteria like geolocation, availability of delivery service, opening hours, district and etc. The system will collect reviews as a reference for the service/food quality of a particular restaurant.

In addition to the functionalities mentioned above, the platform provides account management, analytic and reporting function for administrative purposes.

You are required to form a team in order to complete following requirements.

B. Function Requirement

Basically, the system involved **normal user, restaurant operator** and **system administrator**.

General Functions

- Restaurant Owner
 - Organize information of restaurant (**including branches**)
 - Upload of take-away menu (in image format, **can be more than one**)
 - Allow showing special / temporary / seasonal menu according to the pre-set date time
 - Hide /remove uploaded menu
- Normal User
 - Search take-away menu or restaurant by tags or keywords
 - View restaurant information and related take-away menu
 - Add/Remove take-away menu or restaurant to/from favourite
 - Leave like or comment on a particular restaurant

Analytic/Report

- Restaurant Owner & System administrator
 - Review the number of visitors of owned restaurant
 - Review the average number of visitors by month, district & kind of restaurant
- System administrator
 - Review search history for identifying popular keywords
 - Review the number of visitors of each restaurant

Account Management

- System administrator
 - Show existing users
 - Create and delete users
 - Edit user roles
 - Manage the user role
- All user
 - Manage personal detail

Extra Feature

You are encouraged to add extra feature to score bonus mark, for example,

- Show statistic in **graphical formats**.
- Show top search keywords / popular restaurant on front page.
- Show restaurant information on a **map** (i.e., google map, baidu map and etc.)
- Design your own database for the web-based system.

C. Project Requirement

According to the scenario above, you are required to design and develop a web application with Java EE 7.0 features in order to solve the above background needs. You are required to form one project group with Maximum **2 members**. Each student will specify his/her part of the individual work.

Students should share the workload evenly. The group should list down work done by each student.

Work break down	Student 1	Student 2

The project will be marked according to the following criteria.

Skills requirements

- a) Use JSP/servlets to dynamically generate HTML pages
- b) Use JSP/servlets to accept user inputs from browser
- c) Use JSP Action
- d) Use Custom Tag (taglib).
- e) Use JavaBean
- f) Use JDBC for database connection
- g) Use session checking
- h) Use login control
- i) Apply MVC model
- k) Other skills applied

Functionalities and Web design

- a) Complete the user requirements
- b) Consistent design and easy to use
- c) Smooth navigation to and fro
- d) Tidy Page Layout with logical and related graphics
- e) Error free implementation
- f) Creativity

Report and Presentation

Note: * Please note that you will be asked to recompile all your Java classes during demonstration, and to answer questions regarding your implementation.

D. Guideline

Plagiarism

The submitted assignment must be the group's own work done and finished solely by the group members. Plagiarism will be treated seriously. Any assignments that are found involved wholly or partly in plagiarism (no matter the assignments are from the original authors or from the plagiarists) will score Zero mark.

Submission of Assignment Work

1. The front page of your submission should include the course title, module title, student identity number, student name, and group number.
2. A written report should include the followings:
 - (i) Assumption and the user and system requirements
 - (ii) Site map
 - (iii) System structure on how MVC Model is applied
 - (iv) Database structure
 - (v) Brief description (1 or 2 pages only) on the characteristics or good design of your application
 - (vi) Conclusions
 - (vii) Skill checklist
 - List your used skills (or technologies) in a single page. It highlights the skills and technologies applied in your project
3. **Upload all related documents and software project to moodle1819.vtc.edu.hk on or before the deadline.**
4. You are required to demonstrate your assignment. You will fail this module if you do not demonstrate the assignment in the lab session as required.

- The End -