HONG KONG INSTITUTE OF VOCATIONAL EDUCATION

Project: Yummy Restaurant Group food ordering system

**This Project contributes 60% of Total CA Marks.**

You should use HTML5, CSS, javascript and jQuery to complete this project. Submit the completed project folders and documentation files on or before **2/12/2023 11:55pm**.

**Aims and Objectives**

* To gain experience in designing website using HCI knowledge learned.
* To apply the basics of HTML5, CSS, javascript and jQuery programming.
* To gain experience in developing User-centered webpages using HTML5, CSS, javascript and jQuery.

**Introduction**

This is a group project and should be done in teams of 2 students. On the project cover sheet you must state the contribution of each member using the format below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Student ID** | **Name** | **Contribution** | **Signature** |
| 201234567 | Chan Tai Man | 50% |  |
| 207654321 | Cheung Sui Ming | 50% |  |

***\* Remark: The difference of contribution should not be more than 10%; otherwise, approval is required***.

**Scenario**

Yummy Restaurant Group Limited has launched a new service line dedicated to delivering meals within Hong Kong, building upon the System Development Project undertaken in Semester Two and Three. With a wide array of partnering restaurants and a strong commitment to prompt service, the company aims to ensure a delightful dining experience for its customers.

The aims of the system are as follow:

For customers:

1. To create a user-friendly platform that allows customers to conveniently browse menus, customize their orders, and place food requests online.
2. To provide easy access to order history, enabling customers to track their previous orders, reorder their favorite meals, and reference past transactions.

For Restaurants:

1. To simplify the order management process by implementing an efficient system that enables various restaurants to receive and process food orders seamlessly through the platform.
2. To provide a dedicated platform for restaurants to manage their menus, update their offerings, and communicate any special instructions or requests to the delivery personnel effectively.

For Delivery Personnel:

1. To provide clear and accurate delivery instructions to ensure that delivery personnel can efficiently and promptly deliver orders to customers.
2. To provide real-time updates to delivery personnel regarding new orders, changes in delivery schedules, and order statuses. This ensures effective route planning and allows for efficient and timely deliveries.

At this stage, you are required to implement the following main functions: Register and Login, Online Ordering, Order management and Order delivery.

Functions of the System:

**1) Register and Login**

There are mainly THREE types of user accounts: ***Customer*, Restaurant, and *Delivery Personnel*.**

Registration:

The registration functions for the food delivery platform encompass customer registration, restaurant registration, and delivery personnel registration. Customers can create an account by visiting the registration page and providing personal details such as their name, email address, phone number, and agreeing to the terms and conditions. The system then validates the information and generates a unique customer account. For restaurant registration, the operator of Yummy Restaurant Group is responsible for providing the necessary business details, including the restaurant name, address, telephone number, etc., and the system creates a unique restaurant account. The process for delivery personnel registration is similar, but it is initiated by the user with restaurant access rights.

Login:

The login functions for the food delivery system serve customers, restaurants, and delivery personnel. Customers can log in by entering their registered account name and password, granting them access to their account and allowing them to place orders, track deliveries, and manage preferences. Restaurant owners or authorized personnel can log in using their registered account name and password, which enables them to manage their menu, process orders, and interact with customers. Delivery personnel can log in with their registered credentials, allowing them to view assigned deliveries, communicate with customers or restaurants, and track earnings. These login functions ensure secure access to the respective accounts, providing a seamless experience for all participants in the food delivery system.

**2) Customer Ordering Process**

The customer ordering process begins with customers logging into their account on the food delivery platform. They can then browse through the available menu selection and add their desired food items to the cart. Within the cart, customers can manage the order details, proceed to checkout, and provide the necessary delivery information, including their preferred payment method. Once the order is confirmed, customers receive an order confirmation that includes an estimated delivery time.

Throughout the process, customers can track the progress of their order, starting from the preparation stage to the final delivery. The food will be delivered to the specified address within the estimated time provided. Additionally, customers have the option to provide feedback and ratings on the food quality and delivery service, which helps in the continuous improvement of the system.

Implementation instructions:

1. Implement a user-friendly interface for customers to log into their accounts.
2. Develop a well-organized menu display that allows customers to browse and add items to their cart.
3. Create a cart management system that enables customers to review, modify, and proceed to checkout.
4. Design a checkout process that prompts customers to provide delivery details and select a payment method.
5. Generate an order confirmation with an estimated delivery time and send it to the customer.
6. Implement a tracking mechanism that provides real-time updates on the order's progress.
7. Ensure timely delivery of the ordered food items to the specified address.
8. Incorporate a feedback and rating system to gather customer opinions and improve the overall system performance.

**3) Restaurant Operation Process**

The restaurant can use the system to show their menu, update availability and process orders. The have the ability to add and modify menu items, set prices, and provide detailed descriptions and images to attract customers. The restaurant can also view and manage incoming orders, track order status, and communicate with customers regarding any order-related queries or updates.

Implementation instructions:

1. Implement a user-friendly menu management function with the ability to add and modify menu items, including setting prices, descriptions and images.
2. Design a mechanism to receive and process incoming orders from customers, and create a user-friendly interface for the restaurant staff to view and manage orders.
3. Enable the tracking of order status

**4) Food Delivery Process**

You are required to design the food delivery function to the system, think about any procedures and routine should the delivery personnel required.

**Requirements of the Assignment**

You are required to submit ***System Documentation*** and ***Prototype*** in HTML format as deliverables of this project. The design of your system should be self-explanatory and user-friendly. In your project, try to add animation to each function to make them look more interesting and attractive. Data validation is required wherever necessary. You are encouraged to add special features, for example: Visualize statistics in graphical formats.

**1. System Documentation**

1. **Driving Question**

How does good HCI design help Yummy Restaurant Group's system improve user satisfaction, and what advantages does it bring in this regard? (250 words)

1. **User Analysis**

You should carry out the User Analysis process before you start coding your system. In your document, you should include the following areas of research:

* User Characteristics
* Techniques for observing and listening to users
* Environment Analysis
* Recruiting Users
* Task Analysis (HTA)

1. **Web Design Concepts**

In the second part of the documentation, you should describe how you employ the web design concepts learned in the module and then implement them in your project. In the document, you ***need*** to capture relevant screen layouts for illustration. You should describe the Design Principles similar to the following table:

|  |  |
| --- | --- |
| Design Principles | Description |
| Mental Model |  |
| Affordance |  |
| Content Organization |  |
| Visual Organization |  |
| Navigation |  |

**2. Prototype**

The Prototype should be created in HTML format. All the pre-created user name and password should be listed in a text file named “USERS.TXT”. **Database design/implementation will not be counted in the marking scheme**. You may use JSON files or “hardcode” some data for demonstration purpose.

**Submission**

Each group should submit the followings:

**Phase 1 : Prototypes of the 1st – 2nd functions (36%)**

- Prototypes of the system which include function 1 and 2.

- Demo videos of your group.

* Upload your files (Demo videos and prototypes) to Moodle.

Deadline: **28 October 2023 11:55pm**

**Phase 2 : Final Product and system documentation (64%)**

* Both system documentation and completed system.
* Demo videos of your group.
* Upload your files (Prototypes, System documentation and Demo videos) to Moodle.

Deadline: **2 December 2023 11:55pm**

**Marking Scheme**

They are described in the Project marksheet in the next page.

Marking will be based on both Functionality and System design:

* Functionality includes the accuracy and adequacy of the functions. Data validation is also included.
* System design includes the flow of the system, self-explanatory and user-friendliness.

**Name : / Group: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Project Marksheet**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Phase 1:**  **1. Register and Login (At least 3 actors) (18%)** |  |  |  | **Marks** |
| * User registration | 5% |  |  |  |
| * Login Design with clear error message | 5% |  |  |  |
| * Account Management | 5% |  |  |  |
| * Overall HCI Design | 3% |  |  |  |
| **2. Customer Ordering Process (18%)** |  |  |  |  |
| * Menu browsing and selection | 5% |  |  |  |
| * Cart Management and Checkout | 4% |  |  |  |
| * Delivery Information | 3% |  |  |  |
| * Online Tracking and Status Updates | 4% |  |  |  |
| * Overall HCI design | 2% |  |  |  |
| **Sub Total of Phase 1 (36%)** |  |  |  |  |
| **3. Restaurant Operation Process (18%)** |  |  |  |  |
| * Menu Management function | 5% |  |  |  |
| * Receiving and Processing Orders mechanism | 5% |  |  |  |
| * Order Tracking and Status Updates | 5% |  |  |  |
| * Overall HCI design | 3% |  |  |  |
|  |  |  |  |  |
| **4. Food Delivery Process (18%)** |  |  |  |  |
| * Order pickup notification/ information/ | 12% |  |  |  |
| * Customer Communication |  |  |  |  |
| * Order Tracking and Status Updates |  |  |  |  |
| * Overall HCI design | 6% |  |  |  |
|  |  |  |  |  |
| **System Documentation (28%)** |  |  |  |  |
| Driving Question | 3% |  |  |  |
| User Analysis | 10% |  |  |  |
| Web Design (3% for each principle) | 15% |  |  |  |
|  |  |  |  |  |
| **Sub Total of Phase 2 (64%)** |  |  |  |  |
|  | **Total** |  |  | /100 |
|  |  |  |  |  |