

This is an EA Project contributes 50% of Total Marks.

You should use HTML5, CSS, javascript and jQuery to complete this project. Submit the completed project folders and documentation files on or before **02/12/2024 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

Legend Motor Limited has launched two new service lines to sell vehicles and insurance within Hong Kong, building upon the System Development Project undertaken in Semesters Two and Three. With a wide array of partnering dealers and a strong commitment to prompt service, the company aims to ensure a delightful sales experience for its customers.

The aims of the vehicle system are as follows:

For customers:

1. Online Vehicle purchase: To develop an online platform that allows customers to easily browse available vehicles, customize their options, and submit purchase requests.
2. Purchase Management: To provide customers with easy access to their purchase history, enabling them to track previous transactions, review vehicle details, and manage their purchases efficiently.

For Vehicle Sales Personnel:

1. Customer Inquiry Management: To ensure that sales personnel receive clear and accurate instructions regarding customer inquiries, enabling them to provide timely and efficient service.
2. Purchase handling: To provide sales personnel with real-time updates on new vehicle purchase, payments, and vehicle arrival status. This ensures effective customer engagement and enhances the overall sales process.

The aims of the motor insurance system are as follows:

For customers:

1. Insurance Quote Request: To create a feature that enables customers to easily request a quote for full or third-party insurance coverage from a designated insurance provider, tailored to their vehicle and coverage preferences.
2. Quote Overview: To provide customers with a comprehensive overview of the insurance quote, including premium details, coverage options, and policy terms, allowing them to make well-informed decisions.

For Insurance Sales Personnel:

1. Automated Quote Generation: To ensure that insurance sales personnel receive customer information in a timely manner, enabling them to generate accurate quotes based on client specifications.
2. Direct Communication Channel: To implement a feature that facilitates direct communication between insurance sales personnel and customers, allowing for timely responses to inquiries and clarifications regarding the quote.

Common Part:

Within the Legend Motor Vehicle system, there are TWO main functions: the registration and login system.

1) Register and Login

Registration and login functions allow the system to identify users, enabling personalized experiences. It ensure that only authorized users can access certain features and sensitive information. This function also enables users to create accounts that facilitate management of their interactions with the system, such as tracking orders, accessing insurance quotes, and managing vehicle details.

a) Registration:

The registration functions for the vehicle sales and insurance quote systems encompass customer registration, dealer registration, and insurance sales personnel registration.

Customer Registration:

Customers can create an account by visiting the registration page and providing personal details such as name, email address, and phone number, and agreeing to the terms and conditions. The system validates the information and generates a unique customer account.

Vehicle Sales Personnel Registration:

Vehicle Sales Personnel can register by providing necessary details, including name, email address, phone number, and staff number within the organization. The system validates the information and creates a unique account for the sales personnel.

Insurance Sales Personnel Registration:

Insurance sales personnel can register by submitting their personal information, including name, email address, phone number, and staff number within the organization. This registration is initiated by authorized users. The system validates the provided information and generates a unique account for the insurance sales personnel.

b) Login:

The login functions for the vehicle sales system serve customers, vehicle sales personnel, and insurance sales personnel.

Customers can log in by entering their registered email address and password, granting them access to their account, allowing them to browse vehicles, request insurance quotes, and manage their purchase history.

Vehicle sales personnel can log in using their registered email address and password, enabling them to manage customers' orders, process sales inquiries, and interact with customers.

Insurance sales personnel can log in with their registered username and password, allowing them to generate quotes, respond to customer inquiries, and manage insurance offerings.

Individual part:

There are two main functions for the Legend Motor Vehicle system: the order system (Individual part 1) and the insurance quotation system (Individual part 2). Each team member is requested to select one of these systems to work on. Individual scores will be determined based on the system you choose to complete.

Individual part 1:**a) Customer Vehicle Ordering Process**

The customer vehicle ordering process begins with customers logging into their account on the vehicle sales platform. They can then browse through the available vehicle listings and add their desired vehicles to the wish list. Within the wish list, customers can manage the order details, change the vehicle options, processed to request a quote, and provide the necessary information, including their preferred payment method and any trade-in details. Once the request is confirmed, customers receive an order confirmation that includes an estimated response arrival time.

Throughout the process, customers can track the status of their inquiry, starting from the initial request to the final purchase agreement. The vehicle will be confirmed for sale within the estimated arrival time provided.

Implementation instructions:

1. Implement a user-friendly interface for customers to log into their accounts.
2. Develop a well-organized vehicle display that allows customers to browse and add vehicles to their wish list.
3. Create an wish management system that enables customers to review, modify and proceed to request a quote
4. Design a request process that prompts customers to provide necessary details and select a payment method.
5. Generate an order confirmation with an estimated arrival time and display to the customer.
6. Implement a tracking to provide updates on the status of the order.

b) Vehicle Sale handling Process

The motor company using the vehicle sale handling system to process vehicle orders. This system allows the sale to efficiently manage incoming orders, track order statuses, and communicate with customers regarding any queries or updates related to their vehicle purchases.

Implementation instructions:

1. Develop a user-friendly process for receiving and processing incoming vehicle orders.
2. Design an interactive interface for sales personnel to view, manage and fulfil vehicle orders
3. Implement an order tracking mechanism to monitor order statuses, ensuring transparency and facilitating the effective communication with customers throughout the order fulfilment process.

c) Extra value added function for the Vehicle Ordering System

Individual part 2:**a) Motor Insurance Application Process**

The motor insurance application process begins with the customers logging in to their accounts on the platform. They can explore and select the coverage plans for their vehicles, either comprehensive coverage or third-party coverage. Customers can then add their chosen plan to their application list. Within the application list, customers need to fill in the essential information such as vehicle details, personal information and preferred payment methods, review their plan and modify their insurance details and proceed to request a quote.

Upon confirmation of the request, customers will receive an application acknowledgment containing an estimated processing time. They can track the status of their application to see the updates.

Implementation instructions:

1. Create a user-friendly interface for customers to log into their accounts
2. Develop a structured display of insurance coverage options for customers to browse and add to their application list.
3. Establish an application management system allowing customers to review, edit, and progress the request.
4. Design an application process to guide customers to input necessary details, including vehicle information, personal data, and payment preferences.
5. Provide an application confirmation with an estimated processing time.
6. Implement a tracking system to offer real-time updates on the application status.

b) Insurance Sale handling Process

The company has a structured system for processing insurance quotations. This system enables the company to efficiently manage incoming quotation requests, track the status of quotations and communicate with customers regarding any queries or updates related to their insurance quotes.

Implementation Instructions:

1. Create a user-friendly process for receiving and processing incoming insurance quotation requests.
2. Design an interactive interface for insurance personnel to view, manage and generate insurance quotations effectively.
3. Implement a quotation tracking mechanism to monitor the status of insurance quotes, ensuring transparency and facilitating effective communication with customers throughout the quotation process.

c) Extra value added function for the Insurance System

Requirement 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 (40%)

A. Driving Question (5%)

How does good HCI design help Legend Motor vehicle system improve user satisfaction, and what advantages does it bring in this regard? (250 words)

B. User Analysis (15%)

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)

C. Web Design Concepts (20%)

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 by discussing their design principles, such as mental model, affordance, content organization, visual organization and navigation design.

2. Prototype (50%)

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.

3. Presentation and Demonstration (10%)

Submission

Each group should submit the followings:

Phase 1 : Prototypes of the common and 1st individual function

- Prototype of the system which include the group common function and 1st individual function.
- Upload your files to Moodle.

Deadline: 1 Nov 2024 11:55pm

Phase 2 : Final Product and system documentation

- Both system documentation and completed system.
- Upload your files (both the prototypes and system documentation) to Moodle.
- Demonstration of the system is required and will be arranged by the module lecturer.

Report and System Deadline: 2 Dec 11:55pm

Presentation and demonstration: week 13 – week 14 (25 Nov 2024 – 6 Dec 2024)

Marking Scheme

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

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.

Marking Scheme

Student 1: _____

Student 2: _____

			Student 1	Student 2
1. Register and Login (10%)		10%		
<ul style="list-style-type: none"> - User Registration - Login - Design for Error Message - Account Management - Overall HCI Design 		3% 2% 1% 3% 1%		
2.1 Customer Vehicle Ordering Process (18%)	2.2 Motor Insurance Application Process (18%)	16%		
<ul style="list-style-type: none"> - Vehicle browsing and selection - - Cart Management - Payment Information Input - Tracking - Overall HCI design 	<ul style="list-style-type: none"> - Insurance Plan Exploration and Selection - Application Management - Quote Information Input - Tracking - - Overall HCI design 	2% 5% 3% 3% 3%		
3.1 Vehicle Sale Handling Process	3.2 Insurance Sale handling Process	16%		
<ul style="list-style-type: none"> - Order processing mechanism - - Overall HCI Design 	<ul style="list-style-type: none"> - Application processing mechanism - - Overall HCI Design 	13% 3%		
4. Extra Function		8%		
<ul style="list-style-type: none"> - Relevant function - Process flow - Overall HCI design 		2% 5% 1%		
5. System Documentation		40%		
<ul style="list-style-type: none"> - Driving Question - User Analysis - Web Design Concept 		5% 15% 20%		
6. Presentation and Demonstration		10%		
<ul style="list-style-type: none"> - Relevant material - Preparation for the presentation - Presentation flow - Presentation skill - Question and Answer Skill 		2% 2% 2% 2% 2%		
Total		100%		