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 **05/12/2025**.

Aims and Objectives

- To gain experience in designing a 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
241234567	Chan Tai Man	50%	
247654321	Cheung Sui Ming	50%	

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

Scenario

Smile & Sunshine Toy Co. Ltd. has launched a new service line to sell tailor-made products within Hong Kong, building upon the System Development Project undertaken in Semesters Two and Three. With a wide array of partnering customers and a strong commitment to prompt service, the company aims to ensure a delightful sales experience for its customers.

The Smile & Sunshine system consists of the following sub-systems:
1) User Management System (Registration and login system)
2) Order System (Toy Ordering Process and Toy Sale Handling Process)
3) Quotation System (Quotation Requisition Process and Quotation Handling Process)

The aims of the order system are as follows:

For Customers:

1. Online Toy purchase: To develop an online platform that allows customers to easily browse available toys, tailor-made their toys, and submit purchase requests.
2. Purchase Management: To provide customers with easy access to their order history, enabling them to track previous orders, review toy details, and manage their purchases efficiently.

For 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 toy purchases, payments, and status. This ensures effective customer engagement and enhances the overall sales process.

The aims of the quotation system are as follows:

For customers:

1. To create a user-friendly platform that allows customer to conveniently tailor-made their toys and request a quote.

2. To provide customers with a comprehensive overview of quotation history, enabling customers to track their previous quotes.

For Sales Personnel:

1. To ensure that sales personnel receive customer information promptly, enabling them to generate accurate quotes based on client specifications.
2. To implement a feature that facilitates direct communication between sales personnel and customers, allowing for timely responses to inquiries and clarifications regarding the quote.

Common Part:

Within the Smile & Sunshine 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 ensures 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 quotes for tailor-made toys, and managing toy details.

a) Registration:

The registration functions for the systems encompass customer registration and sales personnel registration.

Customer Registration:

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

Sales Personnel Registration:

Sales Personnel can register by providing the 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.

b) Login:

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

Customers can log in by entering their registered email address and password, granting them access to their account, allowing them to browse toys, request quotes for tailor-made toys, and manage their purchase history.

Sales personnel can log in using their registered email address and password, enabling them to manage customers' orders, generate quotes for tailor-made toys, process sales inquiries, and interact with customers.

Individual part:

There are two main functions for the system: the order system (Individual part 1) and the 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.

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Individual part 1 (Order System):

a) Toy Ordering Process

The customer toy ordering process begins with customers logging into their accounts on the sales platform. They can then browse through the available toy listings and place a new order on the wish list. Within the wish list, customers can manage the order details, change the toy options and order quantity, processed to request a quote, and provide the necessary information, including their preferred payment method. Once the request is confirmed, customers receive an order confirmation that includes an estimated delivery date.

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

Implementation instructions:

1. Implement a user-friendly interface for customers to log into their accounts.
2. Develop a well-organized toy display that allows customers to browse and place orders to their wish list.
3. Create a wish management system that enables customers to review, modify, and progress the order.
4. Design an order process that prompts customers to provide necessary details and select a payment method.
5. Implement a tracking system to provide updates on the status of the order.

b) Toy Sale Handling Process

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

Implementation instructions:

1. Develop a user-friendly process for receiving and processing incoming toy orders.
2. Design an interactive interface for sales personnel to view, manage, and fulfil toy orders
3. Generate an order confirmation with an estimated delivery date and display it to the customer.
4. Implement an order tracking mechanism to monitor order statuses, ensuring transparency and facilitating effective communication with customers throughout the order fulfilment process.

c) Extra value-added function for the Toy Ordering System

Individual Part 2 (Quotation System):

a) Quotation Requisition Process

The quotation requisition process begins with the customer logging in to their accounts on the platform. They request a quote for their tailor-made toys. Customers can then add their tailor-made toy to their wish list. Within the wish list, customers need to fill in the essential information for a tailor-made toy, such as sketches, dimensions, Pantone colours, materials (e.g., fabric types, stuffing, plastic parts, etc), quantity, and preferred payment methods, review their wish list, modify their toy specification, and proceed to request a quote.

Upon confirmation of the request, customers will receive an acknowledgment containing a price and estimated delivery date. They can track the status of their request to see the updates.

Implementation instructions:

1. Create a user-friendly interface for customers to log into their accounts
2. Establish a custom toy system allowing customers to create, edit, and progress the request.
3. Design a mechanism to guide customers to input necessary details, including toy information, personal data, and payment preferences.
4. Implement a tracking system to offer real-time updates on the request status.

b) Quotation Handling Process

The company has a structured system for processing 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 quotes.

Implementation Instructions:

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

c) Extra value-added function for the Quotation 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 Smil & Sunshine Toy 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 *(i) mental model*, *(ii) affordance*, *(iii) content organization*, *(iv) visual organization*, and *(v) navigation design*.

2. Prototype (50%)

The Prototype should be created in HTML format. All the pre-created user names and passwords 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 purposes.

3. Presentation and Demonstration (10%)

Submission

Each group should submit the following:

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

- Prototype of the system, which includes the group common function and 1st individual function (toy order process and quotation requisition process for individual parts 1 and 2, respectively).
- Upload your files to Moodle.

Deadline: **3 Nov 2025 11:55 pm**

Phase 2 : Final Product and System Documentation

- Both system documentation and the 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: **5 Dec 2025 11:55 pm**

Presentation and demonstration: **week 15 – week 16 (8 Dec 2025 – 19 Dec 2025)**

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: _____ (Individual Part 1)

Student 2: _____ (Individual Part 2)

			Student 1	Student 2
Common Part: Register and Login (10%)		**10%**		
- User Registration		3%		
- Login		2%		
- Design for Error Message		1%		
- Account Management		3%		
- Overall HCI Design		1%		
Individual Part 1(a): Toy Ordering Process (16%)	**Individual Part 2(a): Quotation Requisition Process (16%)**	**16%**		
- Toy browsing and selection	- Tailor-made toy creation	2%		
- Order Management	- Application Management	5%		
- Payment Information Input	- Quote Information Input	3%		
- Tracking	- Tracking	3%		
- Overall HCI design	- Overall HCI design	3%		
Individual Part 1(b): Toy Sale Handling Process	**Individual Part 2(b): Quotation Handling Process**	**16%**		
- Order processing mechanism	- Application processing mechanism	13%		
- Overall HCI Design	- Overall HCI Design	3%		
4. Extra Function		**8%**		
- Relevant function		2%		
- Process flow		5%		
- Overall HCI design		1%		
5. System Documentation		**40%**		
- Driving Question		5%		
- User Analysis		15%		
- Web Design Concept		20%		
6. Presentation and Demonstration		**10%**		
- Relevant material		2%		
- Preparation for the presentation		2%		
- Presentation flow		2%		
- Presentation skills		2%		
- Question and Answer Skill		2%		
Total		**100%**		