



# UTM

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**SECD2613-03**

**SYSTEM ANALYSIS AND DESIGN**

### **Group Project 3- Group 3**

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## **1.0 Overview**

XIANG EN Hamper Trading is a small and medium-sized enterprise (SME) specializing in designing and selling personalized festive hampers. The company was founded in 2008 by Ms Crystal Ooi, the business initially operated from a small stall in Jelutong, Penang. With creative design and customized packaging, the company quickly gained popularity especially during Chinese New Year season. However the COVID-19 pandemic and enforcement of the Movement Control Order (MCO) in Malaysia forced the company to pivot toward online channels. XIANG EN began using social media platforms such as Facebook and Instagram to promote and receive orders.

While the company's entry into digital space, its core operations including order processing, stock management and internal coordination remain manual and unstructured. Currently, orders are handled through private messages, with details manually recorded and passed to the production team via screenshots. Inventory tracking is using physical stock counts. These manual processes are prone to miscommunication, inefficiencies and stock inaccuracies, especially during peak festive periods. This project aims to design and propose a web-based system tailored to streamline the company operations. The proposed system will use automation and digital tracking in place to enhance efficiency, reduce operational errors, and support the company's ongoing digital transformation.

## **2.0 Problem Statement**

Despite having an online presence on platforms such as Facebook and Instagram, several key challenges in business operation has faced by XIANG EN Hamper Trading:

- 1. Inexperience in Managing Online Business Operations:**

The company is relatively new to digital business management and lacks appropriate tools and systems to effectively handle online transactions, communication with customers and the internal workflows. This resulted in operational inefficiencies and delays in responding to customer needs.

- 2. Manual and Time-Consuming Order Processing:**

Orders are currently taken through private messages on social media platforms. These orders are manually recorded and tracked, making the process slow and highly prone to human error. This method increases the risk of missed or mishandled orders due to the high volume of inquiries during the peak season.

- 3. Unstructured Workflow Between Sales and Production Terms:**

This is no formal platform or system for communication between the sales and production teams. Order updates or customizations of products are often conveyed through verbal instruction, phone calling or screenshots. These ways are leading to miscommunication. Incorrect product packaging and delayed deliveries have resulted.

- 4. Lack of Real-Time Inventory Management:**

The company relies on periodic manual stock inventory. This outdated method makes it difficult to track stock availability in real time. As a result, the business faces frequent issues with overstocking or understocking, which affects both cost control and customer satisfaction. These operational bottlenecks have indicated the urgent need for a centralized and automated digital system. This system would provide a streamline business processes, reduce communication errors and enhance both internal coordination and external customer experience.

### **3.0 Proposed Solution**

To address the above challenges, a centralized and web-based digital system is proposed consisting of the following modules:

#### **1. Create a User-friendly Online System**

The system will be designed with a neat, user-friendly interface without any technical knowledge requirement. Built-in automation features will reduce the need for repeating manual actions and works, allowing staff to focus on higher-level tasks. Furthermore, an AI-powered chatbot will be integrated to assist customers in navigating the system, placing orders and answering frequently asked questions. This 24/7 AI-powered will reduce the administrative burden and improve customer support.

#### **2. Create a centralized Online Order Management Module**

Customers will place orders through a standardized online form accessible via the official website. Submitted orders will be stored in a centralized database. The admin team will manage orders via a secure dashboard, where they can view, edit and monitor order status. Any change made by a customer will be reflected in real-time, also the customer will receive automatic updates on their order status. This system reduces human error and eliminates the inefficiencies of manual tracking via social media messages.

#### **3. Implement a Workflow Tracking Module**

Administrators will be able to assign orders directly to the production team within the system. The production team can update the progress using status labels such as “Pending”, “In Production”, “Completed” and “Delivered”. All updates are synchronized and displayed on the admin dashboard, enabling better coordination between teams and clearer tracking of order fulfilment stages.

#### **4. Design a Real-Time Inventory Management**

The inventory module will automatically update stock levels as new orders are placed and items are restocked. When inventory drops below the preset, the system will trigger low-stock alerts to prompt timely restocking. Therefore, admins can easily

add, remove or update product records. All purchase orders will be recorded including details such as quantity, prices and transaction information, which support better purchasing decisions and reduce stock related issues.

#### **4.0 Current Business Process/Workflow**

To order from Xiang En Hamper Trading, a customer can look for the hampers type through the platform provided by Xiang En Hamper Trading, which are Facebook and Instagram. When the customer wants to make an order, they contact the trading through calls or messages. The staff will check for the availability. Once the availability is verified, the staff will manually record the customer's details and orders. The customer can choose to pay through several methods, either cash, online transfer or cheque. The staff will later update the inventory level, which is the count of items in the store. After that, the staff will pass the order information to the production team. The production team will prepare the hampers based on the order type. If there are any changes, the customer service team will update the changes to the production team. After the hamper is done being prepared, the customer can choose to pick up the hamper at the physical shop or through courier service.

## 5.0 Logical DFD AS-IS system (Context Diagram, Diagram 0, Child Diagram)

Context Diagram

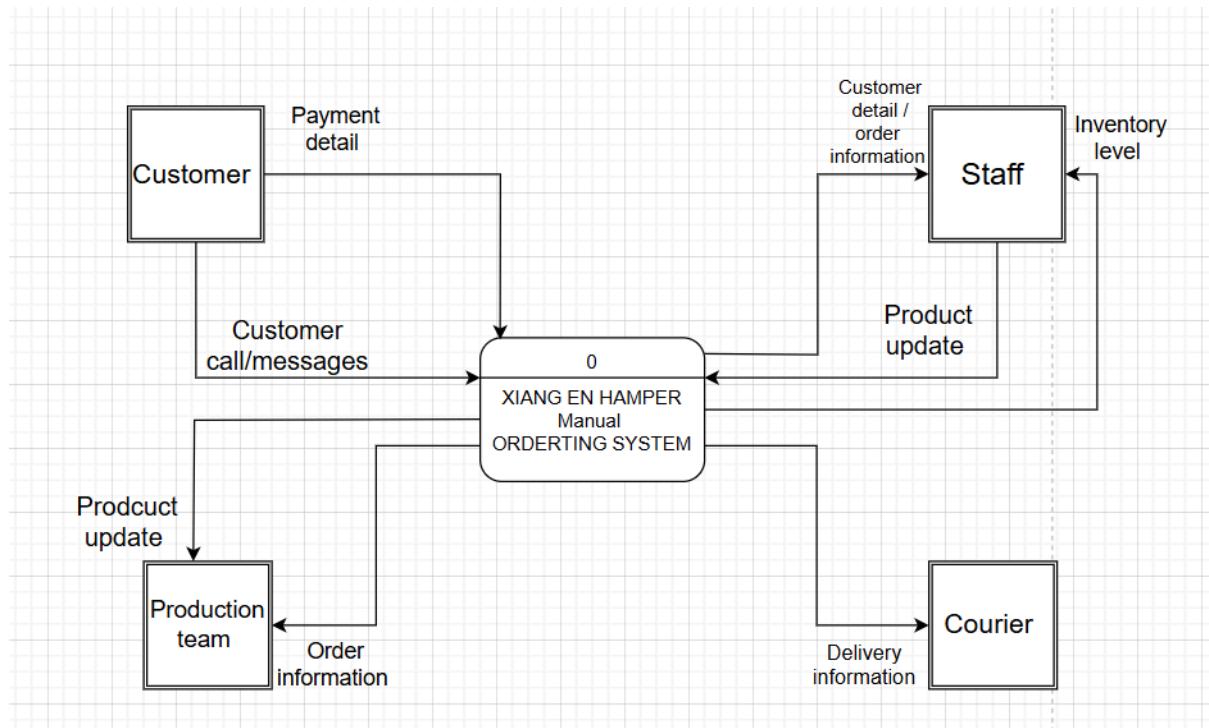
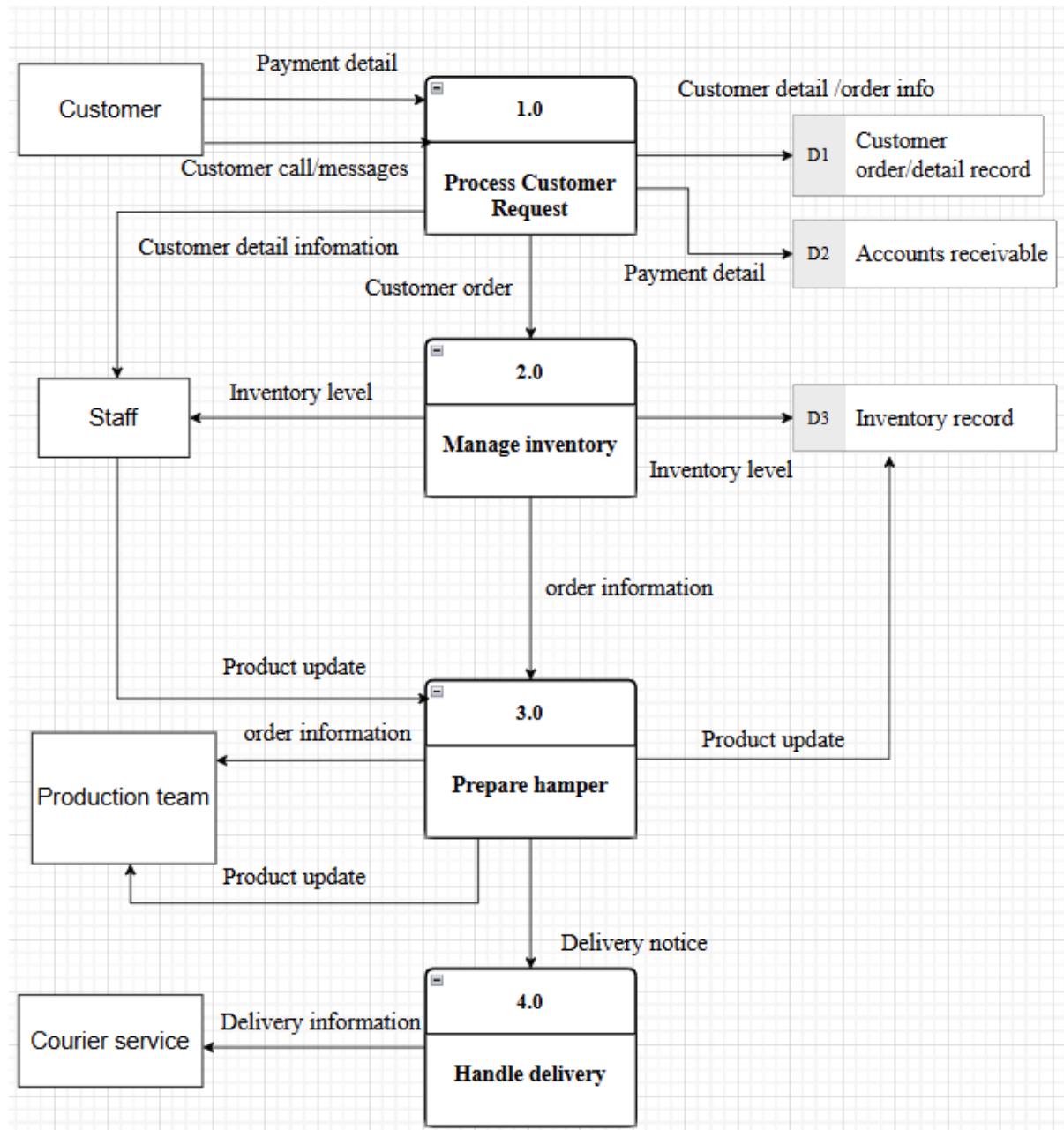
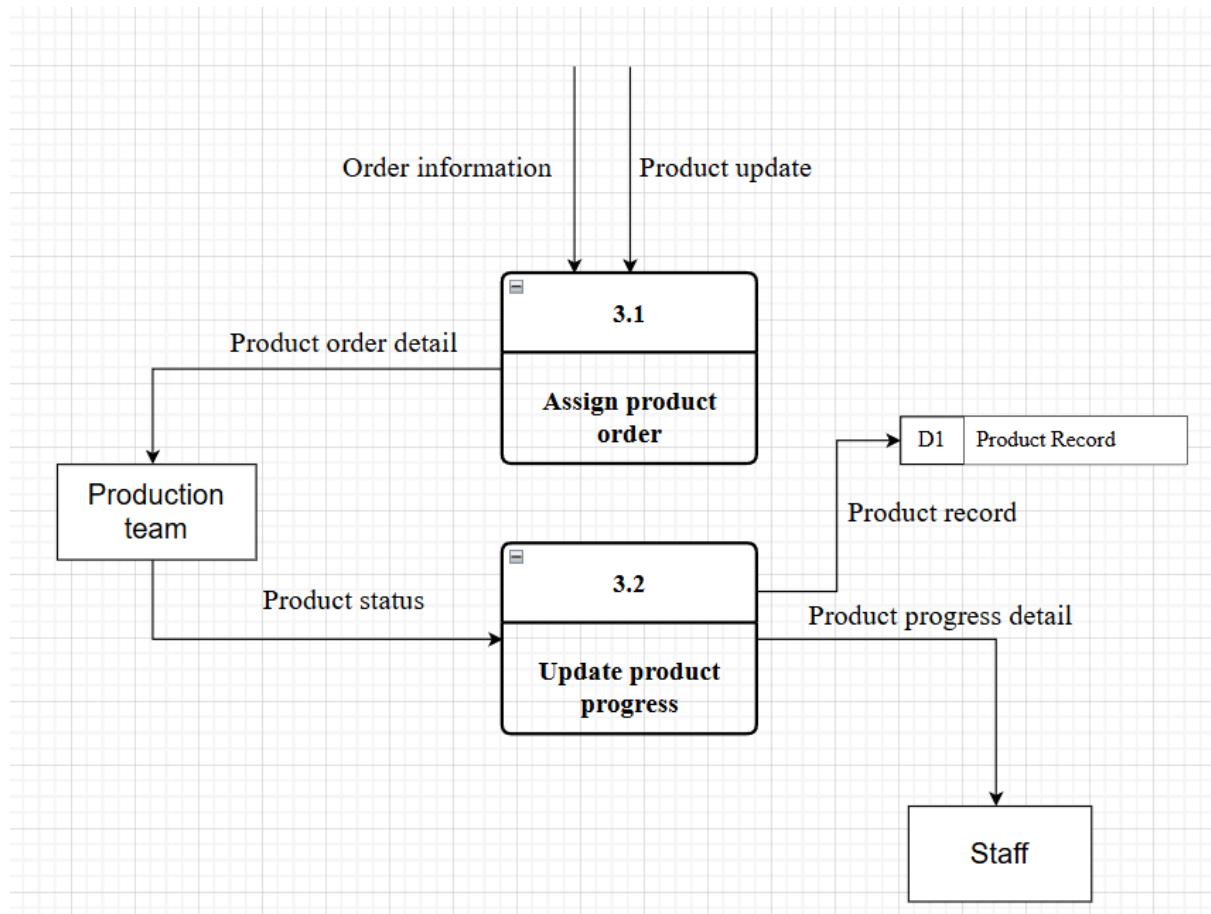


Diagram 0



### Child Diagram



## 6.0 System Analysis and Specification

### 6.1 Logical DFD TO-BE System

Context Diagram:

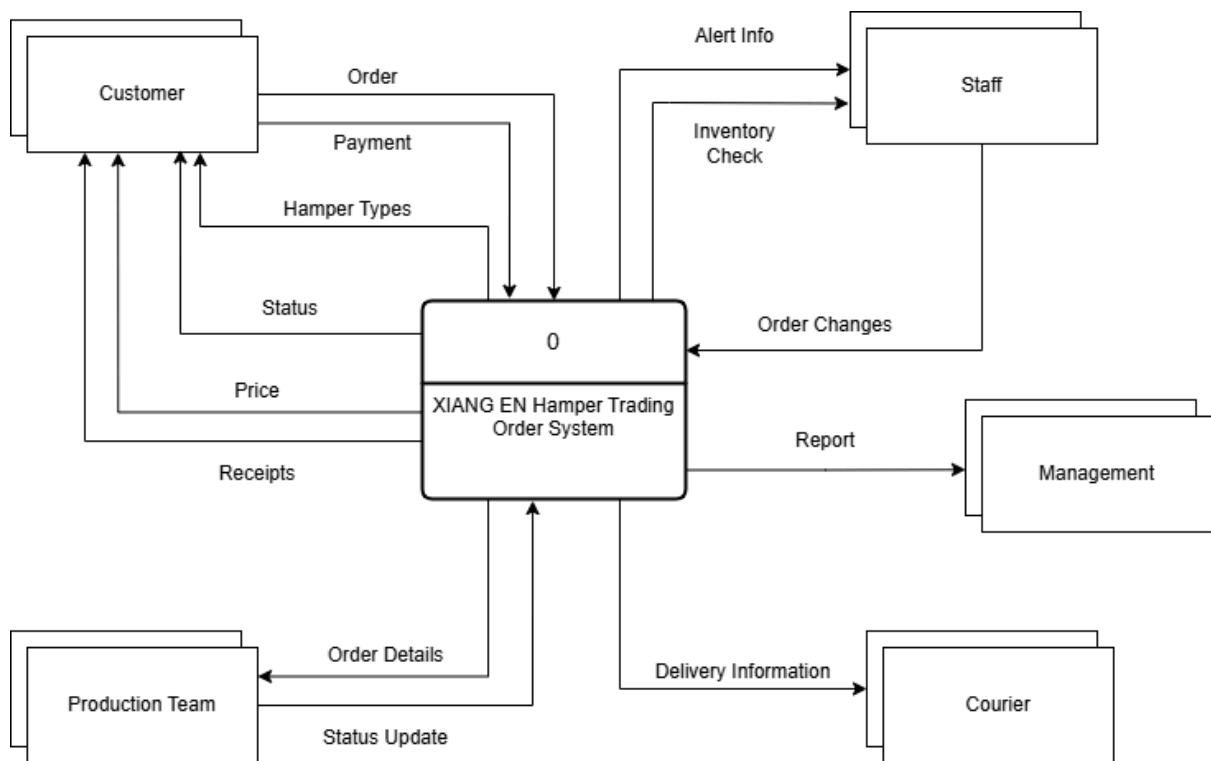
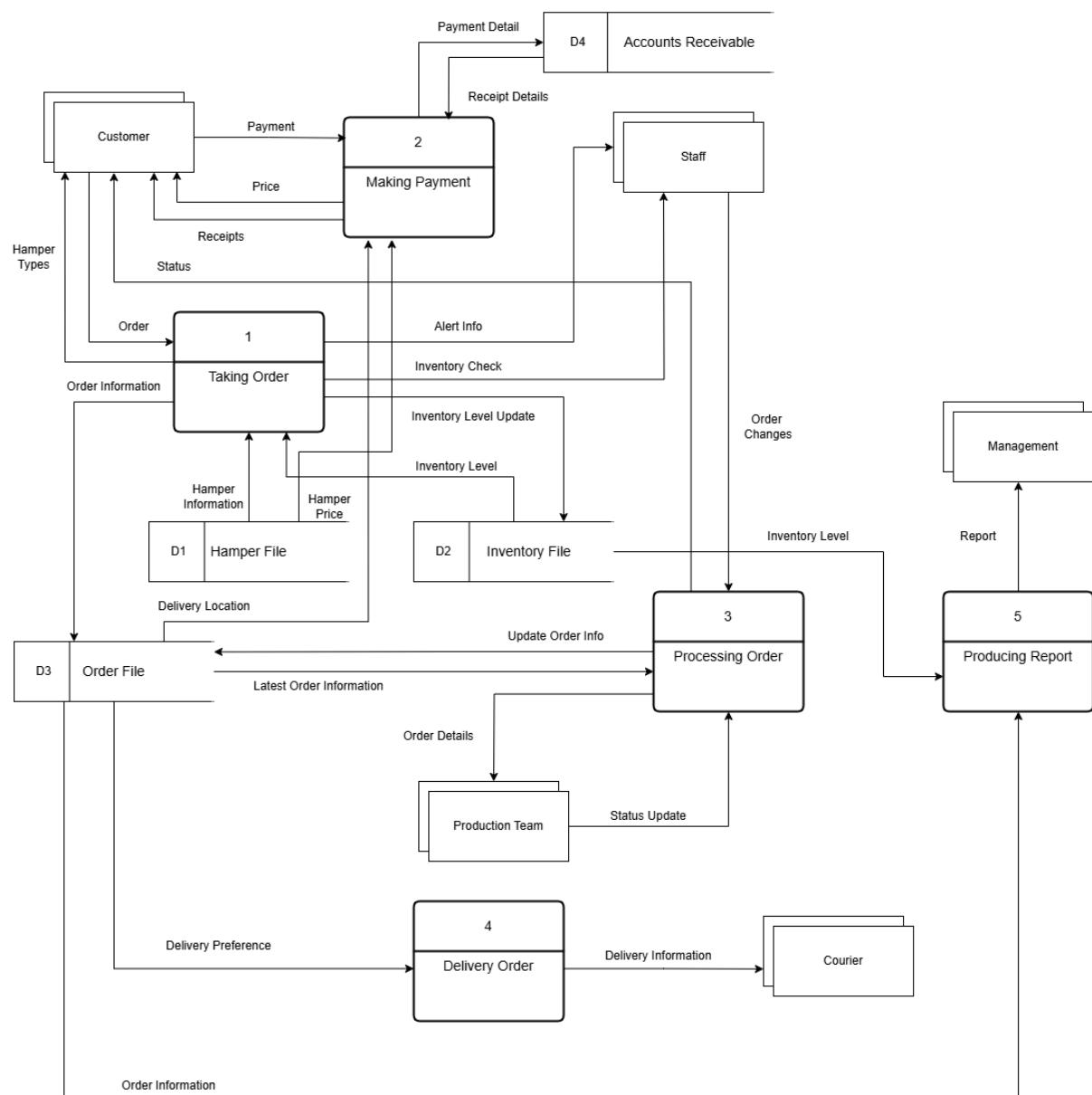
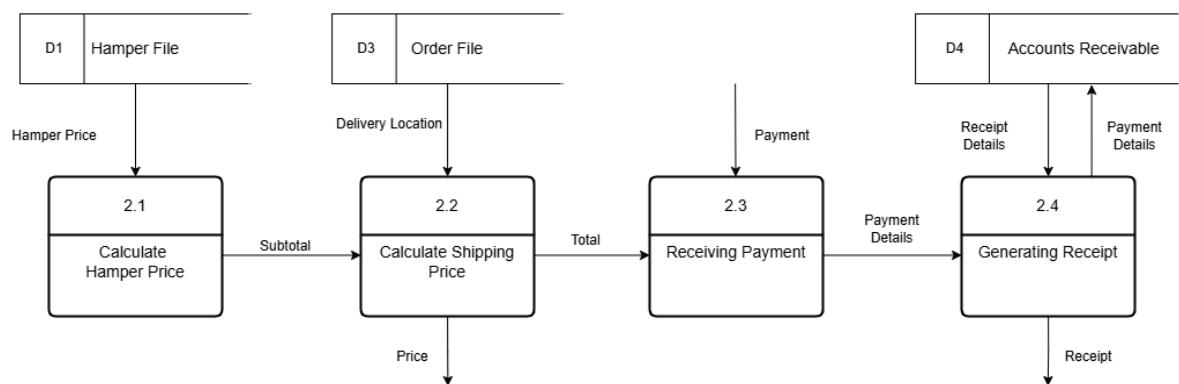
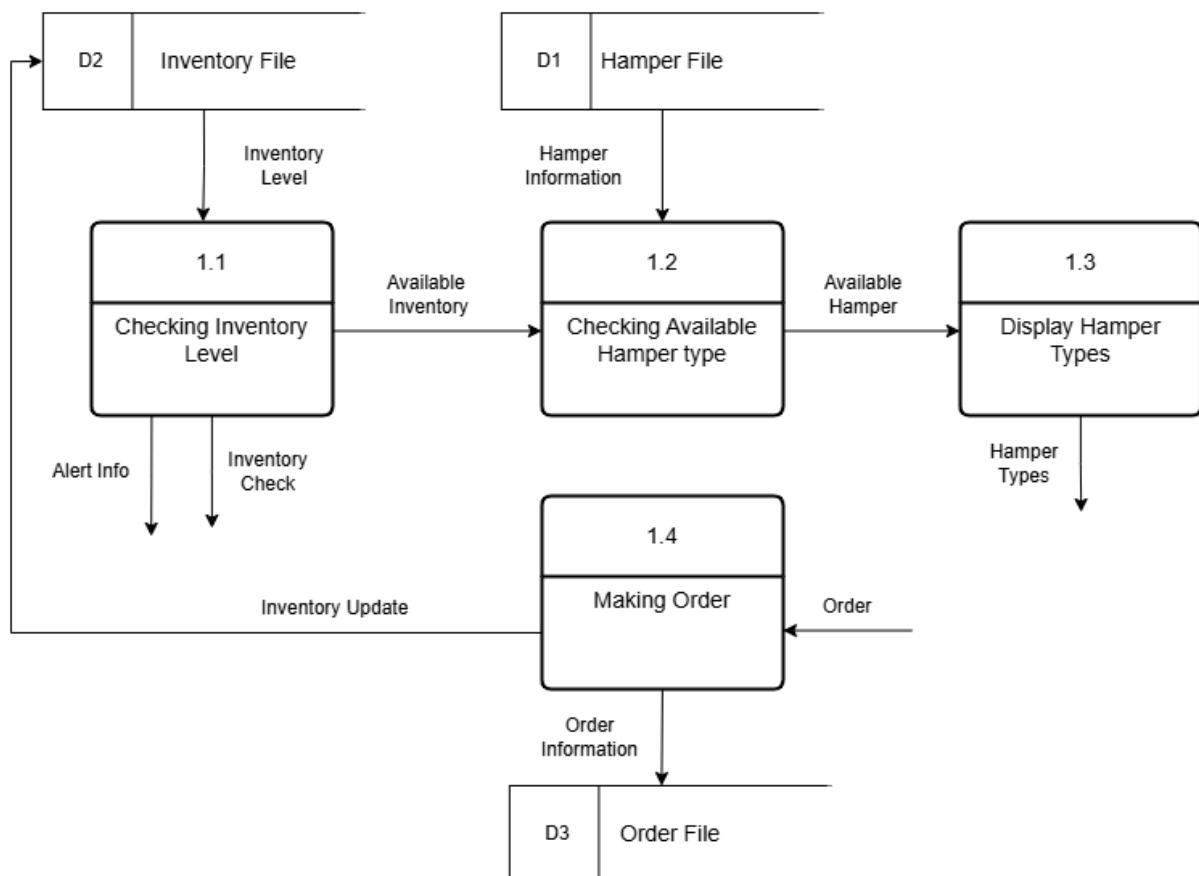
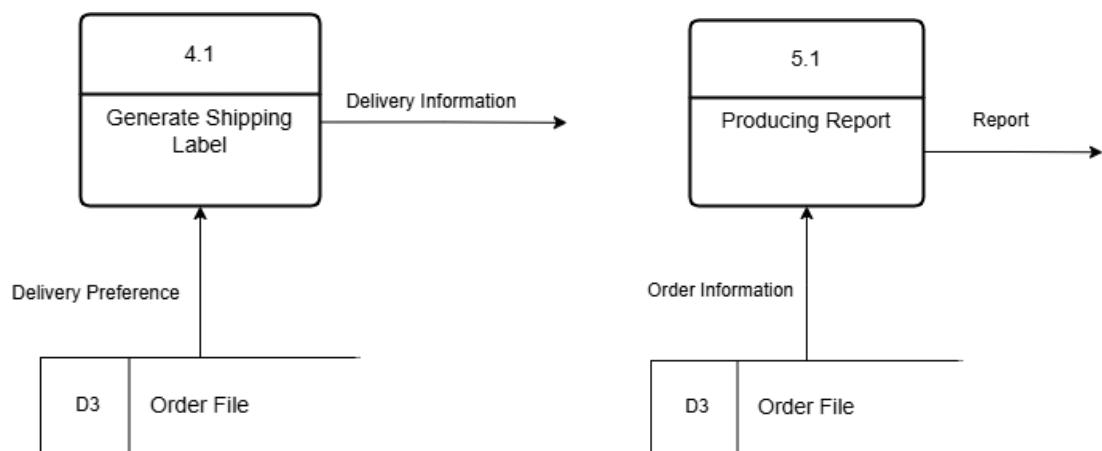
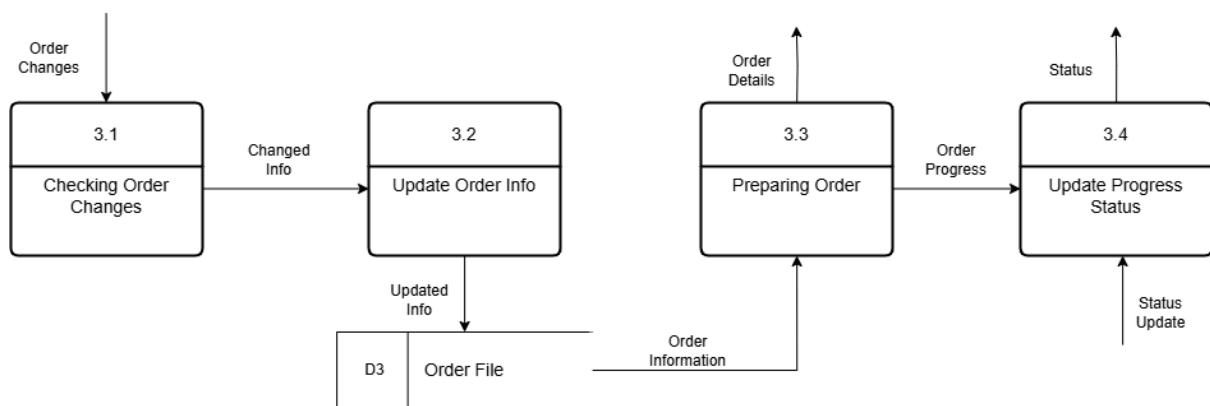


Diagram 0:



Child Diagram:





## 6.2 Process specification (based on Logical DFD TO-be)

### Process specification form

Process ID/Number	1.1
Process Name	Checking Inventory Level
Description	Staff checking the inventory level
Input	Inventory level
Output	Alert Info, Inventory Check, Available Inventory
Process Logic Description	Staff will start inventory checks, the system reads current inventory data from the inventory file. Each quantity of item is compared against its minimum inventory threshold. If the quantity of item is below the threshold, an alert info is created.

Process ID/Number	1.2
Process Name	Checking Available Hamper Type
Description	After the system receive available inventory ,the staff can starts to check available hamper type
Input	Available Inventory, Hamper Information
Output	Available Hamper
Process Logic Description	The system looks at what's currently in stock and compares it with what each hamper needs. For every hamper type, it checks if the inventory has enough of every required item. Only if all parts are available in the right amounts does the system list that hamper as ready to assemble.

Process ID/Number	1.3
Process Name	Display Hamper Types
Description	The system displays all available hamper types that can be assembled after checking available hamper type
Input	Available Hamper
Output	Hamper Types
Process Logic Description	The system takes the list of available hamper types that have passed inventory checks ,informs and presents them to the customer .

Process ID/Number	1.4
Process Name	Making Order
Description	Staff selects a hamper type and places an order, which updates the inventory and stores the order information into the order file.
Input	Order
Output	Inventory Update, Order Information
Process Logic Description	The staff places an order for a selected hamper type, the system records the order information .The system will decrease the required item quantities from the inventory. If the order is successfully placed, the system updates the inventory level which is stored in the inventory file and stores the order information for processing.

Process ID/Number	2.1
Process Name	Calculate Hamper Price
Description	The system calculates the total price for the selected hampers by retrieving individual hamper prices from the hamper file.
Input	Hamper Price
Output	Subtotal
Process Logic Description	The system retrieves the unit price for each selected hamper from the hamper file. It multiplies each price by the quantity ordered and sums the results to calculate the subtotal for the order.

Process ID/Number	2.2
Process Name	Calculate Shipping Price
Description	The system calculates the total amount that needs to be paid by including shipping charges based on the delivery location.
Input	Delivery Location from order file , Subtotal
Output	Total, Price
Process Logic Description	The system reads the delivery location from the order file and checks the corresponding shipping rate. This shipping cost is added to the subtotal from the hamper price to calculate the final total amount payable by the customer.

Process ID/Number	2.3
Process Name	Receiving Payment
Description	When a customer pays for their order, the system processes the payment and keeps a record of the transaction
Input	Payment , Total
Output	Payment Details
Process Logic Description	The customer makes payment according to the total price calculated. The system has payment methods such as cash, card, ,online.The system will confirm the payment, and record the payment details

Process ID/Number	2.4
Process Name	Generating Receipt
Description	The system generates a receipt after successful payment and updates accounts receivable.
Input	Payment Details ,Receipt Details
Output	Payment Details , Receipt
Process Logic Description	After the payment is received , the system generates a receipt that includes payment information. It then forwards the payment details to the accounts receivable of the system for recording and accounting purposes. A copy of the receipt will also be sent to the customer.

Process ID/Number	3.1
Process Name	Checking Order Changes
Description	Staff reviews and submits any changes to an existing customer order.
Input	Order Changes
Output	Changed Info
Process Logic Description	The staff members modify changes to an order. The system checks and validates the modified changes. If valid, the changes are passed to the update process.

Process ID/Number	3.2
Process Name	Update Order Info
Description	The system updates order information based on validated changes and saves them into the order file.
Input	Changed Info
Output	Updated Info
Process Logic Description	The system receives order change information and updates the corresponding record in the order file. The updated information is stored to ensure that the latest order status is available for processing.

Process ID/Number	3.3
Process Name	Preparing Order
Description	The order is prepared based on the confirmed and updated order information.
Input	Order Information (from Order File)
Output	Order Details, Order Progress
Process Logic Description	The system retrieves the finalized order details from the order file. Based on the information, the production team begins preparing the order. Progress updates and order details are recorded for tracking.

Process ID/Number	3.4
Process Name	Update Progress Status
Description	The system updates the customer on the current status of their order based on progress reported by the production team.
Input	Order Progress, Status Update from production team
Output	Status to customer
Process Logic Description	The system receives progress updates from the production team such as "Order in progress", "Ready for delivery". These updates are able to be checked by the customer using the system.

Process ID/Number	4.1
Process Name	Generate Shipping Label
Description	This process creates a shipping label for each customer order based on their delivery preferences (e.g., standard, express). The label is then used to send the package through the courier service.
Input	Delivery Preference
Output	Delivery Information
Process Logic Description	The system begins by reading the customer's delivery preference from the order file. Based on this preference, it prepares a shipping label that includes important delivery details such as the customer's name, address, and selected shipping method (for example, standard or express delivery). Once the shipping label is generated, the delivery information is passed on to the courier service to begin the delivery process.

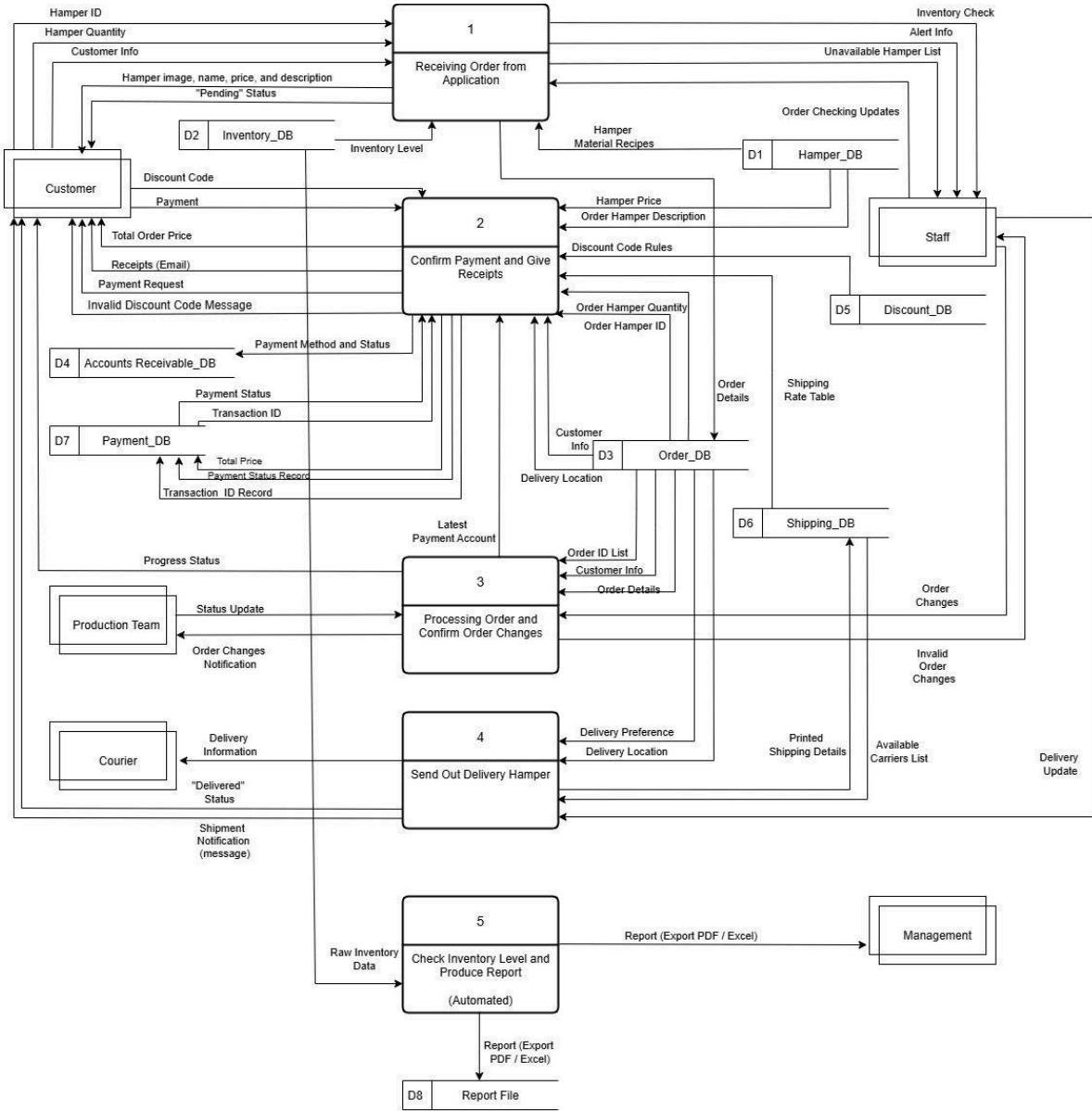
Process ID/Number	5.1
Process Name	Producing Report
Description	This process gathers order information and prepares a report for management. The report includes summaries such as total orders, top-selling items, delivery statuses.
Input	Order Information
Output	Report to management
Process Logic Description	The system collects order information from the order file. It analyzes the data to identify important details such as the number of orders, item quantities, order dates. This information is then organized and

formatted to generate a report that presents the data clearly. Finally, the completed report is delivered to management to let them be able to review performance and make informed business decisions.

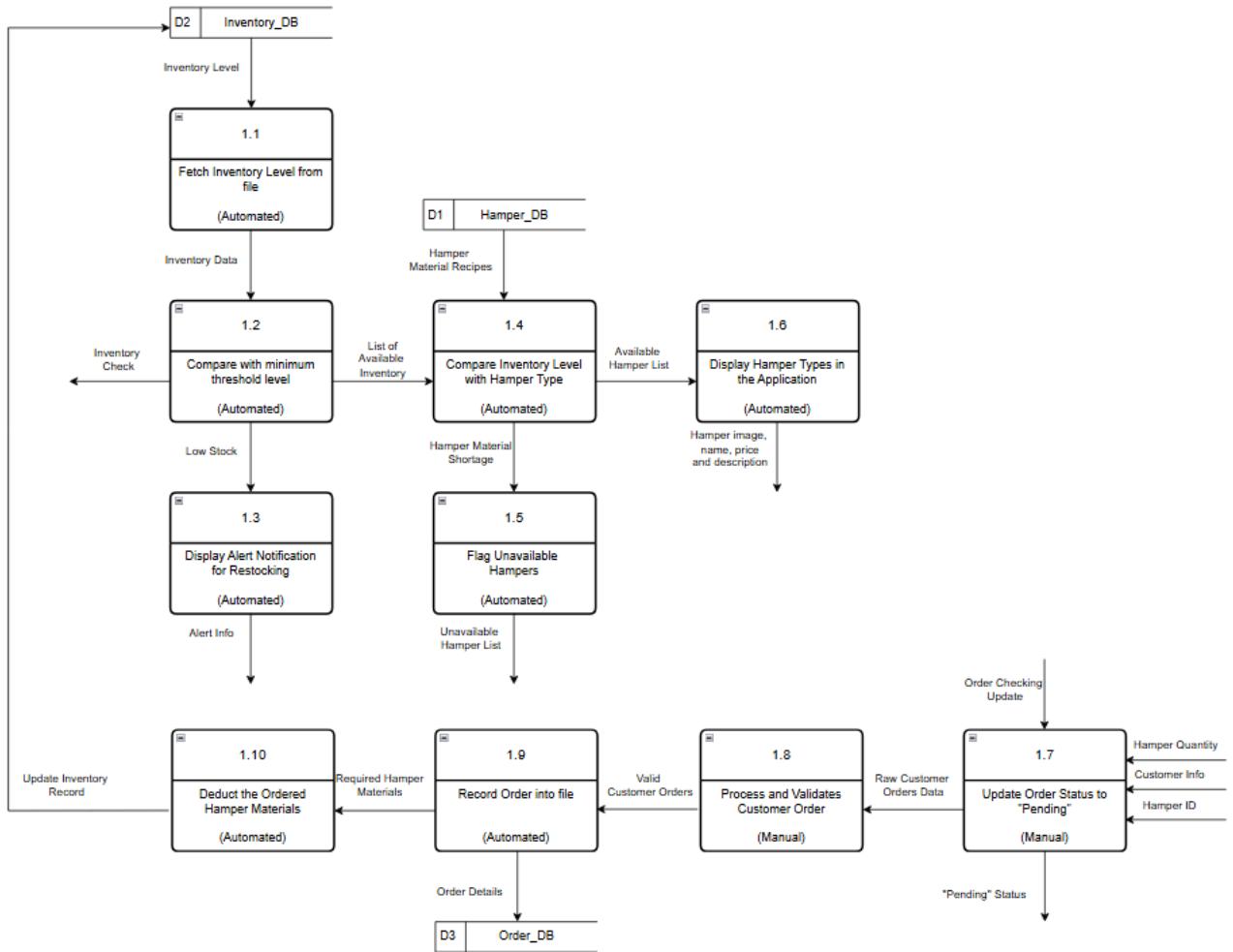
## 7.0 Physical System Design

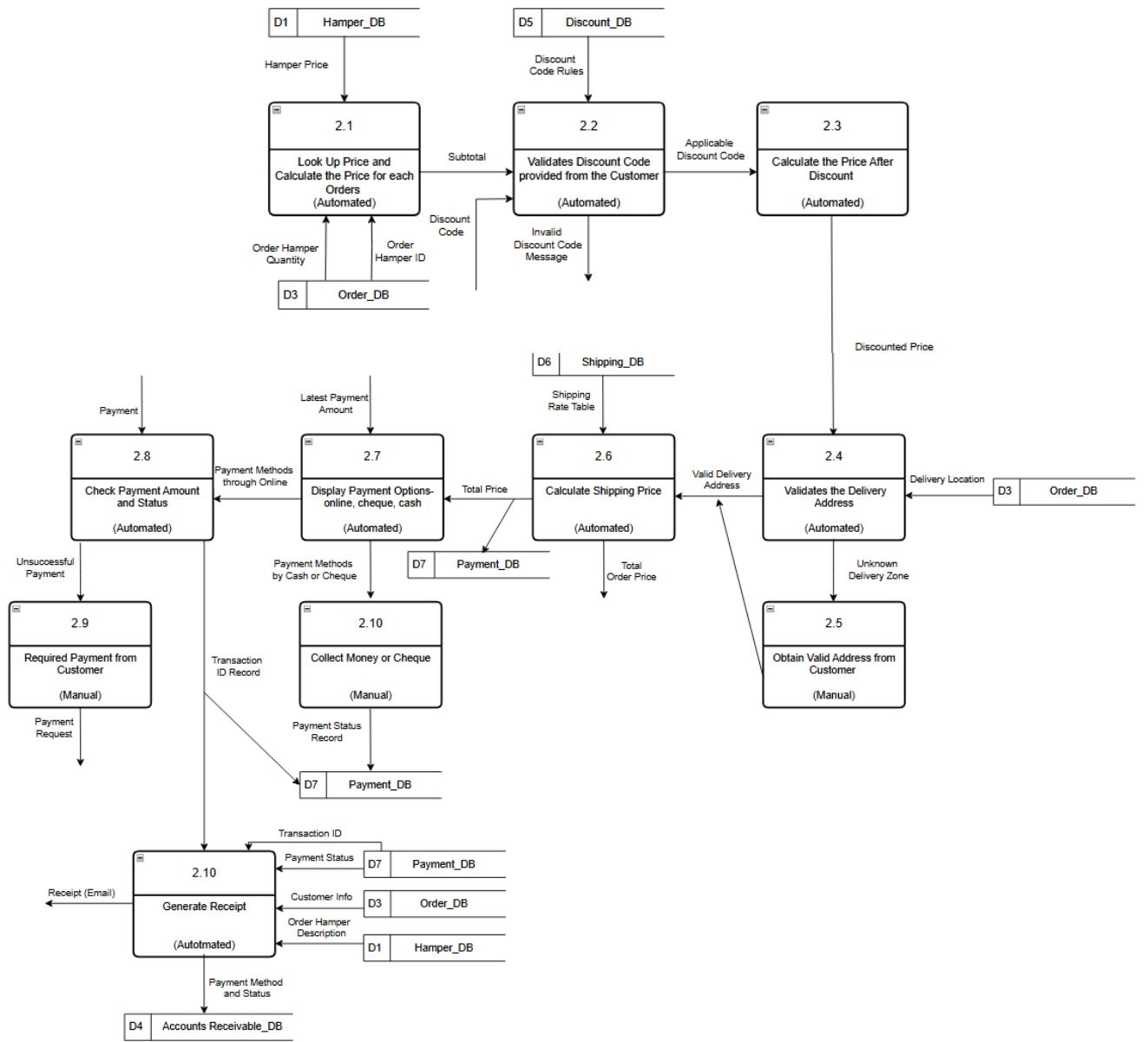
### 7.1 Physical DFD TO-BE System

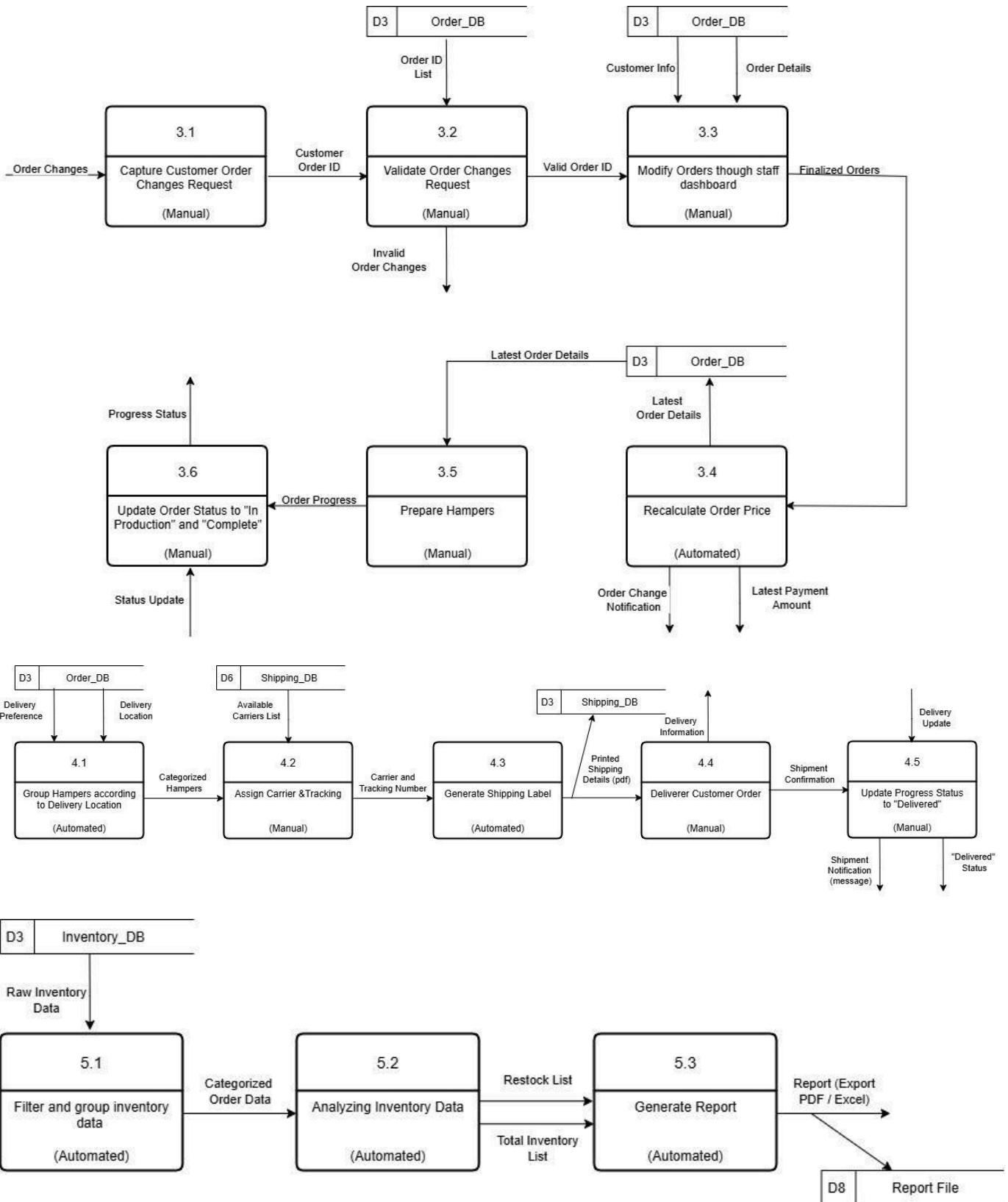
Diagram 0



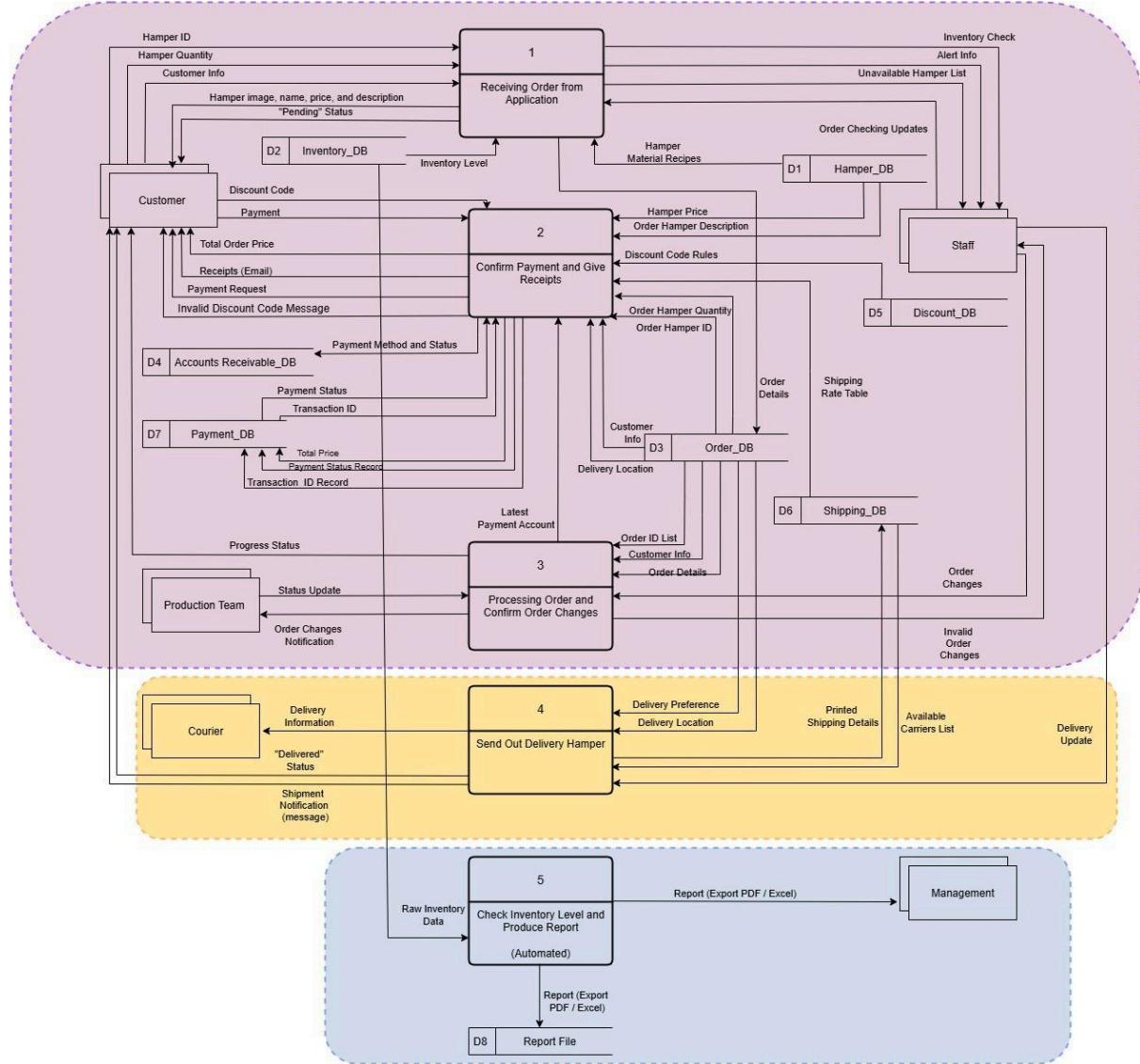
## Child Diagram







## Partitioning



### Module 1:

Order Management

### Module 2:

Delivery Management

### Module 3:

Reporting and Inventory Management

## CRUD matrix

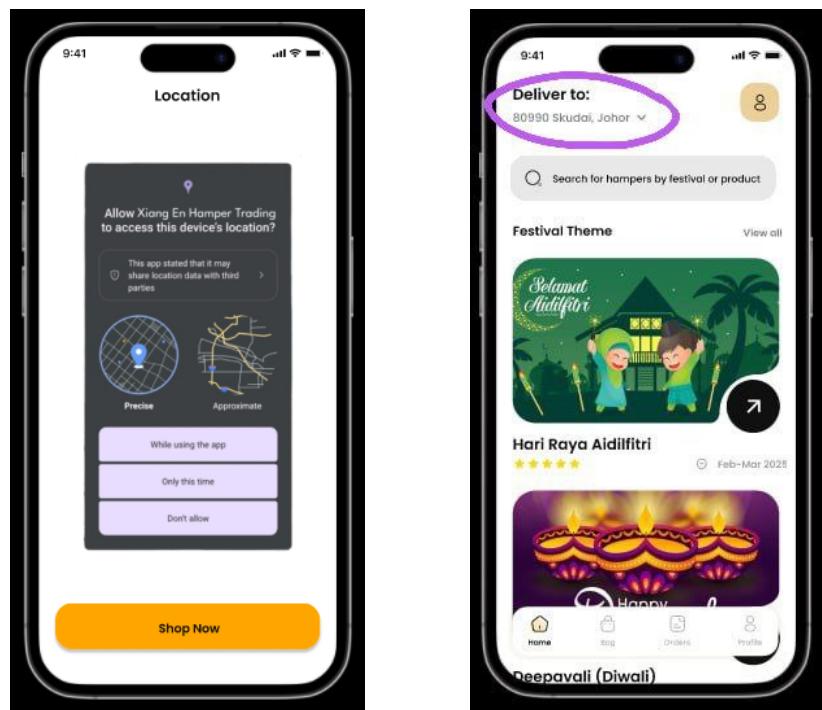
Process/ Data Store	Hamper _DB	Invento ry_DB	Order_ DB	Accoun ts Receiva ble_DB	Discoun ts_DB	Shippin g_DB	Paymen t_DB	Report File
P1:Receivin g Order from Application	R	R	C					
P2:Confirm Payment and Give Receipts	R		R	C/U	R	R	C/U	
P3:Processi ng Order and Confirm Order Changes			R					
P4:Send OUt Delivery Hamper			R			C/U/R		
P5:Check Inventory Level and Produce Report		R						C

## 8.0 System Wireframe

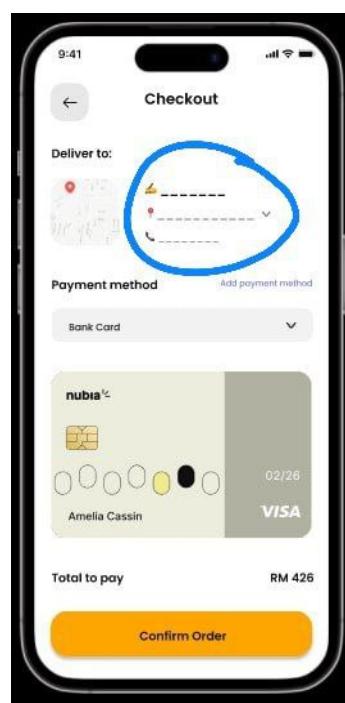
### Customer Application:

Input Design:

1. Customer details (address) will be auto detected when asking permission from the customer.



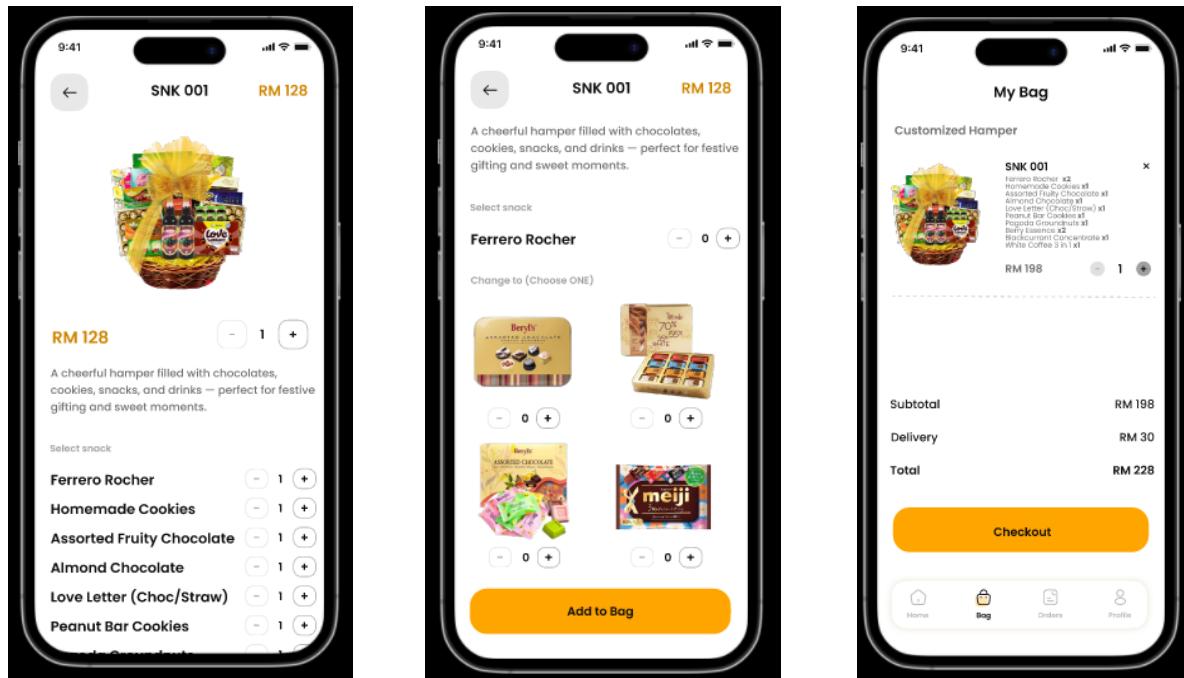
2. Other details like name and phone number can be entered during the check out page while address can also be entered again for confirmation.



3. To overcome delays in handling customization or modification requests, the system introduces two structured processes:

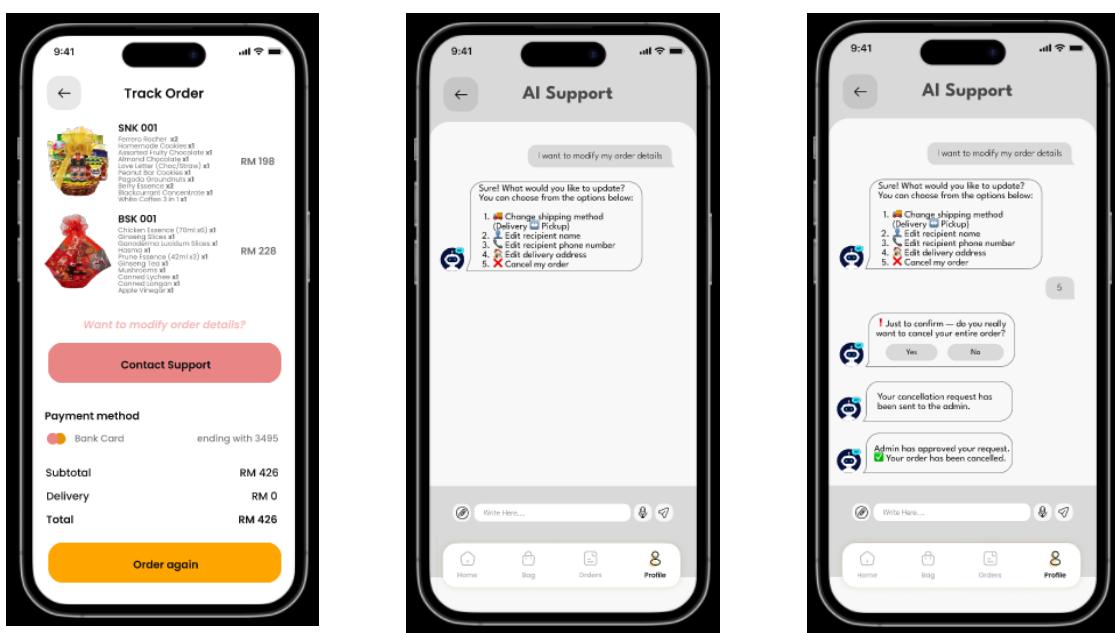
**a) Customization Before Order Placement:**

Customers are able to customize their hampers such as modifying item contents or adjusting quantities directly through the application before placing an order. This eliminates the need for manual communication prior to confirmation and ensures that only finalized and accurate orders are submitted to the production team.

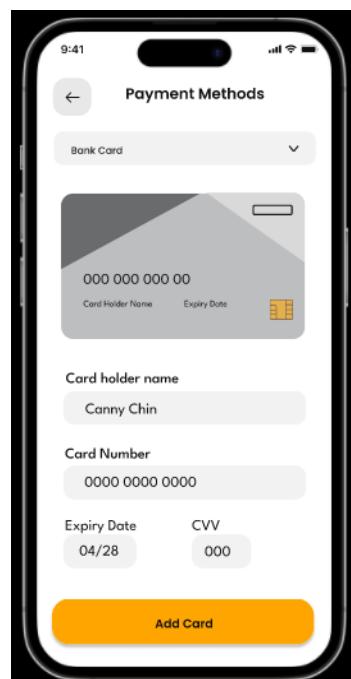


## b) Modification After Order Placement (but Before Preparation):

For any changes requested after an order is placed but before it is prepared, customers can click the “Contact Support” button within the app. An integrated AI chatbot assists users in submitting modification requests, such as updating recipient name, phone number, address, changing the shipping method, or canceling the order. These requests are automatically logged and routed through a centralized system to the admin, replacing informal methods such as verbal instructions or screenshots. This ensures a more structured and traceable communication flow between customer service and the production team.



4. Customers can add their payment details at the payment methods page.

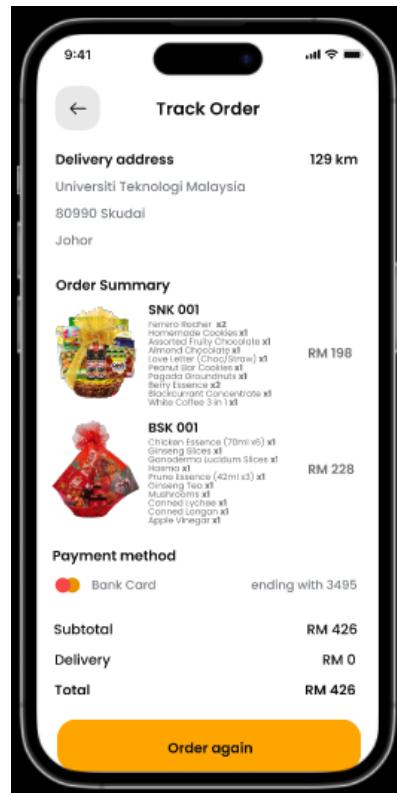


- Customers can also use the search bar to look for festivals they're interested in and the matching results will appear.

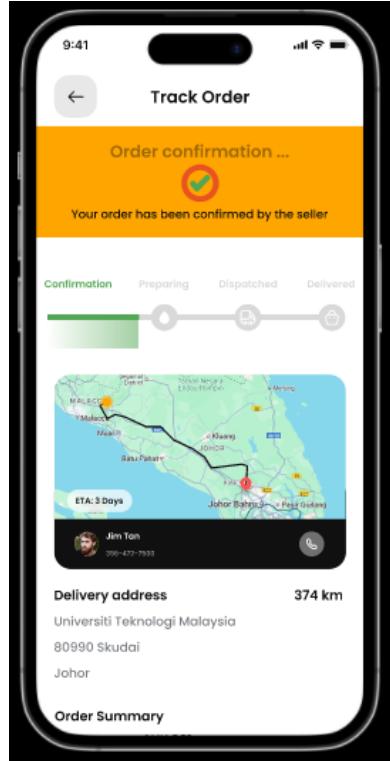


### Output Design:

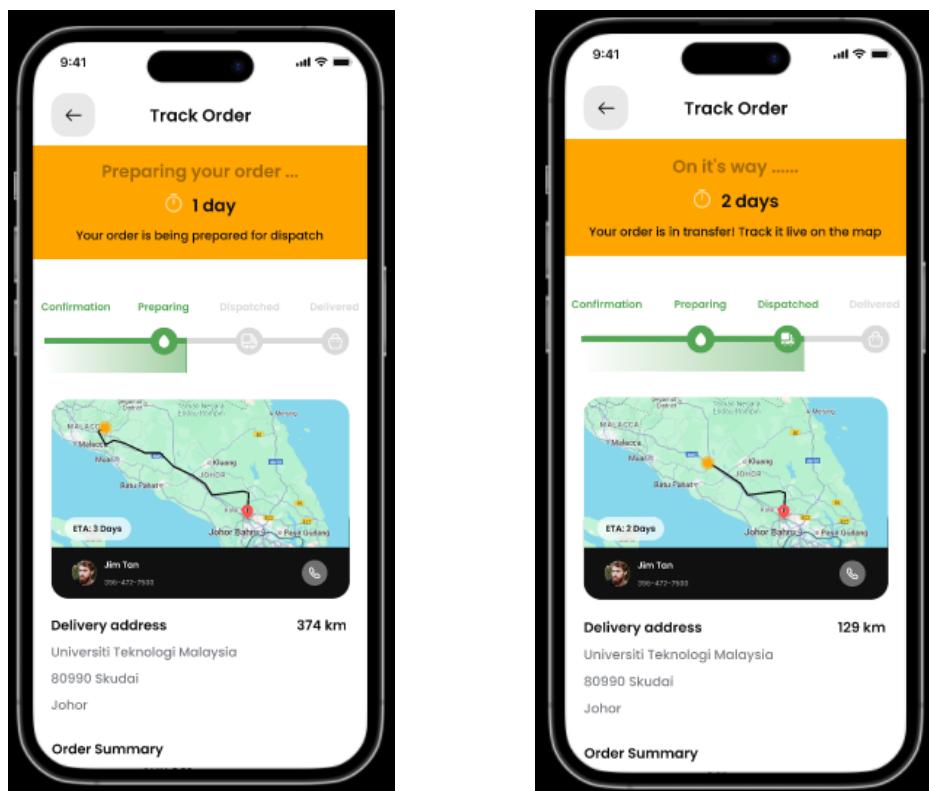
- After check out, customers can review their payment and order details.



2. Application will display order confirmation after the order placed is received by the seller system.



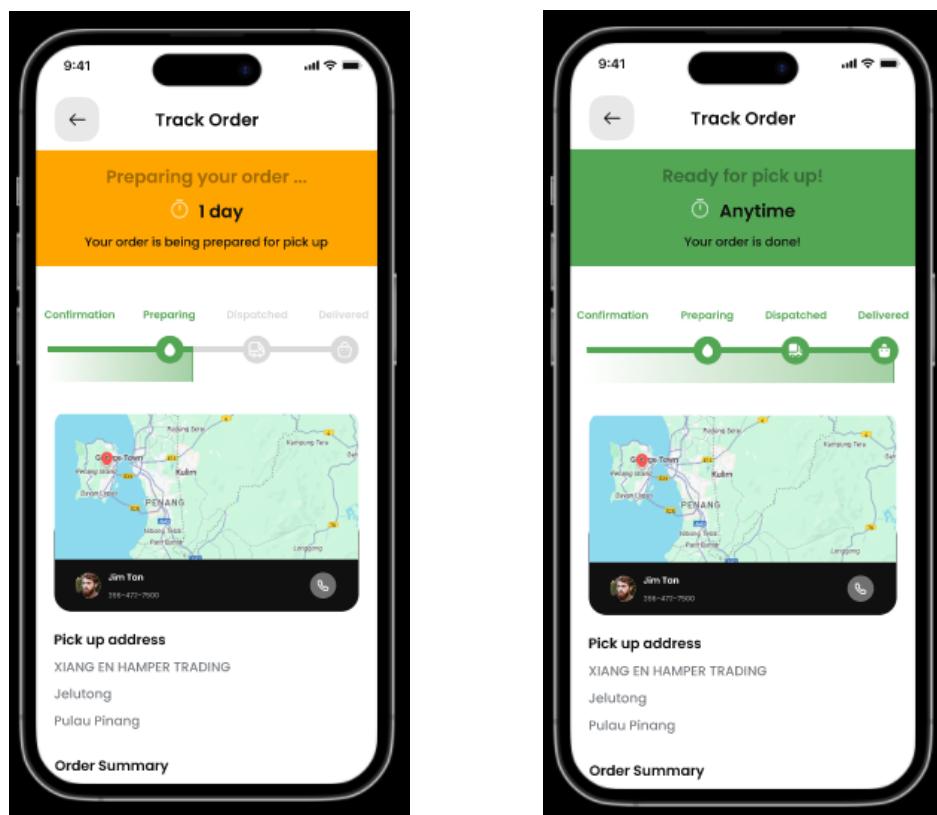
3. The application also provides real-time order tracking. For delivery orders, the status will show either “Preparing” (while the production team is assembling the hamper) or “In Transit” (once the courier has picked up the order).



4. For self-pickup orders, the app will similarly display the “**Preparing**” status, and automatically show a “**Ready for Pickup**” notification when the order is completed. All status updates are managed through the admin web system.



5. An AI chatbot is available 24/7 to handle FAQs and assist with order placement, reducing dependence on human customer service while enhancing accuracy and efficiency.



## Admin Web System

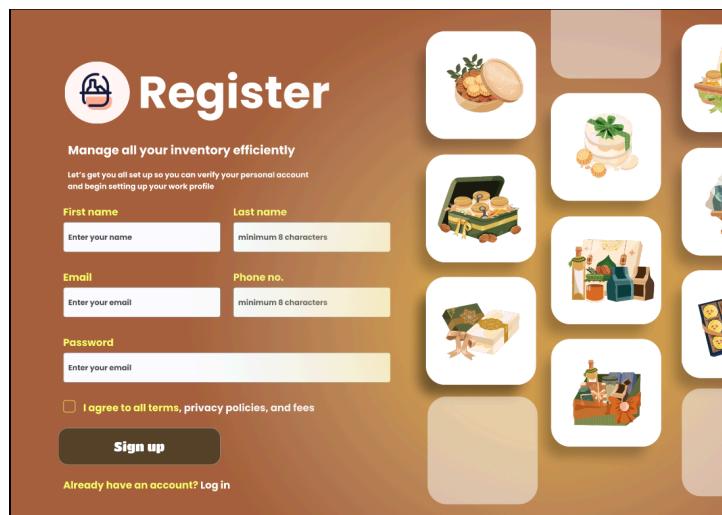
1. Admin can direct to the login page by clicking on the welcome back, admin button.



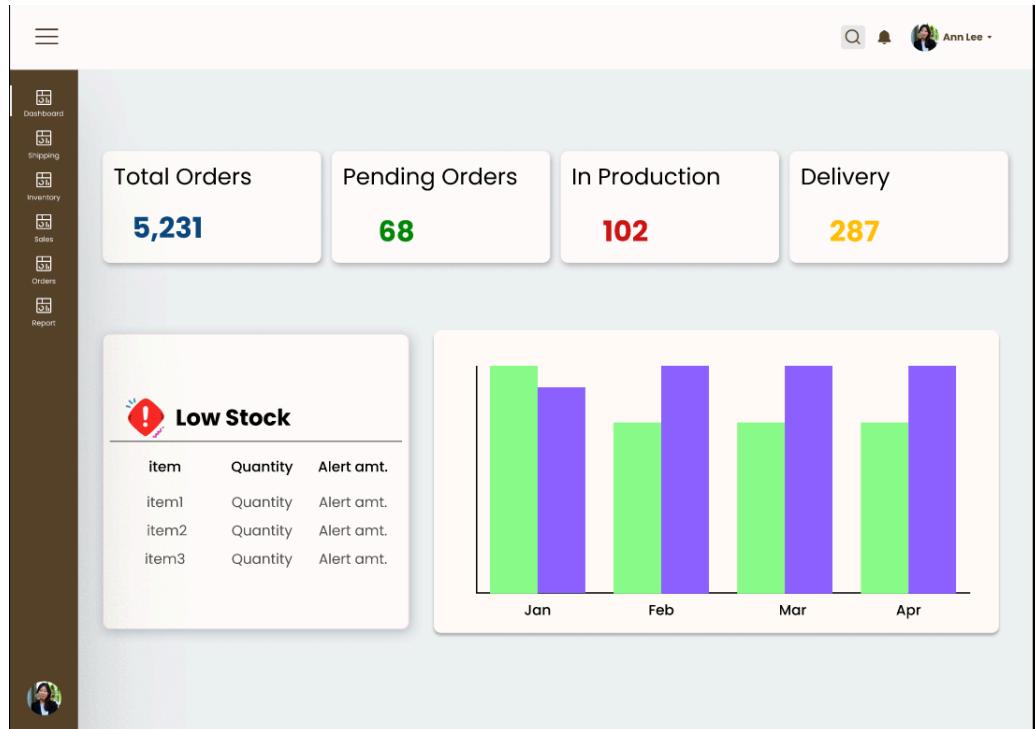
2. Admin can insert their email and password to login or sign in with a google account.



3. Admin/Staff who are using the website for the first time can register by clicking the 'Create a New Account' button. After that, they will be required to fill in their name, email address, phone number, and password.



4. After the login, admin will be directed to the dashboard page, it will show the total orders, pending orders , in production and delivery number. There is a low stock alert so that admin can know what item that has low quantity and needs to be restocked. There is also a graph that shows the total orders of each month.



5. Admins can view all item stocks on the inventory page and items with a quantity of 5 or less are highlighted in red to indicate low stock. They can also click the "Update Stock" button to adjust the quantity as needed.

The inventory page lists products with their details and stock levels:

Product name	Price	Stock
Hamper 009	RM 198	8
Hamper 008	RM 986	5
Hamper 012	RM 426	15
Hamper 005	RM 1038	20
Hamper 001	RM 540	15

A sidebar menu on the left includes: Dashboard, Shipping, Inventory, Sales, Orders, and Report.

6. After customers place their orders through the application, the app will display the status “Your order is being processed.” At the same time, the order details appear on the admin web system’s inventory page, where the system will automatically verify item availability before proceeding.

Product name	Stock
Hamper 009	8
Hamper 008	5
Hamper 012	15
Hamper 005	20
Hamper 001	15

7. The system will verify the inventory for all items included in the hamper.

Product name	Price	Stock
Ferrero Rocher	RM 18	301
Homemade Cookies	RM 8	165
Assorted Fruity Chocolate	RM 5	98
Almond Chocolate	RM 6	13
Love Letter (Choc/Straw)	RM 12	21
Peanut Bar Cookies	RM 5	133
Pagoda Groundnuts	RM 5	201
Berry Essence	RM 20	78
Blackcurrant Concentrate	RM 15	234
White Coffee 3 in 1	RM 10	101

8. Once the check is complete and all items are confirmed to be available, a message indicating “Inventory Check Complete” will be shown. The order will then be automatically accepted and the status on the customer’s side will update to “Your order has been confirmed by the seller.”

**Inventory Page (Left Screenshot):**

The page displays a list of products with their names, prices, and current stock levels. A modal window titled "Inventory Check Complete" contains the message: "All items are in stock. Order has been accepted automatically." Below the modal, there is a "Stock" section with horizontal progress bars indicating the quantity of each item.

Product name	Price	Stock
Ferrero Rocher	RM 18	299
Homemade Cookies	RM 8	164
Assorted Fruity Chocolate	RM 5	97
Almond Chocolate	RM 6	12
Love Letter (Choc/Straw)	RM 12	20
Peanut Bar Cookies	RM 5	132
Pagoda Groundnuts	RM 5	200
Berry Essence	RM 20	76
Blackcurrant Concentrate	RM 15	233
White Coffee 3 in 1	RM 10	100

**Mobile App Screenshot (Right Screenshot):**

The app screen shows a confirmation message: "Order confirmation... Your order has been confirmed by the seller". It includes a map showing the delivery route from "Johor Bahru" to "Universiti Teknologi Malaysia", with an ETA of "3 Days". It also displays the delivery address: "Universiti Teknologi Malaysia, 80990 Skudai, Johor" and the distance "374 km".

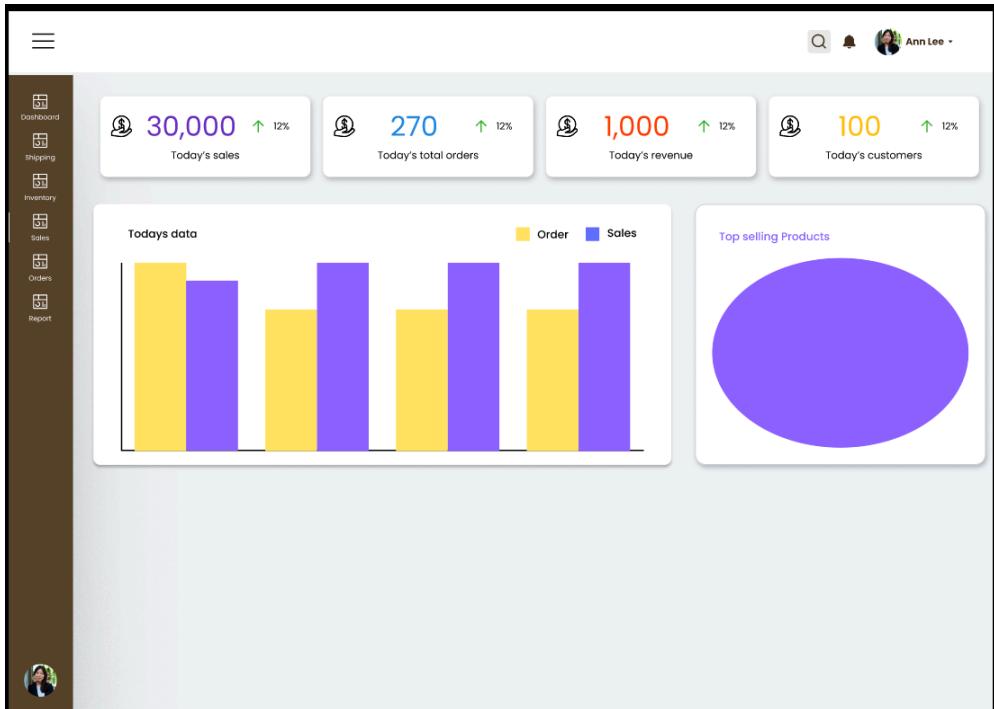
9. The system automatically updates inventory levels based on the customer's order once it is confirmed.

**Inventory Page (Screenshot):**

The page shows the same list of products as before, but the stock levels have been updated. A modal window in the center displays the message "Stock Updated!".

Product name	Price	Stock
Ferrero Rocher	RM 18	299
Homemade Cookies	RM 8	164
Assorted Fruity Chocolate	RM 5	97
Almond Chocolate	RM 6	12
Love Letter (Choc/Straw)	RM 12	20
Peanut Bar Cookies	RM 5	132
Pagoda Groundnuts	RM 5	200
Berry Essence	RM 20	76
Blackcurrant Concentrate	RM 15	233
White Coffee 3 in 1	RM 10	100

10. Admin can see the daily sales with graphs in the daily sales page.



11. Admin can view the orders in the orders page and it will show all the order information from customers and the status of the orders, it can export to excel to view in excel format also. Admin can add new orders by clicking the new orders button and there is a Chatbox button that allows admin chat with customers.

The screenshot shows the orders page with the following interface elements:

- Left sidebar menu: Dashboard, Shipping, Inventory, Sales, Orders, Report.
- Header: Orders, Export to excel, Import Orders, + New Orders.
- Search bar: Search order ID.
- Filter buttons: Sales, Status, Filter.
- Table: A list of 6 orders with columns: order ID, Date, Customer, Destination, Total Price, and Status. The orders are:

order ID	Date	Customer	Destination	Total Price	Status
#7676	06/02/2025	Ali	Bahau	RM 426	Delivery
#1001	07/03/2025	Amelia	Johor Bahru	RM 426	Pending
#1005	07/03/2025	Xiao Ting	Kuala Lumpur	RM 368	Delivery
#1028	07/03/2025	Xiao Ming	Kuala Pilah	RM 426	Delivery
#5265	07/03/2025	Ramesh Chaudhary	Penang	RM 198	Delivery

- Bottom right: Chatbox button.

12. The system is integrated with an AI chatbot. If customers wish to update any order information, their requests will be routed to the admin system. The admin can then review and modify the order details accordingly.

The image consists of two side-by-side screenshots. The left screenshot shows a desktop application interface titled 'Orders'. It features a sidebar with icons for Dashboard, Shipping, Inventory, Sales, Drawers, and Report. The main area displays a table of orders with columns for Order ID, Date, Total Price, and Status. A modal window titled 'Orders Details' is open for Order #1001, showing its specific details: Order ID #1001, Date 07/03/2025, Status Pending, Customer Amelia, and Total Price RM 426. The right screenshot shows a mobile phone screen titled 'AI Support'. A message from a customer says 'I want to modify my order details'. A response from the AI says 'Sure! What would you like to update? You can choose from the options below:'. The options listed are: 1. Change shipping method (Delivery or Pickup), 2. Edit recipient name, 3. Edit recipient phone number, 4. Edit delivery address, and 5. Cancel my order. Another message from the AI says 'Just to confirm — do you really want to cancel your entire order?'. The user replies 'Yes'. A final message from the AI says 'Your cancellation request has been sent to the admin.' and 'Admin has approved your request. Your order has been cancelled.' The 'Admin has approved your request. Your order has been cancelled.' message is circled in blue.

13. By clicking the status button, there will be an orders details page pop up, admin can see clearly for each order details and can modify the orders by clicking the edit button to update any information. There is also a "Trash" button available for removing an order.



14. After an order is removed by the admin, it will be deleted from the system and the order list view will be updated accordingly. The AI chatbot in the customer application will then notify the user that the cancellation request has been accepted and the order has been canceled. This process reflects the connection and synchronization between the customer application and the admin web system.

The screenshot shows the 'Orders' section of the admin dashboard. On the left is a sidebar with icons for Dashboard, Shipping, Inventory, Sales, Orders, and Report. The main area has a search bar, filters for Sales, Status, and Filter, and buttons for 'Export to excel', 'Import Orders', and '+ New Orders'. A table lists five orders with columns for order ID, Date, Customer, Destination, Total Price, and Status (all marked as 'Delivery'). Below the table is a purple 'Chatbox' button. The top right corner shows a user profile for 'Ann Lee'.

15. There is also a report page that shows the overall sales of the product clearly with some graphs.

The screenshot shows the 'Report' section of the admin dashboard. It features four summary boxes: Revenue (+ 30,000), Sales Return (+ 30,000), Purchase (+ 30,000), and Income (+ 30,000). Below these are two charts: a bar chart showing sales data with green and purple bars, and a large blue donut chart labeled 'Top selling Products'. At the bottom is a table titled 'Top selling Products' with columns for Item and Quantity, listing Hamper 009 (8), Hamper 008 (5), and Hamper 012 (15). The sidebar on the left includes the same set of icons as the Orders page.

16. There is a shipping page that shows the shipping details (order ID, customer name, delivery method, address, courier, tracking number) of the orders and their status whether it is completed , not shipped or ready for customers to pick up.

The screenshot shows a user interface for managing shipping orders. On the left is a vertical sidebar with icons for Dashboard, Shipping, Inventory, Sales, Orders, and Report. The main area has tabs for "Shipping orders" and "Pickup orders", with "Shipping orders" selected. A title "Shipping details" is at the top, followed by a search bar and filter buttons for Sales, Status, and Filter. Below is a table with columns: order ID, Customer name, Delivery Method, Address, Courier, Tracking No., and Status. The table contains six rows of data:

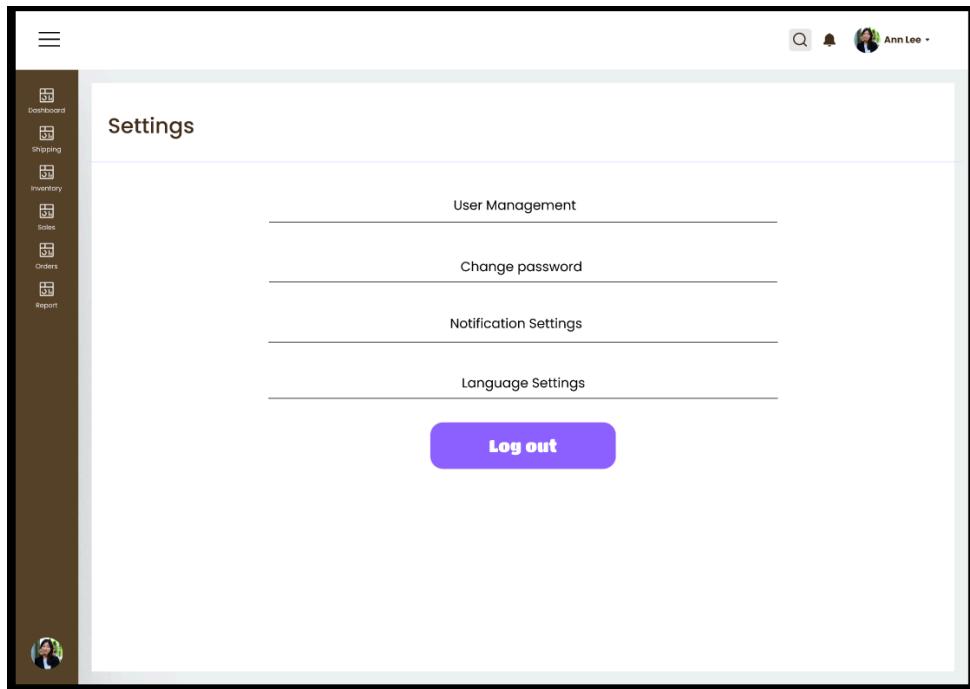
	order ID	Customer name	Delivery Method	Address	Courier	Tracking No.	Status
<input type="checkbox"/>	#7676	Ali	Courier	Jalan 5	J & T	I52364	Completed
<input type="checkbox"/>	#1001	Abu	Courier	Jalan 6	J & T	-	Not Shipped
<input type="checkbox"/>	#1005	Xiao Ting	Courier	Jalan 7	J & T	I52364	Ready to ship
<input type="checkbox"/>	#1012	Xiao Ming	Courier	Jalan 8	J & T	I52364	In Transit
<input type="checkbox"/>	#5656	Merry	Courier	Jalan 9	J & T	I52364	Completed

17. The self pickup status table also shows the details of pick up (order ID, customer name, pickup date, pickup verification code) whether the order has been picked up by customers or not, orders that have not been picked up will not have the pickup date record.

The screenshot shows a user interface for managing pickup details. The sidebar and tabs are identical to the shipping page. The title is "Pickup details". The table has columns: order ID, Customer name, Pickup date, Pickup verification code, and Status. The table contains five rows of data:

	order ID	Customer name	Pickup date	Pickup verification code	Status
<input type="checkbox"/>	#7676	Ali	18/2/2025	A12345	Completed
<input type="checkbox"/>	#7676	Abu	-	-	Not pickup
<input type="checkbox"/>	#7676	Xiao Ting	18/2/2025	A12348	Completed
<input type="checkbox"/>	#7676	Xiao Ming	18/2/2025	A12349	Completed
<input type="checkbox"/>	#7676	Merry	18/2/2025	A12342	Completed

18. Lastly, by clicking the small profile at left side bottom, the settings page allows admin to log out or change any settings, user management can see all the admin/staff that have logged in and manage their account by dividing access with admin, staff, production team. There are also change password, notification settings and language settings for the admin to change at any time. After log out , the admin will go back to the front page of the website.



## **9.0 Summary of the proposed system**

The proposed website for XIANG EN HAMPER TRADING is successfully designed. The proposed digital Admin Inventory Management System is designed to streamline and enhance the day-to-day operations of the business. By centralizing inventory tracking, order management, and customer interactions into a single, easy-to-use web platform, it simplifies tasks while improving efficiency.

Admins and staff can securely log in or register new accounts, ensuring only authorized personnel have access to manage inventory, sales, and order data. Once logged in, the dashboard provides a clear snapshot of key metrics like total orders, pending orders, in-production status, and delivery tracking. Real-time low-stock alerts and a monthly order summary graph help teams make quick decisions, especially during busy periods, so restocking happens smoothly.

Managing inventory is straightforward with the dedicated Inventory Page, where admins can check and adjust item quantities. Items running low (five or fewer in stock) are highlighted in red for immediate attention. The Daily Sales Page offers visual charts to track performance at a glance, while the Orders Page allows admins to handle customer orders in detail. For instance, adding new ones, chatting with customers via an integrated chatbox, and exporting data to Excel. Clicking the status button opens a popup with full order details, where admins can edit or delete entries, with changes instantly reflected in the system.

For deeper insights, the Reports Page provides sales performance summaries through graphs which will be useful for data-driven decisions. The Shipping Page keeps track of essential delivery details including order ID, shipping method, courier, tracking number, and status updates. A separate Self Pickup Status Table lists pickup orders, including verification codes and pickup dates, with uncollected orders flagged for follow-up.

Finally, the Settings Page which is accessible from the user profile, lets admins log out, manage staff roles (admin, staff, production team), and adjust preferences like passwords, language, and notifications. The system also includes full user management, showing active users and allowing role-based access control.

In conclusion, the website that we proposed and designed modernizes and organizes core operations such as inventory, sales, and customer service while cutting down on manual work and errors. It improves team communication, boosts productivity, and sets the business up for scalable growth, making it a smart step toward long-term digital transformation.

## **Appendix**

### 1. Prototype Link for Admin Web System

<https://www.figma.com/proto/u6UZnwbfPORnd4LEZ3EZeP/Inventory-Management-system--Community?node-id=182-1468&p=f&t=kipyM8WUdthAgtw8-1&scaling=scale-down&content-scaling=fixed&page-id=0%3A1&starting-point-node-id=182%3A1468&showproto-sidebar=1>

### 2. Prototype Link for Customer Application

<https://www.figma.com/proto/4FjSqANPjrx5QKHutVGqzz/Hamper-Ordering?node-id=0-1&t=zjt0D7ENhGi4vGAM-1>