Darshan University

A Project Report on

"Super Market Management"

Under the subject

Software Engineering (2301CS405)

B. Tech, Semester – IV

Computer Science & Engineering Department

Submitted By

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Academic Year

(2024-2025)

Internal Guide	Dean-DIET
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DECLARATION

We hereby declare that the SRS, submitted along with the **Software Engineering (2301CS405)** for entitled **"Super Market Management"** submitted in partial fulfilment for the Semester-4 of **Bachelor Technology (B. Tech)** in **Computer Science and Engineering (CSE)** Department to Darshan University, Rajkot, is a record of the work carried out at **Darshan University, Rajkot** under the supervision of R. B. Gondaliya and that no part of any of report has been directly copied from any students' reports, without providing due reference.

Smit Maru

Student's Signature

Date: _____

Computer Science & Engineering Department
Darshan University

CERTIFICATE

This is to certify that the SRS on **"Super Market Management "** **has** been satisfactorily prepared by **Smit Maru** (**23010101161**) under my guidance in the fulfillment of the course **Software Engineering (2301CS405)** work during the academic year 2024-2025.

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Darshan University   Darshan University

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Thus, in conclusion to the above said, I once again thank the faculties and members of **Darshan University** for their valuable support in completion of the project.

Thanking You

Smit Maru

ABSTRACT

The Supermarket Management System is an advanced solution designed to streamline the operations of supermarkets while enhancing customer satisfaction. This system focuses on efficiently managing inventory, tracking sales, processing payments, and delivering products and services directly to customers' locations.

By integrating user-friendly interfaces and robust backend functionalities, the system provides real-time inventory updates, automated billing, and seamless order management. The primary objective is to minimize manual intervention, reduce operational costs, and ensure timely delivery of goods to customers.

The system also supports data analytics for better decision-making, helping businesses optimize stock levels, understand customer preferences, and improve overall efficiency. With its comprehensive design, the Supermarket Management System aims to revolutionize retail operations and provide a superior shopping experience.

The main purpose of this system is to minimize human efforts and automate supermarket operations effectively.

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1 Introduction

1.1 Product perspective

This project is aimed at transforming the manual supermarket operations into an internet-based application to enhance convenience and efficiency. The system allows users to browse products, place orders, and access account details, including past purchases and delivery status.

It is a multi-user version designed to handle the core functions of a supermarket, such as inventory management, billing, order processing, and delivery tracking. The system efficiently manages cataloging, stock replenishment, sales monitoring, and customer relationship management.
This application is capable of meeting the fundamental requirements of small to medium-sized supermarkets, ensuring streamlined operations and improved customer satisfaction.

1.2 Product features

1.2.1 There are four different users who will be using this product:
- Admin acts as the administrator, overseeing the operations.
- Customer purchases products from the supermarket.
- Staff manages store operations, assists with stock updates, and manages product delivery.
- Delivery delivers orders and updates delivery status.

1.2.2 The features that are required for the Admin are:
- Admin can manage user roles and permissions to control access to various system features.
- Admin can manage the distribution of items to different sections or locations within the supermarket.
- Admin can monitor low-stock items and reorder products to maintain stock levels.
- Admin can create, edit, or remove product categories to organize inventory efficiently.
- Admin has the authority to manage and disburse salaries to staff based on roles and working hours.
- Admin can access transaction history, including sales, stock movements, and customer interactions, to track activities.
- Admin can maintain supplier details, manage contracts, and monitor supply chain operations.
- Admin can give commands or instructions to staff regarding stocking, pricing changes, or inventory updates.
- Admin can view, update, and manage details of staff members, including roles, working hours, and contact information.
- Admin can generate and view various reports, such as sales reports, inventory reports, and employee performance reports, to assess performance.
- Admin can access and view customer details, including purchase history, preferences, and contact information to improve customer service.

1.2.3 The features that are required for the Customer are:
- Customer can search for specific products by name, brand, or category.
- Customer can add products to their shopping cart for later purchase.
- Customer can create and manage an account to store personal information, payment details, and order history.
- Customer can track the status of their orders, including shipping details and delivery times.
- Customer can make purchases by selecting products, applying discounts, and proceeding to checkout.
- Customer can choose from multiple payment options such as credit/debit cards and digital wallets.
- Customer can view their purchase history for quick reordering and reference.

- Customer can access customer support for inquiries, complaints, or product-related issues.
- Customer can request the supermarket to stock new products that are not available.
- Customer can leave reviews and ratings for products they've purchased.
- Customer can update their profile information, including contact details and shipping address.

1.2.4   The features that are required for the Staff are:
- Staff can assist customers with product inquiries and purchases.
- Staff can update inventory details as products are sold or restocked.
- Staff can monitor and organize stock of perishable and non-perishable goods.
- Staff can help manage promotions, discounts, and in-store offers for customers.
- Staff can process returns and exchanges of products as per supermarket policies.
- Staff can report inventory needs or low-stock items to the Admin.
- Staff can help with packaging and organizing orders for delivery.
- Staff can manage the checkout process and assist customers during payment.
- Staff can ensure the cleanliness and proper arrangement of store shelves.
- Staff can assist in managing customer feedback and improving service quality.

1.2.5   The features that are required for the Delivery boy are:
- Delivery boy can receive and view delivery orders assigned by the Admin or Staff.
- Delivery boy can update the delivery status (e.g., "out for delivery," "delivered," "failed delivery").
- Delivery boy can verify customer identity upon delivery to ensure correct recipient.
- Delivery boy can report issues with deliveries, such as incorrect addresses or missing products.
- Delivery boy can access customer contact information for any delivery-related issues.
- Delivery boy can return undelivered products to the supermarket when necessary.
- Delivery boy can provide feedback on delivery conditions and improve efficiency.

1.3 Functional Requirement

1.3.1   Admin
- **Manage Roles and Permissions:** Admin can assign and modify user roles and permissions to control system feature access.
- **Distribute Items:** Admin can allocate items to specific sections or locations within the supermarket.
- **Monitor and Reorder Stock:** Admin can track low-stock items and reorder products to maintain inventory levels.
- **Manage Product Categories:** Admin can create, update, and delete product categories for efficient inventory organization.
- **Salary Management:** Admin can calculate and disburse salaries based on roles and working hours.
- **Transaction Monitoring:** Admin can view and analyze transaction history, including sales, stock movements, and customer interactions.
- **Supplier Management:** Admin can maintain supplier details, manage contracts, and oversee supply chain operations.
- **Issue Commands to Staff:** Admin can send instructions to staff about stock updates, pricing changes, or inventory adjustments.
- **Staff Management:** Admin can view, update, and manage staff details, such as roles, contact information, and working hours.
- **Generate Reports:** Admin can produce reports (e.g., sales, inventory, employee performance) for performance assessment.
- **Customer Details Management:** Admin can view customer details, including purchase history and preferences, for improved service.

1.3.2   Customer
- **Search Products:** Customers can search for products by name, brand, or category.

- **Shopping Cart Management:** Customers can add, update, or remove items in their shopping cart.
- **Account Management:** Customers can create and manage an account for storing personal information, payment methods, and order history.
- **Order Tracking:** Customers can track the status and shipping details of their orders.
- **Purchase Products:** Customers can select items, apply discounts, and proceed to checkout.
- **Payment Options:** Customers can choose from multiple payment methods, including credit/debit cards and digital wallets.
- **View Purchase History:** Customers can review past orders for quick reordering.
- **Customer Support:** Customers can reach out for inquiries, complaints, or product-related issues.
- **Product Requests:** Customers can request the stocking of unavailable products.
- **Reviews and Ratings:** Customers can leave feedback on purchased products.

1.3.3 Staff

- **Assist Customers:** Staff can help customers with product inquiries and purchases.
- **Update Inventory:** Staff can update inventory as items are sold or restocked.
- **Stock Monitoring:** Staff can organize and monitor perishable and non-perishable goods.
- **Promotions Management:** Staff can assist in managing in-store offers, promotions, and discounts.
- **Handle Returns:** Staff can process returns and exchanges as per supermarket policies.
- **Report Low Stock:** Staff can report inventory needs or low-stock items to the admin.
- **Order Preparation:** Staff can package and organize orders for delivery.
- **Checkout Assistance:** Staff can manage payments and assist customers during checkout.
- **Store Maintenance:** Staff can ensure cleanliness and proper arrangement of store shelves.
- **Feedback Management:** Staff can collect customer feedback to enhance service quality.

1.3.4 Delivery Boy

- **View Delivery Orders:** Delivery personnel can access assigned orders from the admin or staff.
- **Update Delivery Status:** Delivery personnel can update statuses like "out for delivery," "delivered," or "failed delivery."
- **Customer Verification:** Delivery personnel can verify customer identity upon delivery.
- **Report Issues:** Delivery personnel can report issues such as incorrect addresses or missing items.
- **Contact Customers:** Delivery personnel can access customer contact information for delivery-related issues.
- **Return Undelivered Items:** Delivery personnel can return undelivered items to the supermarket.
- **Provide Feedback:** Delivery personnel can give feedback on delivery conditions to improve operations.
-

1.4 Non-Functional Requirement

1.4.1 Usability:

- The UI should be simple enough for everyone to understand and get the relevant information without any special training. Different languages can be provided based on the requirements.

1.4.2 Accuracy:

- The data stored about the books and the fines calculated should be correct, consistent, and reliable.

1.4.3 Availability:

- The System should be available for the duration when the library operates and must be recovered within an hour or less if it fails. The system should respond to the requests within two seconds or less.

1.4.4 Maintainability:

- The software should be easily maintainable and adding new features and making changes to the software must be as simple as possible. In addition to this, the software must also be portable.

2 Design and Implementation Constraints
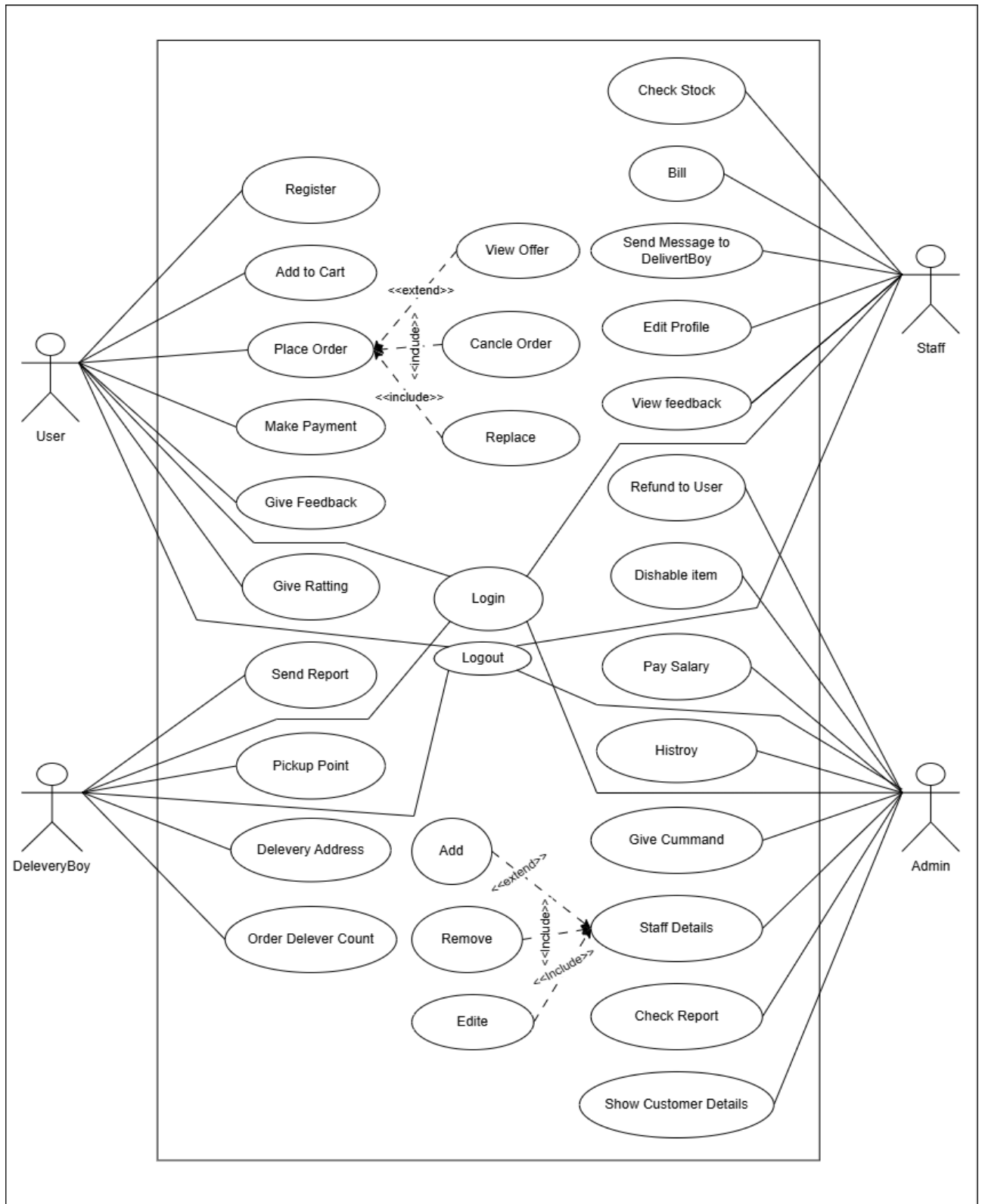
2.1 Use case diagram

Figure 2.1-1 Use case diagram for Super Market Management

2.2 Activity diagram and Swimlane diagram

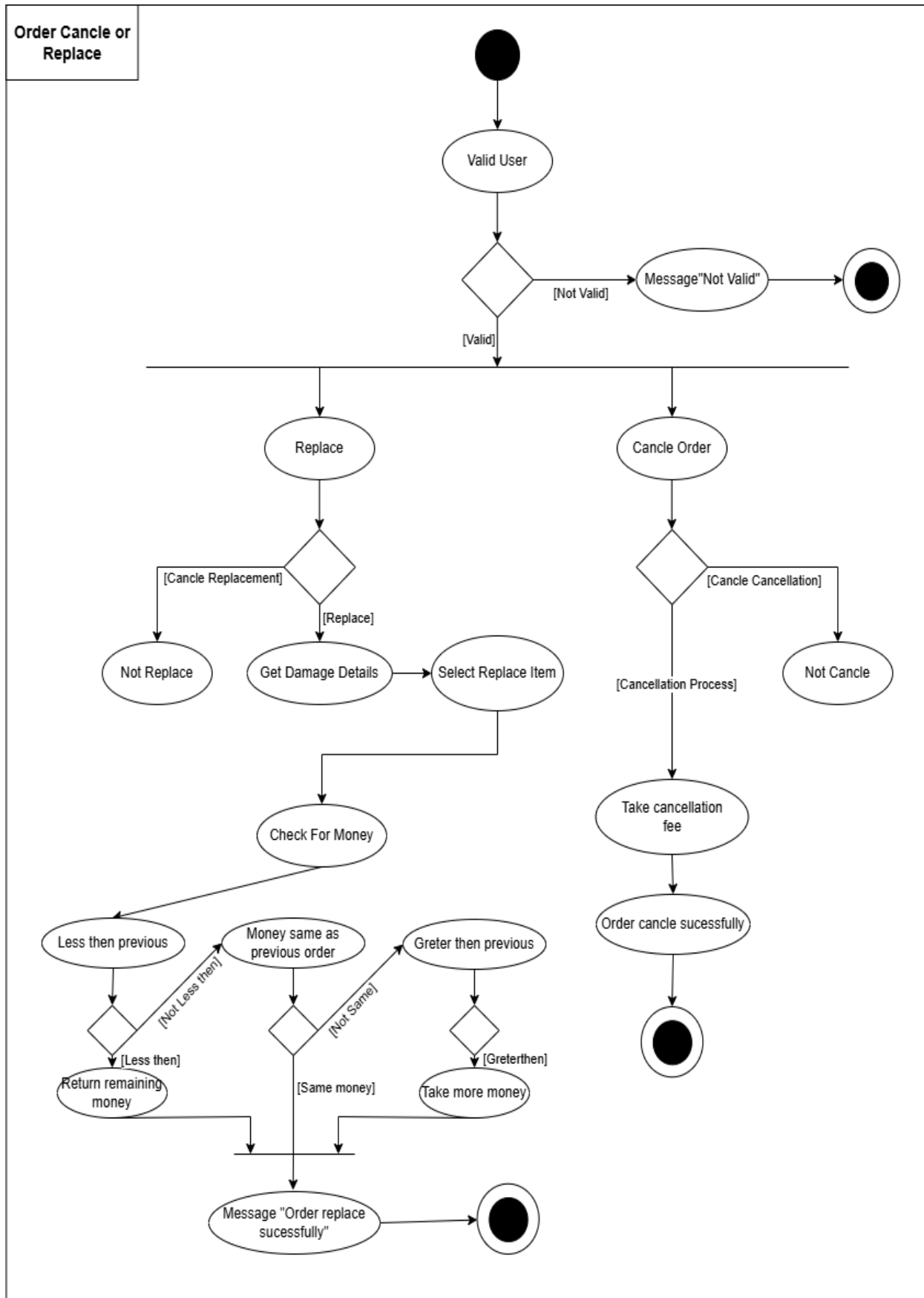
Figure 2.2-1 Activity diagram for Order cancel or Replace
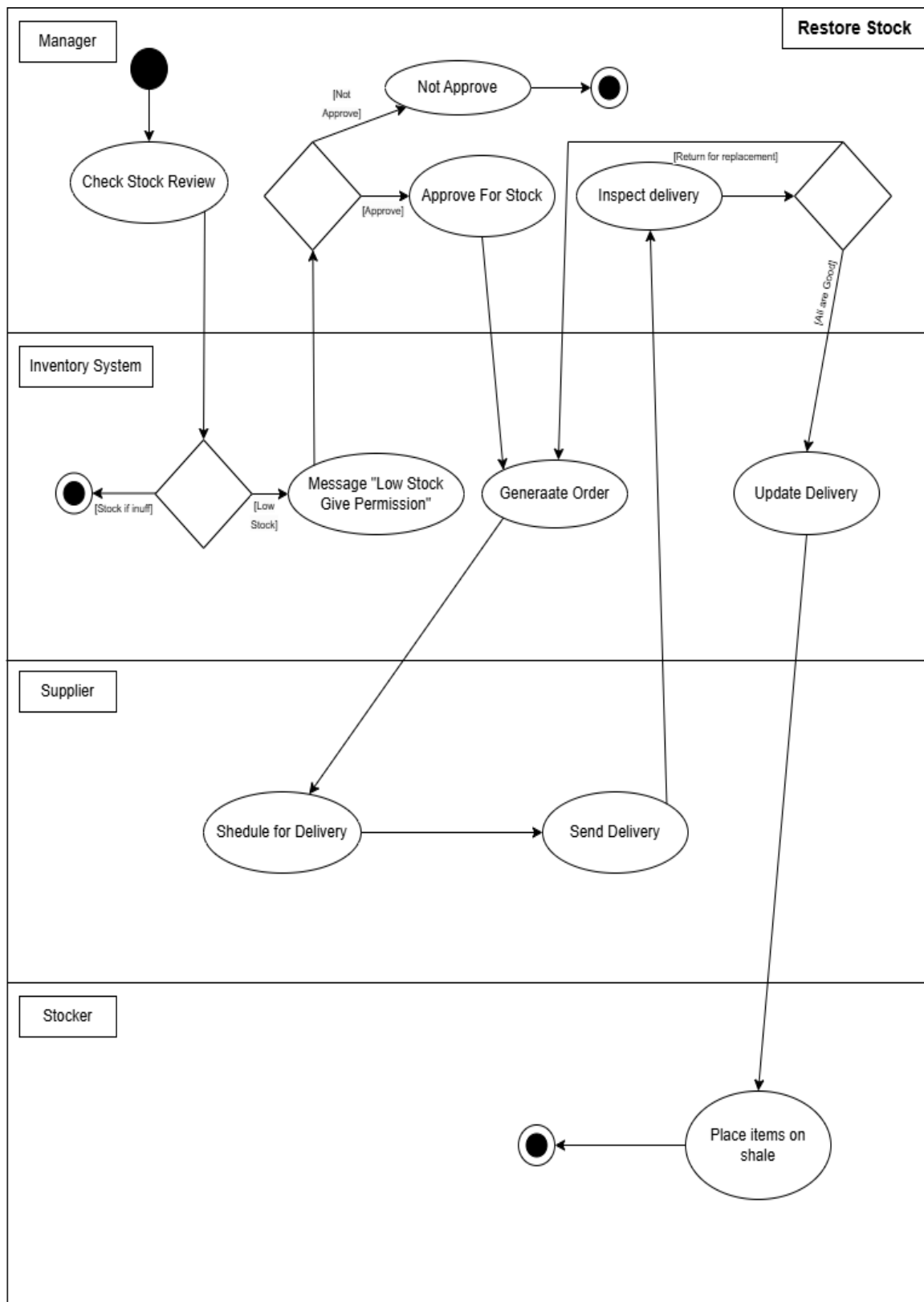
Figure 2.2-2 Swimlane diagram for Restore Stock

2.3 Sequence diagram
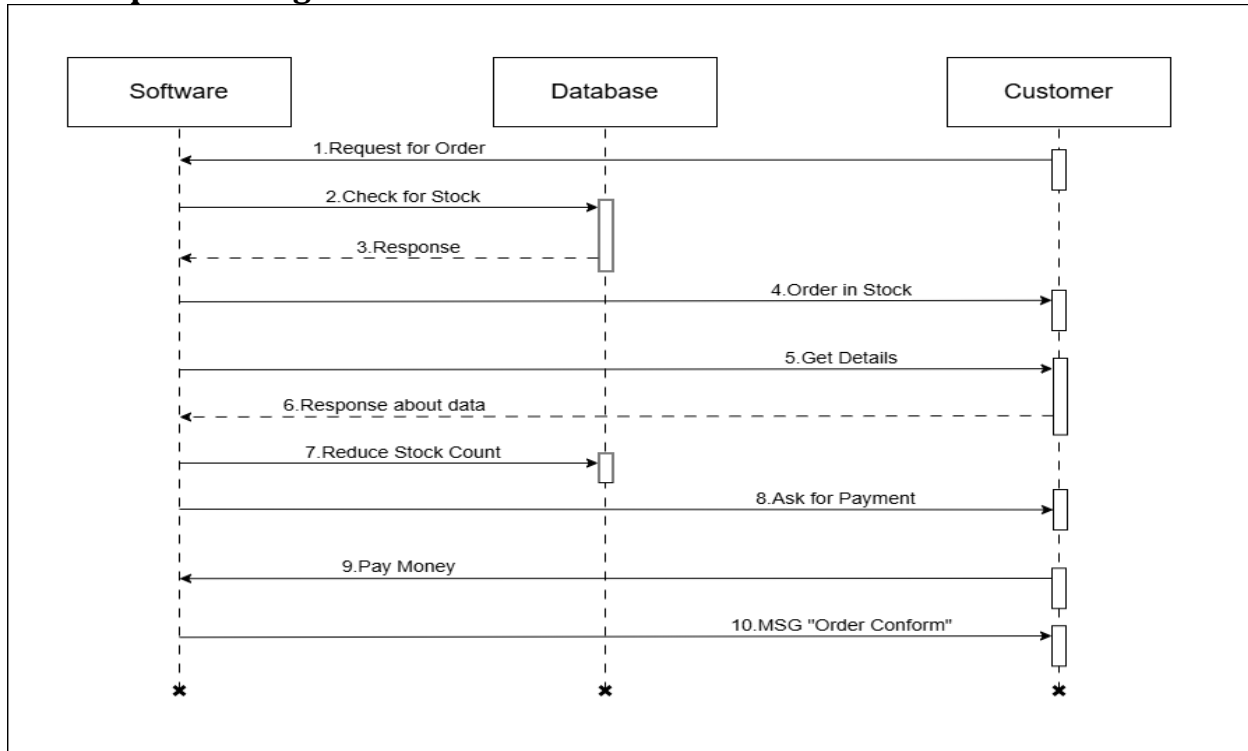
Figure 2.3-1 Sequence diagram for Book Order

2.4 State diagram
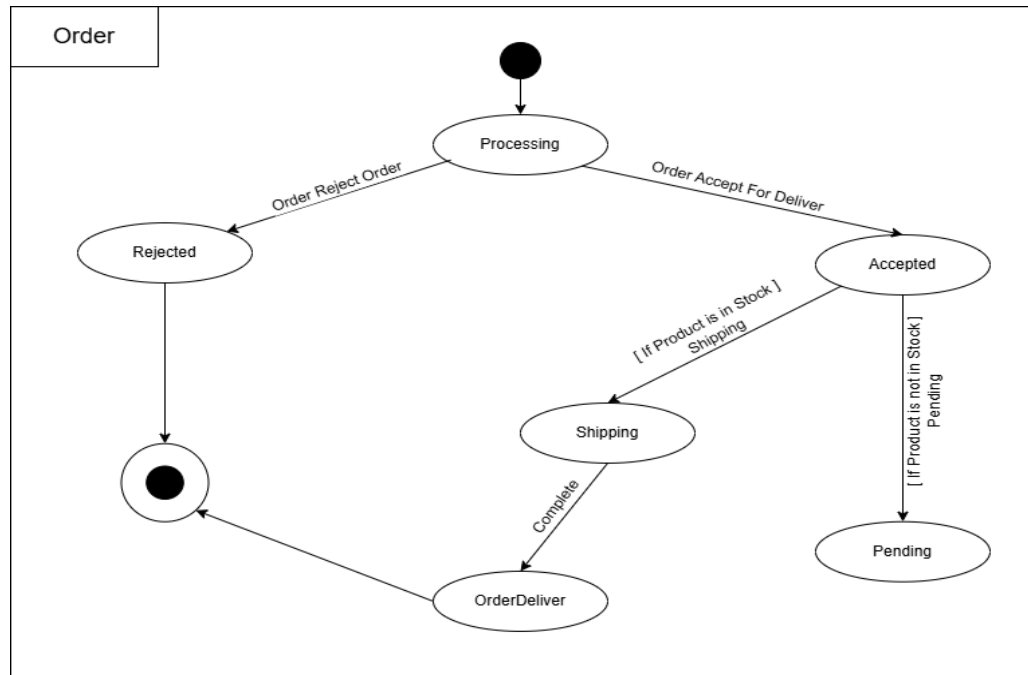
Figure 2.4-1 State diagram of Order
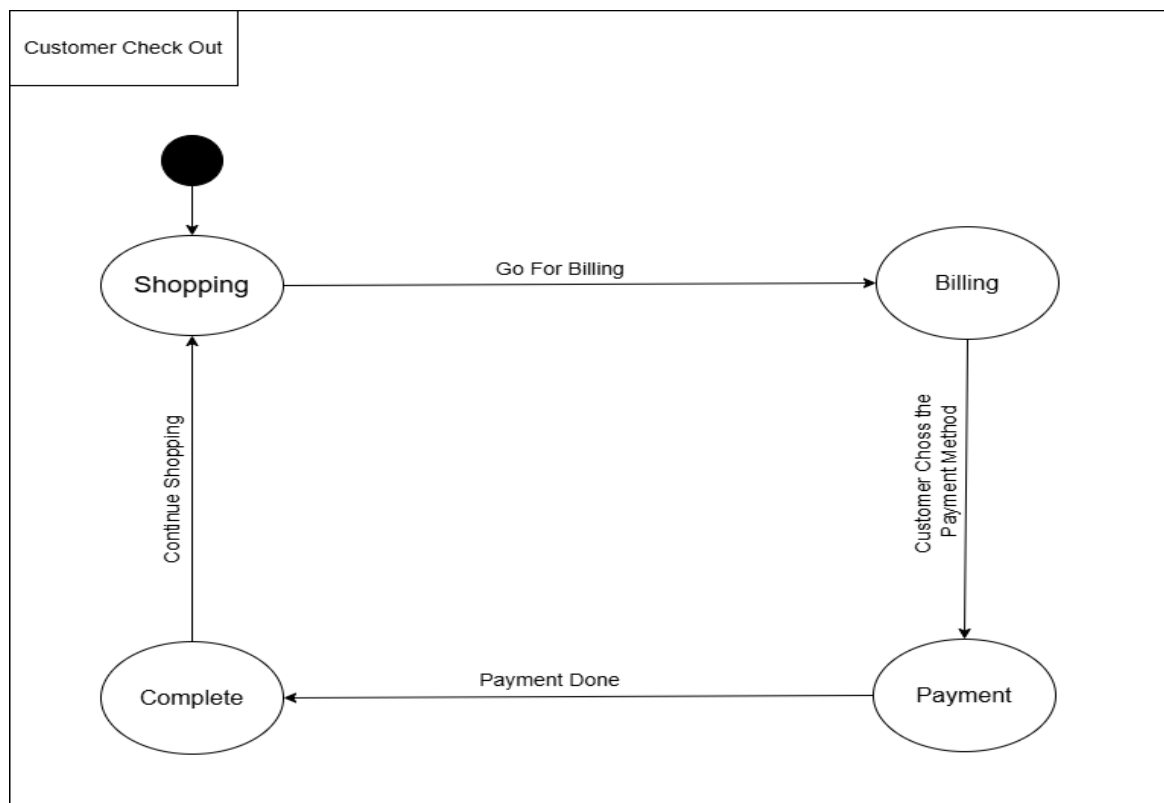
Figure 2.4-2 State diagram for Customer Check Out

2.5   Class diagram
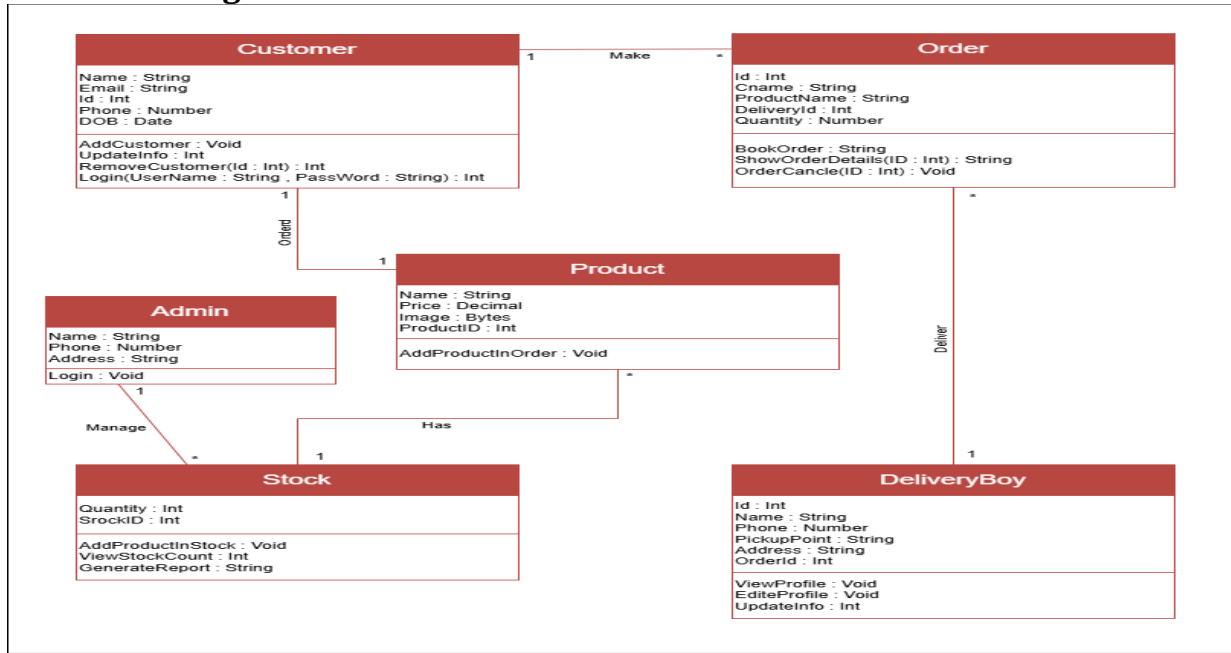
Figure 2.5-1 Class diagram for Super Market Management System

2.6 Data flow diagram

2.6.1 Context diagram (level-0)
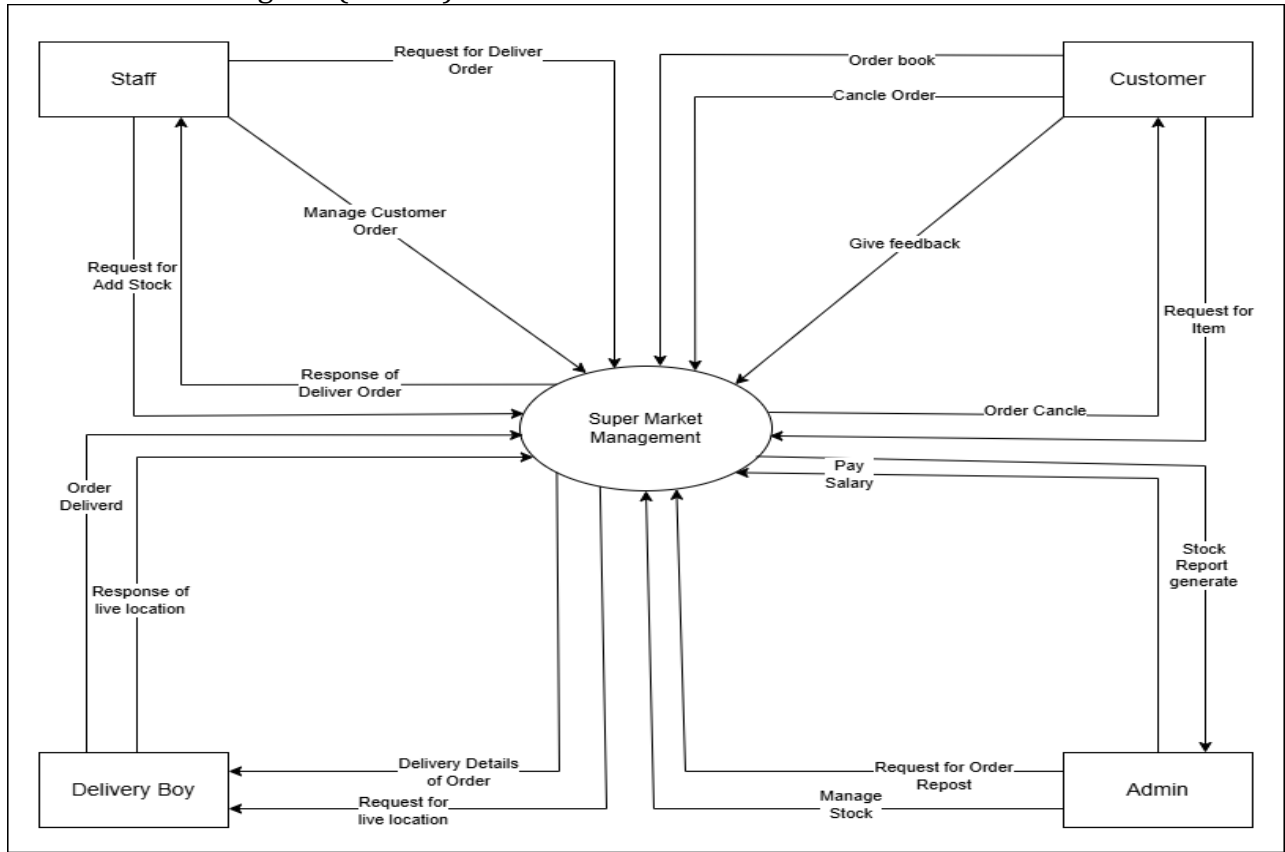
Figure 2.6-1 Context diagram for Super Market Management

2.6.2 DFD Level-1
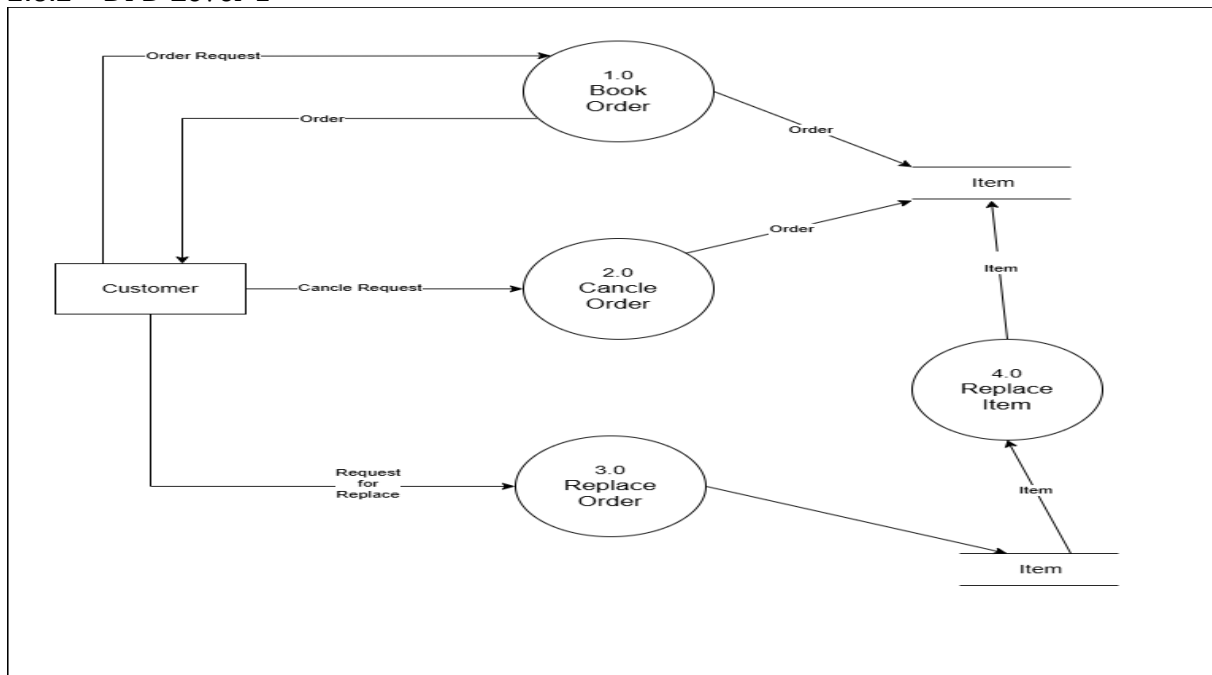
Figure 2.6-2 DFD level-1 for Super Market Management

2.6.3 DFD Level-2
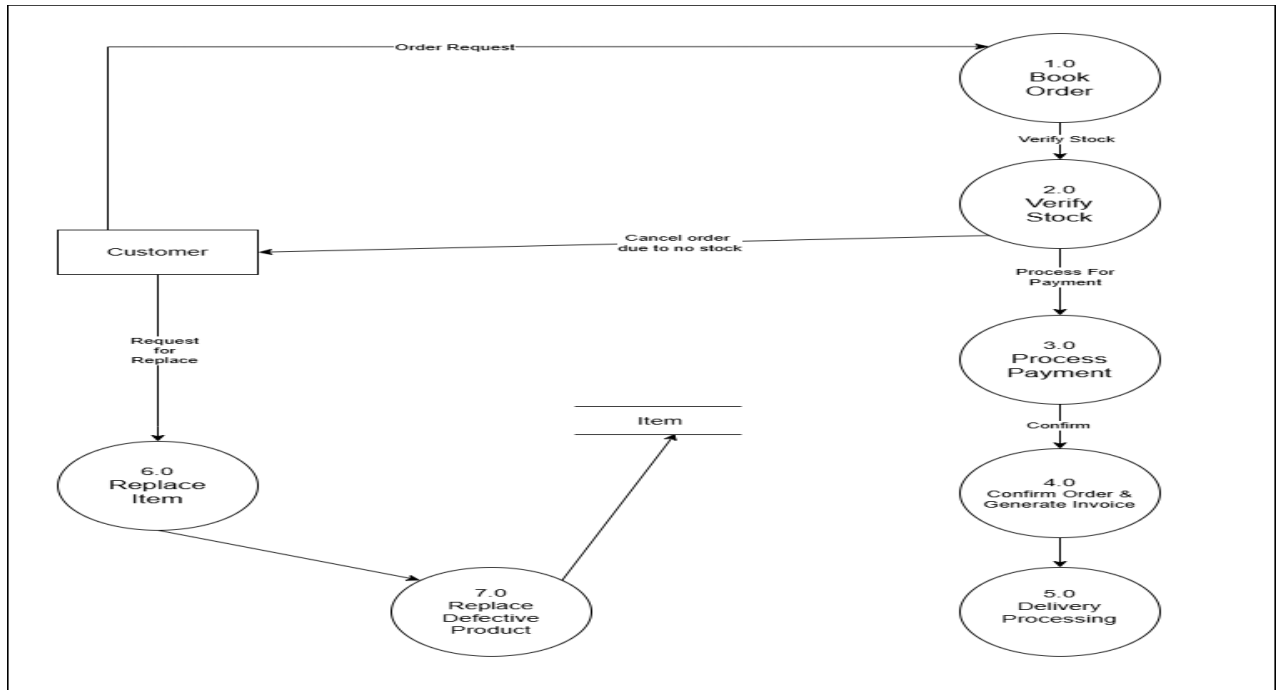
Figure 2.6-3 DFD level-2 for Place Order

3 External interface requirement (Screens)

3.1 Screen-1: Manage Roles and Permission

Figure 3.1-1 Screen-1: Manage Roles and Permission

Purpose: This form will allow the users to their roles and responsibilities.

Table 3.1-1 Screen element of Roles and Permission

Sr.	Screen Element	Input Type	O/M	1/N	Description
1	User Roles List	Text	M	N	Displays a list of users with their assigned roles.
2	Role Selection Dropdown	Dropdown	M	1	Allows selecting a role for each user from predefined roles (e.g., Cashier, Manager, Stock Clerk).
3	System Permissions	Checkbox/List	M	N	Displays system permissions users can have, such as viewing sales reports, managing inventory, processing refunds, and modifying user roles.
4	Save Changes Button	Button	M	1	Saves any modifications made to user roles and permissions.

3.2 Screen-2: Customer Details Management

Figure 3.2-1 Screen-2: Customer Details Management

Purpose: This form will be used by Admin so admin can manage it.

Table 3.2-1 Screen element of Customer Details Management

Sr.	Screen Element	Input Type	O/M	1/N	Description
1	Search Customers	Textbox	O	1	Allows users to search for customers by name, email, or phone.
2	Search Button	Button	O	1	Executes the search query based on the entered text.
3	Customer List	List	M	N	Displays a list of customers. Selecting a customer updates the "Customer Details" section.
4	Customer Name	Text	M	1	Displays the selected customer's name.
5	Phone Number	Text	M	1	Displays the customer's phone number.
6	Address	Text	M	1	Shows the customer's address details.
7	Email	Text	M	1	Shows the customer's email address.
8	Preferences	Checkbox	O	N	Allows selecting customer preferences like "Prefers organic products" and "Vegetarian."
9	Customer ID	Text	M	1	Displays the unique identifier assigned to the customer.
10	Member Since	Text	M	1	Indicates the date when the customer joined.

11	Loyalty Points	Text	M	1	Displays the total loyalty points of the customer.
12	Membership Tier	Text	M	1	Indicates the customer's membership level (e.g., Gold, Silver).
13	Email Offers Checkbox	Checkbox	O	1	Allows enabling/disabling email notifications for the customer.
14	SMS Notifications Checkbox	Checkbox	O	1	Allows enabling/disabling SMS notifications.
15	Purchase History Table	Table	M	N	Displays past transactions, including Date, Order ID, Total, and Status.
16	Edit Customer Details	Button	O	1	Opens a form to edit the selected customer's details.
17	View Full Purchase History	Button	O	1	Shows the complete purchase history of the customer.

3.3 Screen-3: Search Product

Product Search

Figure 3.3-1 Screen-3: Search Product

Purpose: This form will be useful for customer for search the product and find the product.

Table 3.3-1 Screen element of Search Product Screen

Sr.	Screen Element	Input Type	O/M	1/N	Description
1	Search Input	Textbox	O	1	Search field should be editable and accept product name, brand, or category keywords
2	Category Select	Dropdown	O	1	Category dropdown should allow selection from predefined categories (Fruits & Vegetables, Dairy & Eggs, Bakery, Beverages)
3	Search Button	Button	-	1	Button to trigger the search based on input criteria
4	Product Cards	Card Display	-	N	Display area for product information including image, title, description, category, and price
5	Product Image	Image	M	1	Product image should be displayed in consistent dimensions (width: 100%, height: 200px, object-fit: cover)
6	Product Title	Text	M	1	Product name should be displayed prominently in the card
7	Product Description	Text	M	1	Brief description of the product
8	Product Category	Text	M	1	Category label for the product
9	Product Price	Text	M	1	Price display with appropriate unit (per lb, gallon, loaf, etc.)
10	Add to Cart Button	Button	-	1	Button to add the product to shopping cart
11	Pagination	Navigation	-	1	Navigation controls for moving between pages of search results

3.4 Screen-4: Assist Customer

Assist Customers

Figure 3.4-1 Screen-4: Assist Customers

Purpose: This module will help for assist to customers by staff.

Table 3.4-1 Screen element of Add borrower book

Sr.	Screen Element	Input Type	O/M	1/N	Description
1	Product Search Bar	Textbox	O	1	Search field for finding products with a search button
2	Product Table	Table	-	1	Display table with columns for Image, Name, Price, Stock, Actions
3	Stock Status	Label	M	1	Shows product availability (In Stock, Low Stock, Out of Stock)
4	Add to Cart Button	Button	-	1	Button to add product to customer's cart
5	Customer Name	Textbox	M	1	Field for entering customer's name
6	Customer Phone	Textbox	M	1	Field for entering customer's phone number
7	Customer Email	Textbox	M	1	Field for entering customer's email address
8	Notes	Textarea	O	1	Field for additional notes about the customer
9	Cart Table	Table	-	1	Shows selected products with columns for Product, Quantity, Price, Total, Actions
10	Remove Button	Button	-	N	Button to remove items from cart
11	Cart Total	Text	-	1	Displays total amount of items in cart
12	Proceed to Checkout	Button	-	1	Button to proceed with purchase
13	Check Product Availability	Button	-	1	Quick action to check product stock status

14	Apply Discount Button	-	1	Quick action to apply discount to purchase
15	Process Refund Button	-	1	Quick action to process a refund
16	Create Loyalty Account Button	-	1	Quick action to create customer loyalty account

3.5   Screen-5:View Delivery Address

Figure 3.5-1 Screen-3: Assist Customers

Purpose: This module will help for assist to customers by staff.

Table 3.5-1 Screen element of Add borrower book

Sr.	Screen Element	Input Type	O/M	1/N	Description
1	Page Title	Text	M	1	"View Delivery Orders" heading at the top of the page
2	Order Filter Tabs	Button Group	-	1	Tabs to filter orders by All/Pending/In Progress/Completed
3	Orders Table	Table	-	1	Table showing order details with columns: Order ID, Customer, Address, Status, Actions
4	Order Status Badge	Label	M	1	Color-coded status indicators (Pending-yellow, In Progress-blue, Completed-green)
5	View Details Button	Button	-	N	Button in each row to view detailed order information
6	Delivery Personnel Section	Card	-	1	Section showing delivery person's information
7	Personnel Photo	Image	O	1	Circular profile photo of delivery personnel
8	Personnel Name	Text	M	1	Name of the delivery person
9	Personnel ID	Text	M	1	Unique ID of delivery person (format: DL-XXXX)

10	Delivery Stats	List	-	1	List showing Today's Deliveries, Completed, and Pending counts with badges
11	Quick Actions Section	Card	-	1	Section containing quick action buttons
12	Start New Delivery	Button	-	1	Button to initiate new delivery
13	View Route Map	Button	-	1	Button to view delivery route map
14	Contact Dispatch	Button	-	1	Button to contact dispatch
15	Report Issue	Button	-	1	Button to report delivery issues

4 Database design

4.1 List of Tables

- User
- Products
- Orders
- OrderDetails
- Payments
- Suppliers
- Deliveries
- Inventory

Table 4.1-1 Table: User

Column Name	Data Type	NULL	Constraints	Description
UserID	INT	NN	PRIMARY KEY, AUTO_INCREMENT	Unique identifier for users
FullName	VARCHAR(100)	NN	NOT NULL	Full name of the user
Email	VARCHAR(100)	NN	UNIQUE, NOT NULL	Email address
Phone	VARCHAR(15)	NN	NOT NULL	Contact number
Password	VARCHAR(255)	NN	NOT NULL	Encrypted password
Role	ENUM('Admin', 'Staff', 'Delivery', 'Customer')	NN	NOT NULL	Defines the user role
CreatedAt	TIMESTAMP	NN	DEFAULT CURRENT_TIMESTAMP	Account creation timestamp

Table 4.1-2 Table: Product

Column Name	Data Type	NULL	Constraints	Description
ProductID	INT	NO	PRIMARY KEY, AUTO_INCREMENT	Unique identifier for products
Name	VARCHAR(255)	NO	NOT NULL	Product name
Category	VARCHAR(100)	NO	NOT NULL	Product category

Price	DECIMAL(10,2)	NO	NOT NULL	Price of the product
Stock	INT	NO	NOT NULL	Available quantity in stock
SupplierID	INT	YES	FOREIGN KEY (references Suppliers table)	Supplier reference
CreatedAt	TIMESTAMP	NO	DEFAULT CURRENT_TIMESTAMP	Timestamp of product addition

Table 4.1-3 Table: Order

Column Name	Data Type	NULL	Constraints	Description
OrderID	INT	NO	PRIMARY KEY, AUTO_INCREMENT	Unique identifier for orders
CustomerID	INT	NO	FOREIGN KEY (references Users)	Customer placing the order
OrderDate	TIMESTAMP	NO	DEFAULT CURRENT_TIMESTAMP	Date when the order was placed
TotalAmount	DECIMAL(10,2)	NO	NOT NULL	Total cost of the order
OrderStatus	ENUM('Pending', 'Shipped', 'Delivered', 'Cancelled')	NO	NOT NULL	Status of the order

Table 4.1-4 Table: OrderDetails

Column Name	Data Type	NULL	Constraints	Description
DetailID	INT	NO	PRIMARY KEY, AUTO_INCREMENT	Unique identifier for order details
OrderID	INT	NO	FOREIGN KEY (references Orders)	Order reference
ProductID	INT	NO	FOREIGN KEY (references Products)	Product being ordered
Quantity	INT	NO	NOT NULL	Number of units ordered
Price	DECIMAL(10,2)	NO	NOT NULL	Price per unit

Table 4.1-5 Table: Payment

Column Name	Data Type	NULL	Constraints	Description
PaymentID	INT	NO	PRIMARY KEY, AUTO_INCREMENT	Unique identifier for payments
OrderID	INT	NO	FOREIGN KEY (references Orders)	Associated order
PaymentDate	TIMESTAMP	NO	DEFAULT CURRENT_TIMESTAMP	Date of payment
AmountPaid	DECIMAL(10,2)	NO	NOT NULL	Amount paid

PaymentMode	ENUM('Cash', 'Card', 'Online')	NO	NOT NULL	Mode of payment

Table 4.1-6 Table: Supplier

Column Name	Data Type	NULL	Constraints	Description
SupplierID	INT	NO	PRIMARY KEY, AUTO_INCREMENT	Unique identifier for suppliers
Name	VARCHAR(255)	NO	NOT NULL	Supplier name
Contact	VARCHAR(100)	YES	NULL allowed	Contact details

Table 4.1-7 Table: Deliveries

Column Name	Data Type	NULL	Constraints	Description
DeliveryID	INT	NO	PRIMARY KEY, AUTO_INCREMENT	Unique identifier for deliveries
OrderID	INT	NO	FOREIGN KEY (references Orders)	Order being delivered
DeliveryBoyID	INT	YES	FOREIGN KEY (references Users)	Assigned delivery personnel
DeliveryStatus	ENUM('Pending', 'Out for Delivery', 'Delivered')	NO	NOT NULL	Status of delivery
DeliveryDate	TIMESTAMP	YES	DEFAULT CURRENT_TIMESTAMP	Date of delivery

Table 4.1-8 Table: Inventory

Column Name	Data Type	NULL	Constraints	Description
InventoryID	INT	NO	PRIMARY KEY, AUTO_INCREMENT	Unique identifier for inventory
ProductID	INT	NO	FOREIGN KEY (references Products)	Product reference
Quantity	INT	NO	NOT NULL	Quantity in inventory
LastUpdated	TIMESTAMP	YES	DEFAULT CURRENT_TIMESTAMP	Last stock update

5 Stories and Scenario

5.1 Story-1: Add New Product

Story # S1	:	**As a** Admin, **I want to** add a new product in the stock. **So that** everyone customer can easily buy it.

Priority	:	High
Estimate	:	XL
Reason	:	The addition of a new product in the stock is crucial for ensuring that the product collection is up-to-date and accessible to every customer.

5.1.1 Scenario# S1.1

Scenario# *S1.1*	:	Adding a New Product with Valid Information
Prerequisite	:	Admin is logged in to the super market management system.
Acceptance Criteria	:	**Given:** The Admin is navigated to the Product management page. Valid product information, including price, brand and other relevant details is added. **When:** The Admin selects the "Add New Products" option And The Admin enters valid product details The Admin clicks the "Save" button to add the product in the stock. **Then t**he system successfully adds the product in the stock and the admin receives a confirmation message with the product's identification number.

5.1.2 Scenario# S1.2

Scenario# *S1.2*	:	Adding a New Product with Invalid Information.
Prerequisite	:	The Admin is logged into the super market management system.
Acceptance Criteria	:	**Given:** The admin is on the product stock management page **When:** The librarian selects the "Add New product" option and the admin enters an incomplete or incorrect product details and admin clicks the "Save" button to add the product in the stock. **Then t**he system displays error messages for the incorrect or missing information and the product is not added in the stock.

5.2 Story-2: Search Product

Story # *S2*	:	**As a** Customer or Admin, **I want to** search for product by name, brand, or price, **So that** I can quickly find product that match my interests.
Priority	:	High
Estimate	:	M
Reason	:	Implementing a search functionality is essential for enhancing the user experience, as it allows Admin and Customer to efficiently discover and access the products.

5.2.1 Scenario#S2.1

Scenario# *S2.1*	:	Searching a Product by valid information.
Prerequisite	:	The Admin or customer is logged into the super market management system.
Acceptance Criteria	:	**Given:** The admin or customer is on the product stock management page

		When: The admin or customer selects the "Search Product" option and the admin or customer enters an complete product details and admin or customer clicks the "Search" button to search the product in the stock. **Then t**he system successfully display the product on the screen to the admin or customer.

5.2.2   Scenario#S2.2

Scenario# S2.2	:	Searching a Product by invalid information.
Prerequisite	:	The Admin or customer is logged into the super market management system.
Acceptance Criteria	:	**Given:** The admin or customer is on the product stock management page **When:** The admin or customer selects the "Search Product" option and the admin or customer enters an incomplete product details and admin or customer clicks the "Search" button to search the product in the stock. **Then t**he system displays not such result found messages for the incorrect or missing information and the product is not dis[lay on the screen.

5.3   Story-3 Payment

Story # S2	:	**As a** Customer, **I want to** Pay product bill, **So that** I can quickly pay bill so that I can by this product.
Priority	:	High
Estimate	:	M
Reason	:	Implementing a payment functionality is essential for enhancing the user experience, as it allows Customer to efficiently buy and access the products.

5.3.1   Scenario#S3.1

Scenario# S2.1	:	Payment by valid information.
Prerequisite	:	The customer is logged into the super market management system.
Acceptance Criteria	:	**Given:** The customer is on the product payment page **When:** The customer selects the "Payment" option and the customer enters an complete payment details and customer clicks the "Pay" button to pay bill of order. **Then t**he system successfully display the order conformation message on the screen to the customer screen.

5.3.2   Scenario#S3.2

Scenario# S2.2	:	Payment by invalid information.
Prerequisite	:	The customer is logged into the super market management system.
Acceptance Criteria	:	**Given:** The customer is on the product payment page **When:** The customer selects the "Payment" option and customer enters an incomplete payment details and customer clicks the "Pay" button to pay order bill. **Then t**he system displays invalid information messages for the Ordre Payment.

6 Test cases

Project Name:	EMI Calculator	Test Designed by:	P. U. Jadeja
Module Name:	Login	Test Designed date:	01-10-2023
Release Version:	1.0	Test Executed by:	R. B. Gondaliya
		Test Execution date:	15-01-2023

Pre-condition: User should be registered and logged in				
Test Case ID	Test Title	Test Type	Description	Test Case ID
TC_001	Login with valid credentials	Functional	Login to Supermarket system with valid credentials	TC_001
TC_002	Login with invalid credentials	Functional	Login to Supermarket system with invalid credentials	TC_002
TC_003	Search for an existing product	Functional	User searches for a product in inventory	TC_003
TC_004	Make a successful payment	Functional	User completes payment using a valid card	TC_004

Test Case Title	Login with valid credentials
Test Type	Functional
Test Priority	High
Pre-condition	User must have a registered account

Test Step	Test Case Description	Expected Result	Actual Result	Status	Comment	Data	Bug ID
1	Open the login page	Login page should load	Page loaded	Pass			
2	Enter valid username	Username is accepted	Accepted	Pass		test_user	
3	Enter valid password	Password is accepted	Accepted	Pass		*******	
4	Click login button	User is redirected to dashboard	Redirected	Pass			

Test Case Title	Search for an existing product
Test Type	Functional
Test Priority	Medium
Pre-condition	User must be logged in and products should exist in the database

Test Step	Test Case Description	Expected Result	Actual Result	Status	Comment	Data	Bug ID
1	Navigate to search page	Search page should load	Loaded	Pass			
2	Enter product name in search bar	Product should be found	Found	Pass		Milk	
3	Click search button	Product list should display	Displayed	Pass			
Test Step	Test Case Description	Expected Result	Actual Result	Status	Comment	Data	Bug ID

Test Case Title	Make a successful payment
Test Type	Functional
Test Priority	High
Pre-condition	User must have items in the cart and valid payment details

Test Step	Test Case Description	Expected Result	Actual Result	Status	Comment	Data	Bug ID
1	Proceed to checkout	Checkout page should load	Loaded	Pass			
2	Enter valid payment details	Payment details accepted	Accepted	Pass		Visa ****1234	
3	Click pay button	Payment should be successful	Successful	Pass			

Test Case Title	Check order status update
Test Type	Functional
Test Priority	Medium
Pre-condition	User must have completed a purchase

Test Step	Test Case Description	Expected Result	Actual Result	Status	Comment	Data	Bug ID
1	Go to order history	Order list should appear	Displayed	Pass	-	-	-
2	Check latest order	Status should be 'Confirmed'	Status remains 'Pending'	Fail	Delayed update	-	BUG_001

7 References

- http://www.w3schools.com/html/html_intro.asp
- https://www.w3schools.com/php/default.asp
- https://www.javatpoint.com/uml