

# **SupplySync Supply Chain Management**

## **SRS Report**

### **1. Introduction-Description**

The Supply-Chain Management (SupplySync) application is a software solution designed to streamline the process of:

1. Supplying products from Manufacturer to Distributor & from Distributor to Customer.
2. Report checking.
3. Product and Customer management for Distributors.
4. Rewards-based redeeming of merchandise for distributors.

This system is for supply chain management between manufacturer and his distributors (including the customers).

### **2. Purpose**

The purpose of this software system is to automate and simplify the tasks associated with placing orders, viewing graphical reports, inventory management, redemption of merchandise based on points gained according to sales.

### **3. Key Features**

The system encompasses the following key functionalities:

- Adding of products by manufacturer, adding merchandise by manufacturer.
- Acceptance/Rejection of orders by manufacturer.
- Registration of distributors by manufacturer.
- Registration of customers by distributors.
- Creation of merchandise by manufacturer.
- Redeeming the merch based on points gained after sales by distributors.

### **4. Scope**

The SupplySync application aims to enhance efficiency in the supply chain by providing a centralized platform for manufacturers, distributors, and customers. This system will handle order management, inventory tracking, report generation, and reward redemption, ensuring seamless interactions between all parties involved. The main stakeholders include manufacturers, distributors, and customers.

## **5. Overall Description**

### **5.1. User Classes and Characteristics**

**Manufacturers:** Users who produce and supply products. They can manage products, accept/reject orders, and handle distributor registrations.

**Distributors:** Users who distribute products to customers. They can place orders, register customers, and redeem rewards.

**Customers:** End-users who purchase products from distributors. They have limited interaction with the system.

### **5.2 Operating Environment**

The application will be web-based and accessible via modern web browsers (Chrome, Firefox, Safari, Edge). It will be compatible with desktop and mobile devices.

## **6. Design and Implementation**

### **A. Home Page:**

Login Screen -> enter email id, password -> click on Login

### **B. Manufacturer's Screens:**

#### **I. PRODUCTS:**

- My Products are visible -> There are cards displaying image, product\_id, product\_name, product\_description, price, and options to Update/Delete.
- There is an option to add a new product, Notify the distributors about the newly added product(s).

#### **II. DISTRIBUTORS:**

- Display all the Distributors -> showing their name , id , email, address, total revenue generated and 3 buttons :
  - 1) Distributor's products - which on click, opens Modal that displays -> distributors id , distributors name ,

product id, product name, quantity , date, price , order id , order status

- 2) Customer→ this will display all the customers of that distributor , along with their id, name, email, mobile no, address and all the orders that customer has placed to the distributor with date, quantity, time, total price.
- 3) Delete → this will delete the distributor.

- Search button→ this button will help to search by distributors name.
- Pagination→ this will have left and right buttons which will help to move to the next or previous page.

### III. ORDERS:

- This will display product orders placed by the distributor, the screen show-
  1. orderId
  2. distributorId
  3. productId
  4. productName
  5. Quantity
  6. Price
  7. Date
  8. Status
  9. Accept button→ if accepted increase the quantity in distributors dashboard
  10. Reject button → id rejected , don't change anything
- Search button→ this button will help to search by distributors name.
- Pagination→ this will have left and right buttons which will help to move to the next or previous page.

### IV. REWARDS:

- This will display all the rewards (merchandise) in the form of cards displaying→ reward image, points, reward name , reward id and the button update , delete button and 'REDEEMED BY' button which will display a modal showing distributors name, id and date .

- 'Add new reward' button - on clicking this button, there will be a modal which will pop up having a form which have fields→ reward image, name, points required and a 'save' button to save the new reward.
- Notification- this will show the distributors who ordered for rewards including their distributors id, name reward name,
- Search button→ this button will help to search by reward name.
- Pagination→ this will have left and right buttons which will help to move to next or previous page.

#### V. REPORT:

- This section will display 'Top 10 distributors ' and 'Top 10 fast moving products' based on Date range. There is a button to select start date and end date, and for that only reports will be generated.
- Top 10 Distributors→ In this section , there will be those top 10 distributors, who generated maximum revenue along with there distributors id, name, quantity, total revenue generated by each distributor.
- Top 10 fast moving products→ in this section, it will those top 10 products who had maximum sales. It displays product id, name, total quantity sold and total revenue generated by each product.

#### VI. PROFILE:

- This section will display all the information about the manufacturer including -
  - profile picture
  - name
  - email
  - mobile no
  - address
- 'Log Out' button → using this button supervisor can logout of the system.

### C. Distributor's Screens:

#### I. ORDERS:

- This screen will display all the products available to the manufacturer, that distributor can buy and sell to customers.
- Product Card→ this will display the product image, id, name, price and 'Order Now ' button. On click of 'Order Now' button it will open a Modal showing a form having product id , name , input field of quantity , total price and 'Place Order' button.
- Search button→ this button will help to search by product name.
- Pagination→ this will have left and right buttons which will help to move to next or previous page.
- Notification→ 'New product [product\_name] added.' when a manufacturer adds a new product it will show notification here.

## II. PRODUCTS:

- this screen will show all the product available at distributor to sell including order id , product id, product name, quantity price per product
- Search button→ this button will help to search by product name.
- Pagination→ this will have left and right buttons which will help to move to next or previous page.

## III. CUSTOMERS:

- This screen will display cards of customer information including→ customer id , name ,email, mobile number, location and 'View Orders' button.
  - 'View Orders' button will open a modal displaying all the previous orders done by a customer including their orderId, product id , product name, price, date.
  - 'Add New Customer' → this will open a modal and have a form with input field name , email, mobile number, location and save button to store information about the new customer.
- Search button→ this button will help to search by product name.

- Pagination→ this will have left and right buttons which will help to move to next or previous page.

#### IV. SALES:

- This screen will display all the information about the sells, distributor has done till now, including orderId, product id , product name, customer id , customer name price, date of each order customer has placed.
- 'New Order Button' → this button will open a modal to place a new order for a customer. This will display a form having input fields customer id , customer name, product id, product name, quantity , total price and 'Sell button'
  - On click of sell button , it will
    - reduce the quantity of products in the PRODUCTS section of the distributor.
    - Increase points by a certain number.
- Points → if distributors have done sales more than 1000 rs , the point will increase by 1.
- Search button→ this button will help to search by customer's name.
- Pagination→ this will have left and right buttons which will help to move to the next or previous page.

#### V. REPORT:

- This will show a bar graph product vs quantity of product sold. This will be done with date range of start date and end date.
- 'Product Wise Report' - this will redirect to new page which will display product id , name, quantity and 'Customers' button.
  - on click of this 'Customer' button it will open a modal displaying customer id , name, date.
- 'Customer Wise Screen' - this button will redirect to the CUSTOMER section where there is all information about customers including orders they have place.

#### VI. REWARDS:

- Rewards:

In this section, there will be many cards of many different rewards. Each card will be showing reward image, id, name, description, points required, quantity and 'Redeem Now' button.

On click of 'Redeem Now' button,

- If the distributor has sufficient points, it will move to the 'My Rewards' section.
- Else, popup a notification that 'You don't have sufficient points.'

- My Rewards:

This section will display the cards that the distributor has requested to redeem. Cards containing reward image, id, name, description, points, quantity and 'Status' button.

Status button will display

- "Accepted", if the manufacturer accepts the reward to redeem.
- "Rejected", if the manufacturer accepts the reward to redeem.

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VII. PROFILE:

- This section will display all the information about the distributor including -
  - profile picture
  - id
  - name
  - email
  - mobile no
  - address
- 'Log Out' button → using this button supervisor can logout of the system.

## 7. Functional Requirements

### A. Product Management

- Allows Manufacturer to Add, View, Update, Delete products.
- Allows Distributors to View products.

### B. Order Management

- Allows Distributors to place orders based on available products listed by Manufacturer.
- Allows Distributors to place customer's orders based on products available in Distributor's inventory.
- Allows Distributors to gain points as rewards for the sales they make. (1 point for the sale of every 1000₹).

#### **C. Distributor Management**

- Allows Manufacturer to Add, View, Delete distributors.

#### **D. Reward Management**

- Allows Manufacturer to Add, View, Update, Delete rewards (merchandise).
- Allows Manufacturer to give points to each merchandise.
- Allows Distributors to View availability of merchandise and redeem their points to get the merchandise.

#### **E. Report Checking**

- Allows manufacturers to view the reports of Top 10 Revenue generating distributors.
- Allows Manufacture to view the reports of Top 10 Fast moving products.
- Allows Distributors to view the Graphical report of Sales(per Quantity) vs. Products based on date range.

#### **F. Customer Management**

- Allows Distributors to Add, View, Update, Delete Customers.
- Allows manufacturers to View Customers.

### **8. User-Interfaces**

#### **a. Manufacturer Dashboard:**

- I. Products
- II. Distributors
- III. Orders
- IV. Rewards
- V. Reports
- VI. My Profile

#### **b. Distributor Dashboard:**

- I. Orders
- II. Products
- III. Customers
- IV. Sales



V. Reports  
VI. Rewards  
VII. My Profile

## **9. Data Flow**

The manufacturer firstly makes the products and lists them on the portal making them available to all the distributors. He then adds the distributors to the portal. Manufacturer adds merchandise to the portal as a reward system for distributors to acknowledge their sales. Distributors view the available products and place the order(s). They register the customers and take customer's order. Distributors view their inventory and give the products to customers. Based on their sales, distributors view the merchandise available and redeem items based on the points gained according to their sales. Manufacturer can also view the customer's data.

## **10. Glossary**

- a. Manufacturer: Entity that produces and supplies products to distributors, makes rewards available to distributors.
- b. Distributor: Entity that distributes products to customers, places order to manufacturer, redeems rewards.
- c. Customer: End-user who purchases products.
- d. Merchandise: Products available for reward redemption.
- e. Points: Rewards earned by distributors based on sales.