SOFTWARE REQUIREMENTS SPECIFICATION (SRS)

Colombo Cosmetics – Order Management System

Version: 1.0
System Type: Mobile-First Web Application (PWA)
Deployment: Vercel (Frontend), Railway (Backend), Supabase (PostgreSQL Database)

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1. Introduction

1.1 Purpose

This document specifies the functional and non-functional requirements for the Colombo Cosmetics Order Management System. The system will manage orders, shipping, delivery tracking, returns, receipt generation, reporting, and user access control.

1.2 Scope

The system will:

- Allow creation and management of customer orders

- Track order status lifecycle

- Automatically calculate profit and costs

- Generate digital receipts

- Provide reporting and dashboard insights

- Implement role-based access control

- Operate as a mobile-installable web application (PWA)

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2. Overall Description

2.1 Product Perspective

The system is a cloud-based, mobile-first web application accessible via browser and installable on mobile devices.

It consists of:

- Frontend (React PWA)

- Backend API (Node.js)

- PostgreSQL Database

2.2 User Classes

Admin

- Full system access

- Master status override

- Manage users

- View financial reports

- Manage products

Staff

- Create and update orders

- Change order status (within permissions)

- Generate receipts

3. Functional Requirements

3.1 Authentication & Authorization

FR-1: System shall provide secure login using email and password.
FR-2: System shall implement Role-Based Access Control (RBAC).
FR-3: Admin shall have master control to change order status at any stage.
FR-4: System shall log all critical actions (status changes, deletions).

3.2 Order Management (CRUD)

FR-5: System shall allow users to create new orders.
FR-6: Order ID shall be auto-generated and unique.
FR-7: Order must contain:

- Customer Name

- Mobile Number

- Address

- Order Date

- Order Items

FR-8: Each order item shall contain:

- Product

- Quantity

- Cost Price

- Selling Price

- Total Item Value

FR-9: System shall allow updating and cancelling orders.

3.3 Shipping Management

FR-10: System shall support shipping types:

- PO (auto-calculated)

- COD (based on weight and amount)

- Speed (based on weight)

FR-11: Shipping cost shall be automatically calculated.
FR-12: Shipping cost shall be included in final order calculation.

3.4 Profit & Cost Calculation

FR-13: System shall calculate:

Final Order Amount =
(Sum of Selling Price × Quantity) + Shipping Cost

FR-14: Net Profit =
(Sum of Selling Price – Cost Price) – Shipping Cost – Return Charges

FR-15: System shall display profit per order.

3.5 Order Status Workflow

FR-16: Order statuses shall include:

- Pending

- Dispatched

- Delivered

- Returned

- Cancelled

FR-17: After creation, order shall appear in Pending/Orders tab.
FR-18: Dispatched tab shall show dispatched but undelivered orders.
FR-19: Delivered tab shall show completed orders.
FR-20: Returned tab shall show returned orders.

FR-21: Status changes shall be logged with:

- User ID

- Timestamp

- Previous status

- New status

3.6 Receipt Generation

FR-22: System shall automatically generate a digital receipt upon order creation.

FR-23: Receipt shall contain:

- Company Name (Colombo Cosmetics)

- Order ID

- Order Date

- From address (Shop address)

- To Address (customer address)

- Total Amount & Payment Type

FR-24: Receipt shall be:

- Downloadable as PDF

- Viewable within the system

- Printable

FR-25: Receipt shall be stored and retrievable later.

3.7 Product Management

FR-26: System shall allow product creation.
FR-27: Product fields:

- Product Name

- Cost Price

- (Optional) Selling Price Default

FR-28: System shall support full CRUD for products.

3.8 Dashboard & Reports

FR-29: System shall provide dashboard view showing:

- Total Orders
- Total Sales
- Total Profit
- Pending Orders
- Returned Orders

FR-30: System shall allow report generation by:

- Date range
- Status
- Profit summary

3.9 Search, Sort & Filter

FR-31: All tables shall support:

- Search by name/mobile/order ID
- Sort by date/status
- Filter by order status

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4. Non-Functional Requirements

4.1 Performance

NFR-1: System response time shall be under 2 seconds for standard operations.
NFR-2: System shall support concurrent users (minimum 10 users).

4.2 Security

NFR-3: All communication shall use HTTPS.
NFR-4: Passwords shall be securely hashed.
NFR-5: Role-based permissions shall restrict unauthorized access.
NFR-6: Database shall not be directly accessible from frontend.

4.3 Availability

NFR-7: System shall be cloud-hosted.
NFR-8: Database backups shall be maintained.

4.4 Usability

NFR-9: System shall be mobile-first responsive.
NFR-10: System shall support installation via Add to Home Screen (PWA).

4.5 Scalability

NFR-11: System shall support scaling to multiple branches in future.
NFR-12: System architecture shall allow additional modules.

5. Assumptions

- Internet connection is available during usage.

- Shipping calculation formula will be finalized before development.

- Users will have basic smartphone familiarity.

6. Future Enhancements (Out of Scope for v1)

- Inventory management

- Barcode scanning

- SMS notification

- Multi-branch support

- Payment gateway integration