# System Requirements Statement (SRS) – Blossom Beauty

# 1.    Introduction

This document describes the business requirements, functional scope, and system design of the Blossom Beauty Cosmetic Web Application. The purpose of this document is to define the functional and non-functional requirements, system architecture, database design, and overall workflow of the application.

The cosmetic and personal care industry has seen rapid growth in online shopping platforms. Customers increasingly expect personalized product suggestions based on their specific skin and hair concerns. However, many existing platforms lack concern-based recommendations.

Blossom Beauty is designed to bridge this gap by providing a user-friendly cosmetic web application that offers concern-based product recommendations such as acne care, dandruff control, and hair fall solutions. The system is built using a scalable microservices architecture to ensure performance, flexibility, and maintainability.

The objective of the system is to develop a web-based cosmetic application with a modern UI that store and manage data using MySQL which ensure modular backend using microservices and allow Admin to manage products and inventory to provide concern-based product recommendations.

## 2.    Functional Requirements

| No | BRS require ment ID | Description |
|---|---|---|
| **2.1** | **Admin Module** | |
| **F1** | | **Account Creation Process** |
| **a.** | | **Register** |
| **b.** | | **Login Process** |
| | | |
| **F2.** | | **Manage  Products** |
| **2.1** | | **View Products** |
| **2.2** | | **Search Products** |
| **2.3** | | **Add Products** |
| **2.4** | | **Update Products** |
| **2.5** | | **Delete Products** |
| | | |
| **F3** | | **Manage Category** |
| **3.1** | | **Create New Category** |
| **3.2** | | **Update Category Details** |
| **3.3** | | **Delete Category** |
| **3.4** | | **Create Subcategory** |
| **3.5** | | **Assign Products to Category** |
| | | |
| **F4** | | **Process Orders** |
| **4.1** | | **View Order List** |
| **4.2** | | **Update Order Status** |
| **4.3** | | **Generate Invoice** |
| | | |
| **F5** | | **Manage Discounts** |
| **a.** | | **Create Discount Coupons** |
| **b.** | | **Apply Discounts to Products** |
| **c.** | | **Set Offer Validity Period** |
| | | |
| **2.2** | **User Module** | |
| **F1** | | **Account Creation Process** |
| **A.** | | **Register** |
| **b.** | | **Login** |
| | | |
| **F2** | | **Browse Product** |
| **a.** | | **Search products by name or keyword** |
| | | |
| **F3** | | **View Product Details** |
| **a.** | | **View product images** |
| **b.** | | **View ratings** |
| | | |
| **F4** | | **Manage Cart** |
| **a.** | | **Add product to cart** |
| **b.** | | **Remove items from cart** |
| **c.** | | **Update item quantity** |
| **d.** | | **View total price** |

| | | |
|---|---|---|
| **e.** | | **Apply coupon** |
| | | |
| **F5** | | **Get Product Recommendation** |
| **a.** | | **Collect user concern (skin and hair)** |
| **c.** | | **Recommend personalized products based on skin & hair concerns** |
| | | |
| **F6** | | **Checkout** |
| **b.** | | **Review order summary** |
| **c.** | | **Confirm order & generate invoice** |
| | | |
| **F7** | | **Track Order** |
| **a.** | | **View invoice or receipt** |

## 2.1 Admin Module

This module allows administrators to control and manage the entire system.

### F1: Account Creation Process

#### a.  Register

Admin creates an account by providing personal details, login credentials, and contact information. Password must follow security rules to protect the account.

#### b.  Login Process

Admin logs into the system using Admin ID and password. The system verifies credentials, role, and account status before providing dashboard access.

Admin Authentication Flow

1.  Admin opens the Admin Login page.
2.  Admin enters emailid and Password.
3.  System validates:
    o  Credentials
    o  Role = Admin
    o  Account status = Active
4.  If validation succeeds:
    o  Admin is redirected to the **Admin Dashboard**.
5.  If validation fails:
    o  Error message is displayed.

### F2: Manage Products

This function allows admin to control product listings.

#### a.  View Products

Admin can see all products stored in the database.

#### b.  Search Products

Admin can search products using filters like product name, category, price, or brand.

#### c.  Add Products

Admin can add new products by entering product details such as name, price, description, stock, and images.

**Product Management Flow**

1. **Add / Publish Product**
2. Admin selects **Add Product**.
3. Admin enters product details:
    - Name, Category, Brand
    - Price, Discount
    - Stock Quantity
    - Images
4. System validates mandatory fields.
5. Product is saved in Product Service database.
6. Confirmation message shown.

### d. Update Products

Admin can edit product details like price, stock, or description.

**Update Product**

1. Admin selects an existing product.
2. System displays editable product details.
3. Admin updates required fields.
4. System saves changes.
5. Product list refreshes with updated data.

### e. Delete Products

Admin can remove products permanently from the system.

1. Admin selects a product.
2. System shows success message.

## F3: Manage Category

This function helps admin organize products into categories.

### a. Create New Category

Admin can create new product categories with name, description, and status.

**Create Category**

1. Admin clicks Add Category.
2. Enters category name and description.
3. System checks uniqueness.
4. Category is saved.

### b. Update Category Details

Admin can edit existing category information.

### c. Delete Category

Admin can remove a category from the system.

### d. Create Subcategory

Admin can create subcategories under main categories.

Create Subcategory

1. Admin selects parent category.
2. Enters subcategory details.
3. System validates and saves.

### e. Assign Products to Category

Admin can assign products to appropriate categories or subcategories.

1. Admin selects products.
2. Selects category/subcategory.
3. System maps products accordingly.

## F4: Process Orders

This function allows admin to manage customer orders.

### a. View Order List

Admin can see all customer orders with details like order ID, payment status, and delivery status.

1. Admin opens Order List.
2. System displays all orders with status.

### b. Update Order Status

Admin can change order status such as packed, shipped, or delivered.

1. Admin selects an order.
2. Changes order status (Created→ Dispatched → Delivered →Cancelled).
3. System:
   - o Updates order status

### c. Generate Invoice

Admin can generate and download invoices for customer orders.

1. System generates invoice.
2. Invoice stored.

**F5: Manage Discounts**

### a. Set Offer Validity Period

Admin can define start and end dates for discount offers.

Defines:

- Discount
- Validity
- Usage limit

## 2.2 User Module

The User interacts with the system to browse, purchase, and track cosmetic products.

**F1: Account Creation and Login**

### a. Register

User creates an account by providing personal details, login credentials, and contact information. Password must follow security rules to protect the account.

### b. Login

Users log in using user ID and password. System verifies user credentials and account status before allowing access.

1. User opens Login page.
2. Enters User ID and Password.
3. System validates:
    - Credentials
    - Role = Customer
    - Account status = Active
4. User redirected to Home Page.

## F2: Browse Products

### a. Search Products

Users can search products using keywords or product names. User selects a product.

Browse Products Flow

1. User browses products by:
    - Search keyword
2. User can select a product.

## F3: View Product Details

### a. View Product Information

Users can see product images, price, and specifications.

### b. View Ratings

Users can read customer reviews and ratings before purchasing.

## F4: Manage Cart

### a. Add Products to Cart

Users can select product quantity and add products to the cart.

### b. Remove Products

Users can remove items from the cart.

### c. Update Quantity

Users can increase or decrease product quantity.

### d. View Total Price

System calculates total price including taxes and discounts.

### e. Apply Coupon

Users can apply discount coupons during shopping.

Cart Management Flow

1. User adds product to cart.
2. Selects:
   o Quantity
3. System updates cart summary.
4. User can:
   o Update quantity
   o Remove item
   o Apply coupon
5. System recalculates total.

## F5: Product Recommendation

### a. Collect User Concern

System collects user skin and hair concerns such as acne or hair fall.

### b. Recommend Products

System suggests products based on user concerns.

1. User selects:
   o Skin type
   o Hair concerns
2. System matches preferences.
3. System recommends:
   o Suitable products
   o Routine-based sets

**F6: Checkout**

### a. Review Order Summary

Users can review selected items before placing the order.

### b. Confirm Order and Generate Invoice

System confirms the order and generates an invoice after successful checkout.

1. User clicks Checkout.
2. Reviews order summary.
3. System rechecks stock and prices.
4. User confirms order.
5. Order ID and Invoice generated.

**F7: Track Order**

### a. View Order Status

Users can track order progress from placement to delivery.

1. User opens My Orders.
2. Selects an order.
3. System displays real-time status:
     - Created
     - Dispatched
     - Delivered
     - Cancelled
4. User can see invoice if needed.
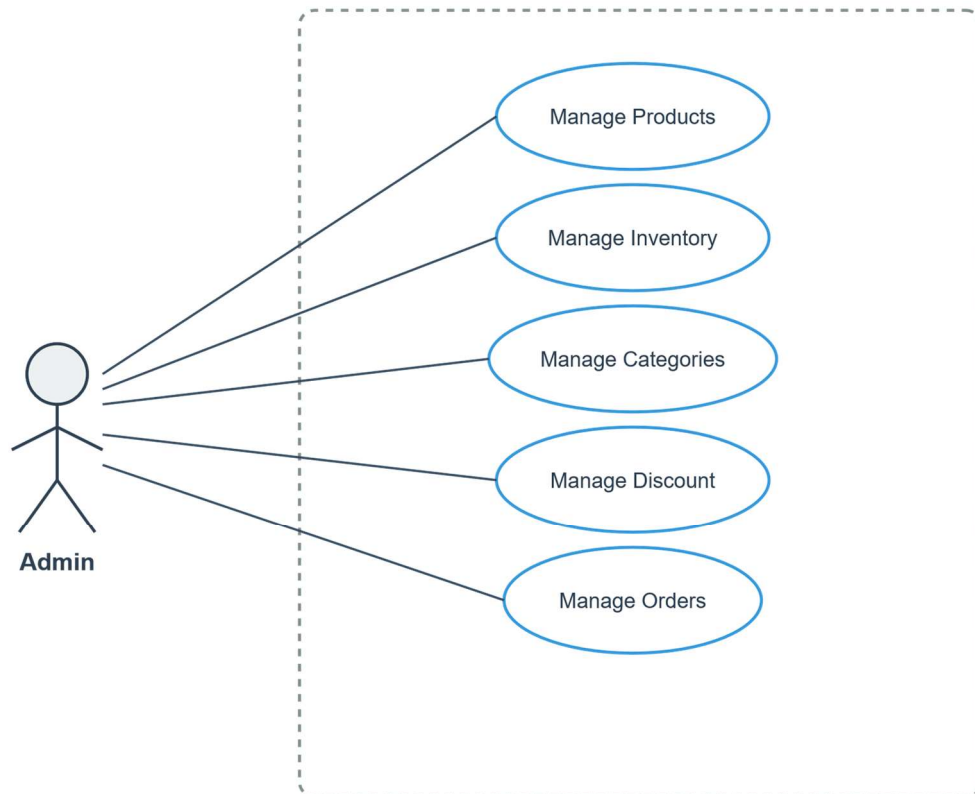
### b. View Invoice

Users can download or view order invoice anytime.

## 2.3 Use Case Diagram

### Explanation

Use case diagrams visually represent system interactions. It shows how users and admins interact with system features like managing products, placing orders, and tracking deliveries. It helps understand system workflow clearly.

**Admin:**

**User:**