Project Name: “Blossom Beauty”
Branch PG-DAC Aug-2025

Documentation On
“Blossom Beauty”

PG-DAC August 2025

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1. Introduction

1.1 Document Purpose

This document outlines the business requirements and scope for developing Blossom Beauty, a cosmetic web application. The application aims to provide a seamless online shopping experience with personalized cosmetic product recommendations based on user skin and hair concerns, along with efficient product and order management through an integrated admin dashboard. The scope of this document is to define the functional and non-functional requirements, business rules and other constraints requirements.

1.2 Project Background

With the rapid growth of online shopping and increasing awareness of skincare and beauty products, there is a rising demand for platforms that offer convenience, variety, and personalization. This application is developed to provide a basic and user-friendly cosmetic shopping experience. It allows users to search for products, add selected items to the cart, and place orders smoothly. It also gives personalized recommendation based on user skin and hair concern.

1.3 Aim & Objective

The aim of this project is to develop a simple and user-friendly cosmetic web application that allows users to search products, get recommended products based on user concern, add them to the cart, and purchase them easily.

• Develop a user-friendly web application.
• Enable users to search cosmetic products easily.
• Allow users to view basic product details.
• Provide functionality to add products to the cart.
• Enable users to place orders smoothly.
• Ensure a simple buying process.

1.4 Customers and Stakeholders

- **Customers:**
    - Users who browse, search, and purchase cosmetic products online.
    - Customers looking for skincare, haircare, and beauty products.
    - Users who prefer an easy and convenient online shopping experience.
- **Stakeholders:**
    - Admin who manages products, categories, and inventory.

2. Business Requirements Overview

- **Target Platform:** Web Application
- **Business Goal:** To sell cosmetic products online in a simple and efficient manner
- **Primary Users:** Customers and Admin
- **Core Business Functions:**

    - Search the products.
    - Add products to cart and purchase products.
    - Product and order status management

3. Functional Requirements Overview

1. Admin Module
2. User Module

3.1 Admin Module:

- Admin can log in to the system securely.
- Admin can add new cosmetic products.
- Admin can update existing product details and inventory.
- Admin can delete products from the system.
- Admin can manage customer orders and update order status.

3.2 User Module:

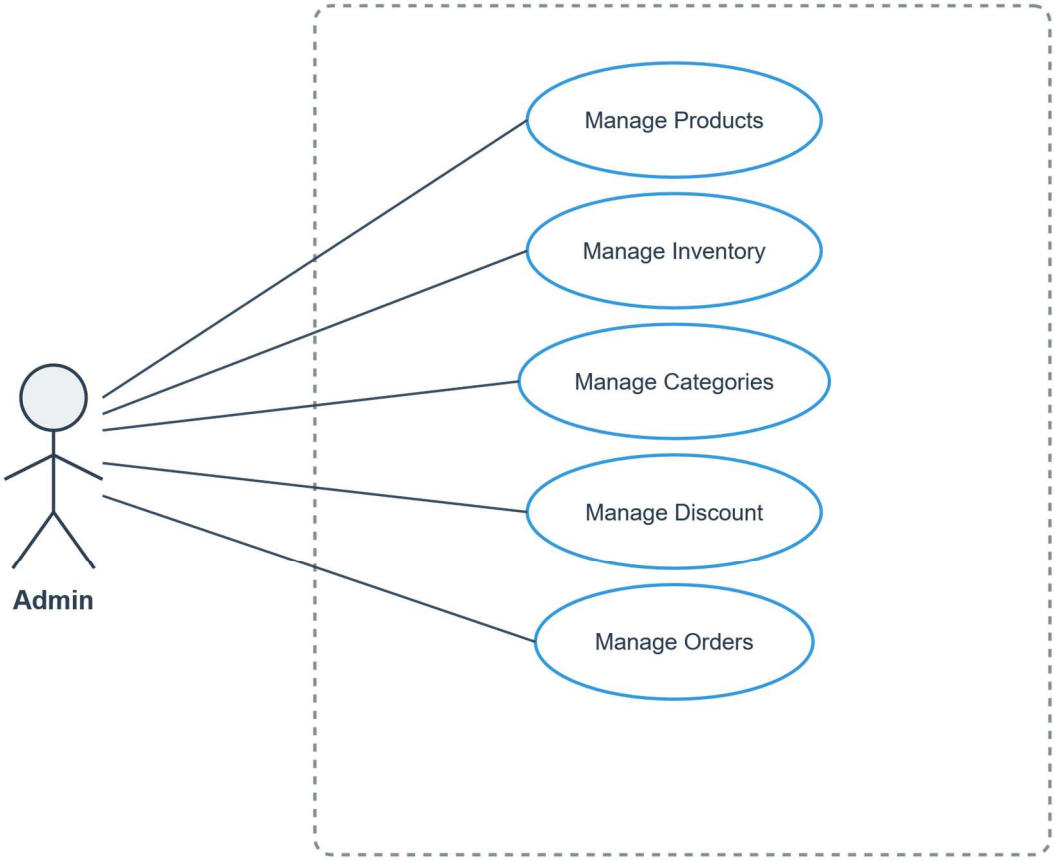
- Customers can register on the website.
- Customers can log in to the system.
- Customers can search cosmetic products.
- Customers can get product recommendation based on their skin or hair concern.
- Customers can view product details such as price, image and rating.
- Customers can add products to the cart.
- Customers can view items added to the cart.
- Customers can place orders for products.
- Customers can view order status and order history.

4. Non-Functional Requirement

- Design & UI: The website should have a clean, simple, and professional design that is easy for users to understand.
- Usability: Users should be able to complete common tasks (searching, adding to cart, checkout) in minimum steps.
- Reliability: The website should run smoothly without frequent crashes.
- Maintainability: The code and structure should be easy to update and modify for future improvements.
- Performance: Pages should load within a reasonable time.
- Compatibility: The website should work properly on common browsers like Chrome, Firefox, Edge.

5. Use Case Diagram

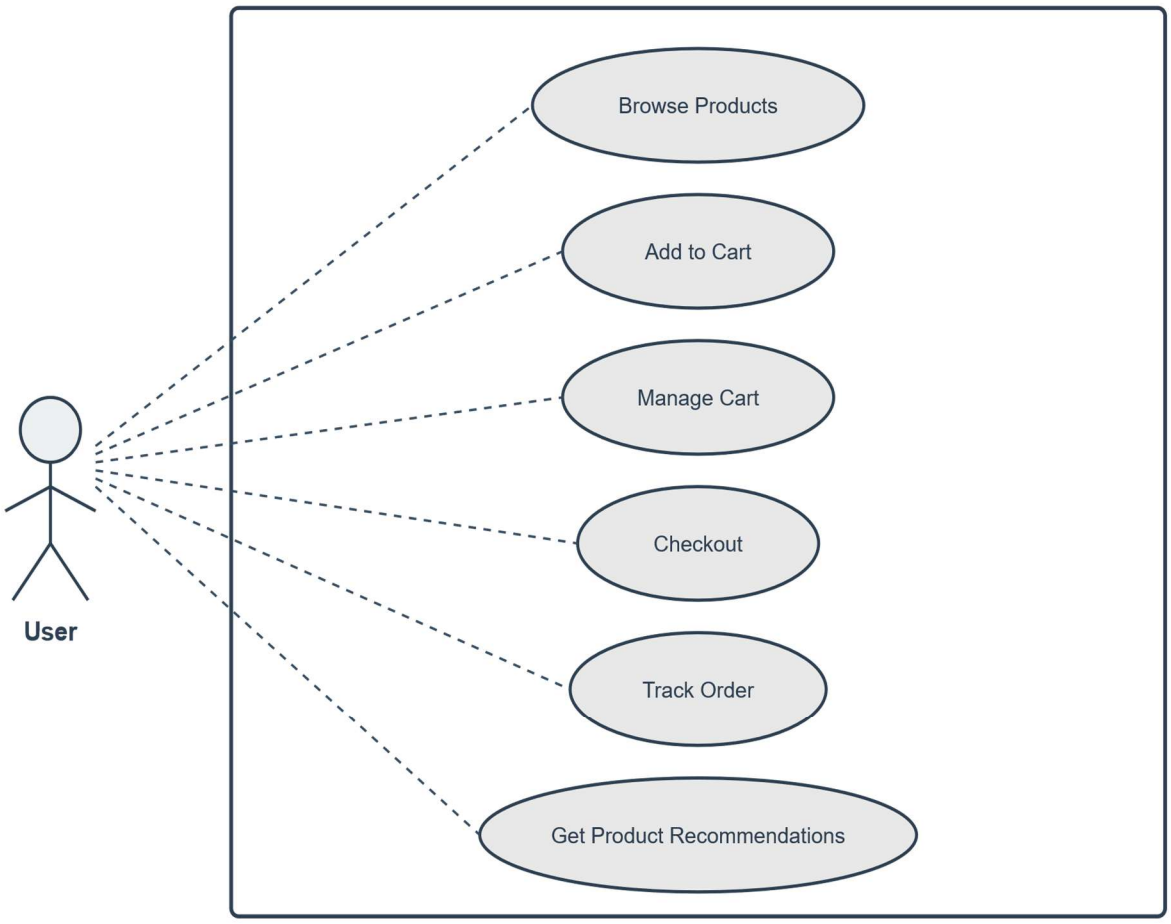
1. Admin:



Admin:

1. In Admin use diagram Admin is the Actor
2. Admin can handle the following use cases:
    a. Login
    b. Manage products
    c. Manage inventory
    d. Manage categories
    e. Manage discount
    f. Process orders

2. Customer:



Customer:

1. In Customer use case diagram Customer is the Actor.
2. Customer can handle following use cases:
    a. Register
    b. Login
    c. Browse products
    d. Add to cart
    e. Manage cart
    f. Checkout
    g. Track order
    h. Get recommendation

6. Database Design

I. Role Table

Role					
Field	**Type**	**Null**	**Key**	**Default**	**Extra**
role_id	INT	No	PK		Auto Increment
role_name	VARCHAR (30)	No			Unique

II. City Table

City					
Fields	**Type**	**Null**	**Key**	**Default**	**Extra**
city_id	INT	No	PK		Auto Increment
city_name	VARCHAR(45)	No			

III. Area Table

Area					
Fields	**Type**	**Null**	**Key**	**Default**	**Extra**
area_id	INT	No	PK		Auto Increment
area_name	VARCHAR(45)	No			
city_id	INT	No	FK		

IV. Users Table

Users					
Field	**Type**	**Null**	**Key**	**Default**	**Extra**
user_id	INT	No	PK		Auto Increment
first_name	VARCHAR (45)	No			
last_name	VARCHAR (45)	No			
username	VARCHAR (45)	No			
password	VARCHAR (45)	No			
email	VARCHAR (75)	No			
contact	VARCHAR (10)	No			
status	ENUM	Yes		ACTIVE	
role_id	INT	No	FK	2	
area_id	INT	No	FK		
created_at	TIMRSTAMP	Yes			

V. Brands Table

Brands					
Fields	**Type**	**Null**	**Key**	**Default**	**Extra**
brand_id	INT	No	PK		Auto Increment
brand_name	VARCHAR(50)	No			

VI. Categories Table

Categories					
Fields	**Type**	**Null**	**Key**	**Default**	**Extra**
category_id	INT	No	PK		Auto Increment
category_name	VARCHAR(50)	No			

VII. Sub categories Table

Subcategories					
Fields	**Type**	**Null**	**Key**	**Default**	**Extra**
subcategory_id	INT	No	PK		Auto Increment
subcategory_name	VARCHAR(50)	No			
category_id	INT	No	FK		

VIII. Coupon Table

Coupon					
Field	**Type**	**Null**	**Key**	**Default**	**Extra**
coupon_id	BIGINT	No	PK		Auto Increment
code	VARCHAR (50)	No			
discount_type	VARCHAR(20)	No			
discount_value	DECIMAL(10,2)	No			
min_cart_value	DECIMAL(10,2)	Yes		0.00	
expiry_date	DATE	Yes		NULL	
active	TINYINT(1)	Yes		1	

IX. Products Table

Products					
Field	**Type**	**Null**	**Key**	**Default**	**Extra**
product_id	BIGINT	No	PK		Auto Increment
product_name	VARCHAR (45)	No			
description	TEXT	Yes		NULL	
price	DECIMAL(10,2)	No			
stock	INT	Yes		0	
brand_id	BIGINT	No	FK		
subcategory_id	BIGINT	No	FK		
status	ENUM	Yes		ACTIVE	
created_at	TIMESTAMP	Yes			
updated_at	TIMESTAMP	Yes			
image_url	VARCHAR(255)	No			

X. Cart Table

Cart					
Field	**Type**	**Null**	**Key**	**Default**	**Extra**
cart_id	BIGINT	No	PK		Auto Increment
user_id	BIGINT	No	FK		
total_amount	DECIMAL (10,2)	Yes		0.00	
discount_type	VARCHAR (45)	Yes		NULL	
discount_value	DECIMAL (10,2)	Yes		0.00	
final_amount	DECIMAL (10,2)	Yes		0.00	
created_at	TIMESTAMP	Yes			
updated_at	TIMESTAMP	Yes			
coupon_code	VARCHAR (45)	Yes	FK	NULL	

XI. **Cart items Table**

Cartitems					
Field	**Type**	**Null**	**Key**	**Default**	**Extra**
cart_item_id	BIGINT	No	PK		Auto Increment
cart_id	BIGINT	No	FK		
product_id	BIGINT	No			
product_name	VARCHAR (255)	No			
price	DECIMAL (10,2)	No			
quantity	INT	No		1	
subtotal	DECIMAL (10,2)	No			
created_at	TIMESTAMP	Yes			
updated_at	TIMESTAMP	Yes			

XII. **Orders Table**

Orders					
Field	**Type**	**Null**	**Key**	**Default**	**Extra**
order_id	BIGINT	No	PK		Auto Increment
user_id	BIGINT	No	FK		
total_amount	DECIMAL (10,2)	No			
final_amount	DECIMAL (10,2)	No			
order_status	ENUM	Yes		CREATED	
created_at	TIMESTAMP	Yes			
updated_at	TIMESTAMP	Yes			
payment_method	VARCHAR (20)	No		COD	

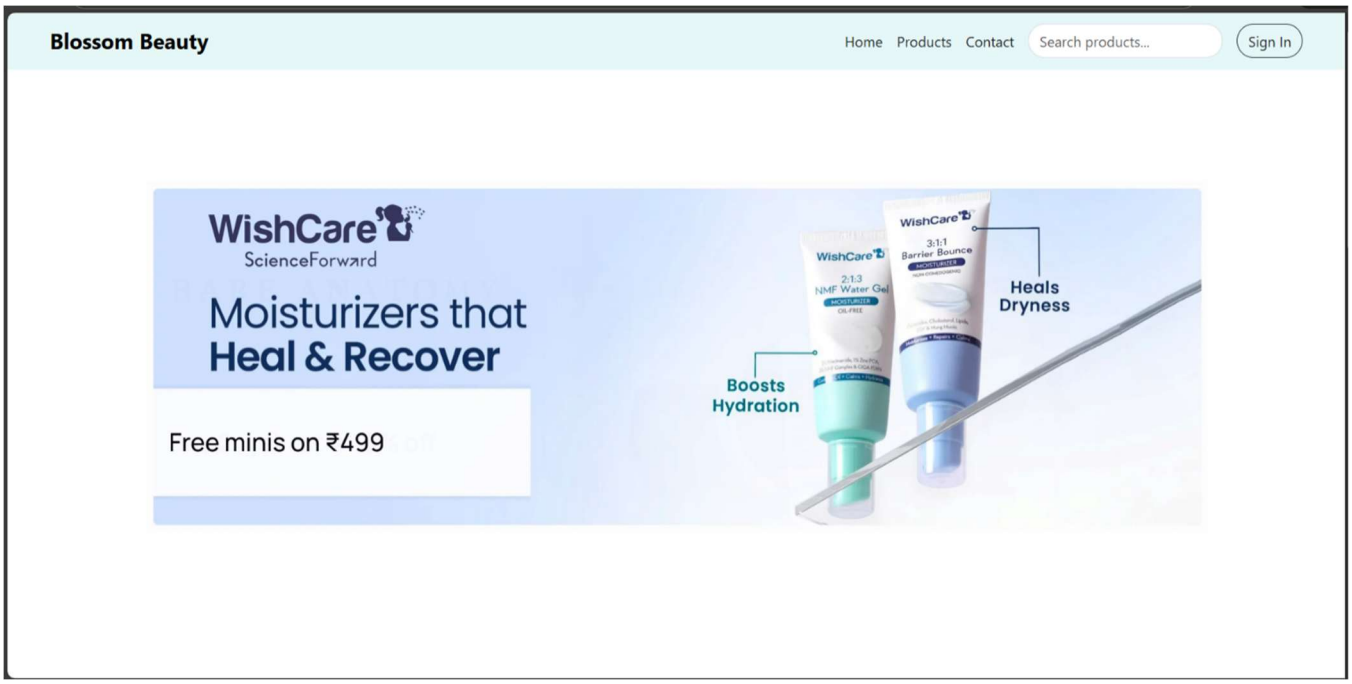
XIII. **Order items Table**

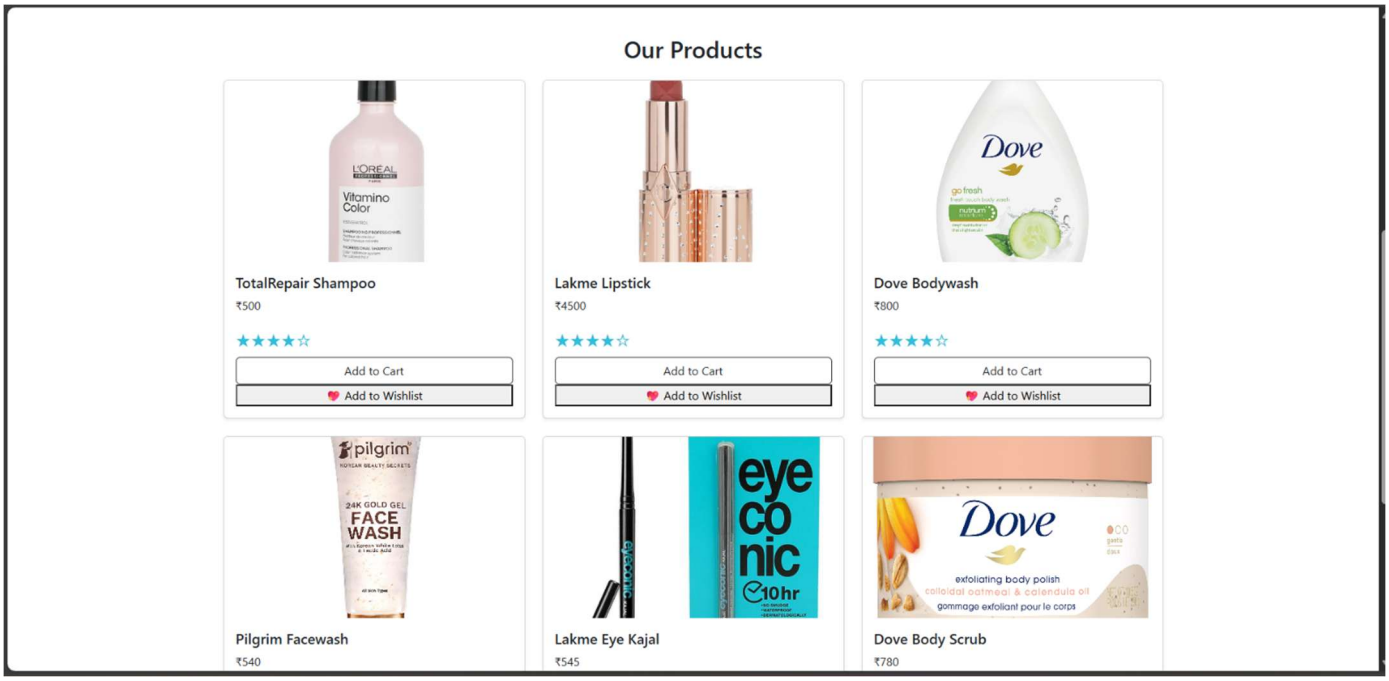
Orderitems					
Field	**Type**	**Null**	**Key**	**Default**	**Extra**
order_item_id	BIGINT	No	PK		Auto Increment
order_id	BIGINT	No	FK		
product_id	BIGINT	No	FK		
product_name	VARCHAR (255)	No			
price	DECIMAL (10,2)	No			
quantity	INT	No		1	
subtotal	DECIMAL (10,2)	Yes			

8.Snapshots:

8.1 Home Page:

Following snapshot shows the **Home Page** for Blossom application before Login. User can navigate to Registration and Login page from Home Page.





Add to Cart

Add to Wishlist

Add to Cart

Add to Wishlist

Add to Cart

Add to Wishlist

Pilgrim Facewash

₹540

★★★★☆

Add to Cart

Add to Wishlist

Lakme Eye Kajal

₹545

★★★★☆

Add to Cart

Add to Wishlist

Dove Body Scrub

₹780

★★★★☆

Add to Cart

Add to Wishlist

Contact Us

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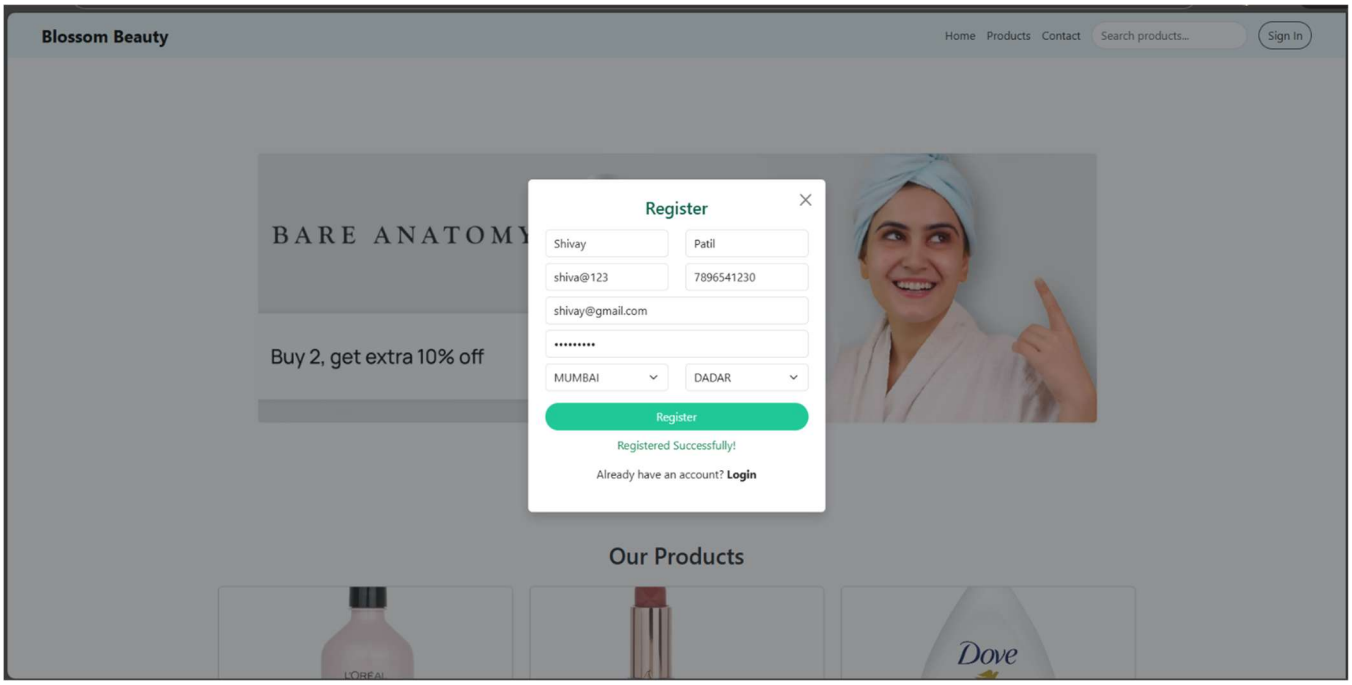
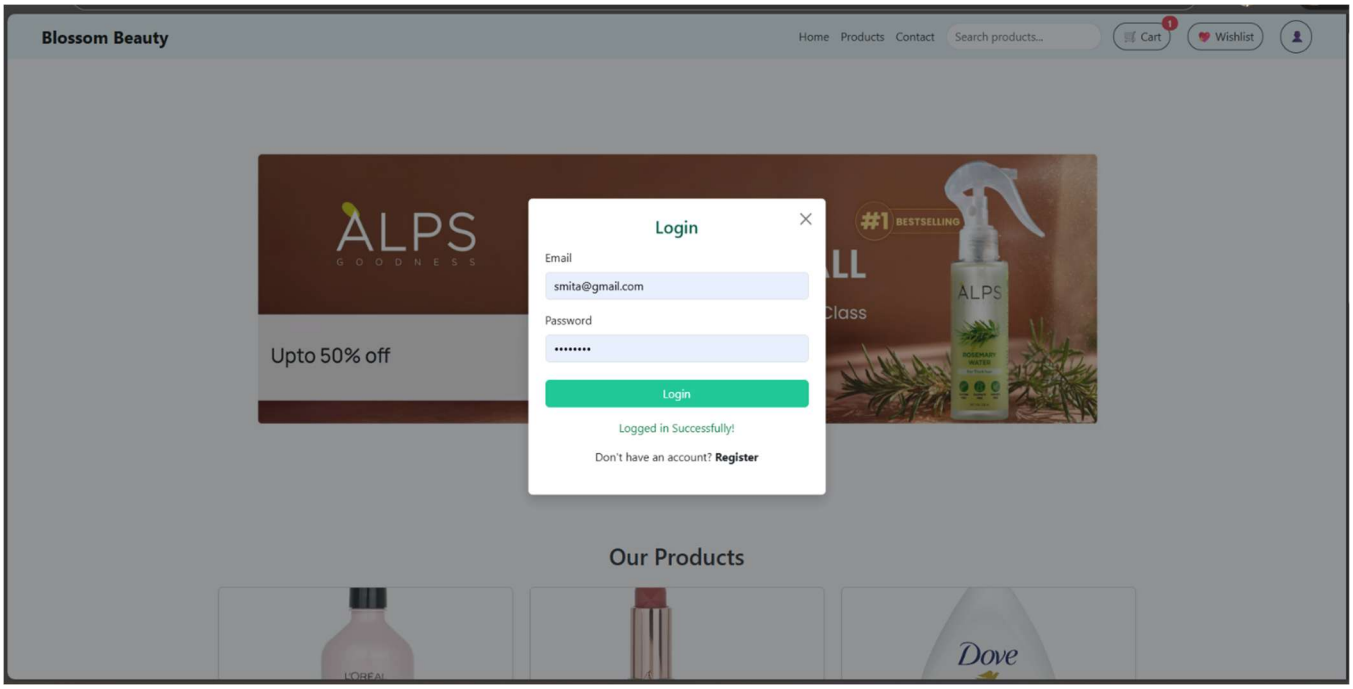
8.2 Registration and Login Page:

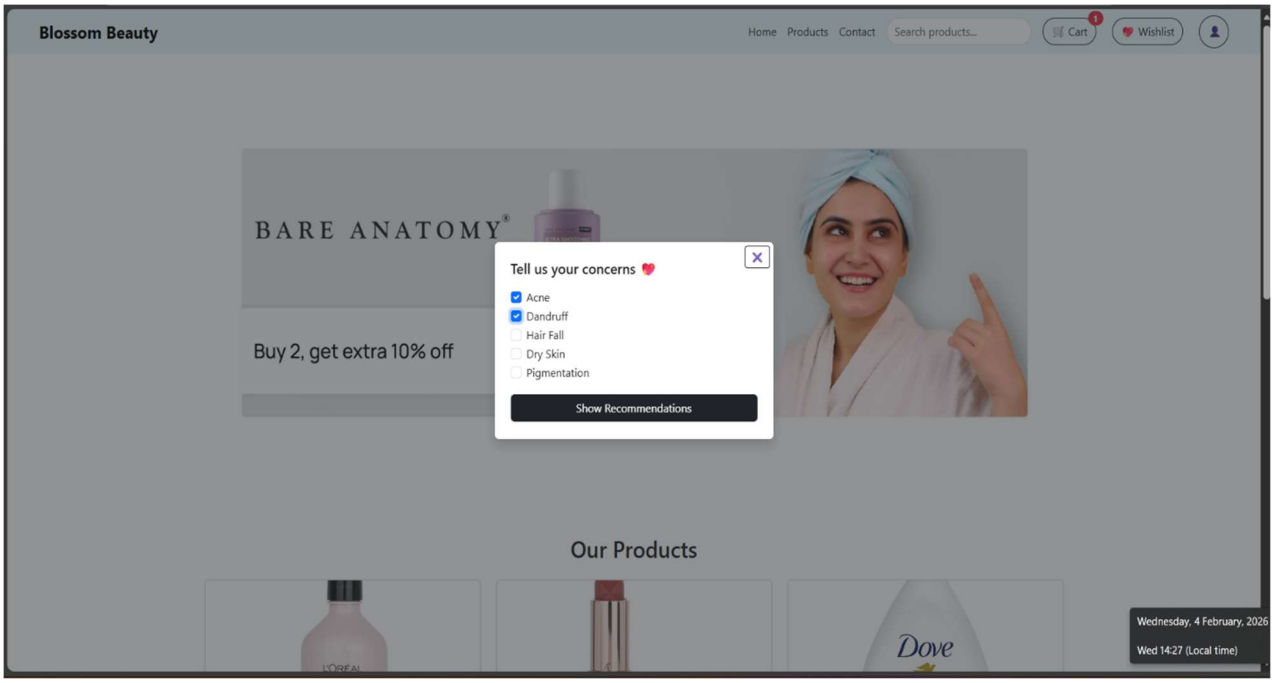
Customer can register or login by navigating to registration or login page.



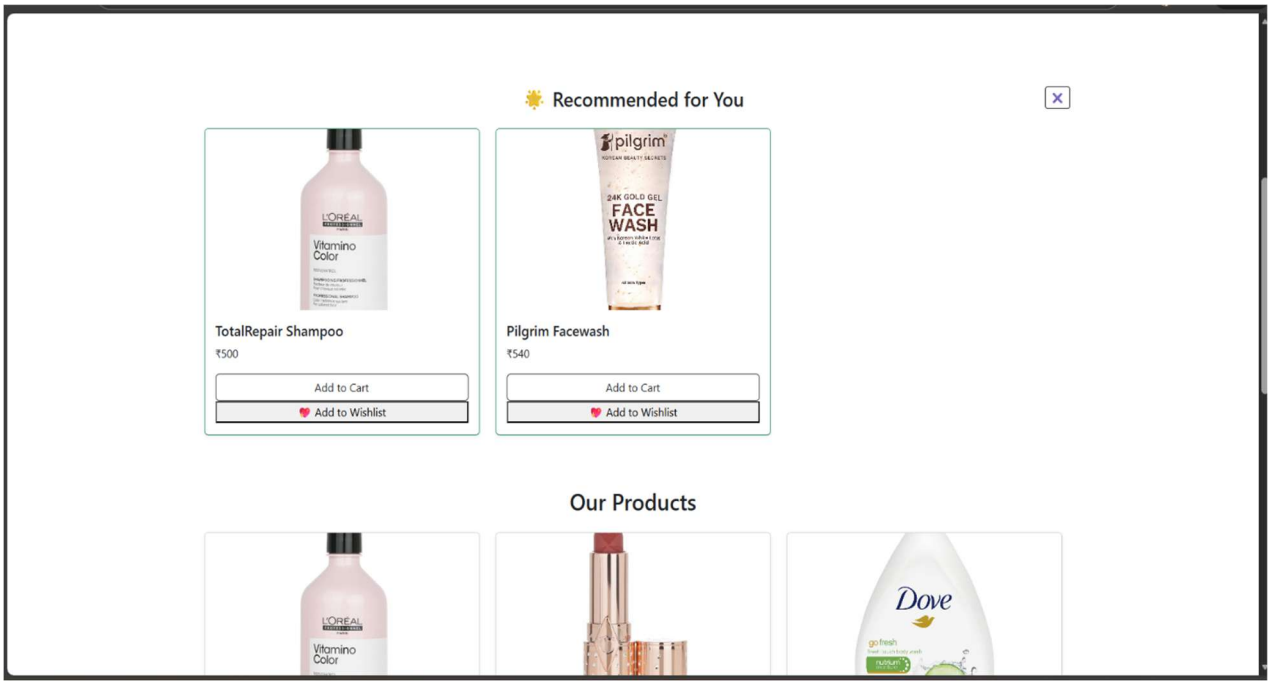


8.3 Product recommendation based on user concern

User can choose their concern to get products based on that.

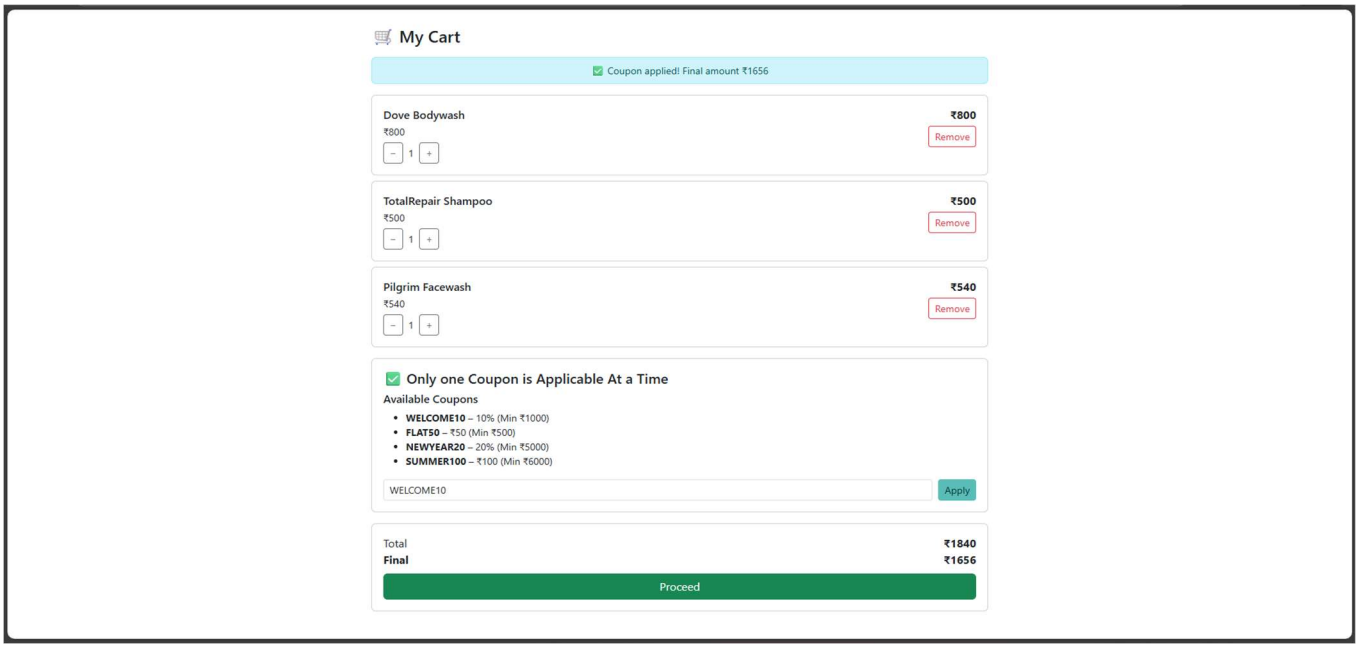


User can see recommended products based on their concern.



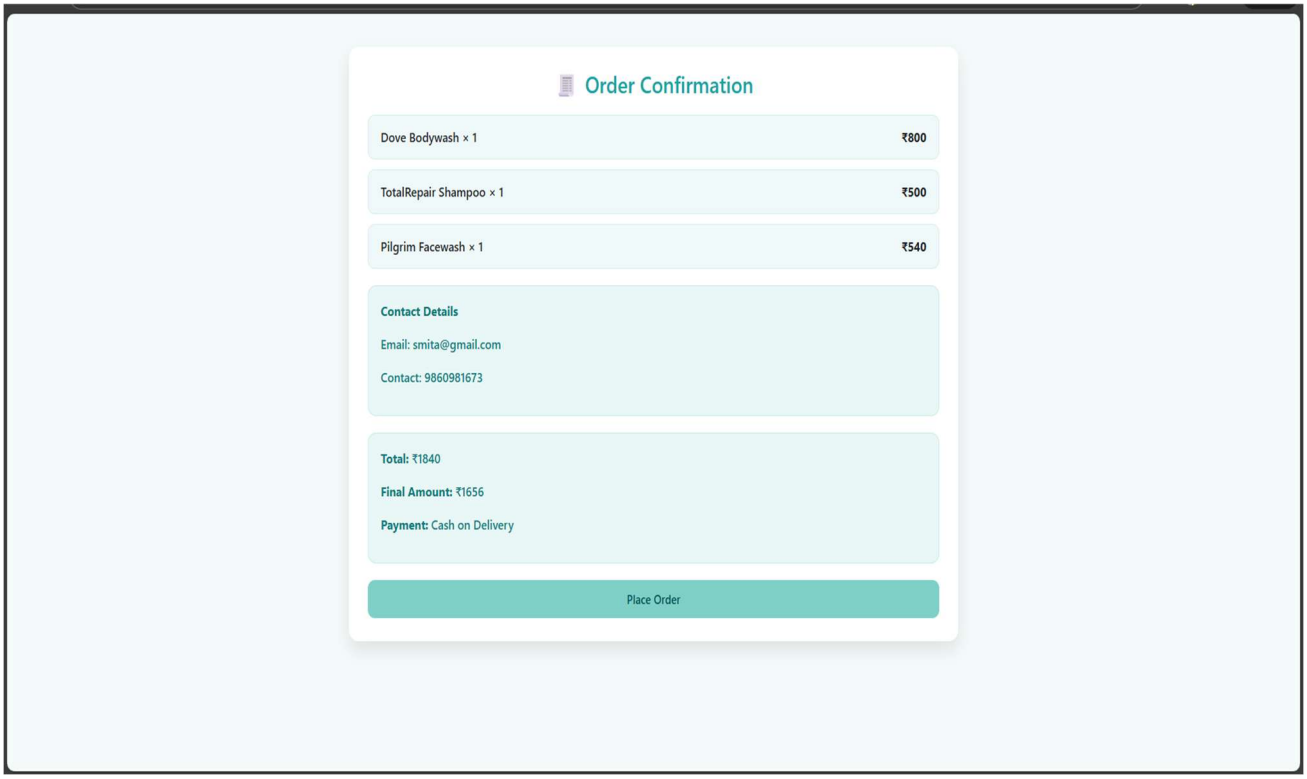
8.4 User cart

User can add products to cart.

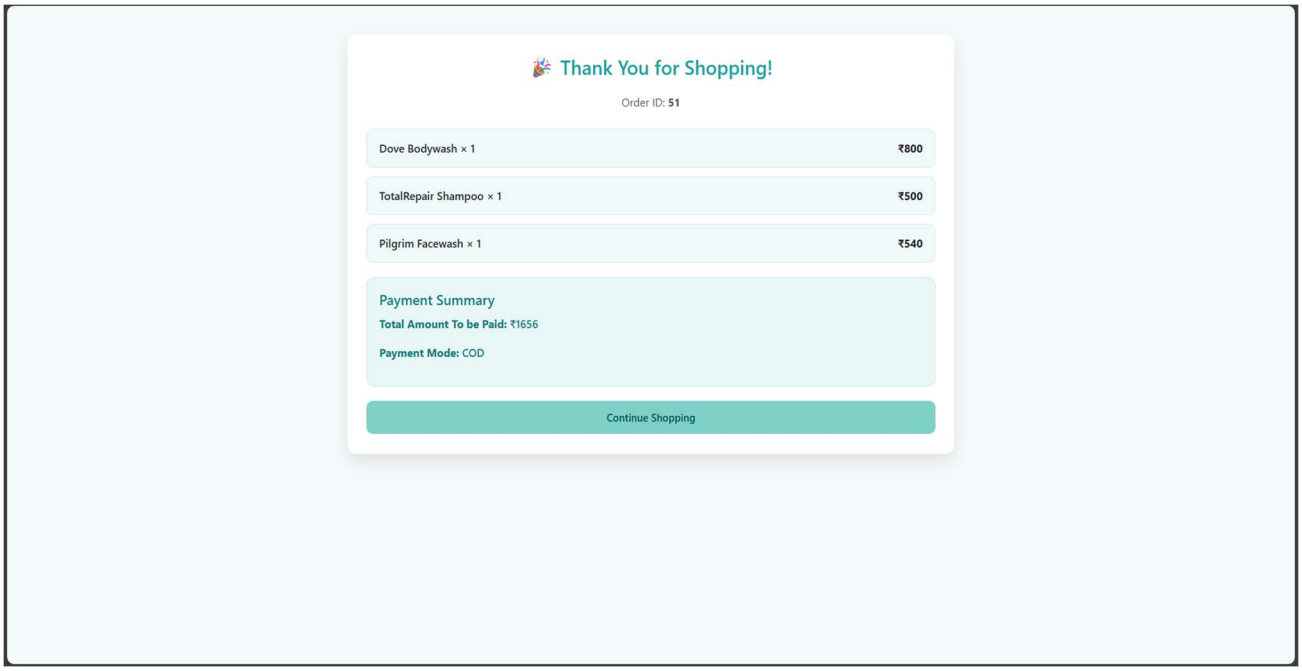


8.4 Order confirmation

User can convert cart items into orders.

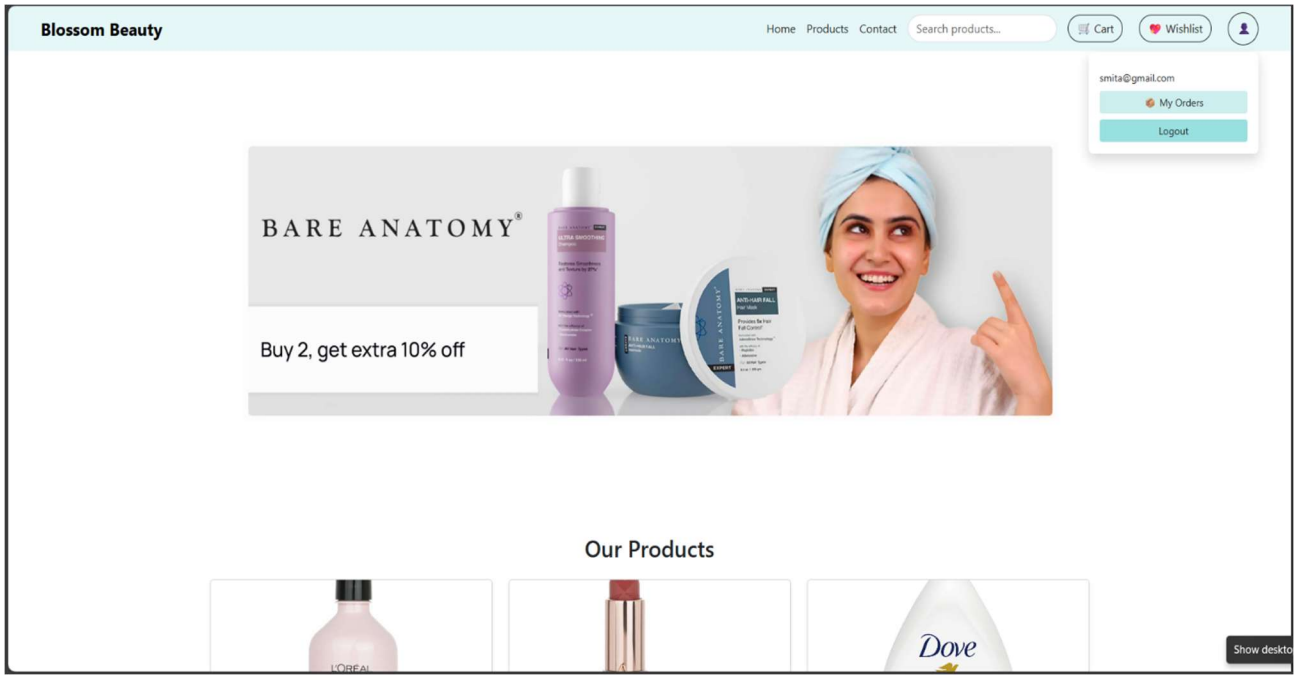


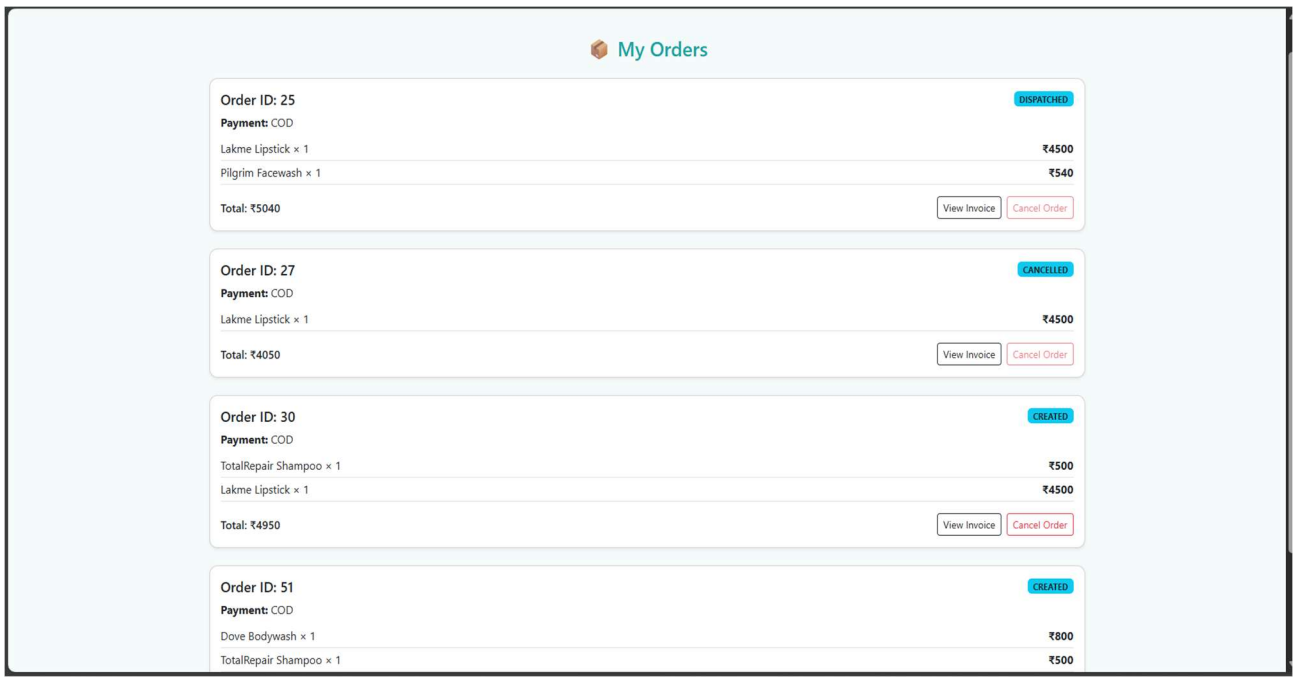
User has placed the order.



8.5 Order history

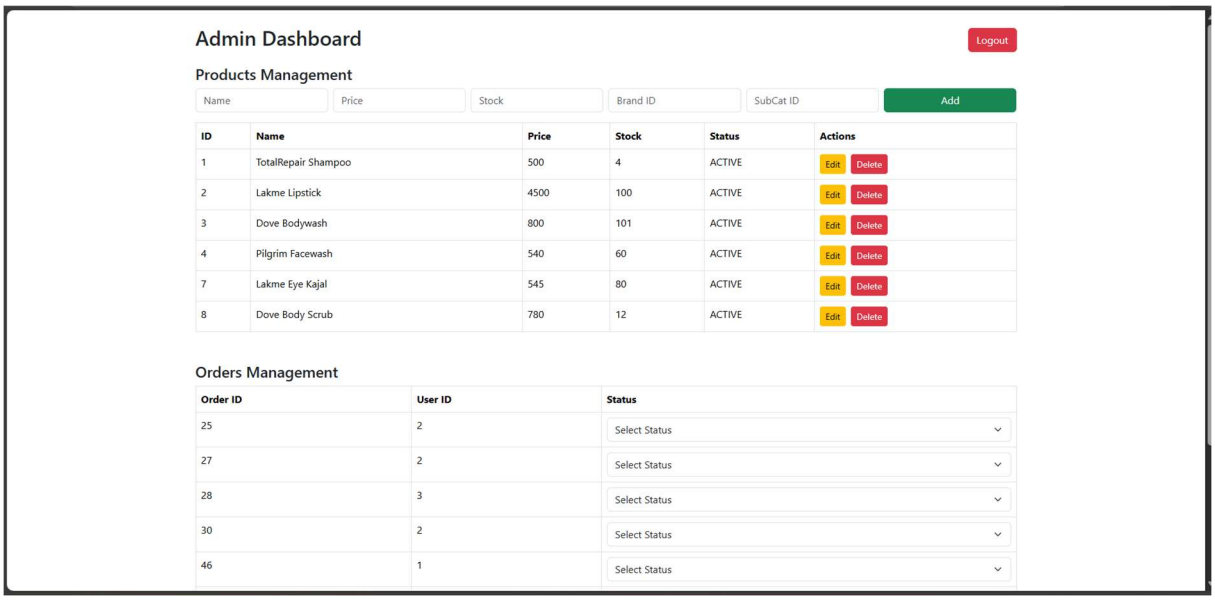
User can see order history in My Orders.

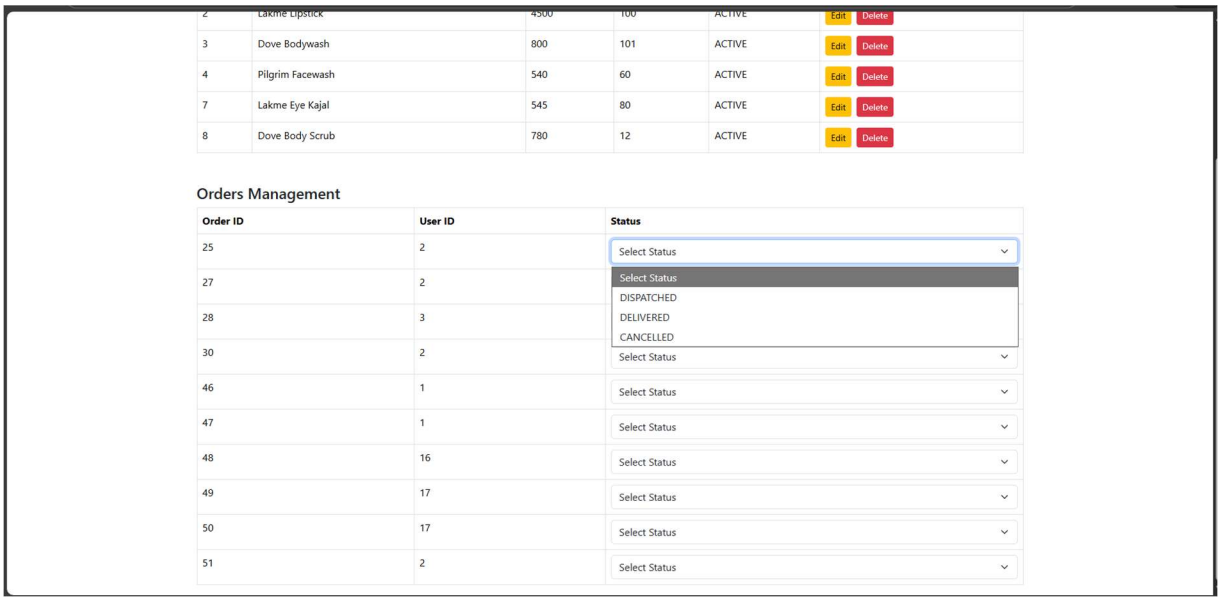




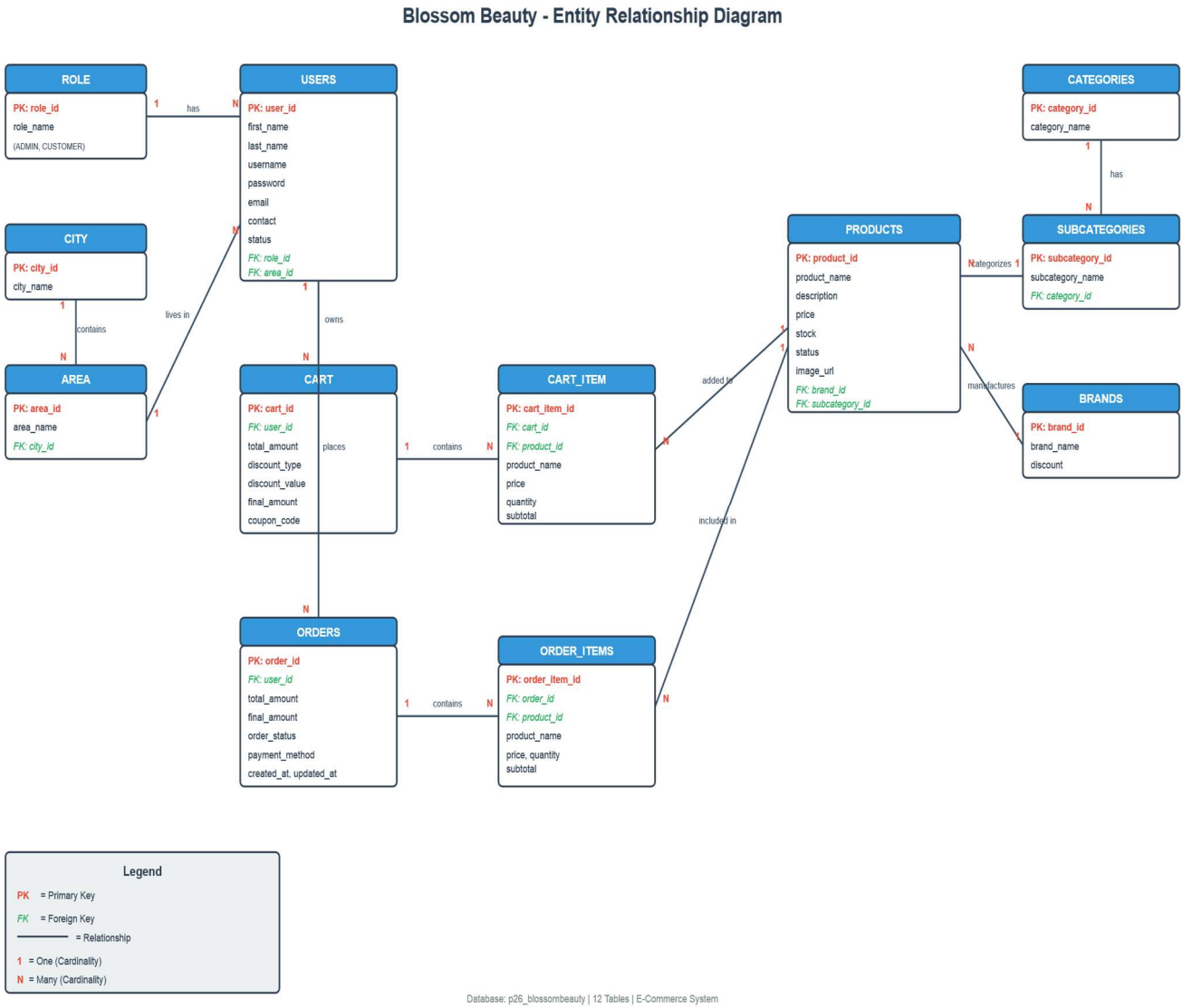
8.6 Admin Home Page:

Admin Dashboard after login.





9.ER diagram


Blossom Beauty - Entity Relationship Diagram
ROLE
PK: role_id
role_name
(ADMIN, CUSTOMER)
has
USERS
PK: user_id
first_name
last_name
username
password
email
contact
status
FK: role_id
FK: area_id
CATEGORIES
PK: category_id
category_name
has
CITY
PK: city_id
city_name
contains
lives in
owns
PRODUCTS
PK: product_id
product_name
description
price
stock
status
image_url
FK: brand_id
FK: subcategory_id
categorizes
SUBCATEGORIES
PK: subcategory_id
subcategory_name
FK: category_id
AREA
PK: area_id
area_name
FK: city_id
CART
PK: cart_id
FK: user_id
total_amount
discount_type
discount_value
final_amount
coupon_code
places
contains
CART_ITEM
PK: cart_item_id
FK: cart_id
FK: product_id
product_name
price
quantity
subtotal
added to
manufactures
BRANDS
PK: brand_id
brand_name
discount
included in
ORDERS
PK: order_id
FK: user_id
total_amount
final_amount
order_status
payment_method
created_at, updated_at
contains
ORDER_ITEMS
PK: order_item_id
FK: order_id
FK: product_id
product_name
price, quantity
subtotal
Legend
PK = Primary Key
FK = Foreign Key
= Relationship
1 = One (Cardinality)
N = Many (Cardinality)
Database: p25_blossombeauty | 12 Tables | E-Commerce System

Conclusion

The “Blossom Beauty” application aims to provide a convenient and personalized online shopping experience for cosmetic and beauty products. By offering features such as product search, product browsing, product recommendations based on skin and hair concerns, add to cart, order placement, and the application targets users looking for suitable beauty products, especially focusing on female customers. With a user-friendly interface, efficient order management, and an admin module for managing products and inventory, the system helps simplify the online shopping process and enhances customer satisfaction.