

Software Requirements Specification (SRS)

Project Title: Online Cosmetics Store

Submitted by: Babar Ali Adil

Roll No: F22BINFT1M01113

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Department: Information Technology

Islamia University of Bahawalpur

Supervisor: Sir Muzamil

Revision History

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Document Approval

The following Software Requirements Specification has been reviewed and officially approved by:

Prepared by: Babar Ali Adil

Reviewed by: Sir. Muzamil

Title Role: Supervisor, Islamia University of Bahawalpur

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Signature: _____

1 Introduction

1.1 Purpose

The Online Cosmetics Store is a web-based system designed to help users browse and purchase cosmetic products easily. It provides a clean interface where customers can search, filter, and view product details before buying. The system supports secure login, a shopping cart, and order placement. It also allows admins to manage products and update store information. This SRS explains the main goals, functions, and structure of the system in clear and simple terms

1.2 Scope

The system includes user registration, login, browsing categories, viewing product details, adding products to a cart, placing orders, and receiving basic order confirmation. Admin features include adding new products, editing existing products, managing stock, and checking customer orders. The project focuses on core online shopping functions and does not include advanced features like AI recommendations or multi-vendor support. The goal is to build a simple, reliable, and user-friendly online cosmetics store.

Definitions, Acronyms, and Abbreviations

API: Application Programming Interface

UI: User Interface

IUB: Islamia University of Bahawalpur

1.3 Overview

This SRS provides a summary of the system's purpose, design, and expected behavior. It explains how users and admins will use the system and describes the main functions in detail. The document also outlines the system environment, constraints, and assumptions. Each section is organized to help developers clearly understand requirements and ensure the final system meets user needs.

2 Overall Description

2.1 Product Perspective

The Online Cosmetics Store is a standalone web application designed to provide a digital shopping experience for cosmetic products. It works like a basic e-commerce website where users can browse, search, and purchase items. The system connects users, products, and order records in a simple interface. It includes customer features, admin features, and a basic database to store all product and user information. The platform is intended to be easy to maintain and expandable for future features.

2.1.1 Operations

The system allows customers to register, log in, browse products, add items to the cart, and place orders. Admins can add new items, update product details, and manage orders through their dashboard. The website displays product information such as price, description, and images. Orders are processed through simple checkout steps, and users can view their order status. All operations are handled through the web browser without requiring any special software.

2.1.2 Site Adaptation Requirements

The system should run on any modern web browser and adapt to different screen sizes like mobiles, tablets, and laptops. It requires a stable internet connection and a server capable of handling database operations. The site should be easy to update if new products or categories are added. Basic hosting space, a database service, and standard security measures such as encrypted passwords are needed. No advanced hardware or operating system requirements are necessary.

2.2 Product Functions

The system allows customers to browse cosmetic products, view details, and add items to a shopping cart. Users can create accounts, log in, and place orders through a simple checkout process. Admins can add, edit, or remove products and view customer orders. The system also keeps track of stock levels and basic order history. All main functions are accessible through a user-friendly web interface.

2.3 User Characteristics

The system is designed for general customers who want to buy cosmetics online. These users may have basic computer or mobile phone skills and expect an easy-to-use interface. Admin users may require slightly more technical knowledge to manage products and orders. No advanced technical skills are required for either user type. The platform should remain simple enough for anyone to navigate comfortably.

2.4 General Constraints

The system depends on a stable internet connection for smooth operation. It must run on common web browsers and respond well on different devices. All user data and passwords should be securely stored. The design should follow basic e-commerce standards, and the database size may limit how many products can be stored. Time and budget limits may restrict the addition of advanced features.

2.5 Assumptions and Dependencies

It is assumed that users have access to the internet and a compatible device. The system also assumes that product information and images will be provided by the admin. The project depends on proper hosting, a working database, and browser support. It is assumed that users will provide correct details during registration and ordering. Any external tools or plugins must remain supported and updated.

3. Specific Requirements

3.1 External Interface Requirements

These requirements explain how users, hardware, and software will connect with the system. They define how the website will display information, accept inputs, and interact with other components. All interfaces should be easy to use and responsive

3.1.1 System Interfaces

The system must connect with a database to store user accounts, products, orders, and stock details. It should also interact with basic payment or order confirmation modules. All interfaces should exchange data accurately and securely.

3.1.2 User Interfaces

The website should provide simple pages for login, product browsing, cart, checkout, and admin management. Buttons, menus, and forms should be clear and easy to understand. The layout must remain readable on both mobile and desktop screens.

3.1.3 Hardware Interfaces

The system does not require special hardware. It should run on common devices like mobiles, laptops, and desktop computers. The only requirement is that the device supports a modern web browser and internet access.

3.1.4 Software Interfaces

The system relies on a web server, a database server, and standard web technologies. It must support major browsers such as Chrome, Firefox, and Edge. The backend should communicate smoothly with the database for storing and retrieving information.

3.1.5 Communications Interfaces

The system requires internet connectivity for all operations. Communication between the client and server should use standard protocols like HTTP/HTTPS. Secure communication should be used for login and order-related data.

3.2 Functional Requirements

This section lists the main functions the system must perform to support both customers and admins.

3.2.1 Functional Requirement / Feature #1 (User Shopping)

The system should allow users to browse products, view details, add items to the cart, and place orders. Users must be able to create accounts, log in, and track their basic order history.

3.2.2 Functional Requirement / Feature #2 (Admin Management)

Admins should be able to add, update, or delete products. They must also view customer orders and manage stock levels through a simple dashboard.

3.3 Use Cases

This section describes how users and admins interact with the system in real scenarios.

3.3.1 Use Case #1 (User Places an Order)

A customer logs in, selects items, adds them to the cart, and completes the checkout process. The system confirms the order and updates stock.

3.3.2 Use Case #2 (Admin Updates Product)

An admin logs into the dashboard, selects a product, edits its details (price, stock, description), and saves the update.

3.4 Classes / Objects

Basic classes used in the system to manage data and operations.

3.4.1 Class / Object #1 (User)

Stores user information like name, email, password, and order history.

3.4.2 Class / Object #2 (Product)

Stores product details like name, price, description, category, and stock quantity.

3.5 Non-Functional Requirements

These requirements describe how the system should behave, not what it should do.

3.5.1 Performance

The system should load pages quickly and handle multiple users without slowing down.

3.5.2 Reliability

The website should run smoothly and avoid unexpected errors or crashes.

3.5.3 Availability

The system should remain accessible to users most of the time with minimal downtime.

3.5.4 Security

Passwords must be encrypted, and user data should be protected from unauthorized access.

3.5.5 Maintainability

The system should be easy to update, fix, or expand when needed.

3.5.6 Portability

The website should work on different browsers and devices without issues.

3.6 Inverse Requirements

The system should not allow unauthorized users to access admin pages. It should not display sensitive user information or process orders without proper input.

3.7 Logical Database Requirements

The database must store users, products, orders, and stock information. Each record should have a unique ID, and relationships between tables must be clear and consistent.

3.8 Design Constraints

The system must follow basic web standards, work within the limits of the chosen framework, and support common browsers. It should also follow security and usability guidelines

