

This document outlines the requirements for a **Clothing E-commerce Platform** that provides features like browsing, purchasing, and managing clothing items. It includes functional and non-functional requirements to ensure a secure, user-friendly, and efficient system. Use case scenarios illustrate key interactions for users and administrators. The document serves as a blueprint for development and alignment with business objectives.

## Functional Requirements

ID	Requirement	Category
REQ_001	The system <b>must</b> allow users to register and log in using email.	Must Have
REQ_002	The system <b>must</b> allow users to browse clothing items .	Must Have
REQ_003	The system <b>must</b> display product details, including images, sizes, colors, materials, Price.	Must Have
REQ_004	The system <b>must</b> allow users to add products to a shopping cart and review/edit the cart before checkout.	Must Have
REQ_005	The system <b>must</b> support secure payment options, including credit/debit cards, e-wallets, and Cash on Delivery (COD).	Must Have
REQ_006	The system <b>must</b> allow users to create and manage wishlists.	Must Have
REQ_007	The system <b>must</b> allow users to track the status of their orders (e.g., Processing, Shipped, Delivered).	Must Have
REQ_008	The system <b>must</b> allow admins to add, update, or remove products, prices, and discounts.	Must Have
REQ_009	The system <b>won't</b> allow purchases to proceed without user authentication.	Won't Have

# Non-Functional Requirements

ID	Requirement	Category
REQ_010	The system <b>must</b> handle at least 1000 concurrent users during peak traffic.	Performance
REQ_011	The system <b>must</b> secure user data with encryption hashed for passwords.	Security
REQ_012	The system <b>must</b> load product pages within 2 seconds under normal conditions.	Performance
REQ_013	The system <b>should</b> have 99.9% uptime annually.	Reliability
REQ_014	The system <b>must</b> support both web and mobile platforms (responsive design and mobile app).	Usability
REQ_015	The system <b>must</b> include an intuitive user interface with easy navigation and clear visuals.	Usability
REQ_016	The system <b>should</b> log all key user actions (e.g., login, purchases, reviews) for auditing.	Security

# Use Case Scenarios for Functional and non-functional Requirements

## Use Case ID: UC-001

**Title:** User Registration and Login

**Preconditions:** The user is on the platform's registration or login page.

**Postconditions:** The user is successfully logged in.

**Main Flow:**

1. The user accesses the platform and clicks "Sign Up" or "Log In."
2. The system prompts the user for email, phone number, or social media credentials.
3. The user enters the credentials.
4. The system validates the input and authenticates the user.
5. The user is logged in successfully.

**Alternative Flow:**

If the user opts for "Forgot Password," the system sends a password reset email.

**Exception Flow:**

If the entered credentials are invalid, the system displays an error message and prompts the user to try again.

**Related Requirements:** REQ\_01

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## Use Case ID: UC-002

**Title:** Browse Clothing Items

**Preconditions:** The user is on the platform's homepage.

**Postconditions:** The user can view a list of clothing items.

**Main Flow:**

1. The user navigates to the "Clothing" section.
2. The system displays a list of available clothing items.
3. The user can filter or sort the items by category, size, color, or price.
4. The user selects an item to view more details.

**Alternative Flow:**

If no items are available, the system displays a message indicating no results.

**Exception Flow:**

If the system fails to load items, an error message is displayed.

**Related Requirements:** REQ\_02

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## Use Case ID: UC-003

**Title:** View Product Details

**Preconditions:** The user has selected a clothing item.

**Postconditions:** The user can see detailed information about the product.

**Main Flow:**

1. The user clicks on a product from the list.
2. The system displays product details, including images, sizes, colors, materials, and price.
3. The user can choose to add the product to the shopping cart or wishlist.

**Alternative Flow:**

If the product is out of stock, the system displays a notification.

**Exception Flow:**

If the product details fail to load, an error message is shown.

**Related Requirements:** REQ\_03

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## Use Case ID: UC-004

**Title:** Add Product to Shopping Cart

**Preconditions:** The user is viewing a product's details.

**Postconditions:** The product is added to the user's shopping cart.

## **Main Flow:** Ecommerce SRS

1. The user selects the desired size, color, and quantity.
2. The user clicks "Add to Cart."
3. The system adds the product to the shopping cart and updates the cart total.
4. The user can proceed to checkout or continue shopping.

### **Alternative Flow:**

If the user is not logged in, the system prompts for login or registration.

### **Exception Flow:**

If the product is no longer available, the system notifies the user.

**Related Requirements:** REQ\_04

## **Use Case ID:** UC-005

**Title:** Secure Payment Processing

**Preconditions:** The user has items in the shopping cart and proceeds to checkout.

**Postconditions:** The payment is processed securely.

### **Main Flow:**

1. The user selects a payment method (credit/debit card, e-wallet, COD).
2. The system prompts for payment details.
3. The user enters the required information.
4. The system validates and processes the payment.
5. The user receives a confirmation of the successful transaction.

### **Alternative Flow:**

If the payment fails, the system prompts the user to try another method.

### **Exception Flow:**

If the system detects fraudulent activity, the transaction is blocked.

**Related Requirements:** REQ\_05

## **Use Case ID:** UC-006

**Title:** Manage Wishlist

**Preconditions:** The user is logged in and viewing a product.

**Postconditions:** The product is added to or removed from the user's wishlist.

### **Main Flow:**

1. The user clicks "Add to Wishlist" on a product page.
2. The system adds the product to the user's wishlist.
3. The user can view and manage their wishlist from their account page.

### **Alternative Flow:**

If the product is already in the wishlist, the user can remove it.

### **Exception Flow:**

If the system fails to update the wishlist, an error message is displayed.

**Related Requirements:** REQ\_06

## **Use Case ID:** UC-007

**Title:** Track Order Status

**Preconditions:** The user has placed an order.

**Postconditions:** The user can view the current status of their order.

### **Main Flow:**

1. The user navigates to the "Order History" section.
2. The system displays a list of the user's orders with their current status (e.g., Processing, Shipped, Delivered).
3. The user selects an order to view detailed tracking information.

### **Alternative Flow:**

If the order status is delayed, the system provides an estimated delivery update.

### **Exception Flow:**

If the order status cannot be retrieved, the system displays an error message.

**Related Requirements:** REQ\_07

## **Use Case ID:** UC-008

**Title:** Admin Manage Products

## Clothing Ecommerce SRS

**Preconditions:** The admin is logged into the admin dashboard.

**Postconditions:** Products, prices, or discounts are updated or removed.

**Main Flow:**

1. The admin navigates to the "Product Management" section.
2. The admin selects to add, update, or remove a product.
3. The system processes the changes and updates the product catalog.

**Alternative Flow:**

If the admin updates a product's price, the system applies the change to all relevant orders.

**Exception Flow:**

If the system fails to save changes, an error message is displayed.

**Related Requirements:** REQ\_08

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**Use Case ID:** UC-009

**Title:** User Authentication Required for Purchase

**Preconditions:** The user attempts to proceed to checkout.

**Postconditions:** The user must log in or register to complete the purchase.

**Main Flow:**

1. The user clicks "Proceed to Checkout."
2. The system checks if the user is logged in.
3. If not logged in, the system redirects the user to the login or registration page.
4. After successful authentication, the user can complete the purchase.

**Alternative Flow:**

If the user opts to register, they are guided through the registration process.

**Exception Flow:**

If authentication fails, the system displays an error message.

**Related Requirements:** REQ\_09