

Online Clothing Store Documentation

Stakeholders

1. Customer Segment Analysis:

- Demographic information: Age, gender, location, income level, etc.
- Behavioral patterns: Shopping preferences, frequency of purchases, preferred payment methods, etc.
- Needs and preferences: User feedback, survey results, market research insights.
- Influence level: High, as their satisfaction directly impacts business success.

2. Internal Stakeholders:

- Owners/Founders:
 - Responsibilities: Strategic decision-making, financial planning, business development.
 - Interests: Profitability, growth, market share, brand reputation.
 - Influence level: High, as they drive the overall direction and vision of the company.
- Development Team:
 - Responsibilities: Software development, coding, testing, deployment.
 - Interests: Technical feasibility, code quality, project deadlines.
 - Influence level: High, as they directly implement project requirements and deliverables.
- Marketing Team:

- Responsibilities: Brand promotion, customer acquisition, market research.
- Interests: Brand visibility, customer engagement, conversion rates.
- Influence level: High, as they shape the company's public image and market positioning.

3. External Stakeholders:

- Suppliers/Manufacturers:
 - Responsibilities: Supplying products, ensuring quality, timely delivery.
 - Interests: Market demand, business partnerships, brand reputation.
 - Influence level: Medium, as they affect product availability and quality.
- Regulatory Authorities:
 - Responsibilities: Enforcing laws and regulations, ensuring compliance.
 - Interests: Consumer protection, data privacy, fair competition.
 - Influence level: High, as non-compliance can result in legal penalties and reputational damage.
- Investors/Shareholders:
 - Responsibilities: Providing capital, monitoring financial performance.
 - Interests: Return on investment (ROI), dividends, company valuation.
 - Influence level: High, as they have financial stakes in the company's success.

Core Functionalities

1. User Registration and Authentication:

- Allow users to create accounts and log in.
- Implement password hashing and encryption for security.

2. Product Browsing and Search:

- Display a catalog of clothing products with images, descriptions, and prices.
- Enable users to search for products by category, size, color, etc.

3. Product Filtering and Sorting:

- Provide filtering options to narrow down search results based on various criteria (e.g., price range, brand, size).
- Allow users to sort products by relevance, price, popularity, etc.

4. Product Details and Reviews:

- Display detailed product information, including specifications, sizes available, and customer reviews.
- Allow users to leave reviews and ratings for products they have purchased.

5. Shopping Cart and Checkout:

- Enable users to add items to a shopping cart for later purchase.
- checkout process with multiple payment options (credit/debit card, PayPal, etc.).
- Provide order tracking and confirmation emails for users.

6. User Profile and Account Management:

- Allow users to manage their profiles, including updating personal information, addresses, and payment methods.
- Provide order history and status tracking within user accounts.?

7. Promotions and Discounts: ?

- Offer discounts, promotional codes, and special offers.

8. Responsive Design and Mobile Compatibility:

9. Social Sharing and Integration: ?

- Allow users to share products or their purchases on social media platforms.
- Integrate social media login options for easier registration and login.

10. Customer Support and Feedback:

- Provide multiple channels for customer support (email, phone).
- Implement a feedback system to collect user suggestions, complaints, and comments.

11. Inventory Management:

- Track inventory levels and update product availability in real-time.
- Send notifications for out-of-stock items or low inventory levels to administrators.

12. Admin Dashboard and Management Tools:

- Provide administrators with tools to manage products, orders, customers, and promotional campaigns.
- Generate reports and analytics to track sales performance and customer trends.

User Stories

1. User Registration and Authentication:

- As a new user, I want to create an account with my email and password so that I can access the online store.
- As a registered user, I want my password to be securely hashed and encrypted to protect my account from unauthorized access.

2. Product Browsing and Search:

- As a shopper, I want to view a catalog of clothing products with images, descriptions, and prices so that I can browse available items.
- As a shopper, I want to search for products by category, size, color, etc., to quickly find items that match my preferences.

3. Product Filtering and Sorting:

- As a shopper, I want to filter search results based on criteria such as price range, brand, and size, so that I can narrow down my options.

- As a shopper, I want to sort products by relevance, price, popularity, etc., to easily compare and find the desired item.

4. Product Details and Reviews:

- As a shopper, I want to view detailed product information, including specifications, available sizes, and customer reviews, to make informed purchasing decisions.
- As a shopper, I want to leave reviews and ratings for products I have purchased to share my experience with others and help them make decisions.

5. Shopping Cart and Checkout:

- As a shopper, I want to add items to my shopping cart for later purchase so that I can continue browsing without losing track of selected items.
- As a shopper, I want to proceed through a checkout process with multiple payment options (credit/debit card, PayPal, etc.) to complete my purchase securely.
- As a shopper, I want to receive order tracking information and confirmation emails to stay informed about the status of my purchase.

6. User Profile and Account Management:

- As a registered user, I want to manage my profile information, including updating personal details, addresses, and payment methods, for accurate order processing.
- As a registered user, I want to view my order history and track the status of my orders within my user account to monitor past purchases and delivery status.

7. Promotions and Discounts:

- As a shopper, I want to receive discounts, promotional codes, and special offers to save money on my purchases and take advantage of exclusive deals.

8. Responsive Design and Mobile Compatibility:

- As a user, I want the online store to be responsive and compatible with various devices (desktops, tablets, smartphones) for a seamless browsing experience.

9. Social Sharing and Integration:

- As a shopper, I want to share products or my purchases on social media platforms to recommend items to friends and followers.
- As a user, I want to have the option to log in/register using my social media accounts for easier access to the online store.

10. Customer Support and Feedback:

- As a shopper, I want access to multiple channels for customer support (email, phone) to resolve any issues or inquiries promptly.
- As a shopper, I want to provide feedback, suggestions, complaints, and comments through a feedback system to help improve the shopping experience.

11. Inventory Management:

- As an administrator, I want to track inventory levels and receive notifications for out-of-stock items or low inventory levels to ensure timely restocking and availability.

12. Admin Dashboard and Management Tools:

- As an administrator, I want access to tools and dashboards to manage products, orders, customers, and promotional campaigns efficiently.
- As an administrator, I want to generate reports and analytics to track sales performance, customer trends, and inventory management metrics for informed decision-making.

Use Cases

1. User Registration and Authentication:

- Use Case 1: Register User
 - Actors: Shopper

- Description: Shopper creates a new account on the online store.
- Main Flow:
 1. Shopper accesses the registration page.
 2. Shopper enters personal details and selects a password.
 3. System verifies the entered information and creates a new user account.
 4. System sends a confirmation email to the shopper.
- Acceptance Criteria:
 - The registration form must include fields for email, password, and any other required personal information.
 - Upon successful registration, the system should display a confirmation message and redirect the user to the login page.
 - The confirmation email should contain a unique activation link for account verification.
- Use Case 2: User Login
 - Actors: Shopper
 - Description: Shopper logs into the online store using their credentials.
 - Main Flow:
 1. Shopper accesses the login page.
 2. Shopper enters their email and password.
 3. System verifies the credentials and grants access to the user account.
 - Acceptance Criteria:
 - The login page should have fields for email and password with appropriate validation.
 - Upon successful login, the system should redirect the user to the homepage/dashboard.

- Invalid login attempts should prompt appropriate error messages without revealing sensitive information.

2. Product Browsing and Search:

- Use Case 3: Browse Products
 - Actors: Shopper
 - Description: Shopper views the list of available products on the online store.
 - Main Flow:
 1. Shopper navigates to the product catalog page.
 2. System retrieves and displays the list of available products with images, descriptions, and prices.
 - Acceptance Criteria:
 - The product catalog page should display a thumbnail image, title, description, and price for each product.
 - Products should be organized in a visually appealing and easy-to-navigate layout.
 - Pagination or infinite scrolling should be implemented for large product catalogs.
- Use Case 4: Search Products
 - Actors: Shopper
 - Description: Shopper searches for specific products on the online store.
 - Main Flow:
 1. Shopper enters search keywords or selects filter options.
 2. System retrieves and displays relevant products based on the search criteria.
 - Acceptance Criteria:

- The search functionality should support keyword-based searches as well as advanced filtering options.
- Search results should be displayed in real-time as the user types, providing instant feedback.
- Search results should be relevant and accurate, with appropriate ranking algorithms.

3. Product Filtering and Sorting:

- Use Case 5: Filter Products
 - Actors: Shopper
 - Description: Shopper filters search results based on specific criteria.
 - Main Flow:
 1. Shopper selects filter options such as price range, brand, or size.
 2. System updates the product list to display items that match the selected criteria.
 - Acceptance Criteria:
 - Filter options should be presented in a clear and intuitive interface, allowing users to easily select and apply filters.
 - Filtered results should accurately reflect the selected criteria, updating dynamically without page refresh.
 - Multiple filters can be applied simultaneously, with options to clear or adjust filters as needed.
- Use Case 6: Sort Products
 - Actors: Shopper
 - Description: Shopper sorts search results based on specified attributes.
 - Main Flow:
 1. Shopper selects sorting options such as relevance, price, or popularity.

2. System reorders the product list according to the selected sorting criteria.

- Acceptance Criteria:
 - Sorting options should be presented in a dropdown menu or similar interface, allowing users to easily select and apply sorting criteria.
 - The product list should update instantly upon selecting a sorting option, displaying products in the chosen order.
 - Sorting should be stable and consistent, with clear indication of the current sorting order.

4. Product Details and Reviews:

- Use Case 7: View Product Details
 - Actors: Shopper
 - Description: Shopper views detailed information about a specific product.
 - Main Flow:
 1. Shopper selects a product from the product list.
 2. System displays detailed product information including specifications, sizes available, and customer reviews.
 - Acceptance Criteria:
 - The product details page should display comprehensive information about the selected product, including description, images, price, available sizes, and specifications.
 - Customer reviews and ratings should be prominently displayed, with options to filter reviews by rating or relevance.
 - Product images should support zooming and multiple angles for a detailed view.
- Use Case 8: Leave Product Review
 - Actors: Shopper

- Description: Shopper leaves a review and rating for a product they have purchased.
- Main Flow:
 1. Shopper navigates to the product review section.
 2. Shopper enters their feedback and submits the review.
- Acceptance Criteria:
 - The review form should include fields for rating, title, and detailed feedback.
 - Users should be required to be logged in to leave a review, ensuring authenticity and accountability.
 - Reviews should be displayed alongside product details, with options for other users to find them helpful or report inappropriate content.

5. Shopping Cart and Checkout:

- Use Case 9: Add Item to Cart
 - Actors: Shopper
 - Description: Shopper adds items to their shopping cart for purchase.
 - Main Flow:
 1. Shopper selects the "Add to Cart" option for a specific product.
 2. System adds the item to the shopping cart.
 - Acceptance Criteria:
 - The shopping cart icon should update dynamically to reflect the number of items added.
 - Users should be able to view and edit the contents of their shopping cart at any time.
 - Added items should persist in the cart even if the user navigates away from the page.
- Use Case 10: Checkout

- Actors: Shopper
- Description: Shopper completes the checkout process to purchase selected items.
- Main Flow:
 1. Shopper navigates to the checkout page.
 2. Shopper enters shipping and payment information.
 3. System processes the payment and generates an order confirmation.
- Acceptance Criteria:
 - The checkout process should be divided into clear steps (e.g., shipping, payment, review) with progress indicators.
 - Users should have the option to save multiple shipping addresses and payment methods for future orders.
 - Confirmation emails should be sent to the user's registered email address, containing order details and tracking information.

6. User Profile and Account Management:

- Use Case 11: Update User Profile
 - Actors: Shopper
 - Description: Shopper updates their personal information and account settings.
 - Main Flow:
 1. Shopper accesses the user profile settings.
 2. Shopper modifies the desired information (e.g., address, payment methods).
 - Acceptance Criteria:
 - Users should be able to update their profile information, including name, email, password, and contact details.

- Changes to profile information should be saved immediately and reflected across the platform.
 - Users should receive a confirmation message upon successful profile update.
- Use Case 12: View Order History
 - Actors: Shopper
 - Description: Shopper views their order history and status.
 - Main Flow:
 1. Shopper navigates to the order history section.
 2. System retrieves and displays a list of past orders with order details.
 - Acceptance Criteria:
 - The order history page should display a chronological list of past orders, including order number, date, status, and total amount.
 - Users should have the option to filter orders by date range or status (e.g., pending, shipped, delivered).
 - Each order entry should link to a detailed order summary page with itemized lists and tracking information.

7. Promotions and Discounts:

- Use Case 13: Apply Discount Code
 - Actors: Shopper
 - Description: Shopper applies a discount code or promotional offer during checkout.
 - Main Flow:
 1. Shopper enters the discount code in the designated field.
 2. System verifies the code and applies the discount to the order total.
 - Acceptance Criteria:

- The discount code field should support both manual entry and automatic application of valid codes.
- Users should receive immediate feedback on the validity and applied discount amount upon entering the code.
- Discount codes should be case-insensitive and allow for partial or full discount amounts.

8. Responsive Design and Mobile Compatibility:

- Use Case 14: Access Website on Mobile Device
 - Actors: Shopper
 - Description: Shopper accesses the online store using a mobile device.
 - Main Flow:
 1. Shopper opens the web browser on their mobile device.
 2. Shopper enters the URL of the online store.
 3. System displays the mobile-optimized version of the website.
 - Acceptance Criteria:
 - The mobile version of the website should provide a seamless and user-friendly browsing experience across various screen sizes and resolutions.
 - All features and functionalities should be fully accessible and functional on mobile devices without any loss of functionality.

9. Social Sharing and Integration:

- Use Case 15: Share Product on Social Media
 - Actors: Shopper
 - Description: Shopper shares a product or their purchase on social media platforms.
 - Main Flow:
 1. Shopper selects the share option for a specific product or order.

2. Shopper chooses the desired social media platform and shares the content.

- Acceptance Criteria:
 - Sharing options should be provided for popular social media platforms such as Facebook, Twitter, and Instagram.
 - Shared content should include a preview image, title, and description for effective sharing and engagement.
 - Users should have the option to customize their shared message before posting.

10. **Customer Support and Feedback:**

- Use Case 16: Contact Customer Support
 - Actors: Shopper
 - Description: Shopper contacts customer support for assistance or inquiries.
 - Main Flow:
 1. Shopper accesses the customer support page or contacts via email/phone.
 2. Shopper communicates their issue or inquiry to the support team.
 - Acceptance Criteria:
 - Multiple contact options should be provided, including email, phone, and live chat, with clear instructions on how to use each method.
 - Customer support inquiries should be responded to promptly within a defined timeframe (e.g., 24 hours).
 - A knowledge base or FAQ section should be available to address common questions and issues without the need for direct contact.
- Use Case 17: Provide Feedback
 - Actors: Shopper

- Description: Shopper provides feedback, suggestions, or complaints through the feedback system.
- Main Flow:
 1. Shopper accesses the feedback section.
 2. Shopper enters their feedback and submits it to the system.
- Acceptance Criteria:
 - The feedback form should include fields for type of feedback (suggestion, complaint, general feedback), subject, and detailed message.
 - Users should receive a confirmation message upon submitting feedback, along with information on how their feedback will be addressed.
 - Feedback submissions should be logged and tracked for analysis and improvement purposes.

11. Inventory Management:

- Use Case 18: Track Inventory Levels
 - Actors: Administrator
 - Description: Administrator tracks inventory levels and receives notifications for low stock items.
 - Main Flow:
 1. Administrator accesses the inventory management dashboard.
 2. System displays current inventory levels and alerts for low stock items.
 - Acceptance Criteria:
 - The inventory management dashboard should provide real-time updates on the quantity of each product in stock.
 - Administrators should receive automated notifications via email or dashboard alerts when inventory levels fall below a predefined threshold.

- Inventory data should be accurate and synchronized across all relevant systems and channels.

12. Admin Dashboard and Management Tools:

- Use Case 19: Manage Products
 - Actors: Administrator
 - Description: Administrator manages products available on the online store.
 - Main Flow:
 1. Administrator accesses the product management section.
 2. Administrator adds, edits, or removes products as needed.
 - Acceptance Criteria:
 - Product management tools should allow administrators to perform CRUD operations (create, read, update, delete) on product listings.
 - Administrators should be able to easily upload product images, update product details, and set pricing and inventory levels.
 - Changes made to product listings should be reflected instantly on the online store frontend.
- Use Case 20: Generate Sales Report
 - Actors: Administrator
 - Description: Administrator generates reports and analytics to track sales performance and customer trends.
 - Main Flow:
 1. Administrator accesses the reporting dashboard.
 2. Administrator selects parameters and generates the desired report.
 - Acceptance Criteria:
 - The reporting dashboard should offer a variety of pre-defined reports and customizable options for generating ad-hoc reports.

- Reports should include key metrics such as total sales, revenue, average order value, and conversion rates.
- Administrators should be able to filter and segment data by various dimensions (e.g., time period, product category, customer demographics).

Diagrams

[Activity Diagram.pdf](#)

[Sequence diagram.pdf](#)

[ERD.drawio.png](#)

[class.pdf](#)

[class2.pdf](#)