Software Requirements Specification

for

Fashion Store

Version 1.0

Prepared by

Munim Siddiqi (20K-1730)

Eisha Fatima (20K-0383)

Arooba Moin (20K-0213)

Noor Fatima (20K-0406)

BCS - 6D

FAST NUCES Karachi

28th April' 2023

Table of Contents

Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

To identify and specify the software requirements for our E-commerce website “Fashion Store” for both the users: customer and admin. The version of this website is 1.0 and this document depicts a detailed description of the Fashion Store’s features and functionalities. This includes user registration, login, product management for both the users, cart, order management and user reviews.

The scope of this SRS includes the software requirements for the entire website including two subsystems: a user interface and an admin interface. The user interface lets the user view products, add them to cart or wishlist, give reviews while the admin interface lets the admin manage products by viewing, adding, updating or deleting products.

1.2 Document Conventions

The document is written in standard font: Times New roman with font size of 12. Heading and numbering is done for better readability. Each requirement has its own priority and detailed requirements inherit the priority of the higher-level requirements. References are also mentioned at the end of the document.

1.3 Intended Audience and Reading Suggestions

This document is designed for developers, project managers, testers, and documentation writers for the fashion store. This is also useful for stakeholders like marketing and advertising professionals and end-users who are interested in understanding the system's requirements and functions.

The Intended audience for this store are customers who are interested in buying clothes from the Fashion Store. Young women are especially catered as we have clothes for women specifically.

This document is divided into sections. The new readers should start from the introduction section and overall description to understand the purpose and scope of the SRS. Developers and testers should focus on the specific requirements section as it provides detailed information about software requirements. Project managers and marketing staff may read the overall description while the documentation writers should read the entire document to review it.

1.4 Product Scope

In this ecommerce website, we have created a simple and easy-to-understand user interface where users can view products from a range of products and then choose any product they like, either to add to Wishlist or cart. To place an order, they would have to register an account and login, and then proceed to payment details after which they will have successfully placed the order. There is also an admin section for the administrator of the website who can manage products and can add, update and delete products of their choice.

This website aligns with corporate goals and business strategies as it allows to grow its reach and customer base through online sales. With the growing popularity of online shopping, the fashion store's ecommerce website will enable it to reach a larger audience and enhance sales revenue.

1.5 References

https://creately.com/blog/diagrams/deployment-diagram-tutorial/

https://creately.com/blog/diagrams/component-diagram-tutorial/

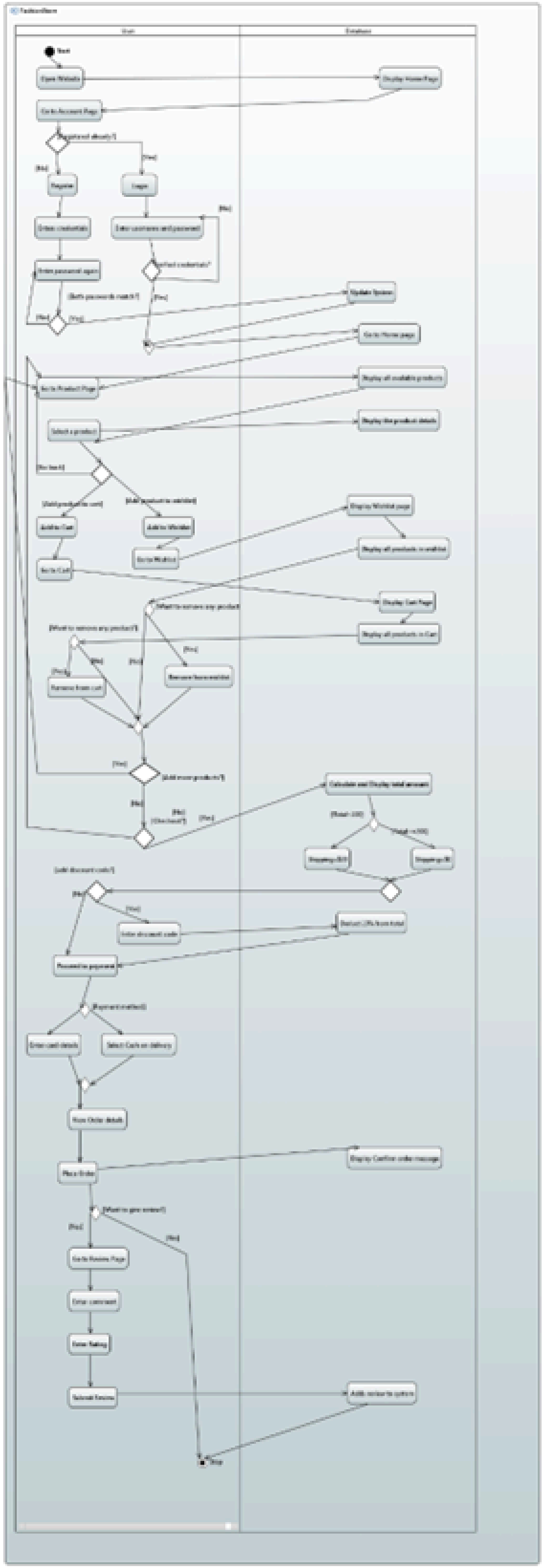
2. Overall Description

2.1 Product Perspective

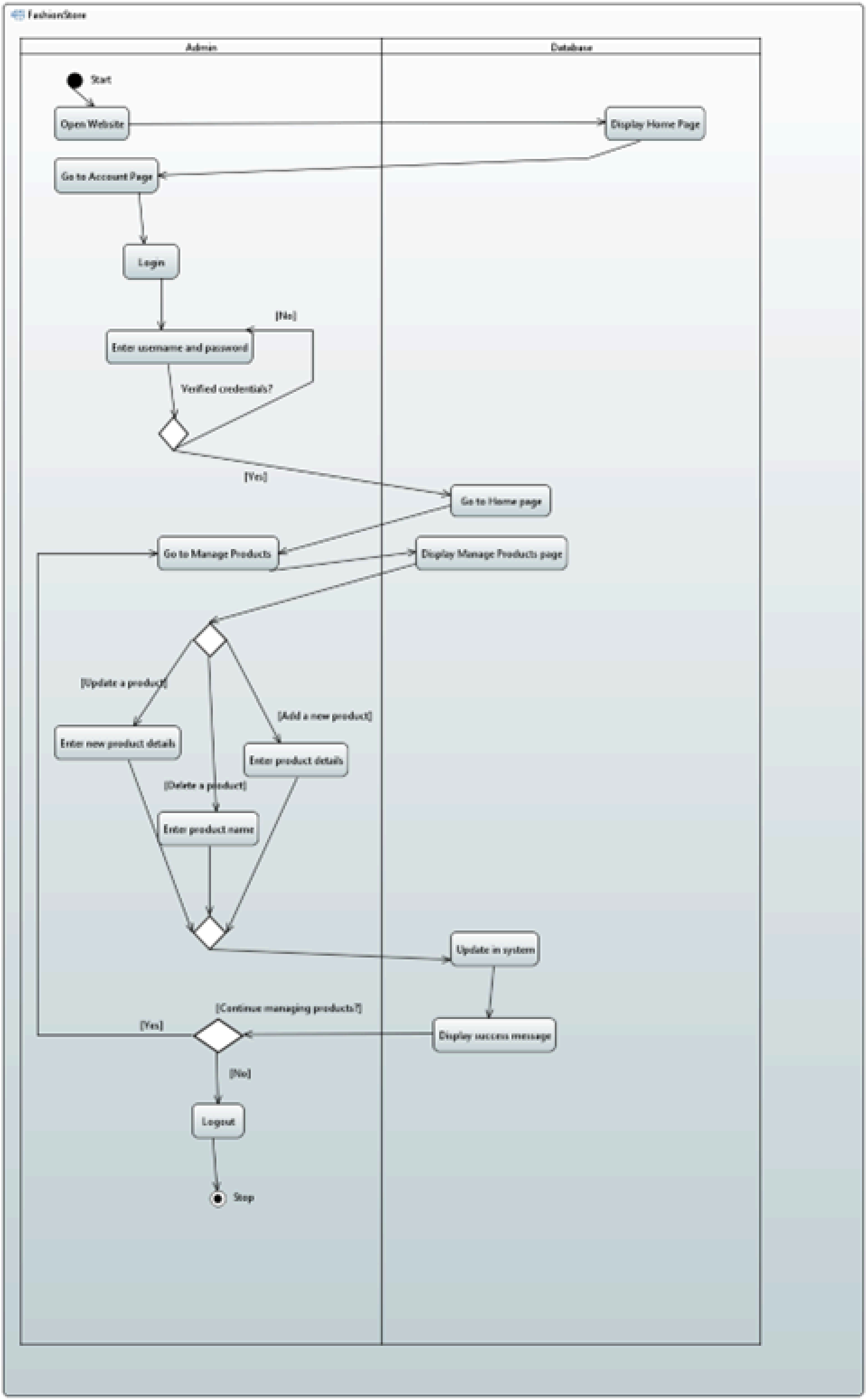
The fashion store website will be developed to provide an online platform for customers to buy fashion products. It is not a replacement or a follow-on member of a product family. This fashion store ecommerce website will be developed as a standalone system to operate independently of other systems, although it will need a database to retrieve and store product information and customer details.

2.1.1. ActivityDiagram

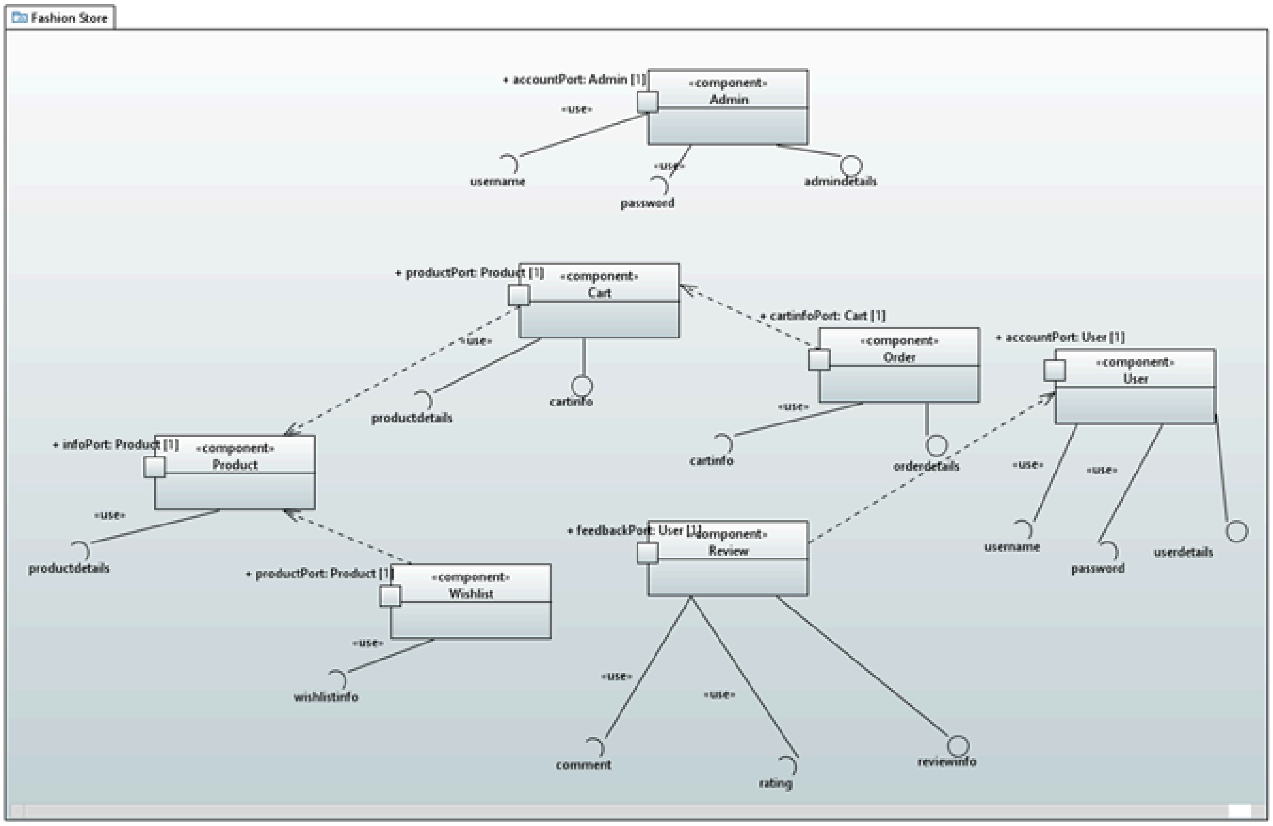
Product shopping:



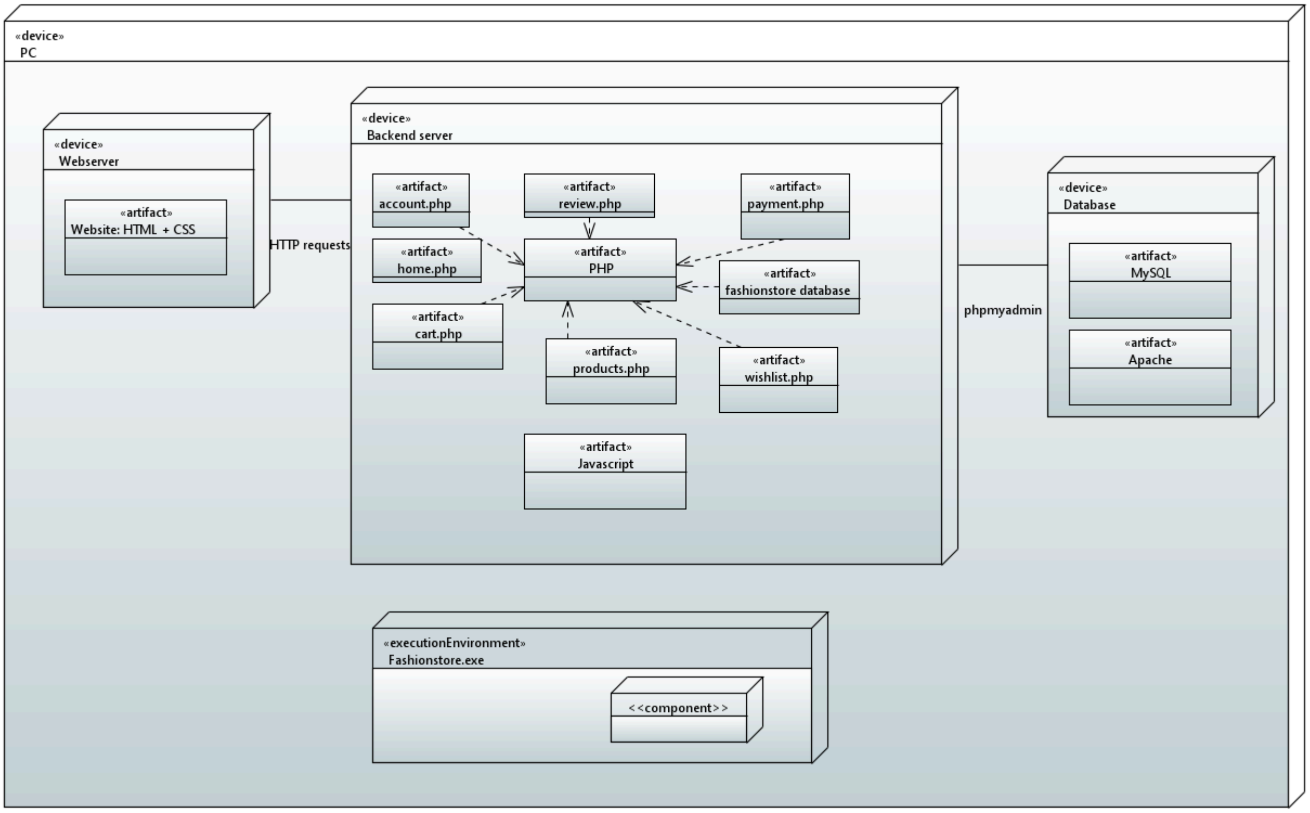
Product management:



2.1.2. Component diagram:


Fashion Store
+ accountPort: Admin [1]
«component»
Admin
«use»
username
«use»
password
admindetails
+ productPort: Product [1]
«component»
Cart
«use»
productdetails
cartinfo
+ cartinfoPort: Cart [1]
«component»
Order
«use»
cartinfo
orderdetails
+ accountPort: User [1]
«component»
User
«use»
«use»
username
password
userdetails
+ infoPort: Product [1]
«component»
Product
«use»
productdetails
+ productPort: Product [1]
«component»
Wishlist
«use»
wishlistinfo
+ feedbackPort: User [1]
«component»
Review
«use»
«use»
comment
rating
reviewinfo

2.1.3. Deployment diagram:

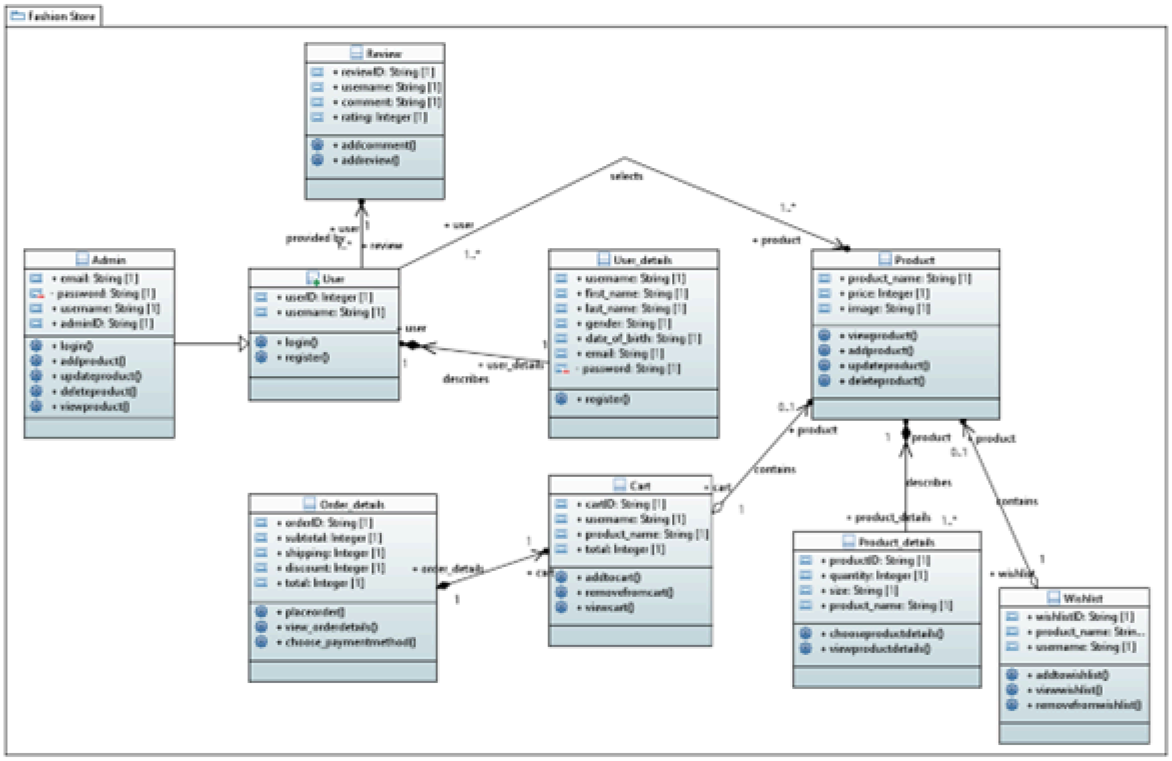


2.2 Product Functions

The key functions of the fashion store ecommerce website will be as follows:

1. User registration and login
2. View product and product details page
3. Add products to Cart
4. Add products to Wishlist
5. Manage Cart (Update, Remove Products)
6. Enter discount code to get discount
7. Place order
8. Admin login
9. Manage products (Add, Update, Delete)

2.2.1. Class Diagram:



2.3 User Classes and Characteristics

Customers:

Characteristics: These are the primary users of the website who visit the platform to browse and purchase fashion products.

Frequency of Use: Customers can be categorized into occasional, regular, and frequent customers based on their frequency of visits and purchases.

Subset of Product Functions Used: Customers will use various functions such as searching for products, filtering options, adding items to the cart, making payments, and managing their account.

Technical Expertise: Customers can have varying levels of technical expertise, ranging from basic computer skills to advanced knowledge.

Educational Level: No specific educational level is required to be a customer on the website.

Experience: Customers may have different levels of experience with online shopping, ranging from first-time users to experienced online shoppers.

Importance: Customers are the most important user class for the e-commerce fashion store website, as their satisfaction and engagement directly impact the success of the business.

Admin:

Characteristics: Admin is responsible for managing the e-commerce fashion store website, including product listings, inventory, pricing, and order management.

Frequency of Use: Admins will frequently use the website to perform their managerial tasks.

Subset of Product Functions Used: They will utilize features like inventory management, order tracking, sales analytics, and content management.

Technical Expertise: Admins typically require a higher level of technical expertise to effectively manage the website backend and associated tools.

Educational Level: No specific educational level is required, but knowledge in e-commerce management and operations is beneficial.

Experience: Admins often have experience in running an online store or managing e-commerce platforms.

Importance: Admins are of key importance as they run the website and control all the features.

2.4 Operating Environment

Web Server: The website will be hosted on a web server that is capable of handling HTTP requests and serving web pages to users.

Database Management System: The website will require a database management system (DBMS) to store and manage various data related to products, orders, customer information, and more. We used MySQL here.

Programming Languages and Frameworks: The website's frontend was built using HTML and CSS. On the backend, PHP was used.

Scalability and Performance: The operating environment was designed to handle increasing user traffic and accommodate future growth.

Mobile Responsiveness: The website should be designed and optimized to provide a seamless user experience across various devices and screen sizes, including desktops, laptops, tablets, and smartphones.

2.5 Design and Implementation Constraints

- Software Constraints:

  Web Browser: Users should have a web browser to access and navigate the website. The website is compatible with popular web browsers such as Google Chrome, Mozilla Firefox, Safari, or Microsoft Edge.

  Operating System: The website is compatible with common operating systems such as Windows, macOS, Linux, Android, or iOS.

- Hardware Constraints:

  Devices: Users will need access to compatible hardware devices such as laptops, PCs, or mobile phones to access and interact with the website.

  Internet Connection: Users will require an internet connection to access the website and perform online transactions.

- Cultural Constraints:

  Language: While the website may support multiple languages, a basic understanding of English would be helpful for users to navigate and understand the content. Localization efforts could be considered to cater to users from different linguistic backgrounds.

- User Constraints:

  Targeted Audience: The website is primarily targeted at women as it offers clothing for women. However, the website should still be accessible to users of any gender who may be interested in browsing or purchasing fashion products.

  Accessibility: The website is inclusive and accessible, considering users with disabilities and providing features such as alternative text for images, proper color contrast, and keyboard navigation options.

2.6 User Documentation

- Account Setup and Management:

  Instructions on how to create a user account, including the registration process, password setup, and account verification (if applicable).

  Guidance on managing account settings, such as updating personal information, managing shipping addresses, and changing preferences like email notifications or newsletter subscriptions.

- Browsing and Searching Products:

  Instructions on how to browse different categories and collections of fashion products available on the website. Guidance on utilizing search filters to narrow down product choices based on specific criteria such as price range, size, color, etc.

  Information on how to view product details, including images, descriptions, sizes, colors, and availability.

- Adding to Cart and Making Purchases:

  Instructions on how to add items to the shopping cart and manage the cart contents.

  Guidance on the checkout process, including selecting shipping options, entering payment details, and reviewing the order summary.

- Support and Contact Information:

  Details on how to contact customer support, including available channels such as email or phone support.

  Information on the availability of self-help resources such as FAQs, knowledge base, or community forums.

  Troubleshooting tips for common issues that users may encounter while using the website.

2.7 Assumptions and Dependencies

We have assumed that the user can access a basic operating system such as a PC or laptop. The Operating System must also have a compatible Web browser to access and load the website.

Another assumption is that the user must be interested in buying clothes for women, as the store only has clothing for women and the target audience is women.

3. External Interface Requirements

3.1 User Interfaces

Graphical User Interface (GUI):

Sample Screen Images: Mock-ups or screenshots showcasing the visual representation of the website's pages, including the homepage, product listing pages, product details page, shopping cart, checkout process, user account dashboard, etc.

GUI Standards or Style Guides: Guidelines regarding the overall visual design, color schemes, typography, iconography, and layout consistency to maintain a cohesive user interface across different screens and components.

Standard Buttons and Functions: Identifying and documenting the common buttons and functions that are expected to appear consistently across multiple screens, such as "Add to Cart," "Buy," "Login," "Sign Up," "Search," and "Go to Cart."

Software Components Requiring User Interface:

Homepage: The main landing page of the website, often featuring new arrivals and categories to browse.

Product Page: Page displaying multiple products in a grid or list format.

Product Details Page: A dedicated page showcasing detailed information about a specific product, including images, descriptions, pricing, size options, color variants.

Shopping Cart: The interface allows users to review and manage the items they have added for purchase, including the ability to modify quantities, remove items, apply discounts, and proceed to checkout.

Checkout Process: The flow of screens that guide users through the steps of providing shipping and billing information, selecting payment methods, and confirming orders.

User Account Dashboard: A personalized area where users can manage their profile, view order history and manage wishlists.

3.2 Hardware Interfaces

Supported Device Types:

Desktop Computers: The website should be compatible with desktop computers running various operating systems such as Windows, macOS, or Linux.

Laptops: The website should be accessible and functional on laptops with different screen sizes and resolutions.

Mobile Phones: The website should be responsive and mobile-friendly, allowing users to access and interact with it on smartphones and tablets with different screen sizes and operating systems (e.g., iOS, Android).

Nature of Data and Control Interactions:

Data Interactions: The software product interacts with the hardware components by sending and receiving data. This includes transmitting user inputs such as clicks, taps, form submissions, and keyboard inputs to the software for processing. The software then responds by rendering appropriate visual feedback or triggering actions such as fetching data from databases or external APIs.

Control Interactions: The software controls the hardware components by instructing them to perform specific actions. For example, when a user places an order, the software sends instructions to the appropriate hardware components, such as payment gateways or inventory management systems, to initiate the payment process and update the stock levels accordingly.

Communication Protocols:

HTTP(S): The website typically uses the Hypertext Transfer Protocol (HTTP) or its secure variant HTTPS for communication between the software and hardware components. These protocols facilitate the transmission of data and requests/responses between the web server hosting the software and the users' devices.

3.3 Software Interfaces

Databases:

Database Management System: The website interacts with a specific database management system (DBMS) which is MySQL. The DBMS is responsible for storing and managing various data related to products, orders, customer information, and more.

Purpose: The website retrieves and stores data from the database, including product details, user profiles, order information, and transaction records.

Operating System and Web Server:

Operating System: The website is deployed on a specific operating system (e.g., Windows, Linux, macOS) that hosts the necessary software components.

Web Server: The website is hosted on a web server software which is Apache HTTP Server which handles HTTP requests and serves web pages to users.

Purpose: The operating system and web server provide the underlying infrastructure for the website to run and handle user requests.

Data Items and Messages:

Incoming Data: User inputs such as product searches, account creation/update requests, order placement, payment details, and customer support inquiries are received by the system.

Outgoing Data: The system sends data such as web pages, product information, order confirmations, payment requests, shipping details, and error messages to users.

Purpose: The data items and messages facilitate user interactions, enable transactions, provide information, and ensure effective communication between the website and its users.

3.4 Communications Interfaces

Web Browser Communications:

Requirement: The website should be accessible and fully functional on popular web browsers, including Google Chrome, Mozilla Firefox, Safari, and Microsoft Edge.

Communication Standards: The website follows web standards and protocols such as HTTP (Hypertext Transfer Protocol) or HTTPS (HTTP Secure) for communication between the web server and users' web browsers.

Electronic Forms:

Requirement: The website should support the use of electronic forms for user input, such as registration forms, contact forms, order forms, and feedback forms.

Form Formatting: Forms should be designed with appropriate input fields, labels, validation rules, and submission mechanisms.

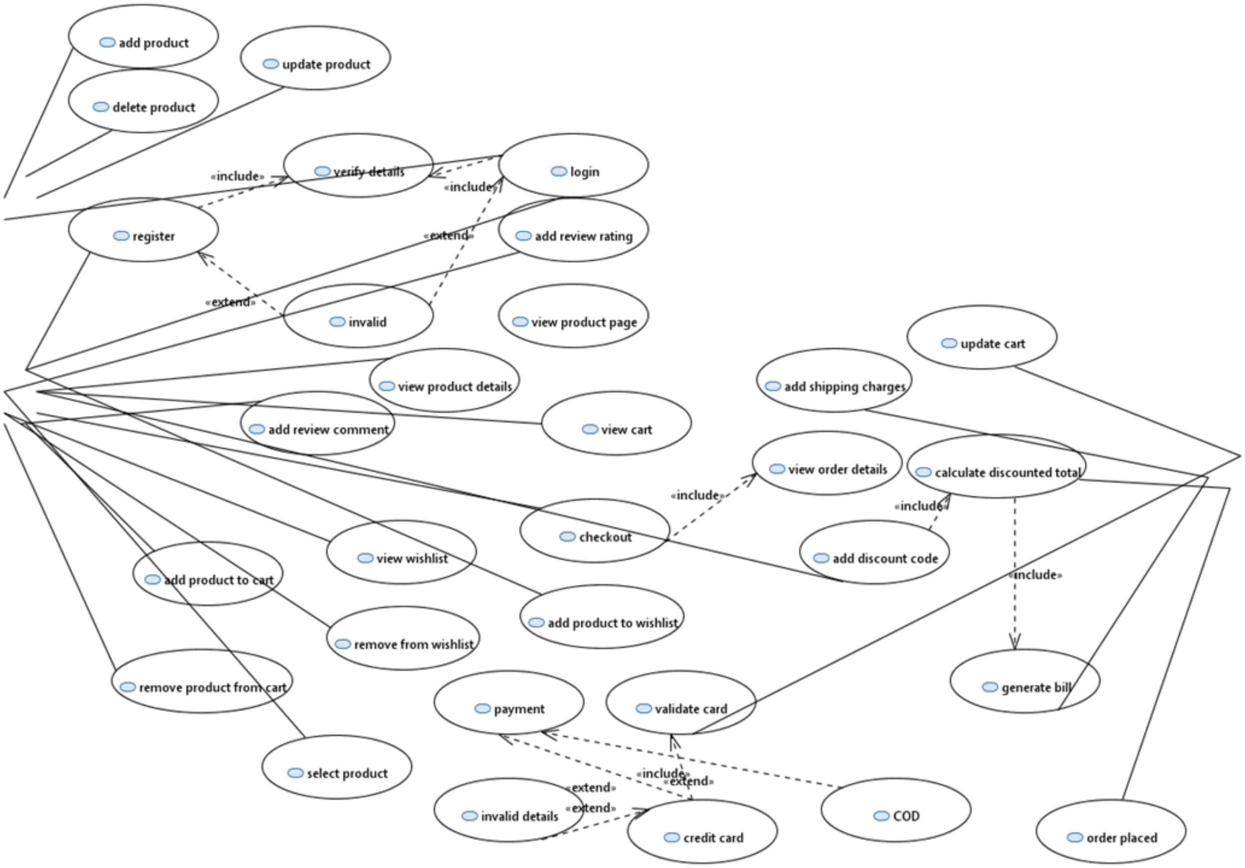
Communication Standards: The website typically uses HTTP or HTTPS to transmit form data from the user's browser to the server.

Communication Security and Encryption:

Requirement: The website must ensure secure communication and protect sensitive user information, including personal details and payment data.

Security Measures: Implementation of security protocols such as SSL/TLS (Secure Sockets Layer/Transport Layer Security) to encrypt data transmission over the network.

4. System Features



4.1 User Registration and Account Management:

4.1.1 Description and Priority

Users can create accounts, log in, and manage their personal information, including billing and shipping addresses, payment methods, and order history.

4.1.2 Stimulus/Response Sequences

User Registration:
User Action:

User enters personal information and submits the registration form.
System Response:

System validates the information and sends a verification email.
System displays a success message with instructions to check email for verification.
Email Verification:
User Action:

User clicks the verification link in the email.
System Response:

System verifies the link, activates the account, and displays a success message.
User can now log in with their registered email and password.
User Login:
User Action:

User enters login credentials and clicks the login button.
System Response:

System validates the credentials and logs the user in.
User is redirected to the dashboard or home page.
Forgot Password:
User Action:

4.1.3 Functional Requirements

User Registration:

The system should allow users to create a new account by providing their personal information, such as name, email address, and password.

The system should validate the user's email address to ensure its uniqueness and correctness.

User Login:

The system should allow registered users to log in using their email address and password.

The system should authenticate user credentials to ensure the entered information is valid.

The system should provide appropriate error messages for failed login attempts, such as incorrect email or password.

Password Reset:

The system should provide a "Forgot Password" functionality to allow users to reset their passwords if they forget them.

The system should send a password reset link to the user's registered email address.

4.2 Shopping Cart:

4.1.1 Description and Priority

The shopping cart feature allows users to add products they intend to purchase to a virtual cart or basket, review the selected items, and proceed to the checkout process for payment and order confirmation.

Priority: Medium

Priority Component Ratings:

Benefit: 7/9

Penalty: 4/9

Cost: 6/9

Risk: 5/9

4.1.2 Stimulus/Response Sequences

User actions and system responses for the Shopping Cart feature:

Adding Items:
User Action: Click "Add to Cart" button.
System Response: Item is added to the cart.

Viewing the Cart:
User Action: Click on cart icon.
System Response: Cart contents are displayed.

Updating Quantities:
User Action: Modify item quantity.
System Response: Cart quantity is updated.

Removing Items:
User Action: Click "Remove" button.
System Response: Item is removed from the cart.

Proceeding to Checkout:
User Action: Click "Checkout" button.
System Response: User is redirected to checkout page.

Placing the Order:
User Action: Click "Place Order" button.
System Response: Order is processed and confirmed.

4.1.3 Functional Requirements

REQ-1: Adding Items to the Cart

The system should provide an "Add to Cart" button on product pages.
When the user clicks the "Add to Cart" button, the system should add the selected item to the shopping cart.
If the user attempts to add an item that is already in the cart, the system should display an error message indicating that the item is already in the cart.

REQ-2: Updating Cart Quantities

The system should allow users to update the quantity of items in the cart.
The user should be able to modify the quantity by typing a number or using increase/decrease buttons.
If the user enters an invalid quantity (e.g., negative number, non-numeric input), the system should display an error message and prevent the quantity update.
The system should recalculate the subtotal and total amounts in real-time when the quantity is updated.

4.3 Product Catalog

4.1.1 Description and Priority

The product catalog feature provides a comprehensive listing of available products in the fashion store. It includes information such as product names, descriptions, prices, images, and any relevant attributes or categories.

Priority: High

Priority Component Ratings:

Benefit: 9/9
Penalty: 3/9
Cost: 7/9
Risk: 5/9

4.1.2 Stimulus/Response Sequences

Browsing Products:
User Action: Visit product catalog page.
System Response: Display list of products with names, images, prices, and descriptions.

Searching for Products:
User Action: Enter search query.
System Response: Perform search and display matching products with details.

Viewing Product Details:
User Action: Click on a product.
System Response: Show detailed product page with specifications, descriptions, reviews, and related products.

Adding Products to the Cart:
User Action: Click "Add to Cart" button.
System Response: Add selected product to the shopping cart and display confirmation message.

Related Product Recommendations:
User Action: View a product or add to the cart.
System Response: Display related or recommended products based on user selection or browsing history.

Sorting and Filtering:
User Action: Select sorting or filtering options.
System Response: Apply chosen criteria to update the displayed product list.

4.1.3 Functional Requirements

REQ-1: Displaying Product Information

The system should accurately display product names, images, prices, and descriptions.
Missing or incomplete product information should be handled gracefully.

REQ-2: Searching and Filtering Products

The system should allow users to search for products using keywords.
Filtering options should be provided to narrow down product listings.
Clear messages or alternative suggestions should be shown if no results match the search or filtering criteria.

4.4 Order Management

4.1.1 Description and Priority

The Order Management feature involves handling and processing customer orders from placement to fulfillment. It includes functionalities such as order creation, tracking, cancellation, and status updates.

Priority: High

Priority Component Ratings:

Benefit: 9/9
Penalty: 6/9
Cost: 7/9
Risk: 8/9

4.1.2 Stimulus/Response Sequences

Placing an Order:
User Action: Add items to the cart and proceed to checkout.
System Response: Validate input, confirm order placement, generate order number, and send confirmation email.

Tracking Order Status:
User Action: Access "Order History" or "Track Order" section.
System Response: Display order list with current status, provide tracking information, and update status in real-time.

Canceling an Order:
User Action: Request order cancellation within specified timeframe.
System Response: Verify eligibility, update order status to "Canceled," initiate refund if applicable, and send cancellation confirmation.

Order Updates and Notifications:
System Action: Send automated notifications (e.g., order confirmation, tracking updates).
User Response: Receive email or SMS notifications, click on links for order details or tracking.

4.1.3 Functional Requirements

REQ-1: Order Placement and Confirmation

Users should be able to add items to the cart, provide shipping and payment information, and place orders.
The system should validate input, generate order numbers, and send confirmation emails.
REQ-2: Order Tracking and Status Updates

Users should have access to order tracking functionality.
The system should display order history, provide real-time status updates, and send notifications via email or SMS.

4.5 Search Functionality

4.1.1 Description and Priority

The Search Functionality allows users to search for products, content, or information within the system. It enables quick and efficient retrieval of relevant results based on user input or predefined search criteria.

Priority: High

Priority Component Ratings:

Benefit: 8/9
Penalty: 5/9
Cost: 6/9
Risk: 7/9

4.1.2 Stimulus/Response Sequences

User Initiated Search:
User Action: Enter a search query.
System Response: Display relevant search results based on the entered query.

Displaying Search Results:
System Action: Retrieve and analyze search results.
System Response: Show titles, descriptions, and metadata for each result.

4.1.3 Functional Requirements

REQ-1: User Initiated Search

Users should be able to enter search queries in a search input field.
The system should perform a search based on the entered query and retrieve relevant results.
Display an error message for empty or invalid search queries.

REQ-2: Displaying Search Results

The system should analyze search results and display relevant items or content.
Each search result should include a title, description, and relevant metadata.
Support pagination or infinite scrolling for multiple pages of results.
Display a message for no search results and suggest alternative terms.

4.6 Customer Reviews

4.1.1 Description and Priority

Customer reviews provide a platform for users to share their experiences, opinions, and feedback about the fashion store's products and services. This feature allows potential customers to make informed purchasing decisions based on real user experiences.

Priority: High

Priority Component Ratings:

Benefit: 9/9
Penalty: 4/9
Cost: 7/9
Risk: 6/9

4.1.2 Stimulus/Response Sequences

: Viewing Customer Reviews:
User Action: Access the product page or review section.
System Response: Display a list of reviews with ratings and summarized content.

Provide sorting options for relevance, date, or rating.
Adding a Customer Review:
User Action: Click "Add Review" or similar.
System Response: Show a review submission form.

Validate input, including rating and review content.
Save the review and associate it with the product.
Display a confirmation message after submission.

4.1.3 Functional Requirements

REQ-1: Submitting Customer Reviews

Users should be able to submit reviews for purchased products.
The system should provide a review form with rating, title, and content fields.
Validate and enforce length and format requirements for reviews.
Display error messages for submission errors or validation failures.

REQ-2: Displaying Customer Reviews

Display customer reviews on the product detail page.
Include reviewer's name, rating, title, and content for each review.
Sort reviews by relevance or helpfulness.
Provide pagination or scrolling for multiple reviews.
Display a message if no customer reviews are available.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

The software is reliable according to http and web browser protocols, as it uses a web server. Our project has been built to be responsive and reliable according to user expectations, along with storage friendly. Any bugs have been resolved accordingly.

5.2 Safety Requirements

No harm caused since this is a website on a web server. Safety certifications are according to http and web browser protocols.

5.3 Security Requirements

All data entered by the user, such as account registration/login and credit card details, are protected according to data integrity as information of the user is encrypted. Review feedback will remain anonymous to protect the privacy of users.

5.4 Software Quality Attributes

1. Usability: The website will be user friendly so the customers can easily navigate the website and find the products they are looking for.
2. Reliability: It will be reliable and consistent with minimal errors so that customers will be able to access the website and make purchases without any issues.
3. Security: The website will be secure with appropriate measures such as SSL encryption, firewalls etc to protect the customer's data and prevent unauthorized access or hacking.
4. Performance: Website will be fast, responsive and efficient with quick page load items and minimal lags or delays.
5. Scalability: It will be able to handle increased traffic and demand during peak shopping periods.
6. Accessibility: Easily accessible to all users with working internet connection.
7. Compatibility: Website will be compatible with all types of browsers and devices so any customer can access it on their preferred device or browser.
8. Maintainability: It will be easy to maintain and update with a clear structure that will allow easy changes and updates so the website keeps up with the latest fashion trends and offerings

5.5 Business Rules

1. Pricing: The prices of all products on the website should be accurate and up-to-date. Discounts or promotions should be clearly displayed and applied correctly.

2. Product availability: The website should only display products that are currently in stock and available for purchase. If a product is out of stock or no longer available, it should be removed from the website.
3. Shipping and delivery: The website should clearly display shipping and delivery options, as well as estimated delivery times.
4. Fulfillment of Orders: All orders should be fulfilled and shipped promptly, with tracking information provided to the customer.
5. Returns and exchanges: The website should have clear policies in place for returns and exchanges, including timelines, conditions, and any associated costs.
6. Payment processing: The website should securely process payments, with appropriate measures in place to protect customer data and prevent fraud.
7. Customer service: The website should provide clear contact information and customer service options, including email, phone, and live chat. Customer inquiries and issues should be promptly addressed and resolved.
8. Content and branding: The website should maintain a consistent visual and brand identity, with high-quality product images and descriptions, as well as clear and engaging copywriting.
9. User behavior: The website should monitor user behavior and prevent fraudulent or abusive activity, such as spamming, hacking, or scraping.

6. Other Requirements

Database Requirements:

1. Data storage: The database should have enough storage capacity to store all relevant data, including product information, customer data, and transaction history.
2. Data structure: The database should have a clear and organized data structure that allows for easy retrieval and manipulation of data. This may include tables, views, indexes, and other database objects.
3. Data backups: The database should be regularly backed up to prevent data loss in case of system failure or disaster. This may involve using automated backup systems or cloud-based backup solutions.
4. Integration: The database should be able to integrate with other systems, such as payment gateways, shipping providers, and inventory management systems.

Internationalization Requirements:

1. Multilingual support: The website should support multiple languages, so that customers can access the site in their preferred language.
2. Localization: The website should be localized for different regions and cultures, taking into account differences in currency, measurement units, date formats.
3. Shipping and tax calculations: The website should be able to calculate shipping costs and taxes based on the customer's location and the products being purchased.

4. International payment options: The website should support a variety of international payment options, including credit cards, PayPal, and other payment methods.

Legal Requirements:

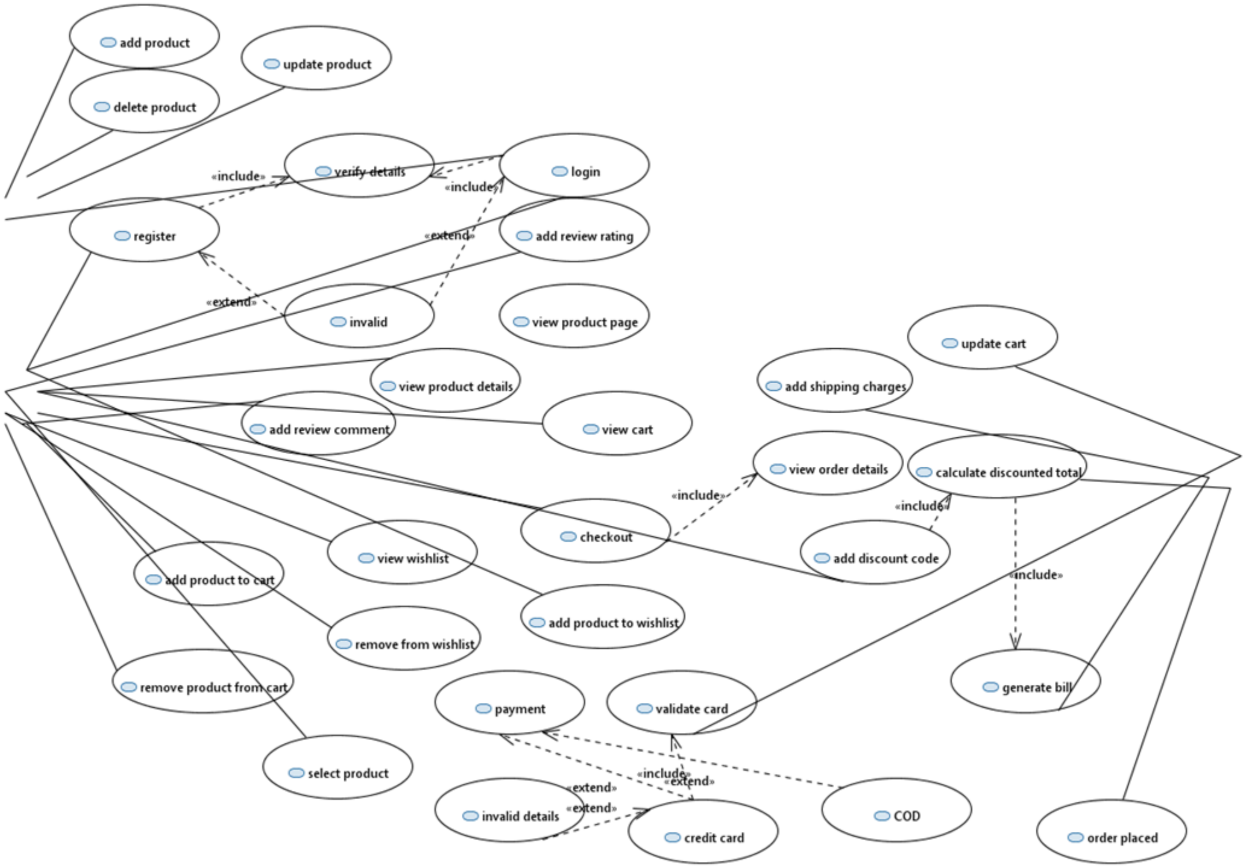
1. Consumer protection laws: The website should comply with consumer protection laws, which vary depending on the country or region where the website is located or the customers are based.
2. Data protection laws: The website should comply with data protection laws which require the website to obtain user consent for collecting and processing personal data.
3. Payment regulations: The website should comply with payment regulations which sets out standards for handling credit card information securely.
4. Shipping regulations: The website should comply with shipping regulations, such as customs regulations and export control laws, when shipping products to customers in different countries.

Reuse Objectives:

1. Speed up development: Reusing existing code or software components can save time and effort in developing the website.
2. Ensure consistency: Reusing existing code can help ensure consistency across different parts of the website which can lead to a better user experience, as users will be familiar with how different parts of the website work.
3. Improve quality: Reusing code that has already been tested and proven to work can help improve the quality of the website. This can reduce the risk of bugs, errors, or other issues that can affect the user experience or website performance.
4. Lower costs: It can help lower the development costs of the website, as developers don't need to spend as much time writing new code.

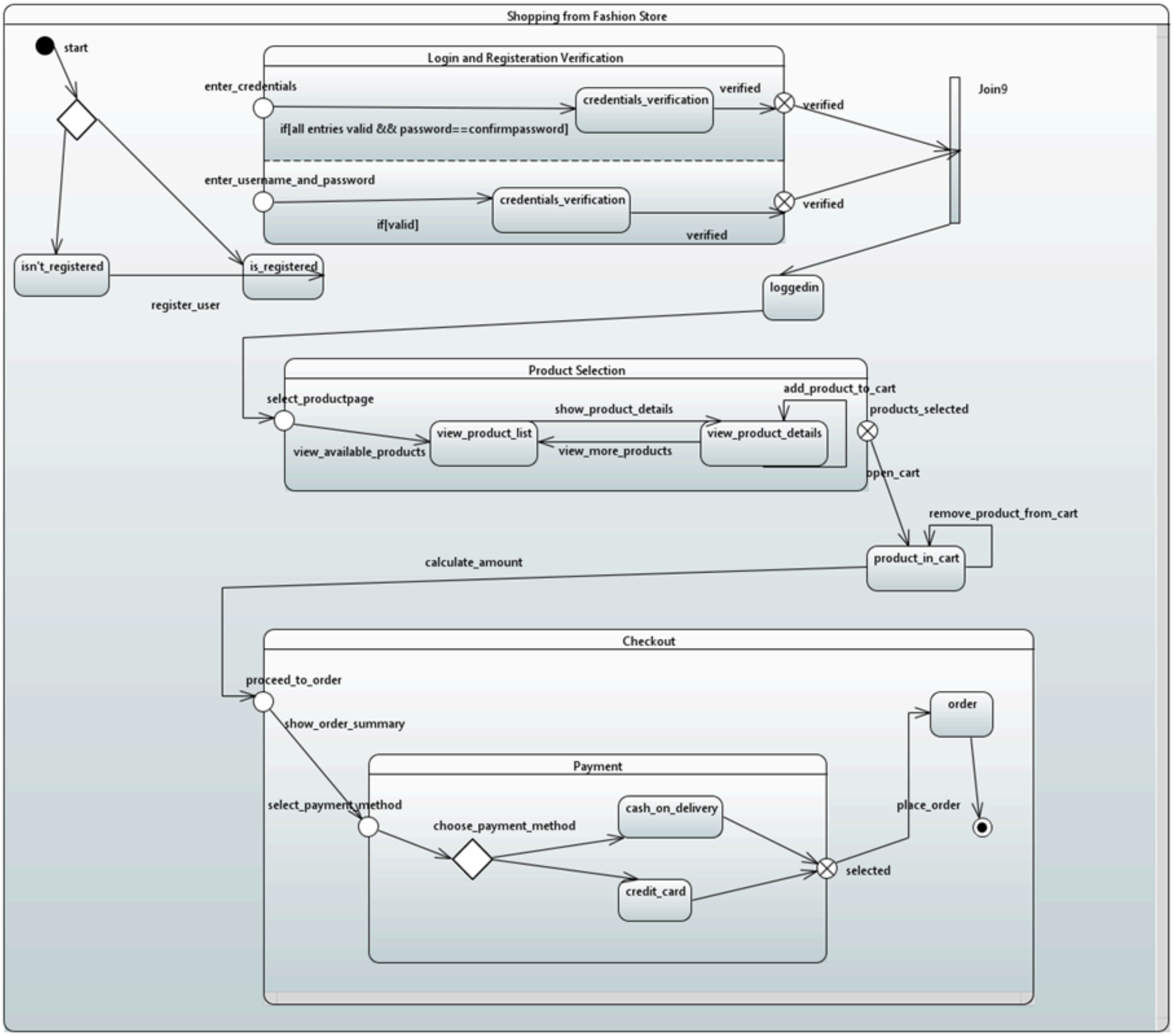
Appendix B: Analysis Models

Use-Case Diagram:

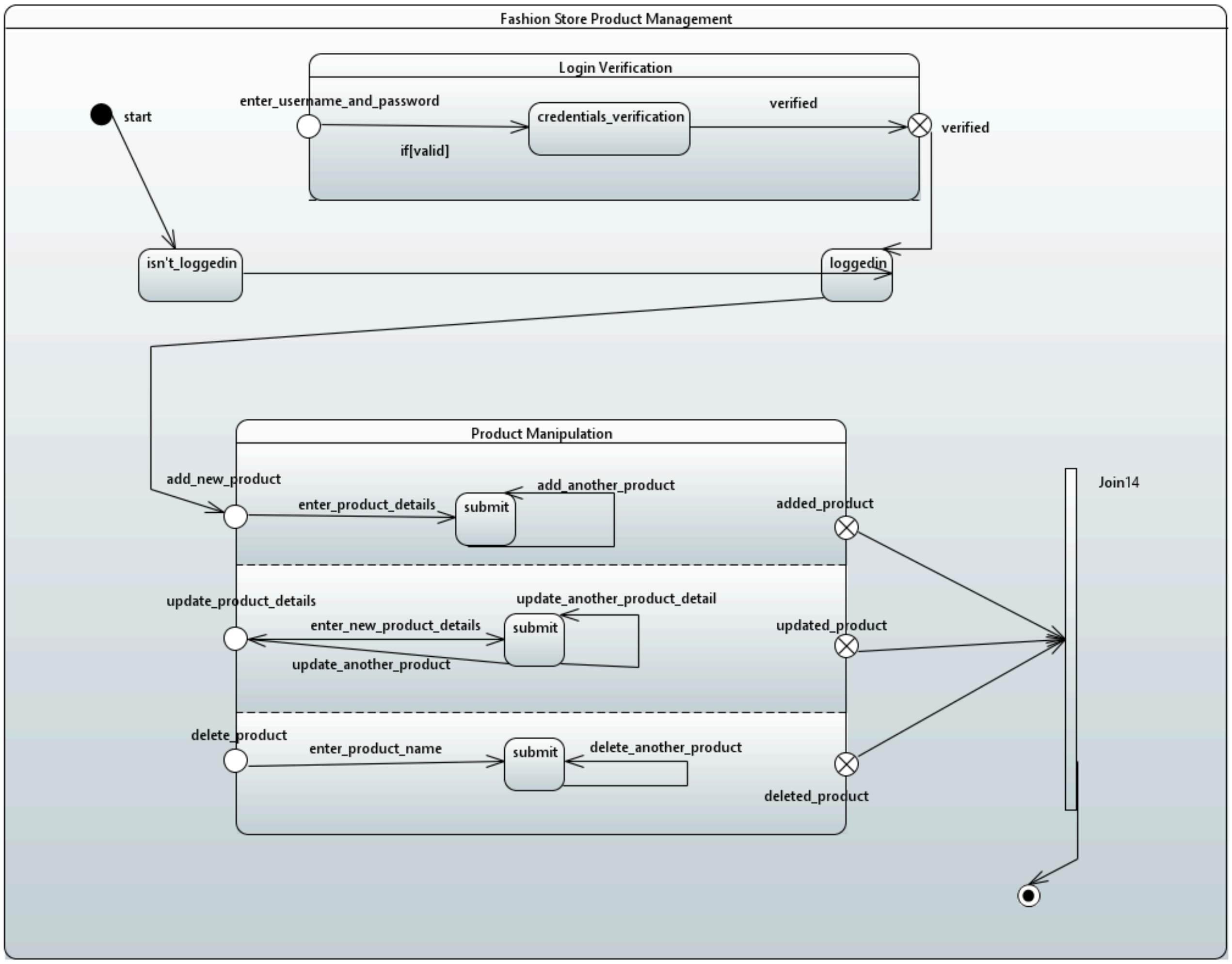


State diagrams:

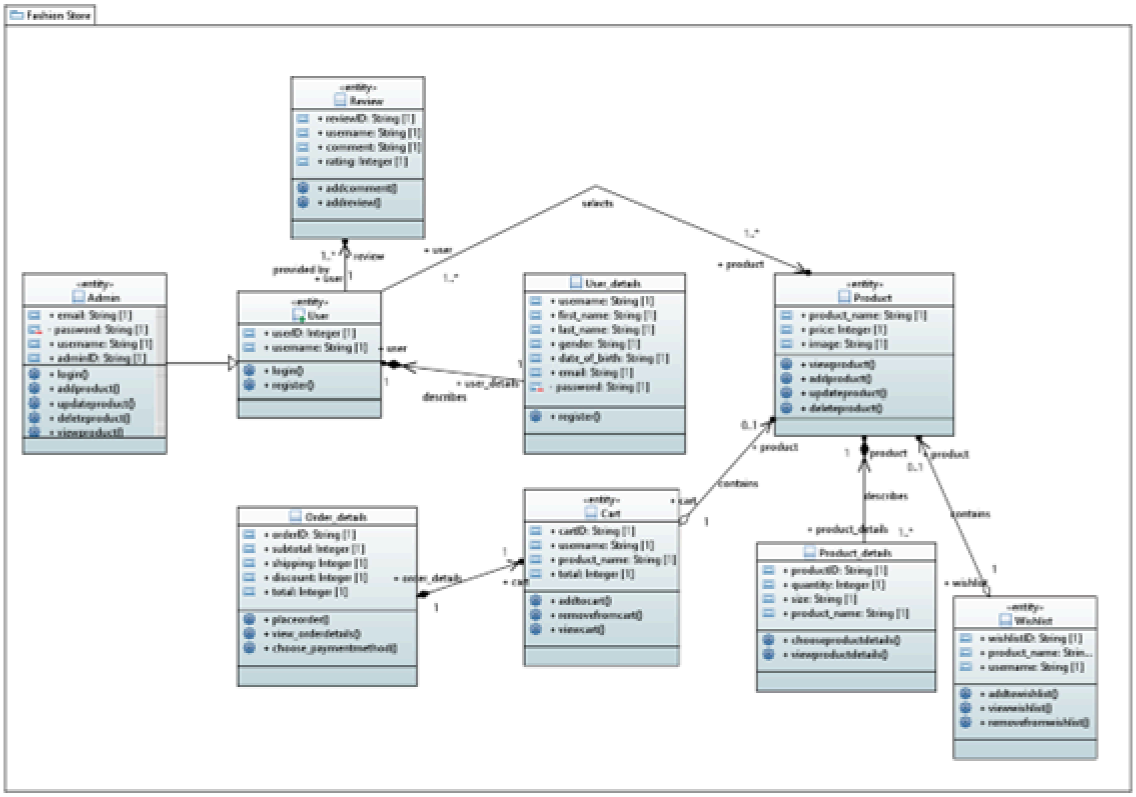
Product Shopping:



Product Management:



ECB diagram:


Fashion Store
«entity»
Review
+ reviewID: String [1]
+ username: String [1]
+ comment: String [1]
+ rating: Integer [1]
+ addcomment()
+ addreview()
«entity»
Admin
+ email: String [1]
- password: String [1]
+ username: String [1]
+ adminID: String [1]
+ login()
+ addproduct()
+ updateproduct()
+ deleteproduct()
+ viewproduct()
«entity»
User
+ userID: Integer [1]
+ username: String [1]
+ login()
+ register()
User_details
+ username: String [1]
+ first_name: String [1]
+ last_name: String [1]
+ gender: String [1]
+ date_of_birth: String [1]
+ email: String [1]
- password: String [1]
+ register()
«entity»
Product
+ product_name: String [1]
+ price: Integer [1]
+ image: String [1]
+ viewproduct()
+ addproduct()
+ updateproduct()
+ deleteproduct()
Order_details
+ orderID: String [1]
+ subtotal: Integer [1]
+ shipping: Integer [1]
+ discount: Integer [1]
+ total: Integer [1]
+ placeorder()
+ view_orderdetails()
+ choose_paymentmethod()
«entity»
Cart
+ cartID: String [1]
+ username: String [1]
+ product_name: String [1]
+ total: Integer [1]
+ addtocart()
+ removefromcart()
+ viewcart()
Product_details
+ productID: String [1]
+ quantity: Integer [1]
+ size: String [1]
+ product_name: String [1]
+ chooseproductdetails()
+ viewproductdetails()
«entity»
Wishlist
+ wishlistID: String [1]
+ product_name: Strin...
+ username: String [1]
+ addtowishlist()
+ viewwishlist()
+ removefromwishlist()
selects
+ user
1..*
1..*
+ product
1..*
+ review
provided by
+ User
1
+ user
1
1
+ user_details
describes
0..1
+ product
contains
+ cart
1
1
+ product
0..1
+ product
describes
+ product_details
1..*
contains
1
+ wishlist
+ order_details
1
1
+ cart