

# Software Requirements Specification

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## 1. Abstract

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- In today's fast-paced digital world, online shopping has become an integral part of daily life for millions worldwide. From the convenience of our homes or on-the-go through mobile devices, the allure of browsing through vast catalogs of products and making purchases with just a few clicks has transformed the way we shop.
- As a client navigating the online shopping mart, the allure lies not only in the accessibility and convenience but also in the diverse array of products available at our fingertips..

## 2. Objective and Scope

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The objective of the project is to develop an innovative and user-centric online shopping mart that offers customers a seamless and convenient shopping experience. The platform aims to provide a wide selection of products across various categories while prioritizing user satisfaction, security, and reliability.

The scope of the product includes the following basic features:

- The scope of the online shopping mart project includes the development of a comprehensive platform with the following key features:
  - **Product Catalog:** The platform will offer a diverse range of products spanning categories such as electronics, fashion, home essentials, groceries, and more
  - **Browsing and Search Functionality:** The online shopping mart will feature intuitive browsing and search functionalities, enabling users to easily discover products of interest
  - **Shopping Cart and Checkout:** Users will be able to add items to their shopping carts, review their selections, and proceed to checkout seamlessly.
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## 3 Requirements

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### 3.1 Functional Requirements

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#### **Third Party Integrations:**

Determining the right 3rd party integrations for your website will make it structured and ready for business scaling in the future.

#### **Mobile Responsive :**

In today's era, the most number of users for the website are coming through mobile devices especially smartphones.

#### **Product Attributes :**

The PDP will include different types of product characteristics and the e-commerce development company should know how to implement those features.

#### **Order & Checkout Flow :**

It is important to mention how the orders will be processed in your e-commerce store on your functional requirements. You have to also mention the discount and coupon policy at this part.

#### **Social Sharing :**

Allow your customers to share products, blog posts, and inspirational pictures by adding a corresponding button to their website.

### 3.2 Non Functional Requirements

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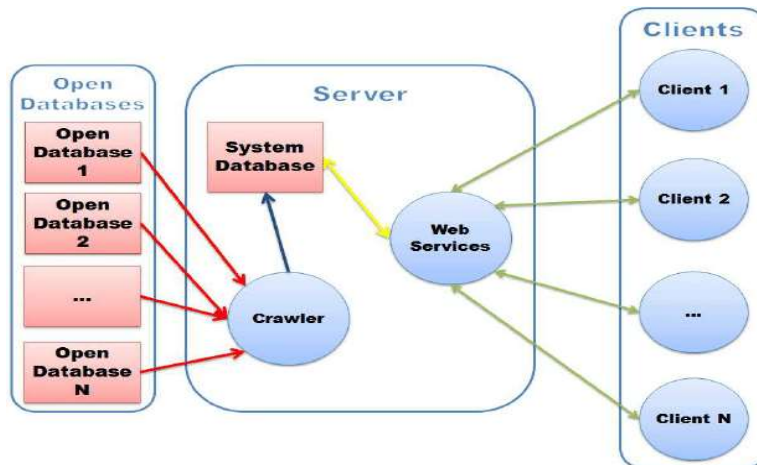
Nonfunctional requirements, or NFRs, are a set of specifications that describe the system's operation capabilities and constraints. These are Nonfunctional requirements:

- Usability
- Security
- Performance
- Maintainability
- Scalability

## 4 Design

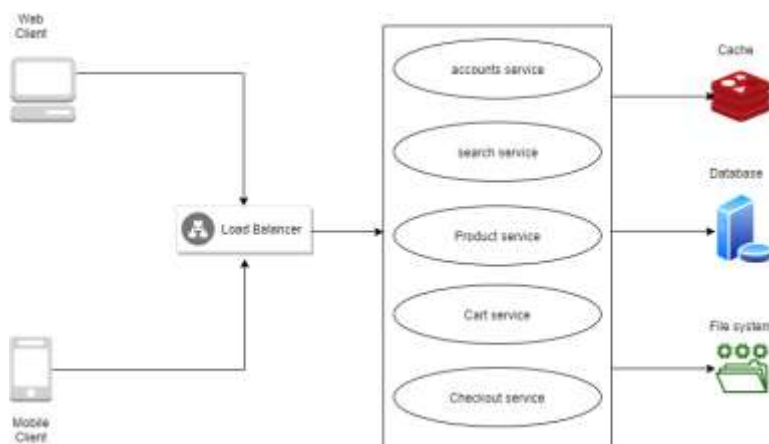
### 4.1 High Level Design

High-level design, also known as architectural design, involves creating an abstract representation of the software system's structure and components without delving into implementation details.



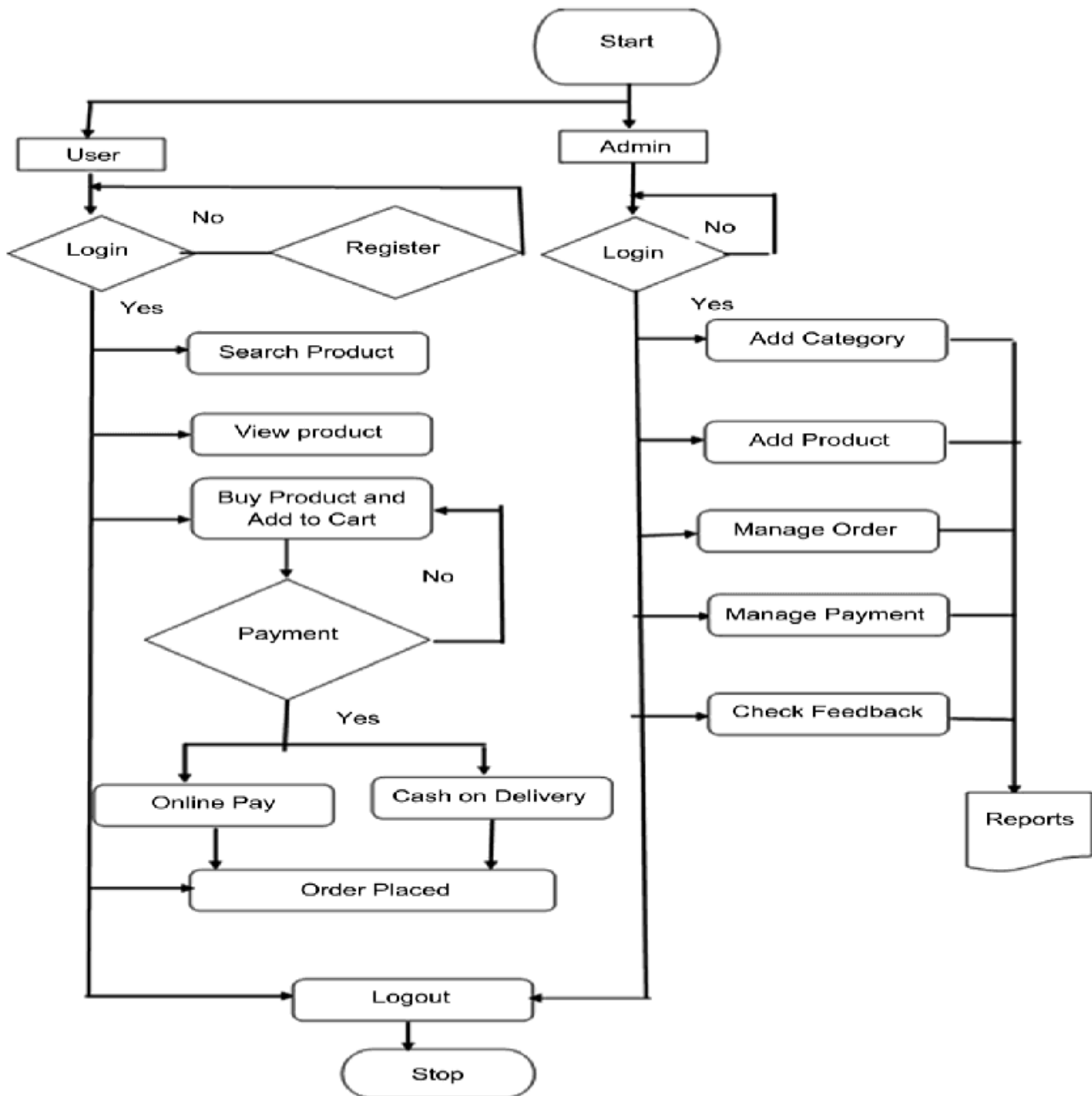
### 4.2 Low Level Design:

A low-level design (LLD) for an online shopping mart typically involves specifying the detailed structure and behavior of various components within the system.

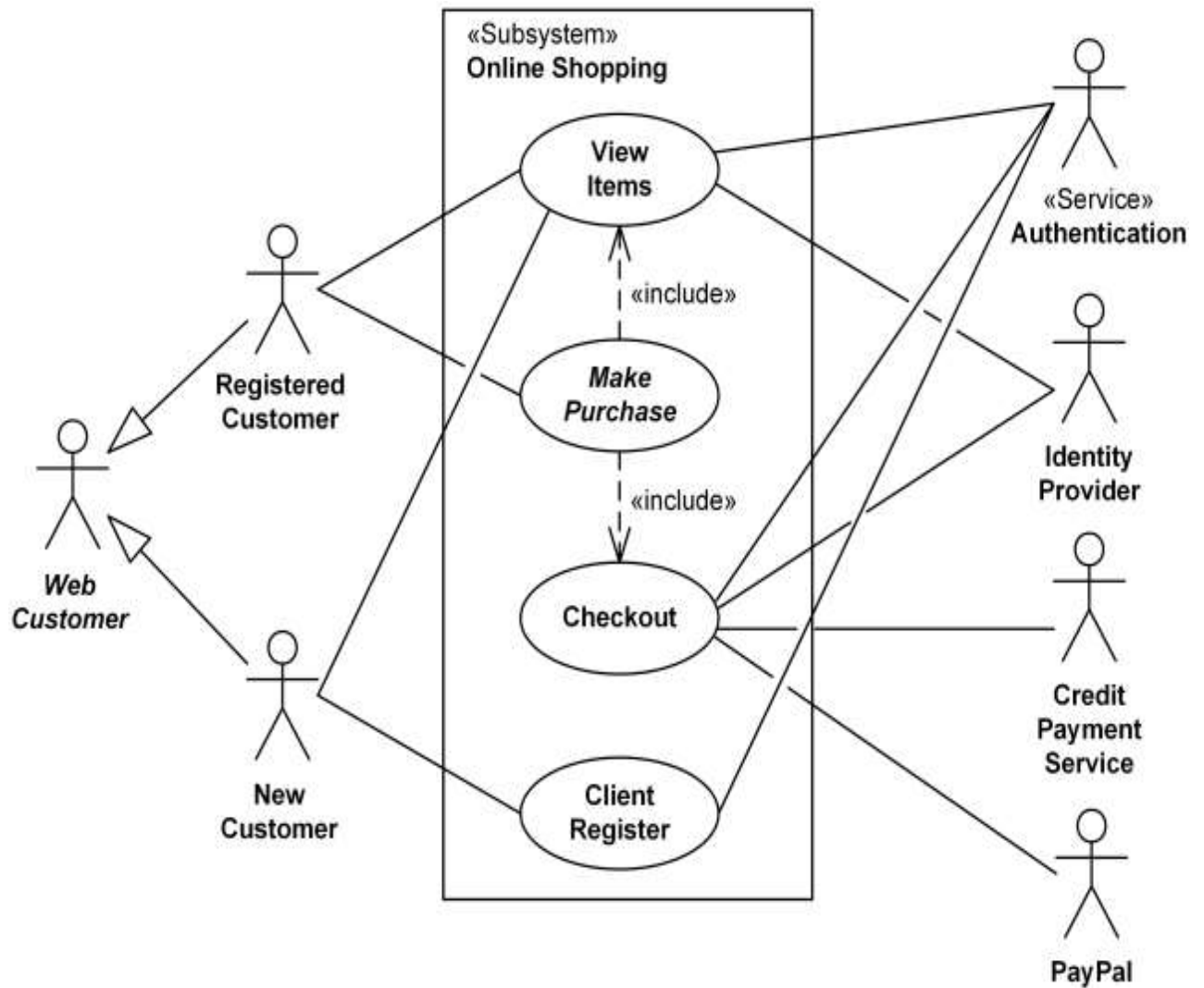


## 5. Implementation

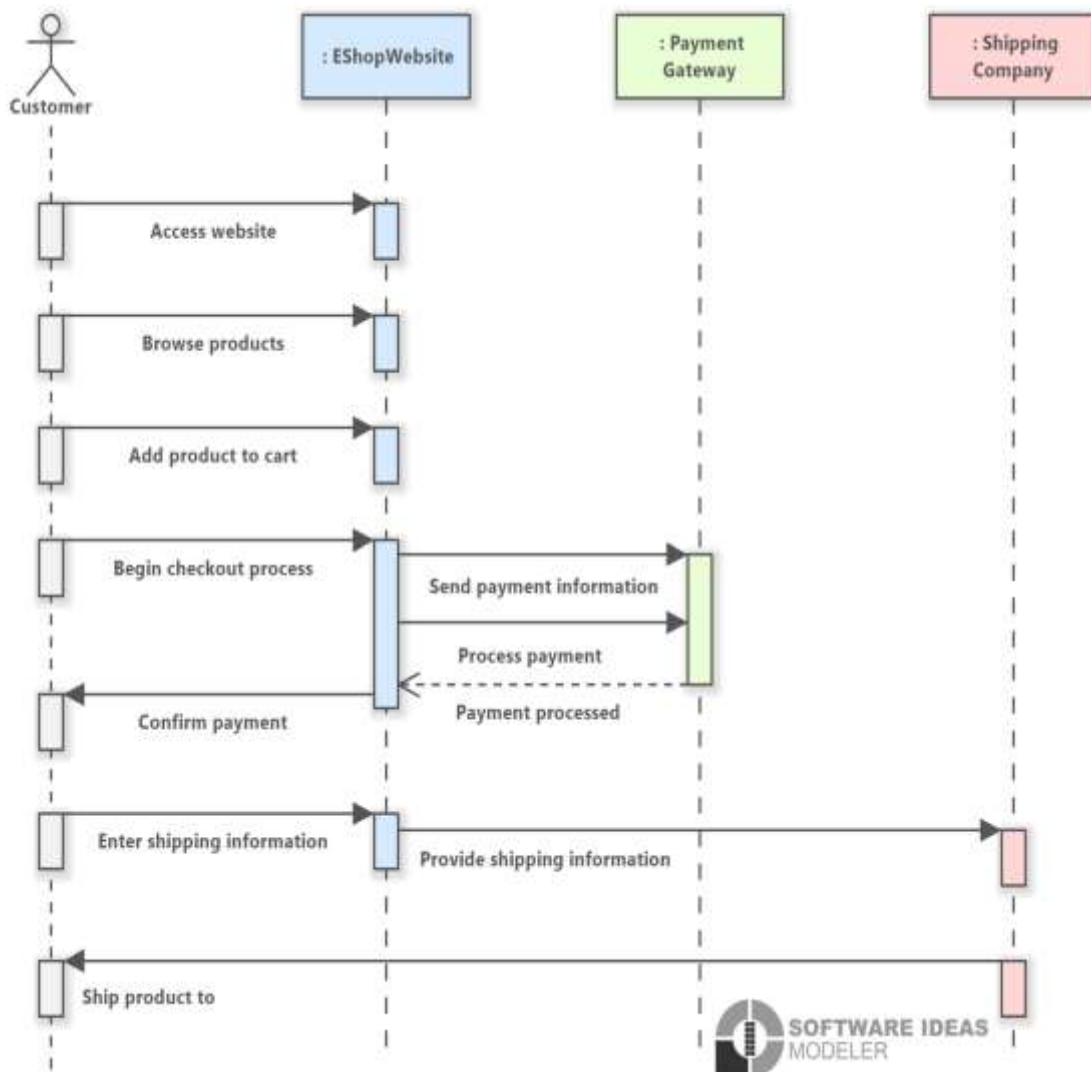
### 5.1 Flow Chart



## 5.2 Use Case Diagram

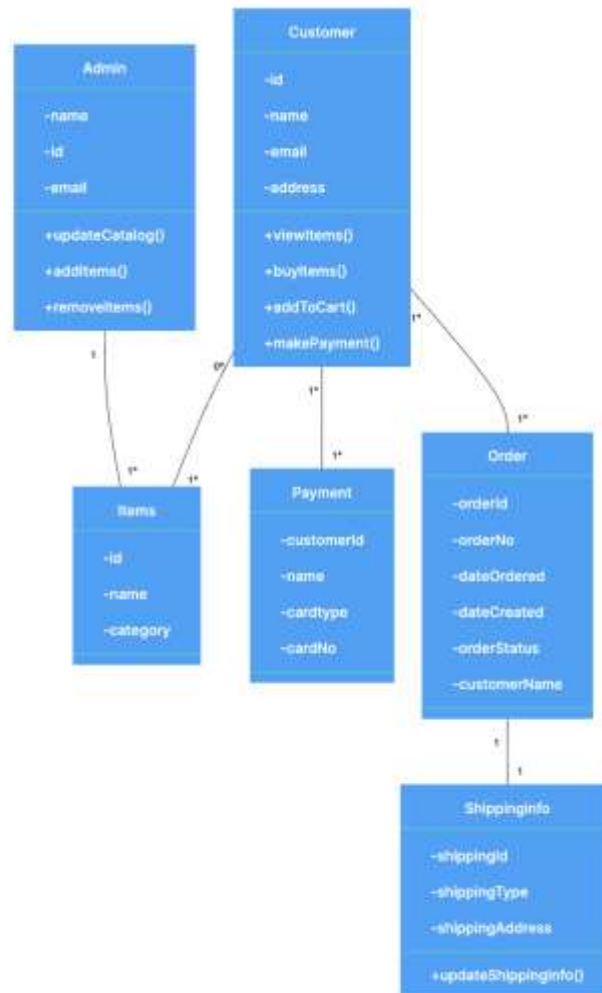


### 5.3 Sequence Diagram





## 5.4 Class Diagram



## 6. TEST CASES

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### 1. User Registration

Verify that users can successfully register with valid information.

Verify that users cannot register with invalid or incomplete information.

Verify that the system handles duplicate email addresses or usernames appropriately.

### 2. User Login

Verify that registered users can log in with correct credentials.

Verify that users cannot log in with incorrect credentials.

Verify that the "Remember Me" functionality works as expected.

### 3. Product Browsing

Verify that users can browse products by category.

Verify that users can search for products using the search functionality.

Verify that product details (name, price, description, etc.) are displayed correctly.

Verify that filtering options (price range, brand, etc.) work as expected.

### 4. Adding to Cart

Verify that users can add products to their cart.

Verify that the correct quantity of items is added to the cart.

Verify that users cannot add out-of-stock items to the cart.

### 5. Cart Management

Verify that users can view their cart with all the added items.

Verify that users can update the quantity or remove items from the cart.

Verify that the total price is calculated correctly.

**6.Checkout Process**

Verify that users can proceed to checkout from the cart.

Verify that users can enter shipping and billing information.

Verify that different payment methods (credit card, PayPal, etc.) work correctly.

Verify that users receive an order confirmation after completing the checkout process.

**7.Order Management**

Verify that users can view their order history.

Verify that users receive email notifications for order confirmation, shipping updates, etc.

Verify that users can track the status of their orders.

**8.User Account Management**

Verify that users can update their profile information (name, email, password, etc.).

Verify that users can reset their password if forgotten.

Verify that users can delete their account if needed.

**9.Security**

Verify that sensitive information (passwords, payment details, etc.) is stored securely.

Verify that the application is protected against common security threats like SQL injection, cross-site scripting (XSS), etc.