SOFTWARE REQUIREMENTS SPECIFICATION

FOR

E-COMMERCE WEBSITE

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1. Introduction

Purpose

The primary goal of this document is to outline the essential specifications for the E-commerce website project, encompassing functional and non-functional elements crucial for the effective creation, implementation, and functioning of the system. This Software Requirements Specification (SRS) acts as a thorough guide for all project stakeholders, including developers, designers, testers, and project managers. Its purpose is to establish a precise comprehension of the project's scope and anticipated outcomes, facilitating successful collaboration and project realization.

1.1 Document Conventions

- Entire document should be justified.
- Convention for the Title
  - Font Face: Times new Roman
  - Font Style: Bold
  - Font Size: 14
- Convention for Subtitle
  - Font face: Times New Roman
  - Font Style: Bold
  - Font Size: 12
- Convention for body
  - Font face: Times New Roman
  - Font Size: 12

1.2 Scope of Development Project

The main objective of this project is to develop, deploy, and maintain a comprehensive E-commerce website that enhances our online presence and facilitates electronic commerce activities. This platform will serve as an accessible and secure marketplace for a wide range of products or services, optimizing the shopping experience for our customers and driving business growth.

Within the project's scope, various functional components will be developed, including user registration and authentication, product management, shopping cart functionality, secure payment processing, order management, user profile management, search and navigation features, user-generated reviews and ratings, and notifications for order updates and promotions. These components collectively contribute to a seamless and user-friendly online shopping experience. The E-commerce website project will focus on delivering a feature-rich platform to meet the evolving needs of our customers and the competitive demands of the online marketplace. The ongoing maintenance and support of the website will ensure its continued functionality and relevance post-launch.

1.3 Definitions, Acronyms and Abbreviations

- JAVA -> platform independence
- SQL-> Structured query Language
- ER-> Entity Relationship
- UML -> Unified Modeling Language
- IDE-> Integrated Development Environment
- SRS-> Software Requirement Specification
- ISBN -> International Standard Book Number
- IEEE ->Institute of Electrical and Electronics Engineers

1.4 References

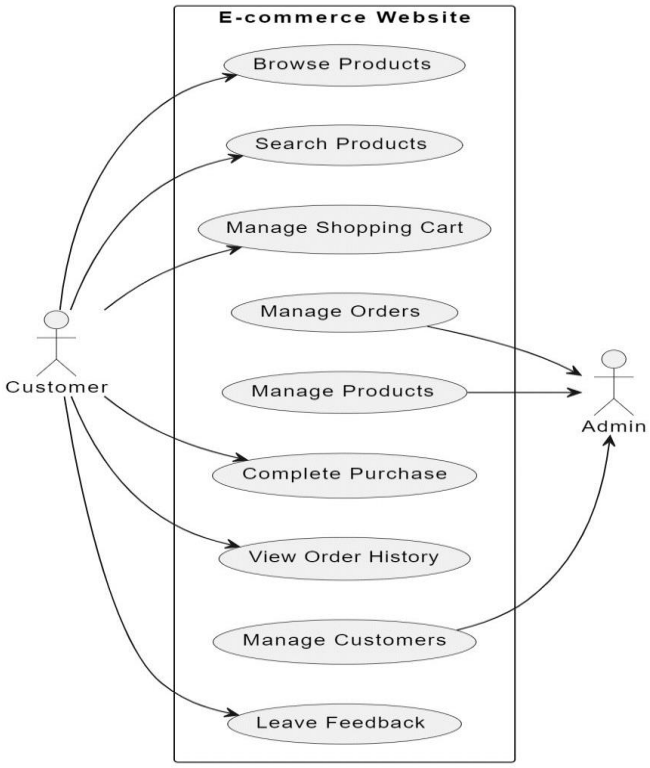
1. Munindar P. Singh, An Evolutionary Look at E-Commerce, IEEE Internet Computing, Vol.5, No.2, 2001, pp. 6-7.
2. Sowmyan Raman, E-Commerce and Globalization -Yesterday, Today and Tomorrow, Proceedings of IEEE Engineering Management Society, 2000, pp. 249-254
3. Manoj Parameswaran, Anjana Susarla and Andrew B. Wbinston, P2P Networking: An Information-Sharing Alternative, Computer, Vol.34, No.7, 2001, pp. 31-38.
4. Dieter Gollmann, E-Commerce Security, Computing & Control Engineering Journal, Vol.11, No.3, 2000, pp. 115-118.
5. Louis A. Lefebvre, Lue Cassuvu and Elisabeth Lefebvre, Business-to-Business E-Commerce: A Transition Model, Proceedings of IEEE 34th Annual Hawaii International Conference on System Sciences, 2001, pp. 2187-2196.

2. Overall Descriptions

2.1 Product Perspective

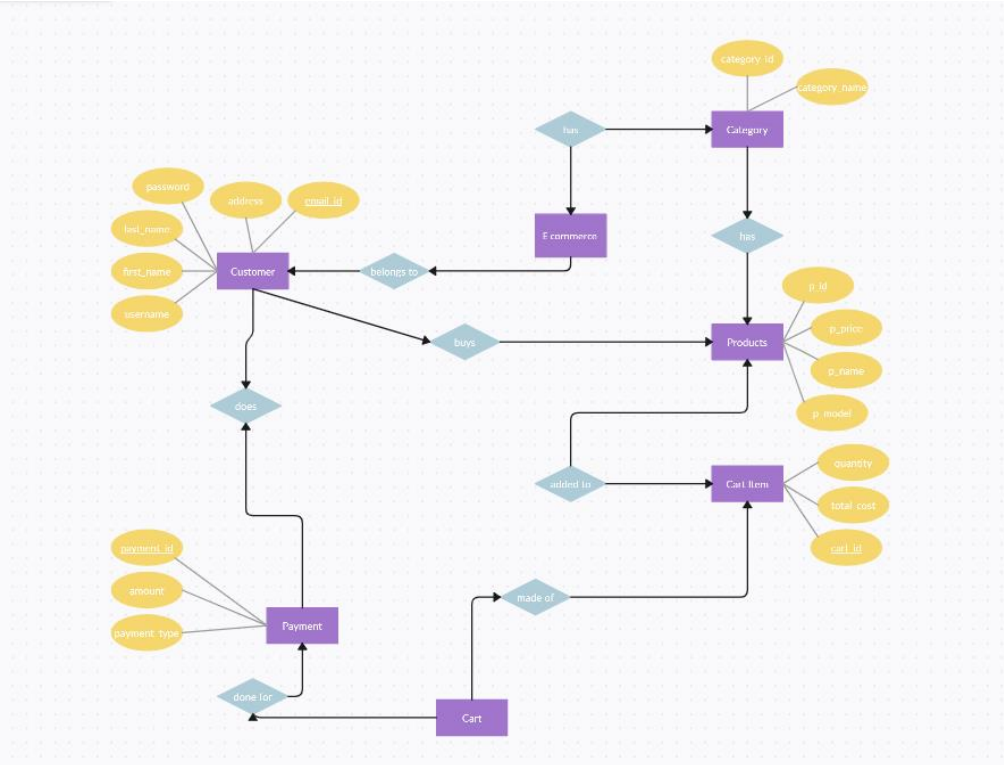
Use case Diagram

The E-commerce Website Use Case Diagram depicts the primary interactions between actors and the system. Customers, representing end-users, can browse products, search for items, manage their shopping cart, and complete purchases. The Payment Gateway, an external system, securely processes payments during checkout. Use cases such as "Add toCart," and "Payment" facilitate a user-friendly shopping experience.



2.2 Product Function

Entity Relationship Diagram of E-Commerce Website



2.3 Uses Classes And Characteristics

1. **Retail E-Commerce:**
   - **Use Case:** Selling physical products directly to consumers.
   - **Characteristics:**
     - Product catalog with detailed descriptions and images.
     - Shopping cart and checkout functionality.
     - Multiple payment options (credit card, PayPal, etc.).
     - User accounts for order history and tracking.
     - Product reviews and ratings.
     - Search and filter options for easy product discovery.
     - Inventory management to track stock levels.
     -
2. **Digital Products E-Commerce:**
   - **Use Case:** Selling digital goods or services, such as e-books, software, or online courses.
   - **Characteristics:**
     - Secure digital downloads or access codes.
     - Content delivery system for digital products.
     - Subscription models for recurring services.
     - License key management for software products.
     - Integration with secure payment gateways.

3. **Marketplace E-Commerce:**
- **Use Case:** Creating a platform for multiple sellers to list and sell their productsor services.
   - **Characteristics:**
     - Seller accounts with individual storefronts.
     - Product listings from various sellers.
     - Ratings and reviews for both sellers and products.
     - Escrow or payment release system to ensure transactions.
     - Commission or fee collection from sellers.
     - Robust dispute resolution system.

4. **B2B E-Commerce:**
- **Use Case:** Catering to business-to-business transactions, such as wholesale orbulk purchasing.
   - **Characteristics:**
     - Customized pricing and discounts for bulk orders.
     - Integration with procurement systems.
     - Quote request and negotiation features.
     - Buyer organization accounts with multiple users.
     - Approval workflows for purchase orders.

5. **Subscription E-Commerce:**
   - **Use Case:** Offering subscription-based services or products.
   - **Characteristics:**
     - Subscription plans with various durations and pricing tiers.
     - Recurring billing and automatic renewal options.
     - Content access control for different subscription levels.
     - Customer retention strategies and tools.
     - Analytics for monitoring subscriber behavior.
6. **Mobile E-Commerce:**
   - **Use Case:** Creating a responsive or mobile app-based e-commerce platform.
   - **Characteristics:**
     - Mobile-friendly design for easy navigation on smartphones and tablets.
     - Mobile payment options like Apple Pay and Google Pay.
     - Location-based services for local offers and promotions.
     - Push notifications for updates and marketing.

7. **Niche E-Commerce:**
   - **Use Case:** Specialized e-commerce websites catering to specific niches.
   - **Characteristics:**
     - Highly specialized product listings and content.
     - Community forums or resources related to the niche.
     - Personalized recommendations based on niche interests.
8. **Multi-channel E-Commerce:**

- **Use Case:** Selling products across multiple online channels, including websites,social media, and marketplaces.
  - **Characteristics:**
    - Integration with various sales channels (e.g., Amazon, eBay, Facebook).
    - Centralized inventory and order management.
    - Consistent branding and product information across channels.
    - Analytics to track performance on different platforms.

9. **Global E-Commerce:**
   - **Use Case:** Expanding the e-commerce business to international markets.
   - **Characteristics:**
     - Multiple currency and language support.
     - International shipping options and pricing.
     - Compliance with global regulations and tax systems.
     - Geolocation-based content and pricing adjustments.

10. Personalized E-Commerce:

- **Use Case:** Offering personalized shopping experiences based on user behaviorand preference
  - **Characteristics:**
    - Recommendation engines for product suggestions.
    - User profiles with purchase history and preferences.
    - Dynamic content and pricing based on user data.
    - Behavioral tracking and analysis.

E-commerce websites can combine several of these characteristics to meet their specific business goals and target audiences effectively. The choice of characteristics will depend on factors such as the nature of the products or services being sold, the target market, andthe overall business strategy.

2.4 Operational Environment

The operational environment for an e-commerce website encompasses all the componentsand factors that are essential for the website to function effectively. Ensuring a robust operational environment is crucial for providing a seamless shopping experience for customers and maintaining the security and reliability of the platform. Here are key elements of the operational environment for an e-commerce website:

1. **Web Hosting and Infrastructure:**

- Server Hosting: Reliable web hosting services with high uptime and scalability to handle traffic spikes.
- Content Delivery Network (CDN): Utilizing CDNs to distribute website content globally and reduce load times.
- Load Balancing: Implementing load balancing to distribute traffic evenly among multiple servers.

2. **Website Software and Development:**

- E-commerce Platform: Choosing a suitable e-commerce platform (e.g., Shopify, WooCommerce, Magento) and keeping it up to date.
- Content Management System (CMS): Integrating a CMS for managing website content.
- Software Development: Regular updates, patches, and testing to ensure websitefunctionality and security.

3. **Security Measures:**

- SSL Certificate: Encrypting data transmission with SSL certificates to secure sensitive customer information.
- Firewalls and Intrusion Detection Systems: Deploying firewalls and IDS/IPS to protect against cyber threats.

- Regular Security Audits: Conducting security audits and penetration testing to identify vulnerabilities.
- Payment Processing: Payment Gateway Integration: Integrating secure payment gateways to processtransactions.
- PCI DSS Compliance: Ensuring compliance with Payment Card Industry Data Security Standard (PCI DSS) for handling cardholder data.

4. Order Fulfillment and Shipping:

- Order Processing: Streamlining order processing workflows.
- Shipping Integration: Integrating with shipping carriers for real-time shipping quotes and tracking.
- Returns and Refunds: Establishing procedures for handling returns and refunds.

When planning and developing an e-commerce website, it's essential to identify and address various assumptions and dependencies to ensure the project's success.

2.5 Assumptions And Dependencies

Assumptions:

1. **Market Demand:** Assuming there is sufficient demand for the products or services being offered on the e-commerce platform based on market research and analysis.

2. **User Behavior:** Assuming that users will behave in ways that align with user research and design decisions, such as making purchases, adding items to their cart, and providing accurate information during registration and checkout.

3. **Technology Stack:** Assuming the chosen technology stack, including the web hosting, CMS, and e-commerce platform, will be suitable for the project's requirements and scalable as needed.

4. **Data Security:** Assuming that proper security measures, such as SSL encryption and firewalls, will protect customer data and payment information.

5. **Payment Gateway Integration:** Assuming that the selected payment gatewayswill be available for integration and will function reliably.

6. **Shipping Partners:** Assuming that reliable shipping partners or carriers will be available for order fulfillment and delivery.

Dependencies:

1. **Content Creation:** Dependency on content creators, including product photographers, copywriters, and graphic designers, to provide high-quality imagesand descriptions.

2. **Payment Gateway Approval:** Dependency on payment gateway providers for approval and integration, which may require time for negotiations and technical setup.

3. **Third-Party Integrations:** Dependency on third-party services, such as analytics tools, CRM systems, and marketing platforms, for integration and functionality.

4. **Technology Partners:** Dependency on technology vendors, such as CMS providers and e-commerce platform providers, to deliver updates, patches, and support.

2.6 Requirements

Creating a successful e-commerce website requires a thorough understanding of the project's requirements. These requirements serve as a blueprint for the website's design, development, and functionality. Here are key requirements for an e-commerce website:

1. **User Authentication and Registration:**
   - User registration and login.
   - Password recovery and reset functionality.
   - Guest checkout option for users who do not want to register.

2. **Product Catalog:**
   - Product listings with images, descriptions, prices, and availability status.
   - Categorization and filtering options for easy product discovery.
   - Product search functionality with filters.
   - Featured and recommended products.

3. **Shopping Cart and Checkout:**
   - Shopping cart functionality to add, remove, and edit items.
   - Real-time cart total calculation.
   - Secure and user-friendly checkout process.
   - Multiple payment options (credit card, PayPal, etc.).
   - Shipping options and cost calculations.
   - Tax calculations based on location and regulations.
   - Order summary and confirmation page.

4. **Payment Processing:**
   - Integration with secure payment gateways.
   - PCI DSS compliance for handling cardholder data.
   - Handling of refunds and disputes.

5. **Shipping and Fulfillment:**
   - Integration with shipping carriers for rate calculation and label generation.
   - Order processing and fulfillment workflows.
   - Tracking and shipment notifications for customers.

6. **Content Management:**
   - Easy content updates for product listings, banners, and promotional materials.
   - Integration with a content management system (CMS).

7. **Search Engine Optimization (SEO):**
   - SEO-friendly URLs and metadata.
   - Site maps for search engine indexing.
   - Integration with Google Analytics and other tracking tools.

2.7 Data Requirements

An e-commerce website relies heavily on data to operate effectively and provide aseamless shopping experience for customers. Here are the key data requirements for an e-commerce website:

1. **Product Data:**
   - Product names, descriptions, and specifications.
   - Images or multimedia content for product listings.
   - Pricing information, including regular prices, discounts, and promotions.
   - Inventory levels and stock status (e.g., in stock, out of stock).
   - Product categories and tags for organization.

2. **User Data:**
   - Customer profiles with personal information (name, email, shipping address).
   - User authentication credentials (username, password, or authentication tokens).
   - Purchase history, including order details and transaction history.

- Wishlist and saved items.
- User preferences and settings.

3. Order and Transaction Data:

- Order details, including order ID, date, and time.
- Products added to the shopping cart.
- Payment information, such as credit card details (encrypted and securely stored).
- Shipping and billing address information.
- Order status (e.g., processing, shipped, delivered).
- Invoices and receipts.
- Returns and refunds data.

4. Shipping and Inventory Data:

- Shipping carrier details and tracking information.
- Inventory levels and real-time stock updates.
- Supplier information for managing stock replenishment.

5. Website Analytics Data:

- User behavior data, including page views, click patterns, and conversion rates.
- Traffic sources and referral data.
- Conversion funnel analytics.
- Customer acquisition and retention metrics.

6. Content Management Data:

- Product content, such as descriptions, images, and videos.
- Banner and promotional content.
- Metadata for SEO (e.g., titles, descriptions, keywords).
- Content versioning and revision history.

7. Search and Recommendation Data:

- Search query data and search analytics.
- User-specific product recommendations and personalization data.
- Behavioral data for recommendation algorithms.

8. Payment and Financial Data:

- Payment gateway records, including transaction IDs and timestamps.
- Financial reports and transaction logs.
- Tax calculations and records.

3. External Interface Requirements

3.1 GUI

In an e-commerce website, the graphical user interface (GUI) plays a crucial role in providing a user-friendly and visually appealing experience to your customers. Hereare some key elements and considerations for designing the GUI of an e-commerce website:

i) Homepage:

-The homepage is the first impression for visitors. It should have a clean andorganized layout with a prominent search bar, navigation menu, and featuredproducts or promotions.
-High-quality images and compelling visuals can help showcase productseffectively.

ii) Navigation Menu:

-Use a clear and intuitive menu structure with categories and subcategories tohelp users find products easily.
-Implement dropdown menus or mega-menus for large product catalogs.

iii) Search Functionality:

-Ensure a powerful and accurate search function with auto-suggestions.
-Include filters and sorting options to refine search results.

iv) Product Listings:

-Display product images, titles, prices, and brief descriptions in an organized gridor list format.
-Implement pagination or infinite scrolling for long lists of products.

v) Product Pages:

-Each product page should have high-resolution images, detailed descriptions, pricing information, and options for size, color, etc.
-Include customer reviews and ratings to build trust.

vi) Shopping Cart:

-Make it easy for users to add and remove items from the cart.
-Display the total cost, item quantity, and a prominent checkout button.

vii) Checkout Process:

-Divide the checkout process into clear steps (e.g., shipping address, payment,review).
-Allow guest checkout for users who don't want to create an account.
-Provide multiple payment options, including credit cards, digital wallets, andPayPal.

viii) User Accounts:

-Encourage user registration by offering benefits like order history tracking and personalized recommendations.
-Ensure a secure and straightforward account creation process.

4. System Features

System features are critical components of an e-commerce website that facilitate its functionality and efficiency. These features enable the website to handle various aspects of online retail, from product management to customer interactions and transactions. Here are someessential system features for an e-commerce website:

1. **Product Management:**
   - Product catalog: A system to add, edit, and organize products with details likename, description, price, and images.
   - Inventory management: Real-time tracking of product availability and automated alerts for low stock.
   - Product categorization: Ability to categorize products into logical groups and subcategories.

2. **Security:**
   - SSL encryption: Ensure secure data transmission and protect sensitive information.
   - Fraud prevention: Implement measures to detect and prevent fraudulent transactions.
   - Data protection: Compliance with data privacy regulations (e.g., GDPR).

3. **Analytics and Reporting:**
   - Sales analytics: Track sales, revenue, and conversion rates.
   - Customer analytics: Understand customer behavior and demographics.
   - Inventory reports: Monitor stock levels and product performance.

4. **Content Management:**
   - Blog and news section: Publish relevant content to engage customers and improve SEO.
   - Landing pages: Create customized landing pages for marketing campaigns and promotions.

5. Other Non-Functional Requirements

5.1 Performance Requirement

Performance requirements are crucial for ensuring that an e-commerce website operates efficiently, provides a smooth user experience, and meets business objectives. Here are key performance requirements for an e-commerce website:

1. Response Time:

a) Page load time: Aim for fast loading times, ideally under 3 seconds for keypages like the homepage and product listings.
b) Checkout process: Ensure that each step in the checkout process loads quickly tominimize cart abandonment.

2. Scalability:

a) The website should be able to handle increased traffic during peak periods (e.g.,Black Friday, holiday seasons) without significant performance degradation.
b) Implement load balancing and scalable infrastructure to distribute traffic effectively.

3. Concurrency:

a) Support multiple concurrent users browsing and making transactions without experiencing slowdowns or system crashes.

4. Content Delivery:

a) Use Content Delivery Networks (CDNs) to deliver static content (images, stylesheets, scripts) quickly from servers located closer to users.

5.2 Safety Requirement

Safety and security are paramount for an e-commerce website to protect both yourbusiness and your customers. Here are some essential safety requirements for an e-commerce website:

1. **Secure Sockets Layer (SSL) Certificate:** Ensure that your website uses SSL encryption to secure data transmitted between the user's browser and your server. This is crucial for protecting sensitive information such as login credentials and payment details.

2. **Payment Card Industry Data Security Standard (PCI DSS) Compliance:** Ifyou handle credit card information, you must comply with PCI DSS requirements.This involves secure storage, transmission, and processing of cardholder data.

3. **Strong Authentication:** Implement two-factor authentication (2FA) for user accounts, especially for admin and customer accounts with access to sensitive data. This adds an extra layer of security.

4. **Secure Password Policies:** Enforce strong password policies for user accounts, requiring a mix of uppercase and lowercase letters, numbers, and special characters. Encourage users to regularly update their passwords.

5. **Regular Software Updates:** Keep your website's software, including the content management system (e.g., WordPress, Magento), plugins, and third-party libraries, up to date. Vulnerabilities in outdated software can be exploited by hackers.

6. **Web Application Firewall (WAF):** Implement a WAF to protect your websitefrom common web application attacks such as SQL injection, cross-site scripting (XSS), and cross-site request forgery (CSRF).

5.3 Security Requirement

Security requirements are essential for ensuring the protection of information, systems, and assets within an organization. These requirements may vary depending on the specific context and industry, but here are some fundamental security requirements that should be considered:

1. **Access Control:**
   - Implement strong authentication mechanisms (e.g., passwords,biometrics, smart cards) to verify user identities.
   - Enforce the principle of least privilege, granting users the minimum levelof access necessary to perform their tasks.
   - Use role-based access control (RBAC) to manage permissionsEffectively.
   - Implement access control lists (ACLs) to restrict access to files andresources.

2. **Data Protection:**
   - Encrypt sensitive data both in transit (using SSL/TLS) and at rest (using encryption algorithms).
   - Implement data loss prevention (DLP) measures to prevent the unauthorizedsharing of sensitive information.
   - Securely dispose of data when it is no longer needed.

3. **Security Patch Management:**
   - Regularly update and patch operating systems, software, and firmware to address known vulnerabilities.
   - Maintain an inventory of all hardware and software components to ensure timely updates.

4. **Network Security:**
    - Implement firewalls and intrusion detection/prevention systems to protect against unauthorized access and attacks.
    - Use network segmentation to isolate sensitive data and limit lateral movementby attackers.

5.4 Requirement attributes

1. **Risk Assessment:** Evaluate the potential risks associated with the requirement, including security, compliance, and operational risks.

2. **Regulatory Compliance:** Indicate if the requirement is related to specific regulations or compliance standards (e.g., GDPR, PCI DSS) and provide details on how compliance will be ensured.

3. **Performance Metrics:** Specify any performance metrics or key performance indicators (KPIs) associated with the requirement (e.g., page load time,transaction processing speed).
4. **Documentation Reference:** If applicable, reference any external documents or standards that are relevant to the requirement.

5. **Dependencies on Third Parties:** Highlight any dependencies on third-party services, APIs, or integrations required for the requirement to function as intended.

5.5 Business Rules

A business rule is anything that captures and implements business policies and practices. A rule can enforce business policy, make a decision, or infer new data from existing data.This includes the rules and regulations that the System users should abide by. This includes the cost of the project and the discount offers provided. The users should avoid illegal rules and protocols.

5.6 User Requirement

User requirements in e-commerce websites refer to the specific needs, preferences, and expectations of the individuals who interact with the platform, including customers, administrators, and other stakeholders. Understanding and addressing these requirements is crucial for creating a user-friendly, efficient, and successful e-commerce site. Here are some common user requirements in e-commerce websites:

1. **User Registration and Authentication:**
    - Users should be able to create accounts with minimal effort.
    - Password reset and recovery options should be available.
    - Two-factor authentication for added security.

2. **Intuitive User Interface:**
   - The website should have a clean and easy-to-navigate layout.
   - Intuitive menus and search functionality for quick product discovery.
   - Responsive design for seamless browsing on various devices.

3. **Product Search and Filtering:**
   - Users should be able to search for products using keywords, categories, andfilters.
   - Advanced search options for specific attributes (e.g., size, color).

4. **Product Details:**
   - Detailed product descriptions, including features, specifications, and sizing information.

5. **Shopping Cart and Checkout:**
   - Clear visibility of the shopping cart and its contents.
   - Easy-to-use checkout process with progress indicators.
   - Options for guest checkout and saved cart for registered users.

6. **Payment Options:**
   - Multiple secure payment methods (e.g., credit/debit cards, PayPal, digitalwallets).
   - Clear information on accepted currencies and any associated fees.

6. Other Requirements

6.1 Data and Category Requirement

Data and category requirements in e-commerce websites are crucial fororganizing and presenting products effectively to users, facilitating easy navigation, and enabling efficient search and filtering. Here are some key data andcategory requirements for an e-commerce website:

Product Data Requirements:

1. **Product Name**: Clearly defined and descriptive product names.
2. **Product Description:** Detailed descriptions that highlight features, benefits, and specifications.
3. **Product Images and Videos:** High-quality images and videos showcasing theproduct from various angles.
4. **Price:** The price of the product, including any discounts or promotions.
5. **Stock Availability:** Real-time information on product availability, includingin-stock and out-of-stock status.

Category and Taxonomy Requirements:

1. **Category Hierarchy:** A clear and logical hierarchy of product categories and subcategories.
2. **Breadcrumb Navigation:** Breadcrumbs that show users their current locationwithin the category structure.
3. **Category Images:** Visual representations or icons for each category.
4. **Category Descriptions:** Brief descriptions for categories explaining theircontent.

6.2 Appendix

A: Admin, Abbreviation, Acronym, Assumptions;
B: Books, Business rules;
C:Class, Client, Conventions;
D: Data requirement, Dependencies;
G: GUI;
K: Key;
N: Non-functional Requirement;
O: Operating environment;
P: Performance,Perspective,Purpose;
R: Requirement, Requirement attributes;
S: Safety, Scope, Security, System features;
U: User, User class and characteristics, User requirement

6.3 Glossary

The following are the list of conventions and acronyms used in this document andthe project as well:

- **Administrator**: A login id representing a user with user administration privileges to the software
- **User**: A general login id assigned to most users
- **Client**: Intended users for the software
- **SQL**: Structured Query Language; used to retrieve information from a Database
- **SQL Server:** A server used to store data in an organized format
- **Layer:** Represents a section of the project
- **User Interface Layer:** The section of the assignment referring to what theuser interacts with directly
- **Application Logic Layer:** The section of the assignment referring to theWeb Server. This is where all computations are completed.
- **Data Storage Layer:** The section of the assignment referring to where alldata is recorded
- **Use Case:** A broad level diagram of the project showing a basic overview **Class**

diagram: It is a type of static structure diagram that describes thestructure of a system by showing the system's cases, their attributes, andthe relationships between the classes

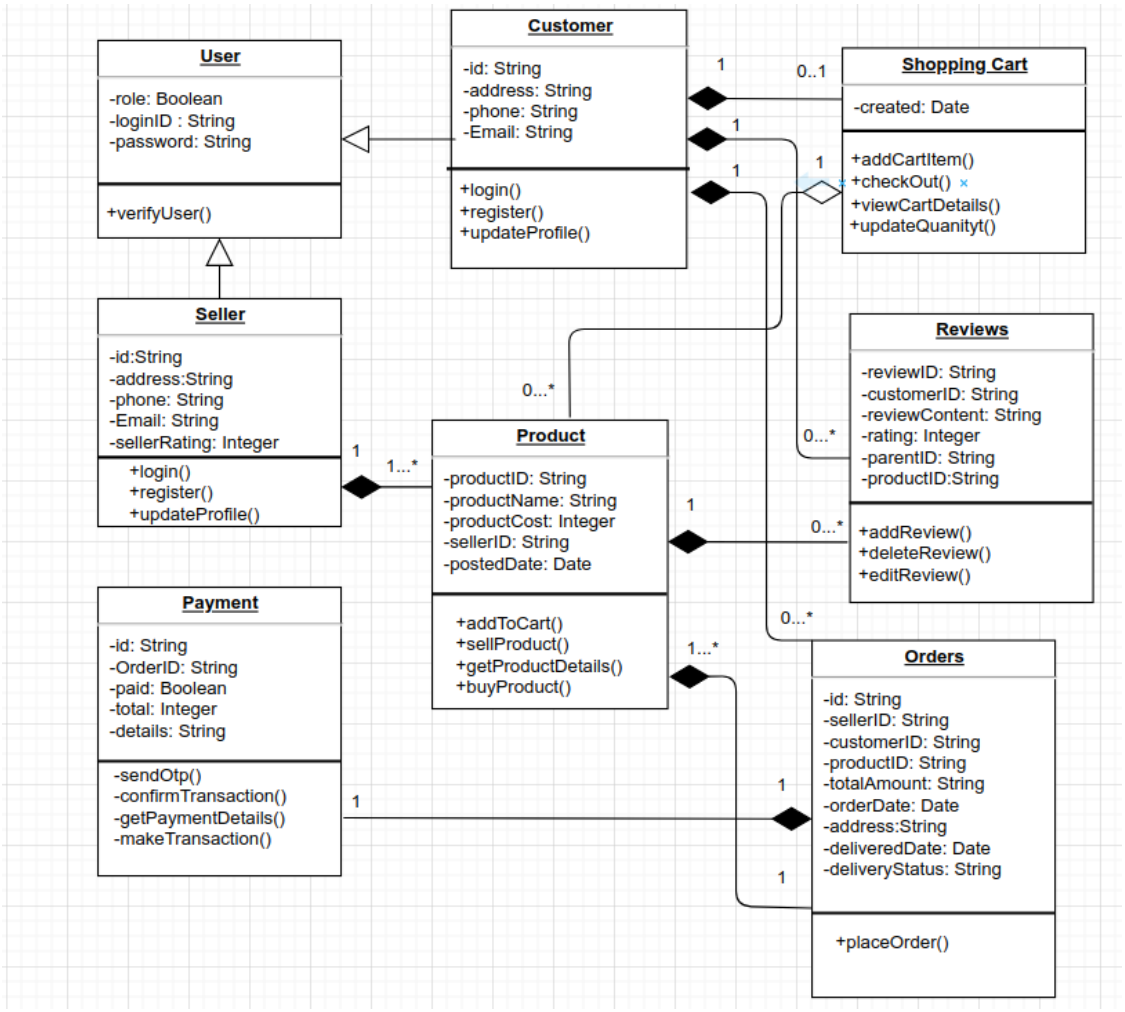
- **Interface:** Something used to communicate across different mediums
- **Unique Key:** Used to differentiate entries in a database.

6.4 Class Diagram

Here we provide an example of a UML class diagram which shows a domain model for online shopping. The purpose of the diagram is to introduce some common terms, "dictionary" for online shopping - Customer, Web User, Account,Shopping Cart, Product, Order, Payment, etc. and relationships between. It could be used as a common ground between business analysts and software developers.

Each customer has a unique id and is linked to exactly one account. Account owns the shopping cart and orders. Customers could register as a web user to be able to buy items online. Customers are not required to be a web user because purchases could also be made by phone or by ordering from catalogs. Web users have a login name which also serves as a unique id. Web users could be in several states - new, active, temporarily blocked, or banned, and be linked to a shopping cart. Shopping cart belongs to the account.

Account owns customer orders. Customers may have no orders. Customer orders are sorted and unique. Each order could refer to several payments, possibly none.Every payment has a unique id and is related to exactly one account. Each order has current order status. Both order and shopping cart have line items linked to aspecific product. Each line item is related to exactly one product. A product could be associated with many line items or no item at all.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