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Problem Statement:

Online shopping has become increasingly popular in recent years, as customers seek the convenience of shopping from the comfort of their own homes. However, many online shopping systems suffer from a number of issues that can negatively impact the customer experience. These issues include poor system performance, security vulnerabilities, and usability challenges. As a result, customers may experience frustration and dissatisfaction when using online shopping systems, leading to lost sales and damaged brand reputation for businesses. Therefore, there is a need for an online shopping system that addresses these issues and provides customers with a seamless and secure shopping experience that meets their expectations.

Software Requirement Specification(SRS)

1.Introduction:

Purpose:
The purpose of an online shopping system is to enable customers to purchase goods or services over the internet. This system provides a convenient and hassle-free shopping experience to customers, who can shop from anywhere and at any time. Online shopping systems also provide businesses with an additional sales channel, enabling them to reach a wider customer base and increase their revenue.

Scope:
The scope of an online shopping system can vary depending on the business and the products or services being offered. However, a typical online shopping system would include the following functionality:

1. Product Catalog: The online shopping system should have a comprehensive catalog of all products or services available for purchase, including prices, descriptions, and images.

2. Shopping Cart: The shopping cart is a virtual basket where customers can add items they wish to purchase. Customers can view their shopping cart, add or remove items, and update the quantities of items they want to buy.

3. Checkout: The checkout process allows customers to review their order, select payment and shipping options, and confirm their purchase.

4. Payment Gateway: An online payment gateway is used to securely process payments made by customers using credit or debit cards.

5. Order Tracking: After making a purchase, customers should be able to track their order status, including shipping and delivery information.

Overview:

An online shopping system typically operates on a web-based platform, accessible through a website or mobile application. It provides customers with a seamless shopping experience, enabling them to browse products, add items to their cart, and checkout securely. The system also provides businesses with a way to manage their inventory, process payments, and track orders. Overall, online shopping systems have revolutionized the way people shop and do business, providing a convenient, cost-effective, and efficient solution for both customers and businesses.

2 General description:

An online shopping system is a software application that enables customers to purchase goods or services over the internet. The system typically consists of a web-based platform, accessible through a website or mobile application, that provides customers with a seamless shopping experience. The system also provides businesses with a way to manage their inventory, process payments, and track orders.

3 Functional Requirements:

1. Product Catalog: The online shopping system should have a comprehensive catalog of all products or services available for purchase, including prices, descriptions, and images.
2. Shopping Cart: The shopping cart is a virtual basket where customers can add items they wish to purchase.
3. Checkout: The checkout process allows customers to review their order, select payment and shipping options, and confirm their purchase.
4. Payment Gateway: An online payment gateway is used to securely process payments made by customers using credit or debit cards.
5. Order Tracking: After making a purchase, customers should be able to track their order status, including shipping and delivery information.

4 Interface Requirements:

1. User Interface: The online shopping system should have an intuitive and user-friendly interface that allows customers to easily navigate and complete their purchase.
2. Payment Interface: The payment gateway should have a secure interface for customers to enter their payment information.
3. Order Tracking Interface: The system should provide an interface for customers to track their order status.

5 Performance Requirements:

1. System Availability: The online shopping system should be available 24/7 without any significant downtime.
2. Response Time: The system should respond quickly to user requests, ensuring a smooth and seamless shopping experience.
3. Scalability: The system should be scalable, allowing for a large number of users to access it simultaneously without any performance degradation.

6 Design Constraints:

1. Security: The system should be designed with security in mind, ensuring that customer information and payment details are kept secure.
2. Compatibility: The system should be compatible with different browsers and devices to ensure that customers can access it from any device.
3. Accessibility: The system should be designed to be accessible to all users, including those with disabilities.

7 Non-Functional Attributes:

Non-functional requirements of an online shopping system refer to the characteristics that describe how the system should behave, rather than what the system should do. The non-functional requirements of an online shopping system typically include the following:

1. Usability: The system should be easy to use and navigate, with an intuitive user interface that does not require significant technical knowledge.

2. Performance: The system should be designed to handle a large number of users simultaneously without any significant slowdowns or delays.

3. Security: The system should be designed with robust security features, including encryption of sensitive data and protection against hacking and cyber attacks.

4. Reliability: The system should be reliable and available at all times, with minimal downtime or system failures.

5. Compatibility: The system should be compatible with different browsers and devices to ensure that customers can access it from any device.

8 Preliminary Schedule and Budget:

The development of an online shopping system can take several months, depending on the complexity of the system and the size of the development team. A preliminary schedule may include the following milestones:

1. Requirements Gathering: 1-2 weeks
2. System Design: 2-3 weeks
3. Development: 8-12 weeks
4. Testing: 2-4 weeks
5. Deployment: 1-2 weeks

The budget for developing an online shopping system can vary significantly depending on the features and functionality required. The budget should include the cost of development, hosting, and ongoing maintenance and support. A preliminary budget estimate for a basic online shopping system could range from $50,000 to $100,000.