Software Requirement Specification for Online Shopping Mart

Abstract

Software Requirements Specification (SRS) for Online shopping mart document outlines the essential specifications and requirements needed to develop a user-friendly online shopping platform and provides users with a good interactive platform. This project helps to design, develop, and implement an online shopping mart that satisfies the diverse demands of modern consumers. This SRS document offers the framework for creating an efficient and user-friendly online purchasing experience for customers. This system will offer a wide range of products according to the user's requirements, user-friendly interfaces, different payment options with a securable manner, and efficient order management for clients.

Objective

The main goal of this online shopping mart project is to develop a platform that makes online purchasing easier for customers. We can purchase without visiting the shops i.e. Abstraction makes things easy for the user. Make it easier for administrators to update stocks, handle client data, and process the client order request. Build the system with expansion and improvements as well as easier communication with clients and find and fix any problems or faults in the system and ensure a high-quality result. To be a secure and preferable platform for online shopping with a variety of options and requirements according to the clients. By achieving these goals, the Online Shopping Mart project will improve the satisfaction of customers.

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1.Introduction

1.1 Purpose:

The purpose of this software requirement specification is to provide a documented model for the online shopping mart. This document provides a user-friendly online shopping platform. The system includes two sides, one is the client side as well and another one is the seller side. The online shopping system provides a platform for conducting sales of a wide variety of goods across the globe. It is implemented as an internet-based enterprise and has a vast number of products from books, houseware, electronics, groceries, and much more. Sellers use this system to easily expand their service to a more global platform. Nowadays online shopping is consistently used because of upgrading the products with multiple varieties and brands. It will provide that client need not worry about the product,.As it follows the reliability.

1.2 Scope:

The online shopping mart provides a platform for conducting sales with a variety of goods and provides a way of bringing sellers and clients on an online platform to conduct transactions securely across the globe. This system provides an avenue for customers to shop for a variety of products online. It also allows clients can select more products and save them in a cart. The biggest advantage of the service is the comfort it brings with remote usage. The ability to compare various price ranges, brands, and even customer reviews and experiences provides for a more in-depth understanding of the product. It also provides a platform for retailers and sellers to reach a global audience.

1.3 Definition:

OSM- Online Shopping Mart

SRS- Software Requirement Specification

1.4 Overview:

Using this method, clients can purchase things without physically visiting the store and shop owners can effortlessly sell products and all persons can able to use this platform since it is user-friendly, no experience or knowledge needed to operate this platform.

2.Overall Description

2.1 Product Perspective:

The system contains both the user and seller subsystems. The internet shopping mart connects suppliers and customers, allowing for speedy and secure transactions regardless of location. This platform allows users to purchase online without physically visiting a store or seeing a seller. It also allows sellers to offer their products without the need for a physical location. This method allows users to easily purchase from millions of products online.

2.2 Product Functions:

These all the major functions supported by the online shopping mart along with the user classes.

- Register - For clients and sellers can register in the platform s
- Login - For clients and sellers can login from the website
- Logout - After the usage we can logout if it is necessary
- View Account Details - For clients and sellers they can able to view their account details
- Edit Account Details - Clients can able to edit their account details
- Search item - Client can able to search for the specific product they need
- View item - After selecting the item they can able to view the item
- Add item to cart - Clients can able to view the item in their cart
- View shopping cart - Clients can able to view their cart
- Change items in cart - If client was not satisfied for a product they can able to change the product or replace the product
- Proceed to buy - Clients can securely redirect to the payment page
- Delivery & payment - Clients can see the payment and delivery details
- Place order - Clients need to confirm the order for placing the order
- Cancel order - Client can able to cancel the order if they not satisfied
- Return item - Server side can accept the product which was returned by clients
- Rate item - Client can able to rate the product

2.3 User Characteristics:

Client- A verified user of the system who intends to purchase a product sold by a seller on the platform. Customers can utilize the following functions: register, see the account, log in, explore items, buy, add to cart, go to buy, enter a delivery address, make payment, place order, track shipment, write a review, cancel an order, return an item, and logout.

Seller – The product user has been verified and is meant to sell goods over the site. Sellers employ the following product functions: register, see the account, log in, upload a listing, track sales, and ship things to clients.

2.4 Constraints:

A good internet connection is required for OSM.Device which is using the platform must be in a latest version for better performance and For ease of maintenance, the customer will only be able to make payments once items have been added to cart. There is no option to proceed directly to checkout with an empty cart.After selecting the item they will be allowed to redirect to my cart option.

2.5 Assumption and Dependencies:

Need stable internet connection for using this platform. Under the assumption that a Windows/iOS/ Linux based operating system is available with C++/Python/C/Java working along with database management software available.Users may know to operate the platform and the system will be in updated version.

3.Specific Requirements

3.1 Functional Requirements:

Database management:

Maintain database integrity and keep track of all customer information records. This is the responsibility of the database administrator.They can able to view every client's details in which they have a access.

User:

To access the website, users need to have a valid login ID. Create a new ID to register as a new user. Users can update their information on the platform. Capable of assessing and contrasting every product available and choosing which ones to buy. Every item can be purchased with a working credit card. Customer Support welcomes all inquiries and requests for feedback on the website and services. It is recommended that users close their browser window after making a purchase.

Owner:

Sellers must have Administrator access to sell their products on the website. The administrator will evaluate the product's quality about its market price before granting the seller permission to sell it. You can talk to the Administrator about the quality of the product and its ads. The website will not be in charge of any other form of product promotion; the seller is responsible for generating product adverts.

Registration:

If customer wants to buy the product then the user must be registered, unregistered user can't go to the shopping cart.Platform will allow the user only if they have registered in their database.

Login:

If the user is already registered,then the platform need to be accessed by their User ID for shopping into the website.User can able to view all the products and can able to select the product they wish to purchase and send it to the cart.

Payment:

User will navigate to the payment to the payment page.For payment there will be both Cash on delivery option as well as online payment mode.User can select according to their wish and proceed.After the payment user may logout from the portal.

3.2 Non Functional Requirements:

Security:

User data must be encrypted using encryption algorithms,including payment information and personal data.Only authorized workers should be able to access the administrative panel.There is no way that the data would be hacked by the hackers because of strong algorithm usage.Secure access to consumer's confidential data.

Performance:

24X7 availability,Better component design to get better performance at peak time.The system would be faster for user's request. The system should be able to maintain reaction times of less than 5 seconds even under heavy traffic.Simultaneously more users can able to access the platform.

Scalability:

Database can able to store more number of user's details.

Reusability:

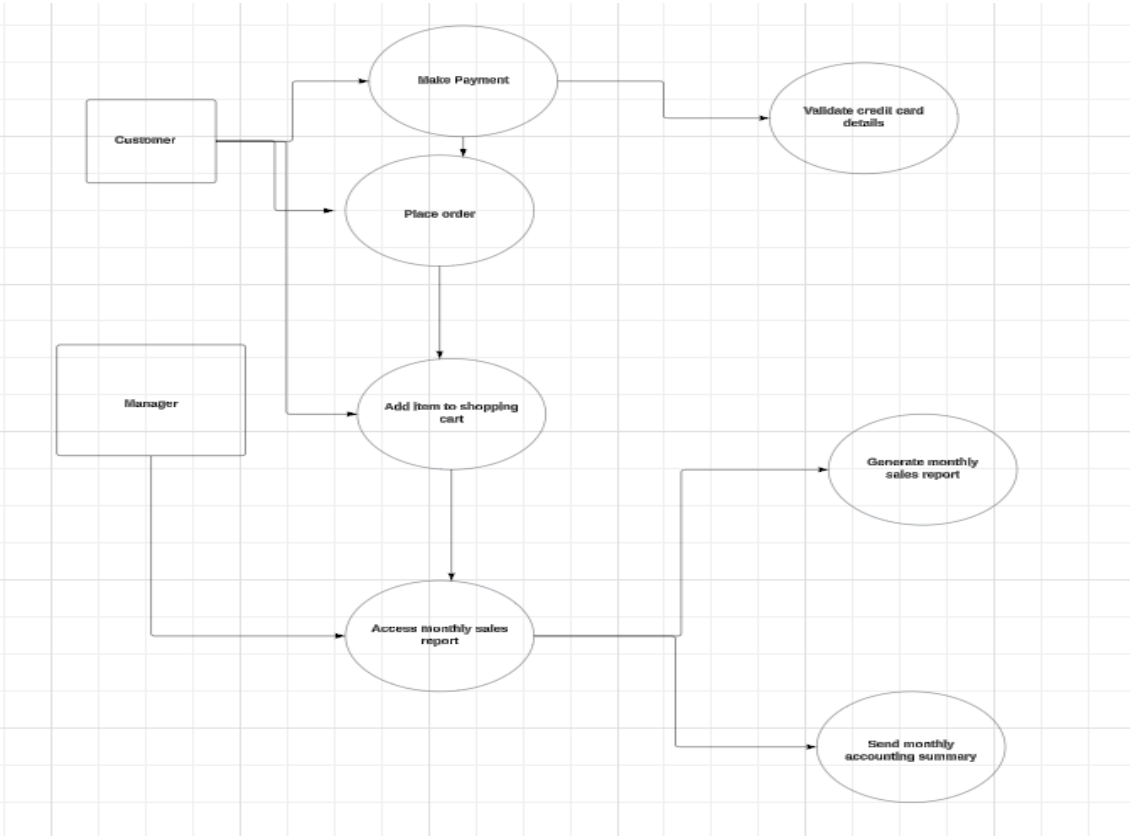
User can able to access the platform whenever they need.

Extensibility:

Platform has an extensibility according to the user's feedback.Platform will be expanded and adding some new features according to the user's feedback.

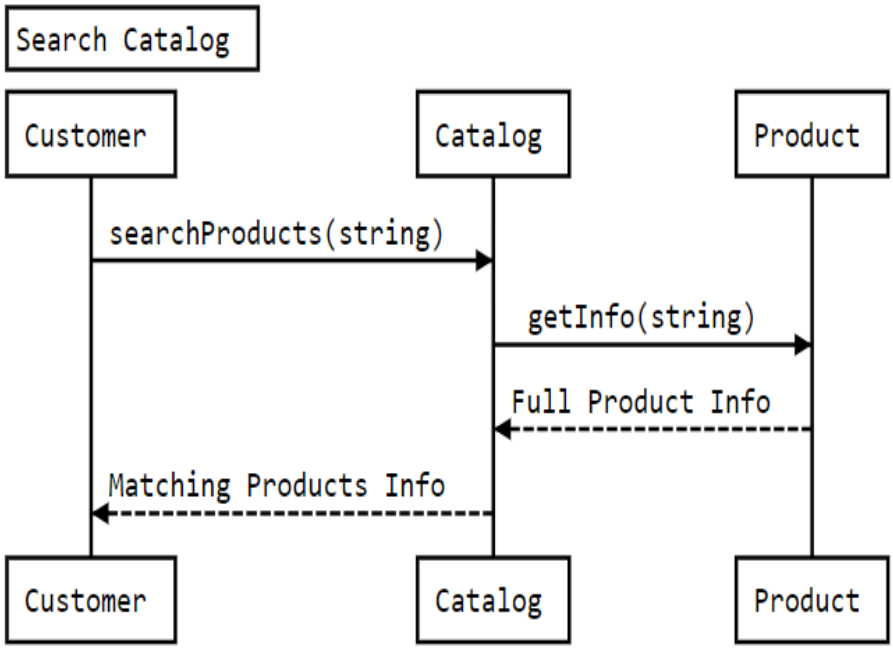
4.Design:

4.1 Use Case Diagram:

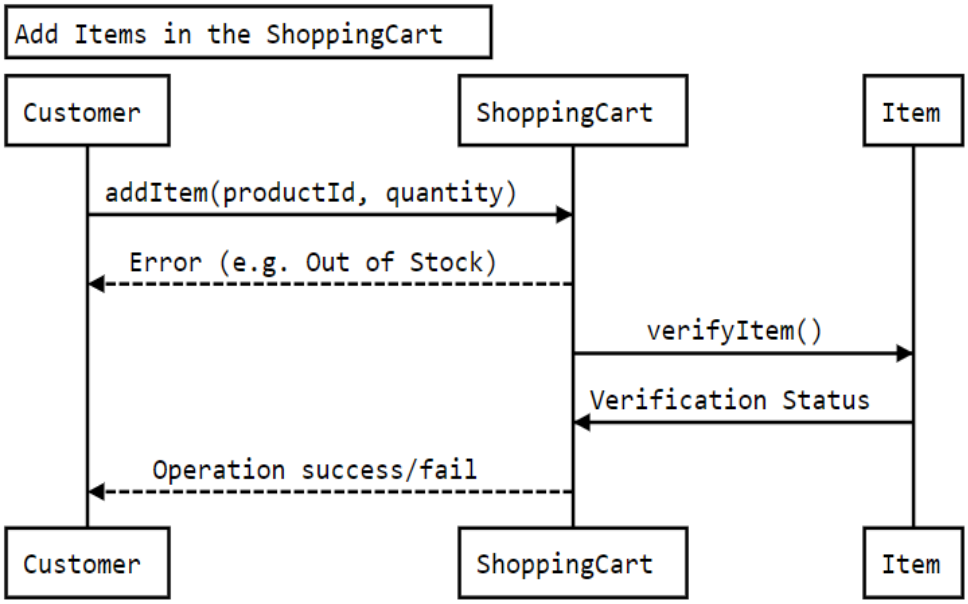


4.2 Sequential Diagram:

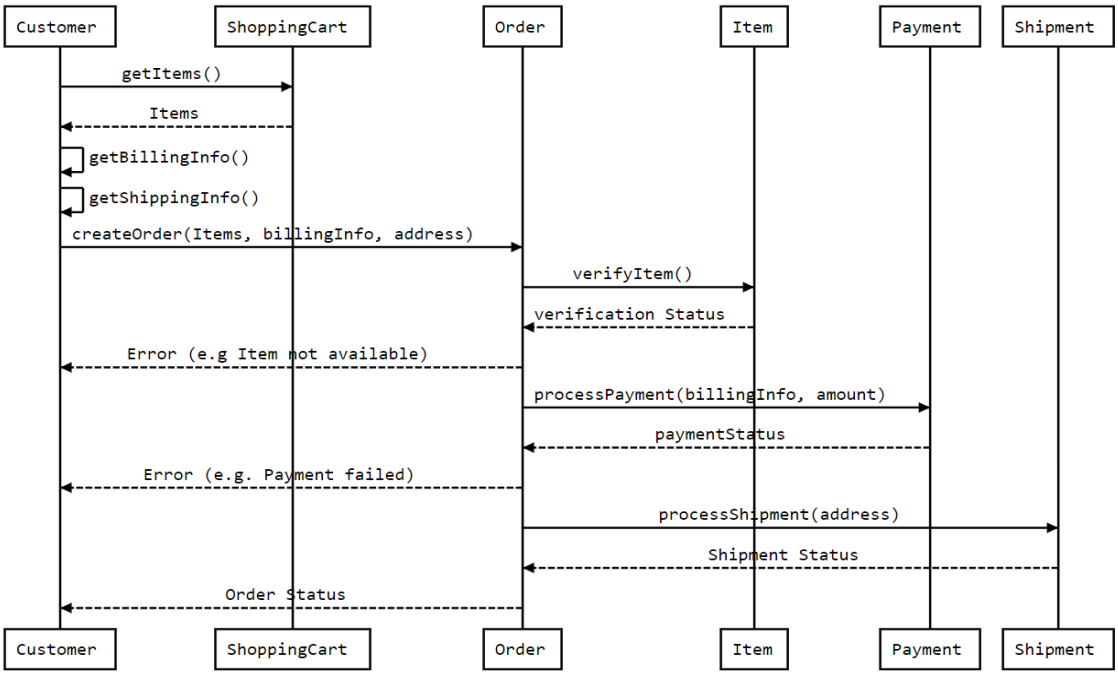
1.Searching from the catalog:



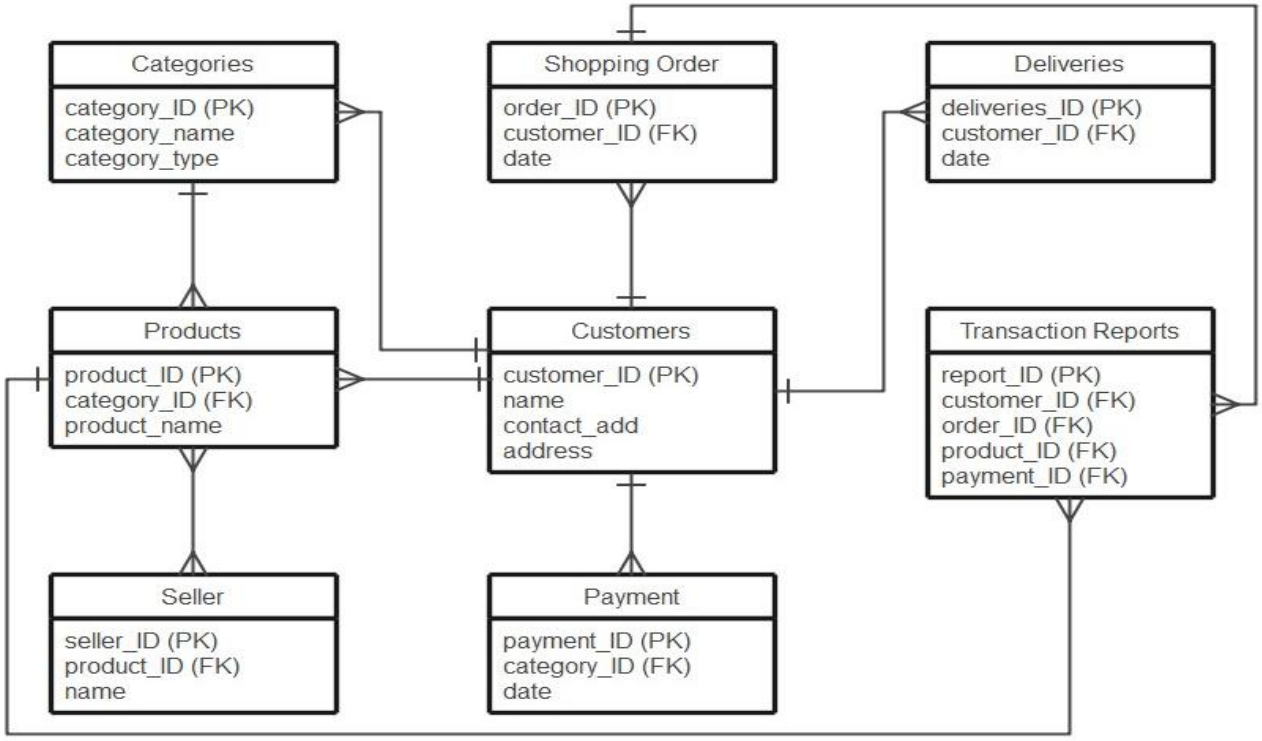
2. Adding an item to the shopping cart:



3. Checking out to place an order:



4.3 Class Diagram:



5.Test Cases:

5.1 Function Testing:

Verify the product browsing was browsing the expected product which the user asked for it and Verify that the user details was storing in database.Check the page is navigating correctly according to the order and verify the order placed request has been receiving to the server side.Test the search functionality for accuracy and efficiency.Validate user registration and authentication processes.Ensure secure login/logout procedures.

5.2 Non Function Testing:

Verify system responsiveness under various network conditions.Testing the system's compatibility with different browsers and devices.Ensure that the platform requires good internet connectivity.

5.3 User Interface Testing:

Verify that all buttons, links, and navigation elements work as processed.Check the user interface for consistency and ease of use.Testing the responsiveness and layout on different screen sizes.Verify the navigating time from one page to another.

5.4 Performance Testing:

Perform load testing to check that the system can manage several users at once. Examine the response time of important functions under normal and peak loads. Check that the system can manage a large number of products and users in the database.

5.5 Security Testing:

Ensure that the user data is stored securely and can be accessed securely.Testing the system's resistance to unauthorized access and ensure that network corruption will not happen on usage.

5.6 Recovery Testing:

Validate that user data is not lost during system failures and test the system's ability to recover from failures, such as server crashes or unexpected shutdowns.

5.7 Continuous Testing:

Implement continuous testing to maintain quality as the system evolves.

6.Conclusion:

The Online Shopping Mart Software Requirement Specification (SRS) describes the fundamental components and technology requirements required to create an effective and user-friendly platform. This SRS document is used to create and effectively implement the online shopping mart, which provides customers with a good and secure shopping experience and administrators with easy access to inventory and order management capabilities.

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