Software Requirements Specification

for

Online Bookstore

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

This Software Requirement Specification is meant for an Online Bookstore. The Online Bookstore is meant as a way for customers to browse books on the website and buy them from home without the need to travel to a book shop. Defining the functions and specifications of the Online Bookstore is the primary purpose of this SRS [1]. The SRS illustrates in clear terms, the system's primary uses.

1.2 Document Conventions

This SRS is written in Arial font with size 11 in italics, and Times font with size 14 for bullet points. The priorities for higher level requirements are inherited in detailed requirements.

1.3 Intended Audience and Reading Suggestions

This System Requirement Specification is meant for the Project makers, Project overseers, The Website Administrators, Customers, and the Suppliers. The SRS is written in the standard IEEE [2] format. The readers should read the whole SRS sequentially to gain a proper understanding of the project.

1.4 Product Scope

The software system being produced is called Online Bookstore. It is being produced for a customer interested in selling books via the Internet. This system is designed to "provide automation support" [3] for the process of placing books for sale on the Internet and facilitating the actual sale. This system is largely cross-platform and is available to anyone using the internet. The system will be run on a central server with each user having a remote user interface through a web browser to interact with it. The Online Bookstore will allow any user to create an account to become a customer. The customer, through the process of account creation, will have the option to become a member of the site. The system will allow customers to browse, search, select, and add books to a shopping cart. Then, provided they have books in their shopping cart, check out books in shopping cart and decrement the stock that the inventory the system maintains. The Online Bookstore also allows a manager to manage the inventory with full create, retrieve, update and delete (CRUD) functionality with regards to books in the system.

1.5 References

http://www.cse.msu.edu/~chengb/RE-491/Papers/SRS-BECS-2007.pdf

An SRS of an example of online bookstore on a small scale of a University campus.

https://docplayer.net/25969140-Srs-for-bsu-online-bookstore.html

SRS of an online bookstore.

2. Overall Description

2.1 Product Perspective

This product is an entirely new product. It is not a component of a larger system.
The online bookstore website supports a number of functions for both the
consumer and store's management.
The website is available to anyone using the internet and as such must work
correctly in all browsers (Google Chrome, Internet Explorer, Mozilla Firefox, Microsoft Edge,
Safari, etc). There are no hardware or software requirements beyond these including, but not
limited to, memory or specific software packages that need to be utilized nor software packages
that
need not be utilized.
The Online Bookstore system will interact with a credit/debit card processing system in order to
process purchases from the website. The system will also interact with the Bookstore's Inventory
database, which records the quantity of books available for sale in the inventory.

2.2 Product Functions

The Online Bookstore will provide a number of functions, each is listed below.
• Maintain data associated with the inventory (a collection of books).
  • A book has a title, author and price.
  • The inventory also keep track of the stock/quantity of each book.
• Maintain records for many customers.
  • A customer can be either a member or non-member.
  • A customer has a username (unique across all users), password (no restrictions), email
    address (no restrictions), and postal address (unverified).
  • Anyone may sign up for a customer account.
• Allow any customer to become a member.
• Show a listing of available books.
  • Books are to be displayed in ascending alphabetical order by title.
  • Each book will list the following from left to right.
    • Title.
    • Author.
    • Price.
  • Allow customers and managers to log in and out of the system.
• Shopping cart.
  • Anyone is able to add one or more books to the shopping cart.
• Checkout.
  • Checkout is only available to logged-in customers. A user that is not logged in as a
    customer is given a chance to log in.
  • Collect a 16-digit credit card number from the customer.
  • Log/record the transaction.
• Allow manager to specify a stop-order for a book.
  • Each book has its own stop-order status – either on or off. Details of its use are involved

in the following feature.
- *Notify manager when books need to be reordered.*
  - *When the quantity a book falls below a threshold, the manager is notified that the book needs to be reordered.*
    - *One exception is if the manager has already specified a stop-order for this book.*
      - *Every book must either have stop-order enabled or disabled.*
- *Allow manager to update stock quantities.*
  - *Allow manager to change any book's price.*
  - *Allow manager to view transaction logs.*

2.3   User Classes and Characteristics

The typical Online Bookstore user is simply anyone that has access to the Internet and a web browser. It is assumed that the user is familiar enough with a computer to operate the browser, keyboard and mouse and is capable of browsing to, from and within simple websites.

2.4   Operating Environment

The system will work on any hardware device having a internet connectivity and browsers to browse the website. The browsers should be up to date to run various features of the website. The system will not run on OS below Windows XP.
The system will also not run on browsers not supporting JAVA plugins.

2.5   Design and Implementation Constraints

Security is not a concern for this system. The database may store passwords in plain text and there doesn't need to be a password recovery feature nor lockout after numerous invalid login attempts. As such, the system may not work correctly in cases when security is a concern. These cases include those listed above in addition to lack of an encrypted connection when sending credit card information and forcing users to use "strong" passwords. A strong password is a password that meets a number of conditions that are set in place so that user's passwords cannot be easily guessed by an attacker. Generally, these rules include ensuring that the password contains a sufficient number of characters and contains not only lowercase letters but also capitals, numbers, and in some cases, symbols.

2.6   Assumptions and Dependencies

Since the Online Bookstore is only accessible through the internet, it is assumed that the end user has a connection to the internet. It is also assumed that the user has a web browser able to display the website.

Client:
We have assumed that all of the computer systems are in proper working condition and that the user is capable of operating these system's basic functions including but not limited to being able to power on the system, login and open browsers, and navigate the browser to the address of the website.
Provider:

We have assumed that the Online Bookstore will be running on a properly working web server and database system with an Internet connection that allows this system to perform all communications with clients.
Assumptions:
• The manager account's username and password maybe hard coded.
• The manager cannot be a customer.
• Any user cannot edit their account information.

2.7   Apportioning of requirements

As stated by the customer, security is not a concern of this project. As such, it is beyond the scope of this system to encrypt personal user data, encrypt credit card information, prevent unauthorized login attempts, or any other concern of this nature. Additionally, the system is not responsible for the following:
• Verifying that credit card information is valid.
• Verifying the email address provided by a user.
• Storing additional information about a book beyond simply the title, name of author, and price.
• Allowing users to edit their account details (username, password, mailing address, etc).
• Allowing customers to order multiple copies of a book in a single order.
• Providing individual product pages (one page for every item in the inventory).
• Allowing the manager to update login credentials or other information about the manager.

3.   External Interface Requirements

3.1   System Interfaces

The system will interface with the following two systems:

1. A credit/debit card processing system: The system will access the credit/debit card processing system via its web services API.

2. The Bookstore Inventory database: The system will interact with the inventory database via an ODBC connection.

3.2   User Interfaces

The system will provide the ability for everyone to access the Online Bookstore via the Internet. There will be two different user interfaces that will accompany this website: one for the buyers and one for administrator.

• Buyers will be allowed to search database without having to login, however, they must login in order to perform any other transaction. These other transaction will include purchasing textbooks, or viewing and changing their online account.

• Administrator will have to login to perform any functions. Administrator will be able to add/delete books to be displayed to the users, and change the information on any books as required. He/She will also be able to look into the inventory database to check the availability of books and their quantity-in-stock.

3.3   Hardware Interfaces

There are no special hardware interface requirements.

3.4   Software Interfaces

There are no special software interface requirements.

3.5   Communications Interfaces

There are no special communication interface requirements.

4.   Other Nonfunctional Requirements

4.1   Performance Requirements

The performance requirements are as follows:-
- *System login/logout shall take less than 5 seconds.*
- *The system should run properly on all browsers.*
- *The system should be light and run smoothly.*

4.2   Safety Requirements

The safety requirements are as follows:-
- *The password should not be visible while typing.*
- *The system should use a secure connection to connect with the credit/debit card processing system.*

4.3   Security Requirements

The security requirements are as follows:-
- *The user (buyers and administrator) require a username and password to login into the system.*
- *The buyers cannot buy books without logging in.*
- *The order will not be confirmed until payment process is completed.*

4.4   Software Quality Attributes

- ***Reliability***
  The average time of failure for the system is 30 days. In the event that the server crashes, the system will take a week to be running again.

- ***Availability***
  The Online Bookstore will be available 24x7, with the exception of being down for maintenance no more than 3 hours a week. If the system crashes, it should be back up within a week.

- ***Security***
  Users will be able to access only their own personal information and not that of other users. Purchases will be handled through a secure server to ensure the protection of user's credit card and personal information.

- ***Maintainability***
  Any updates or defect fixes shall be able to be made on server-side computers only, without any patches required by the user.

4.5   Business Rules

The business rules are as follows:
- *The administrator cannot be a customer.*
- *The administrator cannot access the buyers' personal information.*
- *The administrator will receive notifications from the credit/debit card processing system to process the order and confirm payment of order is received.*