

# **Software Requirements Specification (SRS)**

## **Online Book Store**

### **1.1 Introduction**

The Software Requirements Specification is designed to document and describe the agreement between the customer and the developer regarding the specification of the software product requested. Its primary purpose is to provide a clear and descriptive “statement of user requirements” that can be used as a reference in further development of the software system. This document is broken into a number of sections used to logically separate the software requirements into easily referenced parts. This Software Requirements Specification aims to describe the Functionality, External Interfaces, Attributes and Design Constraints imposed on Implementation of the software system described throughout the rest of the document. Throughout the description of the software system, the language and terminology used should unambiguous and consistent throughout the document.

### **1.2 Purpose**

Defining and describing the functions and specifications of the Online Book Store is the primary goal of this Software Requirements Specification (SRS). This Software Requirements Specification illustrates, in clear terms, the system’s primary uses and required functionality as specified by the customer. The intended audience of this document is our primary Online Book Store System customer. This document will provide a baseline for design of the database, user interfaces, coding & evaluation of test plans. It will be used as a solid foundation for continued product evaluation.

### **1.3 References for Requirement Analysis and Design**

- IEEE Std 830-1998, IEEE Recommended Practice for Software Requirements Specifications.
- Tanzil Petkar Muddsar Sayed Ashutosh Waghmare “Online Book Store using Cloud Infrastructure”, IJSRD - International Journal for Scientific Research & Development| Vol. 8, Issue 2, 2020

- Vamsi Krishna Mummaneni ,A Report Submitted in partial fulfillment of the requirements of the degree of Master of Software Engineering
- Prasad NK, Varun Kishore, Omprakash “Online Book Store”, International Research Journal of Engineering and Technology (IRJET)

#### **1.4 Overview**

The rest of the SRS is organized as follows:

- Section 2 is functional and requirements of the project.
- Section 3 cites the specific requirements of the project.

## **2. Functional Requirements and Non Functional Requirements**

### **2.1 A Home page with product catalog**

Search option/tab to find a particular book by title, author.

It will display all the book categories It also includes sections like recent arrival, about us, contact us, cart, login, new registration.

### **2.2 Book Description**

If the user would like to know details about a book he can click on the title from where he will be directed to a Book description page.

Book has title, author, isbn, description, review, buy book, save to wish list.

### **2.3 Shopping Cart**

The user can manage a shopping cart which will include all the books he selected. The user can edit, delete and update his shopping cart. A final shopping cart is a summary which includes all the items the user selected and the final total cost.

### **2.4 User**

Each user should have an account to access all the functionalities of website. User can sign in using login page and sign out using the logout page. All the user sessions will be saved in the database.

#### **2.4.1. Search for a Book**

- Purpose: A user can search for a book of his choice by selecting category and title. Then a select query is used to retrieve data from the database and display the selected information.
- Input: The user will select a category and enter title in a text box provided.
- Output: The system will display the books which matches the selected search criteria. A dataset is created as a result of select query.

#### **2.4.2. Advanced Search**

- Purpose: If the user wants to perform an advanced search he can search for a book of his choice by selecting category, title, author and price range.
- Input: The user will select a category and enter title, author, and price range in a text box provided.
- Output: The system will display the books which matches the selected search criteria. A dataset is created as a result of select query.

#### **2.4.3 Give rating/review to a book**

- Purpose: If the user wants to give rating according to his opinion for a book he can select either Excellent, Very good, good, regular or deficient. The final rating of a book will depend on all the individual user rating.
- Input: The user will select a rating based on his opinion.
- Output: The system will display the rating of a book and the total number of votes received. Below is the display for various rating.

#### **2.4.4 Register**

- Purpose: If the user doesn't have an account then he will be asked to register
- Input: The user will enter details in the registration form according to the required fields. The fields include 1. Username 2. Password 3. confirm password 4. first name 5. last name 6. email 7. Address 8. Phone 9. CC details

- Output: After registration the user will be directed to the main home page.

#### **2.4.5 Login**

- Purpose: If the user wants to get access to all the functionalities of Online Book Store he should login using his username and password.
- Input: The user will enter his username and password.
- Output: If it is a successful login the user will be directed to the main home page. Else if the user enters invalid information he will be asked to check the entered information.

#### **2.4.6 Update Profile**

- Purpose: If the user wants to change his personal account information then he can update his selected fields and the entire data will be updated in the data base through an update query.
- Input: The user will update his account information.
- Output: The system will update the entered information in the database using an update query.

#### **2.4.7 Logout**

- Purpose: If the user wants to end his session and sign out of the website then he can use the logout option.
- Input: The user will click the logout button.
- Output: The user's account session comes to an end and he should login again if he wants to enter into the website.

#### **2.4.8 Place an order**

- Purpose: If the user wants to purchase a book then he can place an order by selecting the add to shopping cart button and entering the quantity required under the book description.
- Input: The user will enter the quantity required and click the add to shopping cart button.
- Output: The order will be added to the user's shopping cart.

#### **2.4.9 Update Shopping Cart**

- Purpose: If the user wants to change the quantity of a book or change a book then he can update his shopping cart.
- Input: The user will click the details button in the shopping cart summary to edit and update his order details.
- Output: The updated order details are reflected in the shopping cart summary.

#### **2.4.10 View Shopping Cart**

- Purpose: If the user wants to view the items he added to the shopping cart then he can click the shopping cart link at the top of the page
- Input: The user will click the shopping cart link at the top of every page.
- Output: The user's shopping cart summary will be displayed in the form of a tabular format with all the books and their quantity. A total cost of all the items is also displayed at the bottom.

#### **2.4.11 Wishlist**

- Purpose: If the user wants to save the items he wishes to buy in future then he can add it to the wishlist.
- Input: The user will click add to wishlist link in book description.
- Output: the book will be saved in wishlist.

### **2.5 Administration**

#### **2.5.1 Login**

- Purpose: If the Administrator wants to get access to all the functionalities of Online Book Store he should login using his username and password.
- Input: The Administrator will enter his username and password.
- Output: If it is a successful login the Administrator will be directed to his menu page. Else if the Administrator enters invalid information he will be asked to check the entered information.

#### **2.5.2 Add or Delete Category**

- Purpose: If the Administrator wants to add or delete a book category then he can insert or delete a book category using his administration rights and the category table will be updated in the database.
- Input: If the Administrator wants to add a book category the he should click the insert link button in the category page else he can delete a particular selected book category.
- Output: The updated categories list will be displayed in the main home page

### **2.5.3 Add or Delete Book**

- Purpose: If the Administrator wants to add or delete a book then he can insert or delete a book using his administration rights and the book table will be updated in the database.
- Input: If the Administrator wants to add a book the he should click the insert link button in the book page and fill the following fields related to the book. 1. Title 2. Author 3. Price 4. Category 5. Notes 6. Product url .  
If he wants to delete a book he can click the delete button to remove it from the database.
- Output: The updated books list will be displayed in the main home page under their particular category.

### **2.5.4 Manage Orders**

- Purpose: If the Administrator wants to add or delete an order then he can insert or delete an order using his administration rights.
- Input: If the Administrator wants to add an order the he should click the insert link button in the orders page else he can delete a particular selected order
- Output: The updated orders list will be processed to the users.

### **2.5.5 Add or Delete Member**

- Purpose: If the Administrator wants to add or delete a book category then he can insert or delete a book category using his administration rights and the category table will be updated in the database.
- Input: If the Administrator wants to add a book category the he should click the insert link button in the category page else he can delete a particular selected book category.

- Output: The updated categories list will be displayed in the main home page.

#### **2.5.6 Generate Reports**

- Purpose: If the Administrator wants to generate reports according to the bill records, book stock records, delivery records, customer records, order records, orders per day or month etc.
- Input: From the report menu select the report want to generate in the excel, pdf, or chart format.
- Output: Report will be generated in the selected format.

#### **2.5.7 Logout**

- Purpose: If the Administrator wants to end his session and sign out of the website then he can use the logout option.
- Input: The Administrator will click the logout button.
- Output: The Administrator's account session comes to an end and he should login again if he wants to enter into the website.

### **2.6 Non Functional Requirements:**

#### **2.6.1 Security Requirements**

- All users should be properly authenticated before allowed entry into the system authentication will be based on an E-mail address, and a password.
- All activities on the system must be logged.
- Secure access of confidential data (user's details). SSL can be used.
- Users cannot access the administrators login.
- All the deleting actions are notified by a message box asking to confirm deletion.

#### **2.6.2 Availability:**

- 24 X 7 availability.
- If the system crashes, it should be back up within one hour.

### **2.6.3 Performance Requirements:**

- The response time for menu changes will be not more than 3 seconds.
- The time for search for a book will not more than 3 seconds.
- The time to print the stock valuation will not be more than 3 seconds.
- The time taken to update the database or get information from the database will not be more than 2 seconds.
- The time taken to prompt message boxes will not more than 2 seconds.

### **2.6.4 Maintainability**

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

### **2.6.5 Reliability**

- The average time to failure shall be 30 days. In the event that a server does crash, a backup server will be up and running within the hour.

### **2.6.6 Portability**

- The application is HTML and scripting language based (Javascript). So the end user part is fully portable and any system using any web browser should be able to use the features of the system, including any hardware platform that is available or will be available in the future.
- An end-user is used this system on an OS; either it is Windows or Linux.
- The System shall run on PC, Laptops and PDA etc. from access point of view
- The technology should be transferable to different environments easily.

### **2.6.6 Usability**

- A customer should easily find the right product for them, understand what problems it solves, and make a purchase without contacting us.
- No multistep checkout: users must reach the “add to cart” button in one step from PDP.

### **2.6.7 Scalability**

- The website shall have multiple store views for each country.



- The store shall expand to support 500k+ SKUs on a single server without negative impact on the website load speed.

### **3 Specific Requirements**

#### **3.1 Operating Environment**

The proposed software is intended to run on client/server model network. A client/server can deliver the better performance than the file server system because a client application and database server work together to split processing load of applications (thus the term distributed processing). The server manages the database among the number of clients, while the client send, request, and analyse the data entry form with small specific data set, such as rows in a table not file as in the file server system.

##### **a) Hardware Requirement**

- 20 GB HDD Free Space
- 256 MB RAM
- Pentium IV or above Processor
- Monitor
- Keyboard: Standard
- Mouse: Optional
- b) Software Requirement
- MS-office-2007 or above
- SQL server
- Operating system: Windows 7 or later
- JAVA 6 2.5

#### **3.2 Design and Implementation Constraints**

- The system is based on menu driven interfaces. Menu selection will be done by using the mouse and the key board keys.
- Confirmation messages on taken actions, input acceptance and error conditions will be displayed after each input.

- Error messages will be displayed at the time of detection of input errors and the system errors.

### **3.3 User Documentation**

All documentation will be made in accordance with requirements.

### **3.4 Assumptions and Dependencies**

While cost estimation of the proposed system it has been assumed that the cost of hardware and that of license of Operating System and back end will be met by client (the organization). Hence only the cost incurred for the proposed software is included therein.

The followings are identified as some of the potential risk factors or dependencies:

- Non-availability of required resources
- Power cuts
- Slippage of schedule due to unpredictable holidays, etc.