

Software Requirements Specification (SRS) for Bookshop Inventory and Sales Management System (BAS)

1. Introduction

1.1 Purpose

The Bookshop Inventory and Sales Management System (BAS) is designed to streamline book inventory management, sales processing, and demand tracking for a bookshop. The system will allow customers to check the availability of books, request procurement for unavailable books, and receive notifications upon arrival. It will also enable employees to manage stock efficiently and allow the owner to analyze sales trends.

1.2 Scope

BAS will provide the following functionalities:

- Allow customers to query book availability by title or author.
- Enable customers to request unavailable books and receive notifications when available.
- Display stock details (quantity and rack location) for available books.
- Allow sales clerks to process sales using ISBN numbers, update stock, and generate receipts.
- Maintain book pricing and allow employees to update inventory when new stock arrives.
- Provide the owner with sales statistics and inventory-level calculations.
- Generate procurement lists for books below the threshold level along with publisher details.

1.3 Definitions, Acronyms, and Abbreviations

- **ISBN** – International Standard Book Number
- **BAS** – Bookshop Inventory and Sales Management System
- **SRS** – Software Requirements Specification

1.4 References

- IEEE Std 830-1998: Recommended Practice for Software Requirements Specifications

- Bookshop Inventory Management Practices

1.5 Overview

This document provides a detailed description of the functionalities, performance requirements, and system features for BAS.

2. General Description

2.1 Product Perspective

BAS is a standalone system integrated with the bookshop's sales and inventory database. It will provide an interface for customers, employees, and the bookshop owner.

2.2 Product Functions

1. **Book Query System:** Customers can check the availability of books.
2. **Book Request System:** Customers can request books not in stock and provide their email for notifications.
3. **Sales Processing:** Sales clerks can process transactions using ISBN numbers and generate receipts.
4. **Stock Management:** Employees can update stock details when new shipments arrive.
5. **Demand Analysis:** The system tracks book requests to estimate demand.
6. **Sales Reporting:** Generates sales statistics for any given period.
7. **Procurement Management:** Identifies books below threshold levels and generates procurement details.

2.3 User Characteristics

- **Customers:** Limited interaction; can search for books and request unavailable ones.
- **Sales Clerks:** Manage transactions and update stock.
- **Bookshop Owner:** Access reports and manage inventory decisions.
- **System Administrator:** Ensures system maintenance and performance.

2.4 Constraints

- The system must be available during bookshop operating hours.
- Data security measures must be in place to protect sales and customer data.
- The system must provide real-time stock updates.

3. Specific Requirements

3.1 Functional Requirements

3.1.1 Book Availability Query

- The system shall allow users to search for books by title or author.
- If available, the system shall display the number of copies and rack location.
- If unavailable, the system shall prompt the user to enter request details.

3.1.2 Book Request and Notification

- The system shall store requested book details for procurement tracking.
- The system shall allow users to enter an email address for notifications.
- Upon arrival of a requested book, the system shall send an automatic email notification.

3.1.3 Sales Processing

- The system shall allow sales clerks to enter ISBN numbers for sales transactions.
- The system shall generate a receipt containing book details and price.
- The system shall update stock levels automatically after a sale.

3.1.4 Stock Management

- The system shall allow employees to update stock when new books arrive.
- The system shall maintain pricing details for all books.

3.1.5 Sales Statistics and Reporting

- The system shall generate reports including book name, publisher, ISBN number, number of copies sold, and revenue for a specified period.
- The system shall calculate inventory levels required for books based on demand trends.

3.1.6 Procurement Management

- The system shall track demand trends using book request data.
- The system shall generate daily reports for books that have fallen below the threshold level.
- The system shall include publisher details in procurement reports.

3.2 Non-Functional Requirements

- **Performance:** The system shall process book searches and transactions in real-time.

- **Security:** Customer and sales data shall be encrypted and secured against unauthorized access.
- **Scalability:** The system shall support an expanding book catalog without performance degradation.
- **Availability:** The system shall have a 99.9% uptime requirement during business hours.

4. System Features

Feature	Description
Book Search	Customers can check book availability
Book Request	Customers can request books not in stock
Email Notification	Customers receive updates on book availability
Sales Processing	Employees process transactions and generate receipts
Stock Update	Employees update inventory with new supplies
Sales Reporting	Owner can view sales statistics and trends
Procurement List	Owner receives book procurement details daily

5. Appendices

- A. Sample Use Case Diagrams
- B. Database Schema Design
- C. Email Notification Template

6. Conclusion

BAS will improve the efficiency of bookshop operations by automating inventory management, tracking customer demand, and providing valuable sales insights to the owner. The system's functionalities will enhance customer satisfaction and streamline book procurement processes.