Online Bookstore

# Gr. 1309A:

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Software Requirements Specification

for

Online Bookstore

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CTI 3rd year, gr. 1309A

# Introduction

## Purpose

The purpose of this SRS is to cover the scope and functionality of the software product “Online Bookstore”. This includes both the front-end and back-end components necessary to provide e-commerce functionalities related to selling books.

## Product Scope

The primary purpose of this software is to provide book lovers and readers with a convenient and user-friendly online marketplace to purchase books from the comfort of their homes. The key objectives include:

* **Convenience**: Enable users to browse and shop for a wide range of books anytime, anywhere.
* **Product Diversity**: Offer a diverse selection of books catering to different genres, authors, and languages.
* **Customer Satisfaction**: Provide a seamless shopping experience with intuitive navigation, secure transactions, and reliable customer support.

# Overall Description

## Product Perspective

The “Online Bookstore” software is a self-contained product developed to meet the growing demand for purchasing books online.

The diagram below illustrates the major components and interfaces of the system:

A diagram of a presentation

Description automatically generated

## Product Functions

* **User Functions**:
  + **Browse Books**: Allow users to view a catalog of books.
  + **Search and Filter**: Enable users to search for specific books and apply filters based on genres.
  + **Add to Cart**: Allow users to select books and add them to a virtual shopping cart for purchase.
  + **User Account Management**: Enable users to create accounts, log in, view order history.
* **Administrator Functions**:
  + **User Management**: Enable administrators to manage user accounts, being able to remove users at will.
  + **Reporting and Analytics**: Provide reporting capabilities to track sales, inventory levels.
* **Provider Functions**:
  + **Book Management**: Allow providers to add, edit, or remove books from the catalog.

## User Documentation

The "Online Bookstore" software will be accompanied by comprehensive user documentation to facilitate user understanding and adoption of the platform. The user documentation components that will be delivered with the software include the user documentation, which will be delivered in CHM (Compiled HTML Help) format, allowing users to access comprehensive help content offline.

# System Features

This section outlines the major system features of the "Online Bookstore" software, describing the functional capabilities and requirements associated with each feature.

#### 3.1 Product Browsing and Search

**Description and Priority**: This feature enables users to browse the catalog of books and perform searches based on specific criteria (e.g., genre, price range, author).

**Stimulus/Response Sequences**:

* **Stimulus**: User selects a genre or enters search criteria.
* **Response**: System displays relevant books matching the search criteria or selected genre.

**Functional Requirements**:

1. **REQ-1**: Display a categorized list of books (e.g., fiction, non-fiction, sci-fi, romance).
2. **REQ-2**: Implement search functionality allowing users to search by book title, author, genre, or keywords.
3. **REQ-3**: Provide filtering options to refine search results by price genre.
4. **REQ-4**: Display detailed book information including images, descriptions, and pricing.
5. **REQ-5**: Enable users to add books to their shopping cart directly from the book details page.

#### 3.2 Shopping Cart Management

**Description and Priority**: This feature allows users to manage items in their shopping cart, review selected books, and proceed to checkout.

**Stimulus/Response Sequences**:

* **Stimulus**: User adds or removes items from the shopping cart.
* **Response**: System updates the cart contents and calculates total order value.

**Functional Requirements**:

1. **REQ-1**: Display the contents of the user's shopping cart with detailed book information.
2. **REQ-2**: Allow users to add, remove, or update quantities of items in the shopping cart.
3. **REQ-3**: Calculate the total order value including item prices, applicable taxes, and shipping costs.
4. **REQ-4**: Handle cart interactions in real-time to reflect immediate changes made by the user.
5. **REQ-5**: Validate cart items and display error messages for invalid operations (e.g., out-of-stock items).

#### 3.3 User Account Management

**Description and Priority**: This feature enables users to create accounts, log in, and manage their personal information and order history.

**Stimulus/Response Sequences**:

* **Stimulus**: User registers a new account or logs in with existing credentials.
* **Response**: System authenticates user identity and provides access to account features.

**Functional Requirements**:

1. **REQ-1**: Implement user registration process with required fields (e.g., name, email, password).
2. **REQ-2**: Enable user authentication through login credentials.
3. **REQ-3**: Provide user profile management options to update personal information (e.g., address, contact details).
4. **REQ-4**: Display order history and status updates for logged-in users.
5. **REQ-5**: Ensure user data privacy and security, storing passwords in hashed format.

#### 3.4 Managing Users (For Administrators)

**Description and Priority**: This feature allows administrators to manage user accounts, including adding, removing, and modifying user details.

**Stimulus/Response Sequences**:

* **Stimulus**: Administrator accesses the user management section.
* **Response**: System displays user accounts and allows the administrator to perform management actions.

**Functional Requirements**:

1. **REQ-1**: Provide an interface for administrators to view all user accounts.
2. **REQ-2**: Enable administrators to delete user accounts.
3. **REQ-3:** Ensure that only authorized administrators have access to user management functionalities.

#### 3.5 Managing Books (For Providers)

**Description and Priority**: This feature allows providers to manage the book catalog, including adding, editing, and removing books.

**Stimulus/Response Sequences**:

* **Stimulus**: Provider accesses the book management section.
* **Response**: System displays the book catalog and allows the provider to perform management actions.

**Functional Requirements**:

1. **REQ-1**: Provide an interface for providers to view all books in the catalog.
2. **REQ-2**: Enable providers to add new books with necessary details (e.g., title, author, genre, price, description, cover image).
3. **REQ-3**: Allow providers to edit book information (e.g., price, description, availability).
4. **REQ-4**: Enable providers to remove books from the catalog.
5. **REQ-5**: Ensure that only authorized providers have access to book management functionalities.

# Other Nonfunctional Requirements

## Safety and Security Requirements

The "Online Bookstore" software will implement safety measures to mitigate potential risks and ensure the security of user data and interactions. The safety requirements include:

* **Password Security**:
  + User passwords will be stored securely in a hashed format using industry-standard cryptographic hashing. This approach ensures that passwords are not stored in plaintext and cannot be easily compromised in the event of a data breach.
* **Data Protection**:
  + Personal and sensitive user information, including passwords, payment details, and personal profiles, will be encrypted during transmission using SSL/TLS protocols to protect against unauthorized access and interception of data.
* **Access Control**:
  + Role-based access control (RBAC) mechanisms will be implemented to enforce least privilege principles, ensuring that users, administrators, and providers have appropriate access rights based on their roles within the system.

UML Diagrams

# Use-Case Diagram

A diagram of a company

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# Class Diagram

A screenshot of a computer

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# Activity Diagrams

A diagram of a software application

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A diagram of a product

Description automatically generated

# Sequence Diagrams

A screenshot of a computer

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A screenshot of a computer

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A screenshot of a computer

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# Entity Diagrams

A screenshot of a computer diagram

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Online Bookstore Help

**Introduction**

Welcome to the Online Bookstore! This help file provides comprehensive instructions and guidance for using the platform, whether you are a customer, an administrator, or a book provider. Follow the steps outlined in each section to get the most out of your online bookstore experience.

**Getting Started**

**Creating an Account**

1. Click on the "Sign Up" button on the homepage.
2. Fill in the required fields.
3. Click "Create Account".

**Logging In**

1. Click on the "Login" button on the homepage.
2. Enter your registered email and password.
3. Click "Login".

**Browsing Books**

**Categories and Genres**

1. Navigate to the "Books" section from the main menu.
2. Select a category or genre to view books related to that topic.
3. Use the subcategories to narrow down your selection further.

**Search and Filters**

1. Use the search bar at the top of the page to enter keywords, titles, or authors.
2. Apply filters to refine your search results by price range, genre, author, language, etc.
3. Click on a book to view detailed information, including description, price, and availability.

**Shopping Cart Management**

**Adding Books to Cart**

1. Browse or search for the book you want to purchase.
2. Click on the book to view its details.
3. Click the "Add to Cart" button.
4. The book will be added to your shopping cart.

**Viewing and Updating Cart**

1. Click on the shopping cart icon at the top right of the page.
2. View the contents of your cart, including book details and prices.
3. Update quantities or remove books if needed.
4. Click "Proceed to Checkout" to begin the checkout process.

**User Account Management**

**Updating Personal Information**

1. Log in to your account.
2. Navigate to "My Account" from the main menu.
3. Click "Edit Profile".
4. Update your personal information (name, address, contact details).
5. Click "Save Changes".

**Viewing Order History**

1. Log in to your account.
2. Navigate to "My Orders" from the main menu.
3. View a list of your past orders and their statuses.
4. Click on an order to view detailed information.

**Resetting Password**

1. Log in to your account.
2. Navigate to "Account Settings" from the main menu.
3. Click "Change Password".
4. Enter your current password and new password.
5. Click "Save Changes".

**Administrator Functions**

**Managing Users**

1. Log in to the admin account.
2. Navigate to "User Management" from the admin dashboard.
3. View the list of user accounts.
4. Add, edit, or remove user accounts as needed.
5. Use search and filters to find specific users quickly.

**Viewing Reports and Analytics**

1. Log in to the admin account.
2. Navigate to "Reports and Analytics" from the admin dashboard.
3. View sales reports, inventory levels, and other analytics.
4. Use the data to make informed decisions about the store's operations.

**Provider Functions**

**Managing Books**

1. Log in to the provider account.
2. Navigate to "Book Management" from the provider dashboard.
3. View the list of books in the catalog.
4. Add new books with detailed information (title, author, genre, price, description, cover image).
5. Edit existing book details or remove books from the catalog as needed.

Screenshots

### Register:A screenshot of a computer Description automatically generated

### Login:A screenshot of a login box Description automatically generatedClient homepage:A screenshot of a computer Description automatically generated

### Cart:

### A screenshot of a web page Description automatically generated

### Order history:A screenshot of a computer Description automatically generated

### User management for admins:A screenshot of a chat Description automatically generated

### Book statistics:A screenshot of a computer Description automatically generated

### Add provider (for admins):A screenshot of a login form Description automatically generated

### Provider homepage:A screenshot of a computer Description automatically generated

### Update user details:A screenshot of a login form Description automatically generated