Bookstore Inventory CRUD Documentation

# 1. User Stories and Acceptance Criteria

## Create Book Record

As a bookstore manager, I want to add new books to the inventory so customers can purchase available titles.

* Acceptance Criteria:
* The system allows entry of all required book fields: title, ISBN, author, subject, quantity in stock, and unit price.
* ISBN must be unique for each book record and validated to conform to ISBN-10 or ISBN-13 format.
* The subject field supports selecting from predefined categories (e.g., Fiction, Non-Fiction, Science, History) or adding new ones.
* Validation messages should be shown for missing, invalid, or duplicate inputs.
* Books can optionally include a description and publisher field.

## Read Book Inventory List

As a bookstore staff member, I want to view a searchable and sortable list of all books so I can quickly locate titles for customers or restocking.

* Acceptance Criteria:
* The inventory list includes the title, ISBN, author, subject, quantity, and price.
* Users can filter the list by subject, availability (in stock/out of stock), or search by title or author.
* The system supports sorting by any column (ascending/descending).
* Pagination or infinite scrolling is available for large book catalogs.
* Clicking a book in the list shows full details in a separate view or modal.

## Update Book Record

As a bookstore manager, I want to update book information to reflect price changes, stock levels, or author corrections.

* Acceptance Criteria:
* All book fields except ISBN can be edited by authorized users.
* Stock quantity can be updated manually or via the inventory intake process.
* The system tracks and logs changes with user ID and timestamp for audit purposes.
* A confirmation message should appear upon successful updates.
* Books marked as 'discontinued' will not be editable except for notes and stock.

## Delete Book Record

As an administrator, I want to remove obsolete or duplicate book entries to maintain a clean catalog.

* Acceptance Criteria:
* Deletion actions are restricted to administrators.
* Books with outstanding orders or stock cannot be deleted, only archived.
* A confirmation prompt is shown before final deletion or archival.
* Deleted records are logged in the system and include a timestamp, user, and reason.
* Archived books are hidden from customer-facing interfaces but retained for reporting.

# 2. System Variable Conventions

|  |  |  |
| --- | --- | --- |
| Variable Type | Naming Convention | Example |
| Boolean | is, has, can | isAvailable, hasStock, canUpdatePrice |
| String | camelCase | bookTitle, authorName, publisherName |
| Integer/Float | camelCase | unitPrice, stockCount, publicationYear |
| Object | PascalCase | BookItem, UserProfile, OrderHistory |
| Array/List | plural camelCase | bookItems, subjects, authors |
| Constants | UPPER\_SNAKE\_CASE | MAX\_STOCK\_LIMIT, DEFAULT\_PAGE\_SIZE |

# 3. Naming Standards

## Database Table Naming

Use lowercase with underscores (snake\_case). Examples: books, users, authors, subjects, inventory\_transactions

## Column Naming

Use snake\_case. Examples: book\_title, isbn, stock\_quantity, unit\_price, created\_at, updated\_at

## API Endpoint Naming

Use RESTful structure, lowercase with hyphens. Examples:

GET /api/books  
POST /api/books  
PUT /api/books/{isbn}  
DELETE /api/books/{isbn}

## Frontend Component Naming

Use PascalCase. Examples: BookList, BookDetails, InventoryForm, SubjectFilter

# 4. User Roles and Permissions

## Administrator

* Create, read, update, and delete book records.
* Manage users and assign roles.
* Access full audit logs and system settings.

## Manager

* Create and update book records (except deletion).
* View inventory, filter, and search books.
* Access reports and restocking tools.

## Staff

* Read book inventory and perform searches.
* Update stock quantities (e.g., during check-in).
* Flag books for review (e.g., low stock or missing info).

# 5. Interface Mockups

Below are mockups of core user interfaces in the Bookstore Inventory system:

## Login View

A login screen with the option to register.

## A login screen with green and blue text AI-generated content may be incorrect.

## Login View

A login screen with the option to register.

## A screen shot of a login form AI-generated content may be incorrect.

## Inventory List View

A searchable and sortable list of books with filters by subject and stock availability.

A screenshot of a computer

AI-generated content may be incorrect.

## Book Detail View

Displays full information about a single book with editing options for authorized users.

[Mockup Image Placeholder]

## Add New Book Form

Form layout with input fields for title, ISBN, author, subject, quantity, price, and description.

A screenshot of a software

AI-generated content may be incorrect.

## Admin Dashboard

Overview of stock trends, low inventory alerts, and system statistics.

[Mockup Image Placeholder]

# 6. Entity Variable Reference

|  |  |
| --- | --- |
| Variable | Description |
| id | Primary key for most entities |
| isbn | ISBN of book (real or fake) |
| author | Author of book |
| title | Title of book |
| created\_at | Timestamp when record was created |
| updated\_at | Timestamp for latest record update |
| status | Used for orders (i.e., 'ordered', 'out of stock') |
| role | 'admin', 'employee', 'customer' etc. |
| email | User login and communication |
| price | Stored in decimal (NUMERIC) format |
| quantity | For order line items |
| subject | Book subject/category |
| message | Notification content |

# 7. Additional User Story and Acceptance Criteria

## User Story: Employee Inventory Management

As an employee, I want to add, update, and delete book entries in the inventory so that I can keep stock accurate.

* Acceptance Criteria:
* Must support adding books with title, ISBN, author, quantity, price, and subject.
* Must allow editing existing book entries.
* Must allow deleting books.
* All changes must persist in the database.
* Changes should be reflected in the front-end view in real time or upon refresh.