

## 1. Functional Requirements

- I. **Catalogue Management:** Ability to update, add, or remove books from the system.
- II. **Search Functionality:** Searching for books based on Name, Author, or ISBN.
- III. **Member Management:** Managing member records and their basic information.
- IV. **Transaction Processing:** Handling the digital check-out and check-in (Borrow/Return) process.
- V. **Automated Fines:** Calculating late fees automatically based on the return date.

## 2. Non-Functional Requirements

- I. **Security:** A secure login method for the Librarian is required.
- II. **Performance:** Search results must be displayed in under 3 seconds.
- III. **Usability:** The user interface must be simple and easy to adapt.

## 3. Use Case Catalog

- I. UC1: Librarian Login – Validates credentials to grant system access.
- II. UC2: Add New Book – Librarian enters details (title, author, ISBN, quantity) to the database.
- III. UC3: Search Book – System searches database and displays results within 3 seconds.
- IV. UC4: Register Member – Librarian records member details in the system.
- V. UC5: Borrow Book – Librarian links a member to a book and records the date.
- VI. UC6: Return Book – System checks due dates and calculates any applicable fines.