

EasyRead is library management system. The purpose of the Library Management system is to allow for storing details of a large number of books and allow for add, search, borrow, return facilities separately to administrator/Librarian, and student. The system helps both students and library manager to keep a constant track of all the books available in the library. It allows the student to search for the desired book.

### Categories of users

#### 1.Admin

##### 1.1 login

1.1.1 Display login form.

1.1.2 Enter id and password.

1.1.3 Validate.

1.1.4 If valid, display admin page.

else

Display error "re enter credential". Go to 1.1.2.

##### 1.2 Add Librarian

1.2.1 Display data Entry field for adding Librarian.

1.2.2 Validate (if librarian exist or not).

1.2.3 If not present - Make the Entry.

##### 1.3 Remove Librarian

1.3.1 List out the existing librarians.

1.3.2 Select the librarian to be removed.

##### 1.4 Search

1.4.1 Select search type - Author.

1.4.2 If present in the library.

Display the details of all matching book - Availabilty Status ( Issued ) - Book Name - Author name - Published year .

1.5 logout.

1.5.1 sign out the admin.

## 2. Student

### 2.1 Login

2.1.1 Display login form.

2.1.2 Enter id and password.

2.1.3 Validate.

2.1.4 If valid, display page.

else

Display error "re enter credential". Go to 2.1.2.

### 2.2 Register Student

2.2.1 Display data Entry field for registering student.

2.2.2 Validate (if student exist or not).

2.2.3 If not present - Make the Entry.

### 2.3 Search

2.3.1 Select search type - Author or Title.

2.3.2 If present in the library.

Display the details of all matching book - Availability Status ( Issued ) - Book Name -  
Author name - Published year .

### 2.4 View

2.4.1 View the details of borrowed book and due date.

2.4.2 Display fine details.

### 2.5 logout.

2.5.1 sign out the student.

### 3.Librarian

#### 3.1 Display login form.

3.1.1 Enter id and password.

3.1.2 Validate.

3.1.3 If valid, display librarian page.

else

Display error "re enter credential". Go to 3.1.2.

#### 3.2 Issue Book

3.2.1 Enter the book details.

3.2.2 Validate if it is available.

3.2.3 if available issue the book.

#### 3.4 Return Book

3.4.1 Enter the book details.

3.4.2 Validate if it is issued.

3.4.3 if issued accept the return.

Display error "re enter credential". Go to 2.1.2.

#### 3.5 Search

3.5.1 Select search type - Author.

3.5.2 If present in the library.

Display the details of all matching book - Availabilty Status ( Issued ) - Book Name -  
Author name - Published year .

#### 3.6 Logout.

3.6.1 sign out the librarian.

### **Project Detailed Description**

The entire project is modularized into

- Entity Classes
  - ✓ Book
  - ✓ User
- Boundary Classes
  - ✓ UserDao, IssueDao, etc...
  - ✓ UI
    - JFrame
      - WelcomeForm
    - JDialog
      - AddBookDlg, IssueDlg, etc.

#### Key Concepts

- DB used : MySQL version 8.0
- Threads: All UI & sub components run on an event thread.
- Collections: Array List, List.
- JDBC classes are used for database connectivity.