

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 admin 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.