

# Library Management System

The screenshot displays four windows of the Library Management System web application:

- Login Window:** Features a login form with fields for Username (pre-filled with 'sa') and Password (masked with '...'). It includes 'ABOUT' and 'LOGIN' buttons. To the right, a 'CREATED BY' box identifies the developer as Maham Nadeem, a Computer Engineer at the University of Engineering and Technology, with a 'BACK TO LOGIN' button below.
- Home Window:** Shows a central dashboard with six buttons: 'New Book' (blue), 'New Student' (yellow), 'Statistics' (pink), 'Issue Book' (green), 'Return Book' (teal), and 'Logout' (light green).
- New Book Window:** Contains a form for adding a new book with fields for ISBN, Name, Author, Price, and Quantity. It also includes 'Delete Book', 'ADD BOOK', 'Update Book', and 'BACK' buttons. A table on the right shows existing book records.
- New Student Window:** Includes a form for adding a new student with fields for Student ID, Name, Course (a dropdown menu), Branch, and Email. It features 'Delete Student', 'ADD STUDENT', 'Update Student', and 'BACK' buttons. A table on the right displays student records.

**Table 1: Book Records (from New Book window)**

ISBN	Title	Author	Price	Quantity
13	Owl Night in dark	Renzzi	150	15
111	beast in the sky	Devi	500	2

**Table 2: Student Records (from New Student window)**

SID	Name	Course	Branch	Email
20	Faiza	F.Y.B.tech	KSK	faiza@gmail.com
22	Elaa	F.Y.B.tech	KSK	elaag@gmail.com
50	Murawar	F.Y.B.tech	Sialkot	bus@gmail.com

**Table 3: Transaction Details (from Home window)**

SID	Name	ISBN	Title	IssueDate	ReturnDate
20	Faiza	13	Owl Night in dark	2023-12-18	2023-12-18
20	Faiza	111	beast in the sky	2023-12-19	2023-12-19

**Table 4: Issue Book Details (from Issue Book window)**

ISBN	Title	Author	Price	Quantity
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**Table 5: Student Details (from Issue Book window)**

Student ID	Name	Course	Branch	Email
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**Table 6: Return Book Details (from Return Book window)**

Student ID	Name	Course	Branch	Email
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## Overview

This Java-based Library Management System utilizes MySQL for its backend, featuring four essential tables: Book, Admin, Student, and Record. Librarians can seamlessly manage book transactions, student details, and system authentication, while the MySQL setup provides a robust database structure. The project empowers librarians to add books, students, issue/return books, and offers insightful transaction statistics, enhancing the efficiency of library operations.

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- User Authentication
- Book Management
- Student Management
- Book Issuing and Returning
- Transaction Tracking

**Attributes**