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# **University-Level Library Management System**

## **Overview**

The University-Level Library Management System (LMS) is an integrated platform tailored to manage academic libraries across campuses and departments. It enables administrators, librarians, students, and faculty members to access and manage books, journals, digital content, and research materials efficiently.

## **Core Stakeholders**

- 1. Admin**
- 2. Librarian**
- 3. Student**
- 4. Faculty / Research Scholar**

## **Modules & Features**

### **1. Admin Panel**

- **User & Role Management**
  - Add, edit, or disable users and roles (Admin, Librarian, Student, Faculty)
  - Bulk import of users via CSV/Excel
  - Custom permission matrix (module-based access control)
- **Library Branch & Department Management**
  - Multi-campus support with separate inventories
  - Department-specific book and journal categorization

- **Inventory & Procurement**
  - Book stock management, barcode/RFID generation
  - Lost/damaged book reconciliation
  - Workflow for procurement, purchase orders, and vendor integration
- **Fine & Revenue System**
  - Define fine rules for late return, damage, or loss
  - Online fine collection and transaction history
  - Revenue summary and audit trail
- **Digital Repository Management**
  - Cloud-based journal and eBook management
  - Access policies and content indexing
  - Integration with Google Drive, Dropbox, or AWS S3
- **Audit & Security**
  - Full activity logs (user actions, login/logout)
  - Two-Factor Authentication (2FA), secure password policies
  - Exportable audit logs for compliance
- **Analytics & Reporting**
  - Custom reports (borrowing stats, overdue, active users)
  - Export options (PDF, Excel, CSV)
  - Dashboard with graphs and KPIs
- **System Settings & Maintenance**
  - Scheduled and manual system backups
  - Restore points and update logs
  - Email/SMS notification configuration

## **2. Student Panel**

- **Smart Dashboard**
  - Overview of current books, due dates, fines, and activity history
  - System announcements and reminders
- **AI-Based Search & Recommendations**
  - Filtered search (genre, author, department, availability)
  - Personalized suggestions using ML algorithms
- **Borrow, Renew & Reservation**
  - Request books online, track status
  - Auto-renewal (based on availability and rules)
  - Queue-based reservation system with notifications
- **Thesis & Project Repository**
  - Upload thesis/project with supervisor selection
  - Approval workflow for faculty review
- **Digital Library Access**
  - View/download eBooks, lecture notes, and research papers
  - Bookmark and create custom reading lists
- **Fine & Payment Management**
  - Fine history, due calculation
  - Online fine payment through integrated payment gateway
- **Book Reviews & Ratings**
  - Submit reviews and ratings for books
  - View trending books and peer feedback
- **Helpdesk & Support**
  - Raise tickets, live chat with librarians
  - Searchable FAQs and knowledge base

### **3. Faculty / Research Panel**

- **Book & Resource Suggestions**
  - Recommend books, journals, or other material
  - Track approval and procurement status
- **Course Material Reservation**
  - Block specific books/resources for a course or semester
  - Share reading lists with students
- **Access to Premium Research Tools**
  - Full access to academic databases and journals
  - AI-enhanced article discovery
- **Thesis & Research Supervision**
  - Review student submissions
  - Comment and approve thesis with grading history
- **Cross-Department Access**
  - Broader borrowing privileges for inter-disciplinary research

### **4. Additional Advanced Modules**

- **Inter-Library Loan (ILL)**
  - Request resources from other departments/campuses
  - Track delivery and return status
- **Book Donation Management**
  - Manage donor profiles, accept donations
  - Classify and acknowledge donated books

- **RFID / QR Code Automation**
  - Touchless issue/return via RFID or QR scanning
  - Gate security system integration
- **Library Events & Announcements**
  - Schedule events, webinars, and book launches
  - Track attendance and feedback
- **User Behavior Analytics**
  - Reading trends, popular titles, and heatmaps
  - Time-spent metrics for digital content