



# Library Management System

Microservices | Secure | Scalable



# PROJECT DESCRIPTION

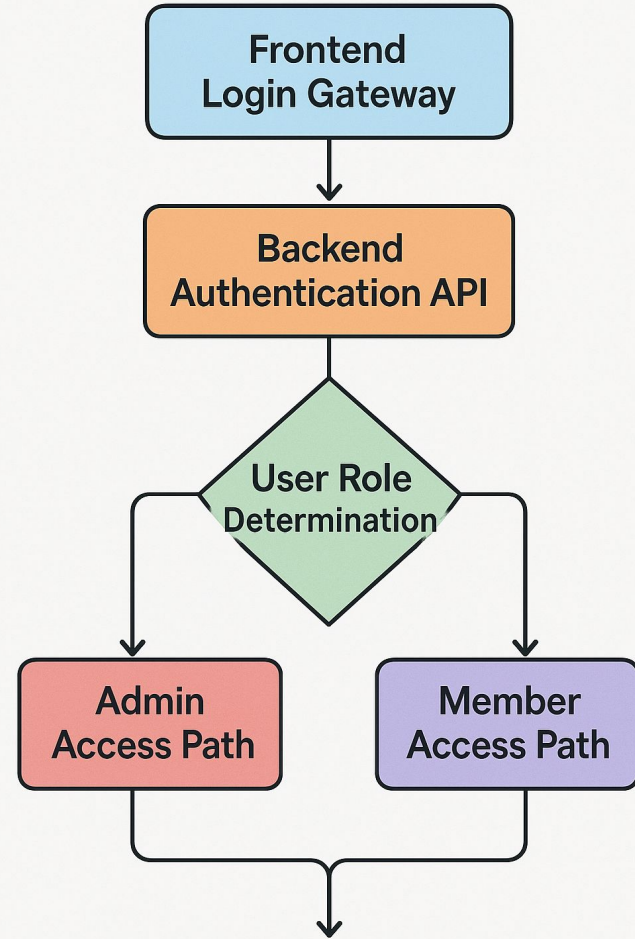
A Library Management System digitizes book records and automates the borrowing/returning process, making library operations faster and more efficient. It enhances user access to resources, saves time for both staff and students, and ensures accurate tracking of books and availability. By reducing manual work, it improves productivity and creates a more organized, user-friendly library experience.

# SYSTEM ARCHITECTURE

- ⚡ Microservices-based
- 💻 Frontend → Angular
- 🔧 Backend → Flask APIs
- 🔑 Auth Service → JWT
- 💾 Database → SQLite
- 🐳 Containers → Docker + Compose

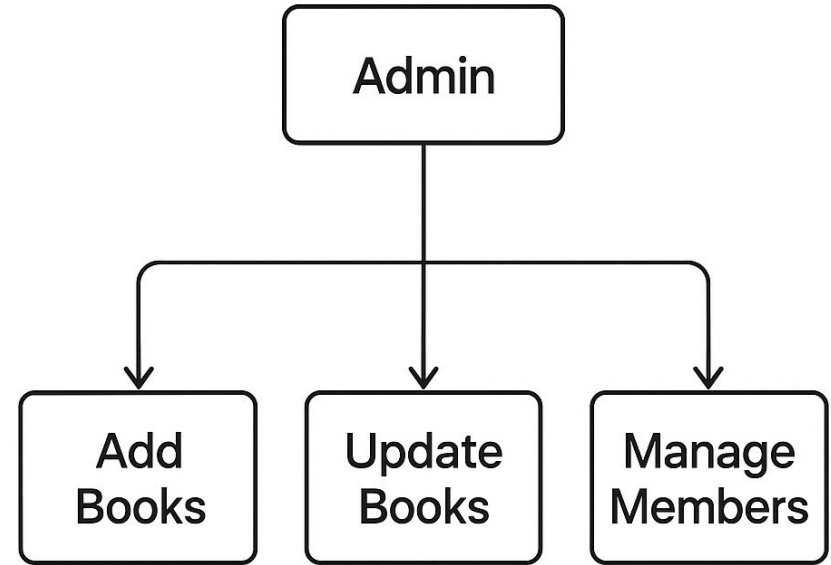


# AUTHENTICATION FLOW

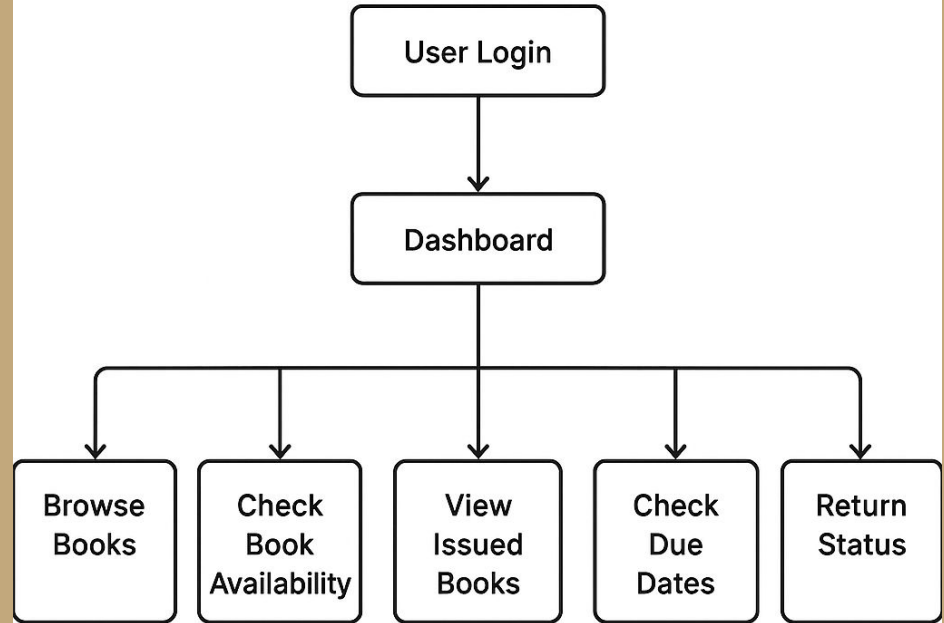


---

# ADMIN ACCESSIBILITY /FUNCTIONALITY



# USER ACCESSIBILITY /FUNCTIONALITY



User Member Dashboard  
for Library Management System



### Book Service:

- GET /books → List all books
- POST /books → Add book
- PUT /books/{id} → Update book
- DELETE /books/{id} → Remove book

### Member Service:

- GET /members → List members
- POST /members → Add member

### Auth Service:

- POST /login → Authenticate user
- POST /signup → Register user

# -My Services & APIs



- version: '3'
- services:
- frontend:
  - build: ./frontend
- ports:
  - - '4200:4200'
- backend:
  - build: ./backend
- ports:
  - - '5000:5000'
- db:
  - image: sqlite
  - volumes:
    - - ./data:/var/lib/sqlite

## DOCKER-COMPOSE FLOW





# THANKS!

*For Access the code  
Refer to this link below 😊*

REPO LINK

