Library Management System Using MySQL

# 1. Introduction

This Library Management System project is built using only MySQL. It helps to manage book records, member information, and book issue/return transactions efficiently.  
It showcases practical knowledge of SQL including table design, ER diagram modeling, normalization, data insertion, and sample query execution.

# 2. Objective

To build a real-time backend-only Library Management System using MySQL that can be extended into a full-stack application in the future.  
The system should support book management, member registration, and book issuing/tracking operations.

# 3. Tools Used

- MySQL RDBMS (Workbench or CLI)  
- MySQL Queries (DDL, DML)  
- dbdiagram.io (for ER Diagram design)  
- GitHub (for code hosting)

# 4. Features Implemented

- Book Records (Add/View/Update)  
- Member Records (Add/View/Update)  
- Issue Records (Issue Book, Return Book)  
- Data stored in normalized tables  
- Relationships enforced using foreign keys

# 5. ER Diagram

Refer to the ER\_Diagram\_Library.png file uploaded in the GitHub repository.

# 6. SQL File

The full SQL script (library\_management.sql) contains schema creation, sample data insertion, and test queries.

# 7. Conclusion

This project demonstrates real-world use of SQL and relational databases in backend development.   
It can be extended to include a frontend UI using HTML/CSS or connected to Java/Python for full-stack integration.

Name: Kalanjeri Bhuvaneswari

Email: bhuvanakalanjeri@gmail.com