

Library Management System - Summary

What It Does

A **MySQL database** for tracking books, members, loans, and fines in libraries.

Key Features

- ✓ **Book Management** – Stores titles, authors, categories, and availability.
- ✓ **Member Tracking** – Manages user accounts and borrowing history.
- ✓ **Loan System** – Logs checkouts, due dates, and late fines.
- ✓ **Reports** – Finds overdue books, popular titles, and revenue from fines.

Database Structure

- **Main Tables:** books, authors, members, loans, fine payments.
- **Relationships:**
 - 1 publisher → many books
 - 1 member → many loans
 - Books ↔ Authors (many-to-many via book authors)

Use Cases

- **Libraries** (schools, public, universities)
- **Bookstores** (inventory tracking)
- **SQL learners** (database design practice)

Setup

1. Run the SQL script in MySQL.
2. Add books & members.
3. Manage loans and fines.

Ideal for anyone needing an organized, automated library system.