Library Management System (MySQL Project)

This project is a simple “Library Management System” built using ‘MySQL’. It demonstrates how to design a relational database for managing books, library members, and book issue tracking in a library.

Features:

* Store and manage book details
* Manage library members
* Record book issue and return transactions
* Use JOIN queries to fetch detailed reports
* Designed with foreign key constraints for data consistency

Database Structure:

Books

Stores information about books.

|  |  |
| --- | --- |
| Column | Type |
| Book\_id | Int primary key |
| title | Varchar(225) |
| author | Varchar(100) |
| Genre | Varchar(50) |
| Published\_year | Int |

Members

Stores information about library members.

|  |  |
| --- | --- |
| Column | Type |
| member\_id | Int primary key |
| name | Varchar(100) |
| email | Varchar(100) |
| Join\_date | Date |

Book\_issued

Stores book issue/return records.

|  |  |
| --- | --- |
| Column | Type |
| issue\_id | Int primary key |
| book\_id | Int (foreign key) |
| book\_id | Int (foreign key) |
| return\_date | Date |
| return\_date | date |

SQL Files

* schema.sq` — Contains table creation and sample data insertion
* queries.sq` — Contains JOIN queries to view issued book records

Sample Query Output

#### Sql:

SELECT bi.issue\_id, b.title, m.name, bi.issue\_date, bi.return\_date

FROM book\_issued bi

JOIN books b ON bi.book\_id = b.book\_id

JOIN members m ON bi.member\_id = m.member\_id;