# ***Library Management System***

A C++ console application for managing books and members in a library, with features for issuing, returning, and tracking books.

![Library Management System Demo](demo.gif) \*(Optional: Add a screenshot or GIF later)\*

***Features***

- \*\*Book Management\*\*

- Add, search, update, and delete books

- Track book issuance status

- \*\*Member Management\*\*

- Add, search, update, and delete members

- Track active/inactive status and borrowed books

- \*\*Transactions\*\*

- Issue books to members (with validation checks)

- Return books and update records

- \*\*Data Persistence\*\*

- Automatic saving/loading of data to binary files

- Prevents data loss between sessions

***Technologies Used***

- C++ (OOP principles)

- File I/O operations (for data persistence)

- Linked Lists (for member management)

- Array-based storage (for books)

///menu option

1. Add Book

2. Search Book

3. Update Book

4. Delete Book

5. Add Member

6. Search Member

7. Update Member Status

8. Delete Member

9. Issue Book

10. Return Book

0. Exit

***//our file structure***

library-management/

├── books.dat # Binary file storing book data

├── members.dat # Binary file storing member data

├── main.cpp # Main program source code

└── README.md # This documentation

***contributers***

Tesfaye Seifu (Core Structure)

Tesfaye Teshale (book managment)

Basha Meshabie (Member Management)

Destaw Demeke (Transaction Logic)

Banderaw (User Interface)

AND "other other members are a good contribution on this project".