requirements for a simple Library:

1. Book Management:

- Store and manage information about books, including title, author(s), ISBN, publication date, genre, and additional details.
- Track availability status of book copies, indicating whether they are available for borrowing or checked out by users.
- Manage multiple copies of a book, each with a unique identifier (copy ID).

2. User Management:

• Maintain records of library users, including their names, contact information, and library card numbers.

3. Borrowing and Returns:

- Enable users to borrow book copies from the library.
- Track borrowing records, including the book copy borrowed, user information, borrowing date, and due date.
- Handle the return process, updating the availability status of book copies.
- Check for any fines or penalties associated with late returns or damaged book copies.

4. Holds and Reservations:

- Allow users to place holds or reservations on book copies that are currently checked out.
- Manage the order of reservations to ensure fairness.

5. Fine Management:

- Calculate and manage fines or penalties for late returns book copies.
- Keep track of the fine amount owed by each user.
- Maintain the payment status to track whether fine shave been paid or are still pending.



