**PROG8080-Programming: Database Management**

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**Project:** Library Management System

**Project Scope:** The Library Management System is designed & developed for keeping a record and issuance of books in the library along with the member’s details. The librarian maintains the information about the issued books by keeping the issuance and the due date for the returning of the books. The members must pay the fines in case of delayed deposit with the help of this system. The members have also access to this system to check their borrowing history and the due date for returning the books.

**Business Rules of a Library Management System:**

1. Each book must have one category (fiction, non-fiction etc.)
2. Members can search books with details such as categories, year etc.
3. The system should store information of a book written by multiple authors and searching with a single author can retrieve that specific book.
4. Library staff can save and edit the information of new and existing books such as, publication year, author etc.
5. Each book can have multiple copies and every book must have id numbers to track the borrower.
6. Sends message to members before expiry of membership.
7. One individual can borrow multiple books at a time from the library.
8. It should store the information of book as well as the borrower when the book is borrowed by an individual.
9. Once the book is returned its status should be updated and
10. Staff can monitor books borrowed and depending on the availability (borrowed and copies available) it can be loaned to other borrowers.
11. Borrowers unable to borrow items if there are items overdue on the borrower's account
12. A borrower account can be suspended if he doesn’t return the book before due date and fail to pay the fine.
13. Borrowers are invoiced for items that have not been returned (Fixed time of returning the book.)
14. Borrower can view the books issued to him currently and previously.
15. The system should collect the information of successful payment by the suspended borrower and change the status back to active.