Library Management System

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High-Level Requirements

Design library database management system which hold records of books. A student should be able to allocate book (which is not assigned to anyone else) for specific period duration (such as 2 weeks). The librarian can add new books, delete existing books, view information for any book and update status for any book (assigned or not assigned). The student can request for book, which will be allocated if the book is available free in the library or else appropriate message will be displayed.

Solution Guidelines

Implement solution with deign using OOPS Concepts - Class, Objects (Preferably in Python/C++)

- The solution can be CLI/Menu driven program with command line arguments (optional)
- The records can be stored in-memory (such as lists, maps, dictionaries)
- There is no need to store records in files or other databases
- The solution can be implemented as single executable file
- Ensure core functionality is implemented with readable/understandable code
- Display clear messages (Success/Error) for add/delete operation
- Feel free to design your own records (For Example- Book can have ID, Name, Author and Status)

Bonus Point

- Adding log statements (of different levels – DEBUG, INFO etc.)
- Adding comments with better explanation

- Adding function/class headers (Description with input params and returned result)

- Accepting configurable parameters through command-line argument or using config files (example: Max Duration for books, number of books/copies etc.)

Note

- There is no fixed solution for given problem statement
- The focus is on design, understanding, implementation and intuitive end-user options supported
- Share solution with source code (optional instructions) on **GITHUB** (Do not post this assignment in any public repositories)