ONLINE LIBRARY DOCUMENTATION

Desighn methods

1. Classes The use of classes (Book, User, Library) allows for better organization of data and functionalities related to books, users, and library operations. Each class encapsulates data and operations related to its entity, promoting a modular and structured design.
2. Data Hiding: Member variables of the classes are declared as private, and access to them is controlled via public methods. This enforces data encapsulation and helps maintain the integrity of the data.
3. Vector Usage: The library maintains a vector of Book objects for easy storage and manipulation of book data. Vectors provide dynamic sizing and efficient access to elements, making it suitable for managing a collection of books.
4. Borrowing and Returning Books: The borrowBook and returnBook functions check for book availability and update the borrowed status accordingly. This ensures that books are borrowed and returned accurately.
5. Search Functionality: The searchBooksByTitle function returns a vector of books matching the specified title, allowing users to easily search for books in the library.

Instructions for Execution:

1. Feed the code into a text editor which has a gcc c++ compiler (devc++) of your choice and save the document
2. Compile the code and run

The output will be the books borrowed and who borrowed them

The books returned and the students who returned them

All the books available

Display of the searched book