Project Report
Library Management System using Python

Introduction:

The Library Management System is a software application that helps in managing the library resources, such as books, magazines, newspapers, CDs, DVDs, and other materials. This project was developed using Python, SQL, Tkinter, and SQLite3. The system allows librarians to keep track of the books, members, and transactions in the library.

Objectives:

The main objectives of this project are:

1. To create a user-friendly interface for librarians to manage the library resources.
2. To provide an efficient system for managing the library resources.
3. To ensure proper tracking of books, members, and transactions in the library.
4. To generate reports on the library resources and transactions.

Features:

The Library Management System has several features that make it easy to manage the library resources. Some of the features include:

1. **Book management:** The system allows librarians to add new books, update book details, and delete books from the system.
2. **Transaction management:** The system allows librarians to issue books to members, return books, and keep track of overdue books.
3. **Search functionality:** The system allows users to search for books by title, author, or category.
4. **Reporting:** The system generates reports on the library resources and transactions.

Technologies used:

The Library Management System was developed using Python, SQL, Tkinter, and SQLite3.

Python is a high-level programming language that is easy to learn and use. It was used to develop the logic of the system.

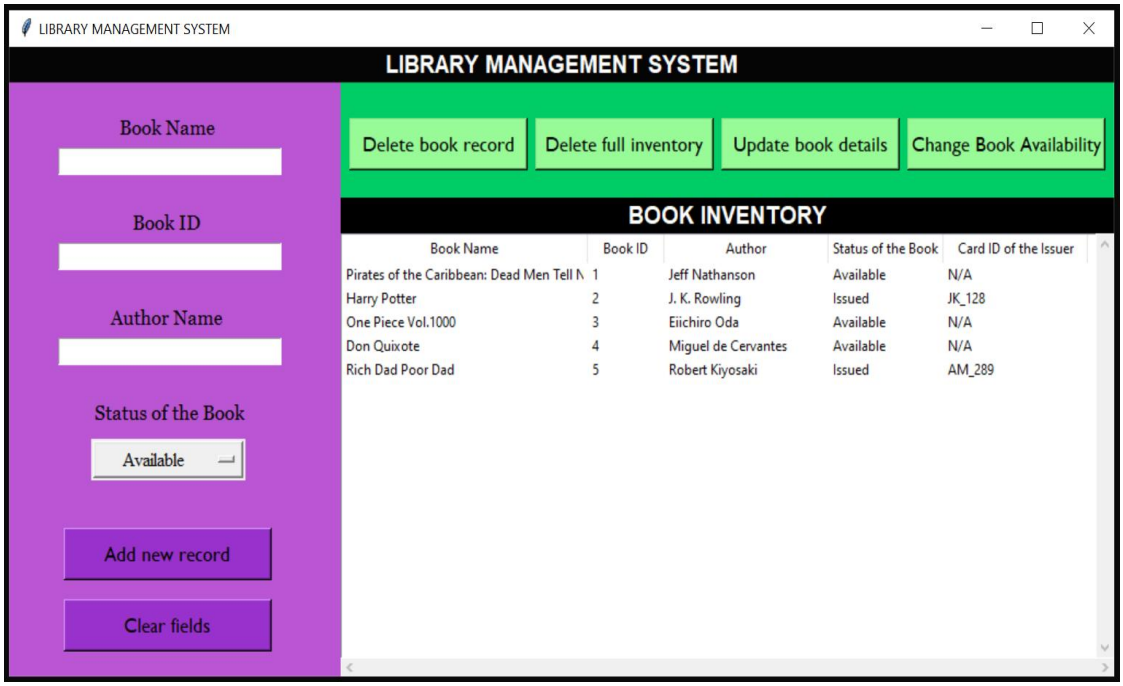
SQL is a database management language that was used to create the database for storing the library resources and transactions.

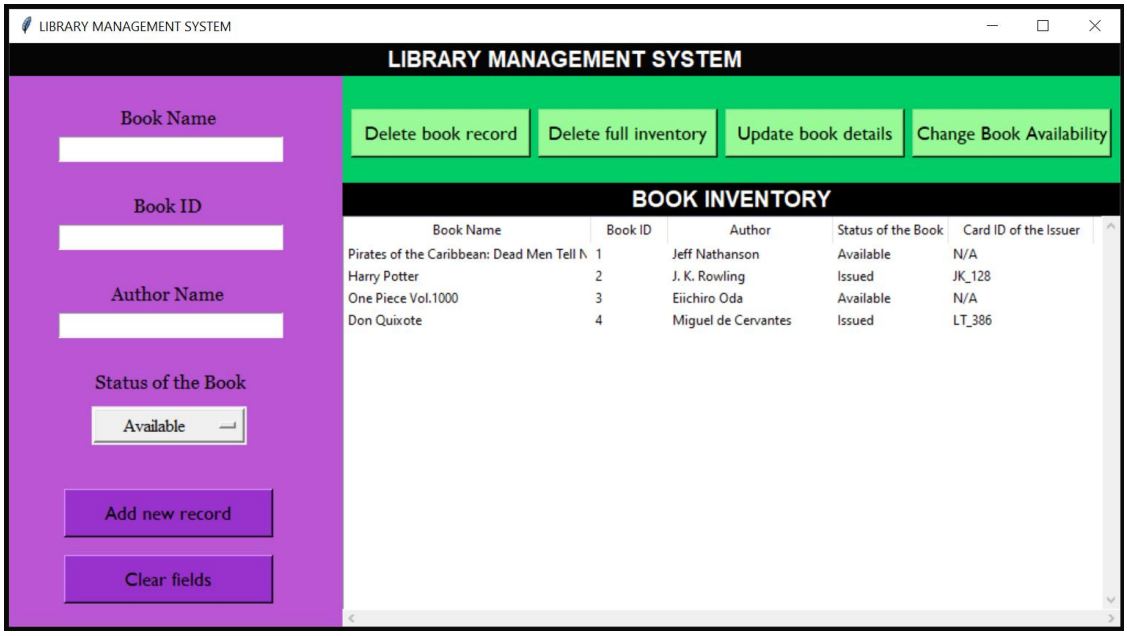
Tkinter is a Python library for creating graphical user interfaces (GUIs). It was used to create the user interface for the system.

SQLite3 is a lightweight database engine that was used to store the library resources and transactions.

Conclusion:

The Library Management System is a useful tool for managing the library resources. The system provides an efficient way of managing the books, members, and transactions in the library. The system is user-friendly and easy to use. It generates reports on the library resources and transactions, which can be useful for decision-making. The system was developed using Python, SQL, Tkinter, and SQLite3, which are powerful technologies for developing software applications.


LIBRARY MANAGEMENT SYSTEM
LIBRARY MANAGEMENT SYSTEM
Book Name
Book ID
Author Name
Status of the Book
Available
Add new record
Clear fields
Delete book record
Delete full inventory
Update book details
Change Book Availability
BOOK INVENTORY
Book Name | Book ID | Author | Status of the Book | Card ID of the Issuer
Pirates of the Caribbean: Dead Men Tell N | 1 | Jeff Nathanson | Available | N/A
Harry Potter | 2 | J. K. Rowling | Issued | JK_128
One Piece Vol.1000 | 3 | Eiichiro Oda | Available | N/A
Don Quixote | 4 | Miguel de Cervantes | Available | N/A
Rich Dad Poor Dad | 5 | Robert Kiyosaki | Issued | AM_289


LIBRARY MANAGEMENT SYSTEM
LIBRARY MANAGEMENT SYSTEM
Book Name
Book ID
Author Name
Status of the Book
Available
Add new record
Clear fields
Delete book record
Delete full inventory
Update book details
Change Book Availability
BOOK INVENTORY
Book Name | Book ID | Author | Status of the Book | Card ID of the Issuer
Pirates of the Caribbean: Dead Men Tell N | 1 | Jeff Nathanson | Available | N/A
Harry Potter | 2 | J. K. Rowling | Issued | JK_128
One Piece Vol.1000 | 3 | Eiichiro Oda | Available | N/A
Don Quixote | 4 | Miguel de Cervantes | Issued | LT_386