**Library Management**

**Introduction:**

Library management is a project that manages and stores books information electronically according to users needs. The system helps both the user and library manager to keep track of all the books available in the library. It allows both the admin and the user to search for the desired book. This project is for monitoring and controlling the transactions in the library. The is written in 'C' programming language, the functions that are mainly included in the project are adding new books, tracking the issued books, searching the books.

**Objectives:**

1. To build a system which is easy to use and should take less time.
2. To build a system which is able to moniter all the library functions.
3. To reduce the errors made during manual record keepin.
4. To properly store the books in the library.
5. To maintain all the necessary information.

**BENEFITS:**

1. Records maintenance.
2. Simple and easy to use.
3. Secure and reliable.

**4W'S and 1H:**

**Who:**

This system can be used by any user having a valid ID.

**What:**

Library Managemen is a software that to maintains a database which is useful for entering new books & keeping record books borrowed by the members, with the respective submission dates.

**When:**

This system can be used in schools, colleges, private libraries, and other organizations.

**How:**

This project is implemented to issue the book, return, or renewal purpose by entering the user id as input.

**Swot Analysis:**

**Strengths:**

1. Simple and easy to use.
2. Increase Library Engagement.
3. Efficient data management.
4. Scalable and relaible.

**Weakness:**

1. The data stored is prone to cyber hacks.
2. Complicated to operate.
3. Risk of computer virus.
4. Online Systems require high-speed internet connectivity.

**HIGH LEVEL REQUIREMENTS:**

| **RID** | **DESCRIPTION** | **STATUS** |
| --- | --- | --- |
| HLR1 | To add a Book | IMPLEMENTED |
| HLR2 | To delete a Book | IMPLEMENTED |
| HLR3 | Display the Contents | IMPLEMENTED |
| HLR4 | Issue the Book | IMPLEMENTED |

**LOW LEVEL REQUIREMENTS:**

| **RID** | **DESCRIPTION** | **STATUS** |
| --- | --- | --- |
| LLR1 | To add Book with the details including the name, the author and number of pages and book ID | IMPLEMENTED |
| LLR2 | To delete a Book with reference to its book ID | IMPLEMENTED |
| LLR3 | Display the Contents of the book with reference to its book ID | IMPLEMENTED |
| LLR4 | Issue the Book searched and if available based on its ID | IMPLEMENTED |

# ****Test Plan:****

# ****High Level Test Plan****

| **TestID** | **DESCRIPTION** | **EXPECTED I/P** |
| --- | --- | --- |
| HLR1 | ADD BOOK | BOOKNAME,AUTHOR,NO OF PAGES,BOOK ID |
| HLR2 | DELETE BOOK | BOOK ID |
| HLR3 | DISPLAY BOOKS | BOOK ID |
| HLR4 | ISSUE BOOK | BOOK ID |
| HLR5 | SEARCH BOOK | BOOK ID |

# ****Low Level Test Plan****

| **TestID** | **DESCRIPTION** | **EXPECTED I/P** |
| --- | --- | --- |
| LLR1 | ADD BOOK DETAILS | BOOKNAME,AUTHOR,NO OF PAGES,BOOK ID |
| LLR2 | DELETE THE EXISTING BOOK | BOOK ID |
| LLR3 | DISPLAY ALL THE BOOK PRESENT IN THE SYSTEM | BOOK ID |
| LLR4 | ISSUE A PARTICULAR BOOK BASED ON ID | BOOK ID |
| LLR5 | SEARCH A PARTICULAR BOOK BASED ON ID | BOOK ID |