

DEVELOPERS MANUAL

Library Mangement System

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TABLE OF CONTENTS

1. INTRODUCTION

- Architecture
- Overview

2. Details

- Add Books
- Edit Books
- Delete Book
- Search Book
 - Search by ID
 - Search by Author
 - Search By name

INTRODUCTION

Architecture:

The library Management Project will be a simple C language Project without the use of any Graphics. This Project will be made on Code Blocks and the compiler will be the GCC Compiler. This project can be used in various Libraries .This system can perform operation that are used in Libraries such as finding the location of the book in the library ,Adding new books, Deleting a current book etc. I will be using file handling extensively instead of Data Base Management System to store books because file handling is less complicated whereas DBMS is more complex. This project will help to keep the record of all the books in the library and it will be very easy to use and will be able to fulfill most of the requirements of the librarian on low level. I have used many functions and other options to build this program. This program which I have made uses basic C programming functions to generate menus etc. This project manifest the creation of a user interface of the system without the use of c graphics library. This projects also contain the concept of structures, looping, sting manipulation etc.

This program is built on the code-Block Integrated Development Environment, as recommended by our teacher. All elements of the program are standard and portable. The compiler which I have used to compile the program is GNU GCC Compiler.

OVERVIEW;

For library management, the project considers six departments – Computer, Electrical, Civil, Electronics, Mechanical and Architecture. These departments work simultaneously with the operations mentioned above. You can add a book to the civil section, delete a book from the Electrical section or view issued book details of the Mechanical department.

These are the **functions used** in the mini project:

- I. **Void mainmenu(void)** – This function is used to display the main menu of this project. Scroll down to Output to view the main menu.
- II. **Void returnfunc(void)** – Inside this function, the main menu function (mentioned above) is called when the user presses a key. With this, the user can return back to the main menu.
- III. **Void addbooks(void)** – This function adds books in a file. For that, you need to mention the department to which you want to add the book. The record is saved in a file. And, it is similar for the following functions as well.
- IV. **Void deletebooks(void)**
- V. **void editbooks(void)**
- VI. **void searchbooks(void)**
- VII. **void viewbooks(void)**

- VIII. **void closeapplication(void)** – This function is for closing the application.
- IX. **int getdata()** – This function asks for data input from the user.
- X. **int checkid(int)** – This function is used to check whether the ID of a book entered by a user exists in file or not.
- XI. **void Password()** – Due to this function, the user is asked to input password to run the application after it is opened. You can't change the password upon running the application.
- XII. **void gotoxy (int x, int y)** – This function allows us to print text in any place of screen.

DETAILS;

1.1

In this section I will discuss all the functions which I have used in my programs in detail and I will also show you the algorithms that shows how these functions work.

In my program I have created the structure of the book to store the details of the book which librarian wants to store, such as book ID, author's name, shell number etc.

Second structure which I have created is for the librarian to log in in the system so that he/she can get access to the all the books by providing the right user ID and password.

Total number of functions which I have used in my program are 13.

The main function/Important function of my program are following;

- Edit book
- Delete book
- Add book
- View book ,and
- Search book.

1.2 Add book

When we enter the correct username and the password the main menu will appear from which we have to choose the option which we want our program to perform such as

- Add book
- Edit book
- Delete Book
- Search Book
- View Book

Suppose we click 1 in “Enter the Choice”

We can add book from the number of given departments

After entering the department then we have to enter all the details of the book which we want to add such as; Book ID, book name, Author name, Book price, quantity of the books, Shelf number.

After entering all the desired details the program will ask that if we are sure that we want to store the book or not

By pressing Y/yes. The program will store all the details of the book.

1.3 Edit book

Now we choose Edit book as our second option after successfully entering our desired book. We can edit the book by providing the book ID stored in the program previously. If the program is not able to find the book because of the wrong Book ID then it will take us to the main menu page.

Suppose we enter the ID of the book which we have stored in the first section/add book to edit the book;

, the program will ask us if we want to change the book name or the author or the book price or the book quantity.

It depends on us whether we want to change just one thing or all of the things mentioned in the program .If we don't want to edit then we can simply press N/no.

As done in the previous step, we can press enter to go back to the main menu

1.4 Delete book

To delete the book, the book first shall be saved in the application, otherwise it will show error if we delete the book not already saved in the application.

As done in the previous step we need to provide the ID of the book which we want to delete. By providing the ID we can delete the book successfully.

1.5 Search book

We can search the book by the book ID because Book ID/ISBN Number is the most important thing in the book which make is unique from the other books. Every book has unique ID Number.

a) Search By ID:

We can search the book By providing its ID.

By providing the correct ID, our program will search for the book whose ID matches with the Id provided by the user. If the ID matches. All the details of the book will be shown

1.5 View book

This method is very simple because in this method we can view the book already stored by the user. We can see the whole list of all the books along with the details of the books.

I have also used many other small functions like;

- Closeapplication()
- Getdata()
- CheckID()
- Password()

These small function are only to perform small task. For e.g. to check if the user entered the correct user ID or to get data and print it on the screen or to check the password or if we want to end our program.

This program is tested several times by me and by my many other friends. This program is error as well as warning free.

