

## ADVANCED C PROGRAMMING – CSE2001

SLOT : L45+L46 (LAB)

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### LIBRARY MANAGEMENT SYSTEM

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#### PROJECT ABSTRACT:

A library management program basically deals with all the operations performed in a library, ranging from the user's logging in to viewing the organisation of various books or other materials, which would have otherwise been very hectic for the users and librarians as well. So, in order to avoid the complexities and confusions, a Library Management System was devised.

In this project, we will be dealing with various operations, namely:

- a) Welcome message.
- b) Users' valid login.
- c) Adding a book in the database.
- d) Searching for a book.
- e) Viewing a book.

- f) Deleting a book from the database.
- g) Updating the users' credentials.

It will be a menu driven program where one may perform the above operations after inputting a valid login username and password.

The programming language used here is 'C'. This program includes all the major concepts of 'C', i.e., structures, file handling, string, arrays, pointers, functions, looping (for, while) and conditional statements (if, if else, switch case).

## **MODULE WISE DESCRIPTION OF THE APPLICATION :**

### **MODULE – 1 : WELCOME PAGE WITH MESSAGE**

When entered into the application , A welcome screen is showed upon , saying – WELCOME TO LIBRARY MANAGEMENT SYSTEM. After that , it will ask to press any key from the keyboard to proceed.

### **MODULE – 2 : USER ACCOUNT AUTHENTICATION (LOGIN)**

After pressing a key , the application will forward us the Login page , asking for Username and Password. If You Entered the wrong credentials , thrice , it will say that you are an unknown user , else , failed to login , if once failed , else , move to the main menu.

### **MODULE – 3 : MAIN MENU**

The Main Menu will offer a lot of options to operate the system. Like Adding the books name , searching books by name , deletion and

viewing , changing your credentials , and at last , exiting the application (all numbered from 1 to 5 and 0).

## **MODULE – 4 : ADDING BOOK(S)**

When asked for an option to proceed , one might have to add books , thus pressed one (1). This will direct to another page , asking for the information of the book(s) to be added to the system. The fields required are as follows –

1. Book ID
2. Book Name
3. Author Name
4. Student Name
5. Date of adding.

After filling the necessary information , you are again directed to the main menu.

## **MODULE – 5 : SEARCH FOR THE BOOK**

After going to the main menu , you decided to search for a book in the system , thus gave the option 2. This will direct you to the Search page.

Here the only thing asked will be – Name of the book. After entering the correct name of the book , you shall get all the information of that particular book. Then the application asked for pressing a key - that will direct you to the main menu.

## **MODULE – 6 : VIEW BOOK(S)**

You also have the option to view all the books available in the database / system – providing full information about them. It also depicts a count value – showing how many books are available.

## **MODULE – 7 : BOOK DELETION**

There can be a book or many books that wasn't used for a long time OR the book is no more available (physical presence) , thus , that has to be deleted from the system as well.

While deleting a book , the application will just ask for the Book ID , after entering that , the book information will get deleted and you will be directed to the main menu.

## **MODULE – 8 : PASSWORD UPDATION**

Many a times , you may forget your password , thus the main menu also provides an option for password updation. One might have to enter the username , after that password change can occur. After the task is done , the application will ask to enter a key – again back to the main menu.

## **MODULE – 9 : EXIT THE APPLICATION**

Last but not the Least , one might have to exit from the application after his/her task is done – this option , will end your access to the application , but you can come back via re-login.







## **VIEWING VARIOUS BOOK INFORMATION ENETERED IN THE SYSTEM**