

# ***AIM :-***

*A library management system is software that is designed to manage all the functions of a library. It helps librarian to maintain the database of new books and the books that are borrowed by members along with their due dates.*

*This system completely automates all your library's activities. The best way to maintain, organize, and handle countless books systematically is to implement a library management system software.*

*A library management system is used to maintain library records. It tracks the records of the number of books in the library, how many books are issued, or how many books have been returned or renewed or late fine charges, etc.*

*You can find books in an instant, issue/reissue books quickly, and manage all the data efficiently and orderly using this system. The purpose of a library management system is to provide instant and accurate data regarding any type of book, thereby saving a lot of time and effort.*

# ***PROCEDURE :-***

***TO KEEP IT USER FRIENDLY OPTIONS WERE GIVEN AS FOLLOWS:-***

- ***Add book information.***
- ***Display book information.***
- ***To list all books of a given author.***
- ***To list the count of books in the library.***

***If the user tries to add a book then the user must have to provide the below specific Information about the book as:***

- ***Enter Book Name:***
- ***Enter Author Name:***
- ***Enter Pages:***
- ***Enter Price:***

- *When the user tries to display all books of a particular author then the user must have to enter the name of the author:*
- *Enter author name.*

# Code :-

```
C program for the E-library
// Management System
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

// Create Structure of Library
struct library {
    char book_name[20];
    char author[20];
    int pages;
    float price;
};

// Driver Code
int main()
{
    // Create a instance
    struct library lib[100];

    char ar_nm[30], bk_nm[30];

    // Keep the track of the number of
    // of books available in the library
    int i, input, count;

    i = input = count = 0;

    // Iterate the loop
    while (input != 5) {

        printf("\n\n*****#####\n\n"
            "WELCOME TO E-LIBRARY "
            "#####*****\n\n");
        printf("\n\n1. Add book infor"
            "mation\n2. Display "
            "book information\n\n");
        printf("3. List all books of "
            "given author\n\n");
        printf(
```

```

    "4. List the count of book"
    "s in the library\n");
printf("5. Exit");

// Enter the book details
printf("\n\nEnter one of "
    "the above: ");
scanf("%d", &input);

// Process the input
switch (input) {

// Add book
case 1:

    printf("Enter book name = ");
    scanf("%s", lib[i].book_name);

    printf("Enter author name = ");
    scanf("%s", lib[i].author);

    printf("Enter pages = ");
    scanf("%d", &lib[i].pages);

    printf("Enter price = ");
    scanf("%f", &lib[i].price);
    count++;

    break;

// Print book information
case 2:
    printf("you have entered"
        " the following "
        "information\n");
    for (i = 0; i < count; i++) {

        printf("book name = %s",
            lib[i].book_name);

        printf("\t author name = %s",
            lib[i].author);

        printf("\t pages = %d",
            lib[i].pages);

        printf("\t price = %f",
            lib[i].price);
    }
}
}

```

```

    }
    break;

// Take the author name as input
case 3:
    printf("Enter author name : ");
    scanf("%s", ar_nm);
    for (i = 0; i < count; i++) {

        if (strcmp(ar_nm,
                    lib[i].author)
            == 0)
            printf("%s %s %d %f",
                    lib[i].book_name,
                    lib[i].author,
                    lib[i].pages,
                    lib[i].price);
    }
    break;

// Print total count
case 4:
    printf("\n No of books in "
           "brary : %d",
           count);
    break;
case 5:
    exit(0);
}
}
return 0;
}

```

## ***output:-***

```
*****##### WELCOME TO E-LIBRARY #####*****
```

1. Add book information
2. Display book information
3. List all books of given author
4. List the count of books in the library
5. Exit

Enter one of the above : 1

Enter book name = DBMS

Enter author name = Korth

Enter pages = 1360

Enter price = 890

```
*****##### WELCOME TO E-LIBRARY #####*****
```

1. Add book information
2. Display book information
3. List all books of given author
4. List the count of books in the library
5. Exit

Enter one of the above :

- For Choice 2 and 3:

```
Enter one of the above : 2
you have entered the following information
book name = DBMS          author name = Korth          pages = 1360          price = 890.000000

*****##### WELCOME TO E-LIBRARY #####*****

1. Add book information
2. Display book information
3. List all books of given author
4. List the count of books in the library
5. Exit

Enter one of the above : 3
Enter author name : Korth
DBMS Korth 1360 890.000000

*****##### WELCOME TO E-LIBRARY #####*****

1. Add book information
2. Display book information
3. List all books of given author
4. List the count of books in the library
5. Exit

Enter one of the above :
```

- For choice 4 and 5:

```
Enter one of the above : 4

No of books in library : 1

*****##### WELCOME TO E-LIBRARY #####*****

1. Add book information
2. Display book information
3. List all books of given author
4. List the count of books in the library
5. Exit

Enter one of the above : 5

-----
Process exited after 397.7 seconds with return value 0
Press any key to continue . . . █
```



