

SDF LAB PROJECT

LIBRARY MANAGEMENT SYSTEM

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Introduction:

Library management system project can be used to do all activities of a library system such as maintaining books stock and records, issuing books, returning books, maintaining student details and to keep data of penalty for late return books.

This Library management system project has main two modules: Administrator and Student

Administrator: Administrator is a responsible person who runs the system, and is the administrator of the whole system. Administrator has the full rights to handle the project.

Administrator Functionalities:

Here is the list of activities of administrator:

- 1.CREATE STUDENT RECORD
- 2.DISPLAY ALL STUDENTS RECORD
- 3.DISPLAY SPECIFIC STUDENT RECORD
- 4.MODIFY STUDENT RECORD
- 5.DELETE STUDENT RECORD
- 6.INSERT BOOK
- 7.DISPLAY ALL BOOKS
- 8.SEARCH AND DISPLAY SPECIFIC BOOK BY NAME
- 9.ADD BOOK RECORD
- 10.DISPLAY ISSUED RECORDS
- 11.COUNT THE NUMBER OF BOOKS
- 12.DELETE BOOK
- 13.UPDATE BOOK
- 14.RETURN TO THE MAIN MENU

After login he must first add publication detail in to system and then enter all the detail of book stock. In our system librarian can make entry of student who are the members of our system. Administrator can register all students with valid personal detail.

Administrator issues books to registered student and collects returned books from them. He has the right to make a penalty for late returned books.

Student / Member Functionalities:

1) Book Reports

2) Penalty Status

The Student is a registered member of library system. All registered students can access their account detail, they can see the borrowed book report and penalty report.

Data Structures Used:

- **LINKLIST:** To store set of information about the issued books. Once the issued book is returned/deposited then the specific node will be deleted.
- **FILE HANDLING:** Used to store various student and book records and then to perform various functions on the stored files

Division of Work

This project has been a collective effort of all the group members. Each and every member has completed the work assigned to him/her with utmost sincerity.

Kapil Jhalani-

- Created the main menu.
- Created functions to insert, display books.

Arjav Jain-

- Created function to count total no. of books.
- Created administrator's menu.

Shruti Gupta-

- Created the basic outline of the program and compiled individual functions.
- Created and implemented linklist using functions for issuing books and depositing books.
- Created functions for adding new records.
- Created function to create and delete student record.

Vatsal Gupta-

- Created functions for updating, deleting, and searching records.
- Created function for calculating fines.
- Debugging.
- Created Project report.

Important Functions Implemented

- void enternewbookrecord()
- void bookissue()
- void displaylinklist()
- void bookdeposit()
- void insert_book()
- void display_studentrecord()
- void insert_student()
- void search_book()
- void delete_book()
- void count()
- void admin_menu()
- int fine(struct node *a)

Main Menu

"C:\Users\Vatsal Gupta\Desktop\project.exe"

MAIN MENU

01. BOOK ISSUE

02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4) _

Administrator Menu

"C:\Users\Vatsal Gupta\Desktop\project.exe"

ADMINISTRATOR MENU

1.CREATE STUDENT RECORD

2.DISPLAY ALL STUDENTS RECORD

3.DISPLAY SPECIFIC STUDENT RECORD

4.MODIFY STUDENT RECORD

5.DELETE STUDENT RECORD

6.INSERT BOOK

7.DISPLAY ALL BOOKS

8.SEARCH AND DISPLAY SPECIFIC BOOK BY NAME

9.ADD BOOK RECORD

10.DISPLAY ISSUED RECORDS

11.COUNT THE NUMBER OF BOOKS


12.DELETE BOOK

13.UPDATE BOOK

14.RETURN TO THE MAIN MENU

Please Enter Your Choice (1-13) 3_

Create Student Record

 "C:\Users\Vatsal Gupta\Desktop\project.exe"

enter admission no.1

enter student nameVatsal

enter age18

Do you want to add more record..(1/0)1

enter admission no.2

enter student nameShruti

enter age19

Do you want to add more record..(1/0)1

enter admission no.3

enter student nameKapil

enter age18

Do you want to add more record..(1/0)0

MAIN MENU

Display Student Records

```
"C:\Users\Vatsal Gupta\Desktop\project.exe"

Please Enter Your Choice (1-13) 2
the admission no. is :1
student name is :Vatsal
age is:18
the admission no. is :2
student name is :Shruti
age is:19
the admission no. is :3
student name is :Kapil
age is:18

MAIN MENU

01. BOOK ISSUE

02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4)
```

Update Student Records

```
"C:\Users\Vatsal Gupta\Desktop\project.exe"

Please Enter Your Choice (1-13) 4
Enter admission number of student to update:1

1. Update Name of student
2. Update age of student
3. Update both name and age of student
Enter your choice to be updated:2
Enter age: 20

MAIN MENU

01. BOOK ISSUE

02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4)
```

Delete Student records

```

"C:\Users\Vatsal Gupta\Desktop\project.exe"
Please Enter Your Choice (1-13) 5
Enter the student name to be deletedKapil

MAIN MENU

01. BOOK ISSUE

02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4)

```

After deletion all records:

```

"C:\Users\Vatsal Gupta\Desktop\project.exe"
Please Enter Your Choice (1-13) 2
the admission no. is :1
student name is :Vatsal
age is:20
the admission no. is :2
student name is :Shruti
age is:19

MAIN MENU

01. BOOK ISSUE

02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4)

```

Insert Book

```

"C:\Users\Vatsal Gupta\Desktop\project.exe"
Please Enter Your Choice (1-13) 6
enter book no.4
enter booknameABCDE
enter authornameABCDEF
enter quantity4

Do you want to add more record..(1/0)0

MAIN MENU

01. BOOK ISSUE

02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4)

```

Display All Books

```

"C:\Users\Vatsal Gupta\Desktop\project.exe"
Please Enter Your Choice (1-13) 7
book no. is: 4
bookname is : ABCDE
authorname is : ABCDEF
quantity: 4

MAIN MENU

01. BOOK ISSUE

02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4)

```

Search and Display specific book
by Name:

```
"C:\Users\Vatsal Gupta\Desktop\project.exe"
Please Enter Your Choice (1-13) 8
Enter the name of the book :ABCDE
available
book no. is:4
bookname is :ABCDE
authorname isABCDEF
quantity:4

MAIN MENU

01. BOOK ISSUE

02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4)
```

Add New Book:

```
"C:\Users\Vatsal Gupta\Desktop\project.exe"
Please Enter Your Choice (1-13) 9
enter booknameAA
enter book no.2
enter authornameBB
enter quantity3

MAIN MENU

01. BOOK ISSUE

02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4)
```

Count Books:

```
"C:\Users\Vatsal Gupta\Desktop\project.exe"
Please Enter Your Choice (1-13) 11
total number of books are: 7

MAIN MENU

01. BOOK ISSUE

02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4)
```

Delete Book:

```
"C:\Users\Vatsal Gupta\Desktop\project.exe"
Please Enter Your Choice (1-13) 12
Enter the book no to be deleted4

MAIN MENU

01. BOOK ISSUE

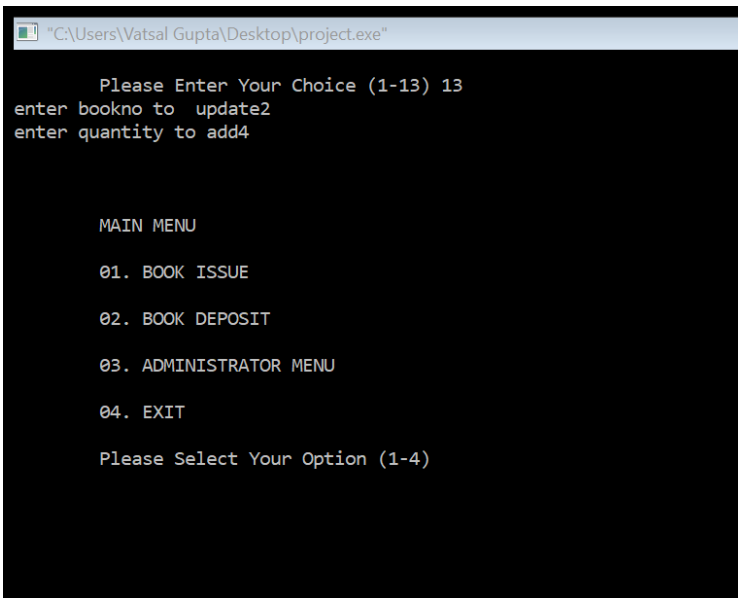
02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4)
```

Update quantity of books:



```
"C:\Users\Vatsal Gupta\Desktop\project.exe"

Please Enter Your Choice (1-13) 13
enter bookno to update2
enter quantity to add4

MAIN MENU

01. BOOK ISSUE

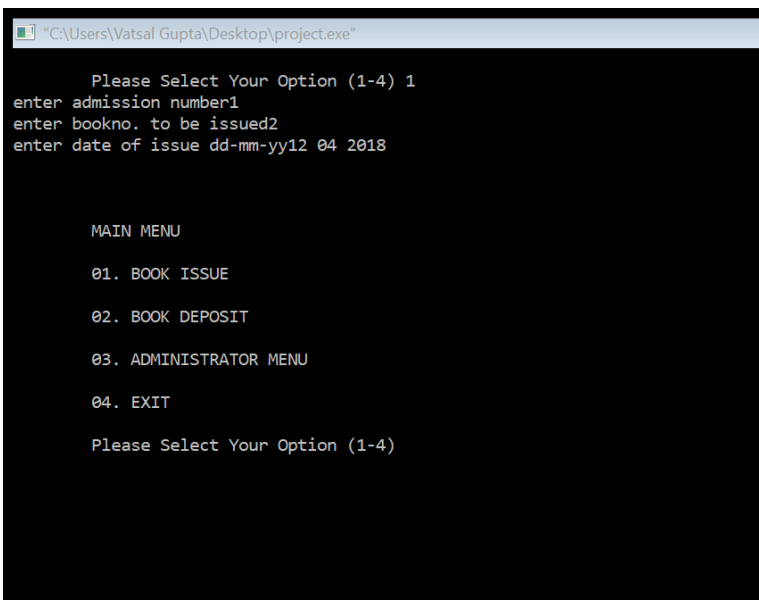
02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4)
```

Book Issue:



```
"C:\Users\Vatsal Gupta\Desktop\project.exe"

Please Select Your Option (1-4) 1
enter admission number1
enter bookno. to be issued2
enter date of issue dd-mm-yy12 04 2018

MAIN MENU

01. BOOK ISSUE

02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4)
```

Display all issued records:

```
"C:\Users\Vatsal Gupta\Desktop\project.exe"
Please Enter Your Choice (1-13) 10
Book No. :2
Student Admission No. :1
The date of issue : 12-4-2018

MAIN MENU

01. BOOK ISSUE

02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4)
```

Return/Deposit Book:

```
"C:\Users\Vatsal Gupta\Desktop\project.exe"

MAIN MENU

01. BOOK ISSUE

02. BOOK DEPOSIT

03. ADMINISTRATOR MENU

04. EXIT

Please Select Your Option (1-4) 2
enter admission number1
enter bookno. to be deposited2
details of record now being deletedBook No. :2
Student Admission no. :1
The date of issue 12-4-2018
enter date of deposit dd mm yy12 5 2018
the fine is 200
```