# **DSA INNOVATIVE ASSIGNMENT**

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**PROJECT TITLE:** LIBRARY MANAGEMENT SYSTEM

**PROGRAMMING LANGUAGE:** C LANGUAGE

#### **INFORMATION ABOUT PROJECT:**

Library management system consists of the management of the books in library, managing things such as issuing a book or submitting a book. It also tells us the last date to submit the books which has been issued. This system is beneficial for both library admin as well as a student.

#### **FUNCTION USED IN THIS SYSTEM:**

- Dynamic memory allocation using calloc().
- Doubly linked list.
- String functions.
- Time header file.

#### **ADMIN PANEL:**

- To insert the book.
- To delete the book.
- To search the book.
- To display all the books.
- Changing of admin panel password.

#### STUDENT:

- To search the book.
- To display all books.
- To issue a book.
- To submit a book.
- To display date of submission of book.

## DATA STRUCTURE USED : DOUBLY LINKED LIST

## **OUTPUT:**

```
If you are a student press : 1
If you are an admin of the library press : 2
Enter 1 or 2 : 2
Enter your password : ***
You have entered wrong information
Press 1 : To go the main menu
Press 2 : To enter password again
Press 3: To change the password
3
Enter your current password : *****
Enter your new password : ****
Your password has been changed successfully.
If you are a student press: 1
If you are an admin of the library press : 2
Enter 1 or 2 : 2
Enter your password : ****
Press 1: To insert the book
Press 2 : To delete the book
Press 3: To search the book
Press 4: To display all the books
Press 5: To go to the main menu
Please enter the name of the book : Physics
If you are a student press : 1
If you are an admin of the library press : 2
Enter 1 or 2 : 2
Enter your password: ****
Press 1: To insert the book
Press 2: To delete the book
```

```
Press 1 : To insert the book
Press 2 : To delete the book
Press 3 : To search the book
Press 4 : To display all the books
Press 5 : To go to the main menu
Please enter the name of the book : Chemistry
If you are a student press : 1
If you are an admin of the library press : 2
Enter 1 or 2 : 2
Enter your password : ****
Press 1 : To insert the book
Press 2 : To delete the book
Press 3 : To search the book
Press 4 : To display all the books
Press 5 : To go to the main menu
Please enter the name of the book : Maths
If you are a student press : 1
If you are an admin of the library press : 2
Enter 1 or 2 : 2
Enter your password : ****
Press 1 : To insert the book
Press 2 : To delete the book
Press 3 : To search the book
Press 4: To display all the books
Press 5 : To go to the main menu
1
Please enter the name of the book : Biology
```

```
If you are a student press : 1
If you are an admin of the library press : 2
Enter 1 or 2 : 2
Enter your password : ****
Press 1: To insert the book
Press 2 : To delete the book
Press 3: To search the book
Press 4 : To display all the books
Press 5 : To go to the main menu
Please enter the name of the book : English
If you are a student press : 1
If you are an admin of the library press : 2
Enter 1 or 2 : 2
Enter your password : ****
Press 1: To insert the book
Press 2 : To delete the book
Press 3 : To search the book
Press 4 : To display all the books
Press 5 : To go to the main menu
Please enter the name of the book : Computer
If you are a student press : 1
If you are an admin of the library press : 2
Enter 1 or 2 : 1
Press 1: To search the book
Press 2 : To display all books
Press 3 : To issue a book
```

```
Press 4 : To submit a book
2
Your book list is as follows :
Physics
Chemistry
Maths
Biology
English
Computer
If you are a student press : 1
If you are an admin of the library press : 2
Enter 1 or 2 : 1
Press 1: To search the book
Press 2: To display all books
Press 3 : To issue a book
Press 4 : To submit a book
Please enter the name of the book : Maths
The book entered by you is found at 3 location
If you are a student press : 1
If you are an admin of the library press : 2
Enter 1 or 2 : 1
Press 1: To search the book
Press 2 : To display all books
Press 3 : To issue a book
Press 4: To submit a book
```

```
Press 3 : To issue a book
Press 4 : To submit a book
Enter the name of the book you want to issue : English
Book English is issued to you on : 20/11/2022
You have to submit English book on or before : 4/12/2022
If you are a student press : 1
If you are an admin of the library press : 2
Enter 1 or 2 : 1
Press 1 : To search the book
Press 2: To display all books
Press 3 : To issue a book
Press 4 : To submit a book
2
Your book list is as follows :
Physics
Chemistry
Maths
Biology
Computer
If you are a student press : 1
If you are an admin of the library press : 2
Enter 1 or 2 : 1
Press 1 : To search the book
Press 2 : To display all books
Press 3 : To issue a book
Press 4 : To submit a book
4
```

```
If you are a student press : 1
If you are an admin of the library press : 2
Enter 1 or 2 : 1
Press 1 : To search the book
Press 2 : To display all books
Press 3 : To issue a book
Press 4: To submit a book
Please enter the name of the book : English
Your book has been successfully added.
If you are a student press : 1
If you are an admin of the library press : 2
Enter 1 or 2 : 1
Press 1: To search the book
Press 2 : To display all books
Press 3 : To issue a book
Press 4 : To submit a book
2
Your book list is as follows :
Physics
Chemistry
Maths
Biology
Computer
English
If you are a student press : 1
If you are an admin of the library press : 2
Enter 1 or 2 : □
```