**LIBRARY MANAGEMENT SYSTEM**

**USE CASE**

Create an application that simulate the library functionalities. Types of users for the application is given below. There must be one login page. Once the user login that user should get respective homepage. Ie, if an admin user logs in then that admin should get the admin home page.

**1.Types of users**

a. Admin

b. Librarian

c. Normal Users

**2.Admin user functionalities**

a. Login as admin

b. Add a user

c. Update user

d. Search user

e. Remove user

**3.Normal user Functionalities**

a. Login as normal user

b. Search for the book

c. Search for the category

d. search for the author

e. Request for the book

f. Request for renew a book

**4.Librarian user functionalities**

a. Login as librarian user

b. Add books

c. Delete books

d. Allocate a book to the user

e. Deallocate a book from the user [Getting book back from the user]

f. Renew the book to a user after 15 days

**Database Design**

•Tables Used

1.User

|  |  |  |
| --- | --- | --- |
| Feild | Datatype | Description |
| userid | int | Primary key |
| username | Varchar(100) |  |
| gender | Varchar(100) |  |
| password | Varchar(100) |  |
| usertype | Varchar(50) |  |
| emailid | Varchar(50) |  |
| phone | long |  |
| noofbooks | int |  |
| expireddate | date |  |
| activestatus | boolean |  |

2.Book

|  |  |  |
| --- | --- | --- |
| Feild | Datatype | Description |
| bookid | int | Primary key |
| bookname | Varchar(50) |  |
| author | Varchar(100) |  |
| category | Varchar(50) |  |
| availability | boolean |  |
| publisher | Varchar(50) |  |
| noofbooks | int |  |
| issuedno | int |  |
| issueddate | date |  |
| shelfno | int |  |

3.Book Status

|  |  |  |
| --- | --- | --- |
| Feild | datatype | Description |
| bookid | int | Primary key |
| Userid | int |  |
| bookname | Varchar(50) |  |
| issueddate | date |  |
| expireddate | date |  |

**View Pages**

• **Login Page (common for all user type)**

Accept User id and password

• **Admin User Pages**

o Admin Home Page

Form for search a user

View all users

Delete option (hyperlink) for every user

Update option (hyperlink) for every user

Option (hyperlink) for create new user

Option for (hyperlink) Logout

o Search page

Option (hyperlink) for home page

Form for search a user

View searched user

Delete option (hyperlink) for every user

Update option (hyperlink) for every user

Option for (hyperlink) Logout

o Update Page

Option (hyperlink) for home page

Form to accept user details with old values

Option for (hyperlink) Logout

**• Normal User Pages**

o Normal User Home Page

Option (hyperlink) for home page

One form for search a book/category/author

Display the books the user borrowed

Option for (hyperlink) Logout

o Search Page

Option (hyperlink) for home page

One form for search a book/category/author

Display the book details which is available

Option (hyperlink) to request a book

Option for (hyperlink) Logout

**• Librarian User Pages**

o Librarian User Home Page

Option (hyperlink) for home page

Form to insert a book

Option (hyperlink) to allot book to a user

Option (hyperlink) to accept the returned book

Check all the allotted books

Option (hyperlink) to go to the User Request Page

Option for (hyperlink) Logout

o Allot Book Page

Option (hyperlink) for home page

Form to accept user id, book id, and date to allot book

Option for (hyperlink) Logout

o Return Book Page

Option (hyperlink) for home page

Form to accept user id, book id, and date to return book

Option for (hyperlink) Logout

o Allotted Book Page

Option (hyperlink) for home page

View all allotted books

Option (hyperlink) to return book

Option for (hyperlink) Logout

o User Request Page

Option (hyperlink) for home page

View all the user request for the books

Option (hyperlink) to accept the request

Option (hyperlink) to reject the request

Option for (hyperlink) Logout