**Library Management System**

**Requirement** :

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

**1. Types of users**

a. Admin

b. Librarian

c. Normal Users

**2. Admin User Functionalities**

a. Login as admin

b. Add 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 category

d. Search for 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 a user

e. Deallocate a book from a user (Getting book back from the user)

f. Renew the book to a user after 15 days (only 3 times)

**View pages**

**• Login Page** (common for all user type) . Accept User id and password .

• **Admin User Pages**

**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

**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

**Update Page**

•Option (hyperlink) for home page

• Form to accept user details with old values

•Option for (hyperlink) Logout

• Normal User Pages

**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

**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

**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

**Allot Book Page**

• Option (hyperlink) for home page

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

• Option for (hyperlink) Logout

**Return Book Page**

•Option (hyperlink) for home page

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

• Option for (hyperlink) Logout

**Allotted Book Page**

• Option (hyperlink) for home page

•View all allotted books

•Option (hyperlink) to return book

•Option for (hyperlink) Logout

**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

***Database Details:***

**Table name**:(book\_details). Book Table for keeping track of book

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field** | **Datatype** | **Null/Not null** | **Key** |  |
| **Book\_Id** | **INT** | **Not null** | **Primary** |  |
| **Book\_Name** | **VARCHAR(100)** | **Null** |  |  |
| **Category** | **VARCHAR(50)** | **Null** |  |  |
| **Author** | **VARCHAR(50)** | **Null** |  |  |
| **Publications** | **VARCHAR(50)** | **Null** |  |  |
| **NumberOfCopies** | **INT** |  |  |  |

**Table name**:(user\_details). User Table for User Information

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field** | **Datatype** | **Null/Not null** | **Key** |  |
| **User\_Id** | **INT** | **Not null** | **Primary** |  |
| **User\_Name** | **VARCHAR(50)** | **Null** |  |  |
| **Address1** | **VARCHAR(100)** | **Null** |  |  |
| **Address2** | **VARCHAR(100)** | **Null** |  |  |
| **Phone\_Number** | **LONG** | **Null** |  |  |
| **Password** | **VARCHAR(10)** | **Null** |  |  |
| **User\_Type**  **Security\_ question** | **VARCHAR(20)**  **VARCHAR(100)** | **Not null**  **Not null** | **Primary** |  |

**Table name**:(book\_issue\_details). Tables to track of Books Issued

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field** | **Datatype** | **Null/Not null** | **Key** |  |
| **Book\_Id**  **Book\_Name**  **User\_Name** | **INT**  **VARCHAR(100)**  **VARCHAR(50)** | **Not null**  **Null**  **Null** | **Primary** |  |
| **User\_Id** | **INT** | **Not null** | **Primary** |  |
| **Issue\_date** | **DATE** | **Null** |  |  |
| **Return\_date**  **Due** | **DATE**  **INT** | **Null**  **Null** |  |  |

**Functionality :**

In Home page when we click on the ***login as*** dropdown button it will ask to select type of users(ADMIN/Librarian/USER ). After selecting type of users it will display a login page with **User id** and **password** field only. In login page after giving valid credentials it will heads to a page and if he/she is a valid user then a home page will be displayed.



After entering to the home page of the website , it will ask to select the type of user, If user is a **Normal User** then it will asked to enter username & password, and if he/she is a valid user then a **Normal User** login page will be displayed.

