**Library Management System**

**REQUIREMENT:-**

Create an application that simulate the library functionalities. There must be Login Page. When user trying to login it should validate the username and password. Once login is successful then it must show the respective pages.

**AIM:-**

* Online Book Issue.
* Request for Librarian to provide new books.
* Student login page to find books.
* Admin login page to add user, Remove user, Update user, Search for user.
* Librarian login page to add books, Remove books, issue book ,update books details.

**FUNCTIONAL REQUIREMENT :-**

**Types of users :**

a. Normal Users

b. Librarian

c. Admin

* **Normal user**
* **Login**:-
* User must enter the user id and Password. UserId and Password will be validated . If userId and Password is not matching then that user should not be enter inside the library
* **Registration**:-
* If user is not exist then user can add their details to get their userId and password.
* **Search for the book:-**
* User can search fora book which they want.
* **Search for category:-**
* User can search book basedon the category.
* **. Search for author:-**
* User can search book basedon theauthor.
* **Request for the book:-**
* User can give the Request to get particuler book.
* **Request for renew a book:-**
* **-**User can Renew the book.

**2. Librarian**

**2.1. Login:-**

* Librarian should enter the userId and Password.If userId Password valid the they can login successfully.

**2.2. Add books:-**

* OnlyLibrarian can Add the Books.

**2.3. Delete Books:-**

* OnlyLibrarian can Remove the Books.

**2.4. Allocate a book to a user:-**

* Librarian will issue the books to Normal users.

**2.5. Deallocate:-**

* Librarian can re take the book from user.

**2.6. Renew:-**

* Once the 15 days over librarien can renew the book to the normal user.

**3. Admin**

**3.1.login:-**

* Admin must be login by providing valid user id and password.

**3.2. Add user:-**

* If user not exist Admin will add the user nd provide the userid and

Password.

**3.3. Update user:-**

* Only admin can update the user Details.

**3.4. Remove user:-**

* Admin can remove the users .

**3.5. Search user:-**

* If required admin can searc for the user based on the user id.

**VIEW PAGE:-**

* **Login Page-**
* Validation
* **NORMAL USER PAGE-**
* **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
* **ADMIN-**
* **Admin Home Page**
* Form for search a user.
* View all users .
* Delete option .
* Update option .
* create new user .
* Logout.
* **Search page**
* Option (hyperlink) for home page
* Form for search a user
* View searched user
* Delete option for user
* Update option user
* Option for Logout
* **Update Page**
* Option for home page
* Form to accept user details with old values
* Option for Logout

**4. Librarian-**

* **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 for home page
* View all the user request for the books
* Option to accept the request
* Option to reject the request
* Option for Logout

**DATABASE:-**

**Tables:-**

* **Book\_Details=>**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Colunm Name** | **Data Type** | **Length** | **PK** | **Not Null?** |
| **Book\_Id** | **int** |  | **yes** | **Not Null** |
| **Book\_Name** | **varchar** | **50** |  | **yes** |
| **Author** | **varchar** | **50** |  | **yes** |
| **Catogory** | **varchar** | **50** |  | **yes** |
| **Language** | **varchar** | **50** |  | **yes** |
| **Year\_Publication** | **Date** |  |  | **yes** |
| **No\_of\_Copy\_present** | **int** |  |  | **yes** |
| **No\_of\_Copy\_Actual** | **int** |  |  | **yes** |

**2.User\_Details=>**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Colunm Name** | **Data Type** | **Length** | **PK** | **Not Null?** |
| **User\_ID** | **int** |  | **yes** | **Not Null** |
| **USer\_Name** | **varchar** | **50** |  | **Null** |
| **Password** | **int** |  |  | **Null** |
| **Address** | **varchar** | **50** |  | **Null** |
| **Contact\_No** | **int** |  |  | **Null** |
| **Email\_Id** | **varchar** | **50** |  | **Null** |
| **User\_Type** | **varchar** | **50** | **yes** | **Not Null** |

**3.Issue\_Detail=>**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Colunm Name** | **Data Type** | **Length** | **PK** | **Not Null?** |
| **User\_Id** |  |  |  | **Not Null** |
| **Book\_Id** |  |  |  | **Not Null** |
| **Issued\_date** |  |  |  | **Null** |
| **Issued\_Id** |  |  |  | **Null** |

**4.Return\_Details=>**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Colunm Name** | **Data Type** | **Length** | **PK** | **Not Null?** |
| **User\_Id** | **int** |  | **yes** | **Not Null** |
| **Book\_Id** | **int** |  | **yes** | **Not Null** |
| **Return\_Date** | **Date** |  |  | **Null** |