ONLINE LIBRARY MANAGEMENT SYSTEM

LITERATURE SURVEY

Library is regarded as the brain of any institutes, of course many institute understand the importance of the library to the growth of the institute and their esteem users which we categorically call the students.

Library staff looks to help them navigate through the rapid changes that are occurring in libraries as these changes in technology, roles, and user expectations strongly alter their daily routines of library. Contemporary library managers need a wider array of skills and attributes than their earlier and more traditional counterparts and will need to seek continual professional development to remain effective as libraries transition into the twenty-first century.

ABSTRACT

Online Library Management System is a system which maintains the information about the books present in the library, their authors, the members of library to whom books are issued, library staff and all. This is very difficult to organize manually. Maintenance of all this information manually is a very complex task. Owing to the advancement of technology, organization of an Online Library becomes much simple. The Online Library Management has been designed to computerize and automate the operations performed over the information about the members, book issues and returns and all other operations. This computerization of library helps in many instances of its maintenances. It reduces the workload of management as most of the manual work done is reduced.

The librarian can a keep track of all transaction of students and faculty information, and also librarian can add books information, student and faculty information, updating and delete the information, and as well as the librarian can keep track of book returning and issue the book.

Functionalities:

- Student/ faculty information are maintained.
- Add/ delete/ update books information.
- Add / delete/ update user's information.
- Issue/ return books information.
- Fine calculation.
- Search book availability.

SYSTEM ANALYSIS

EXISTING SYSTEM:

The existing system here is the ‘traditional library’ which we use to see from the times before. The existing system here is completely manual run system. The burden of controlling the library entirely lies in the shoulder of the admin. More over the term ‘user-friendly’ doesn’t have a place to stand in the existing library system, as the user have the heavy work of finding a desired book from the library.

Some of the major drawbacks of the existing system faces is includes, wastage of time, man power, inconsistency, absence of secure mechanism, burden of record keeping & wastage of storage space, expensive.

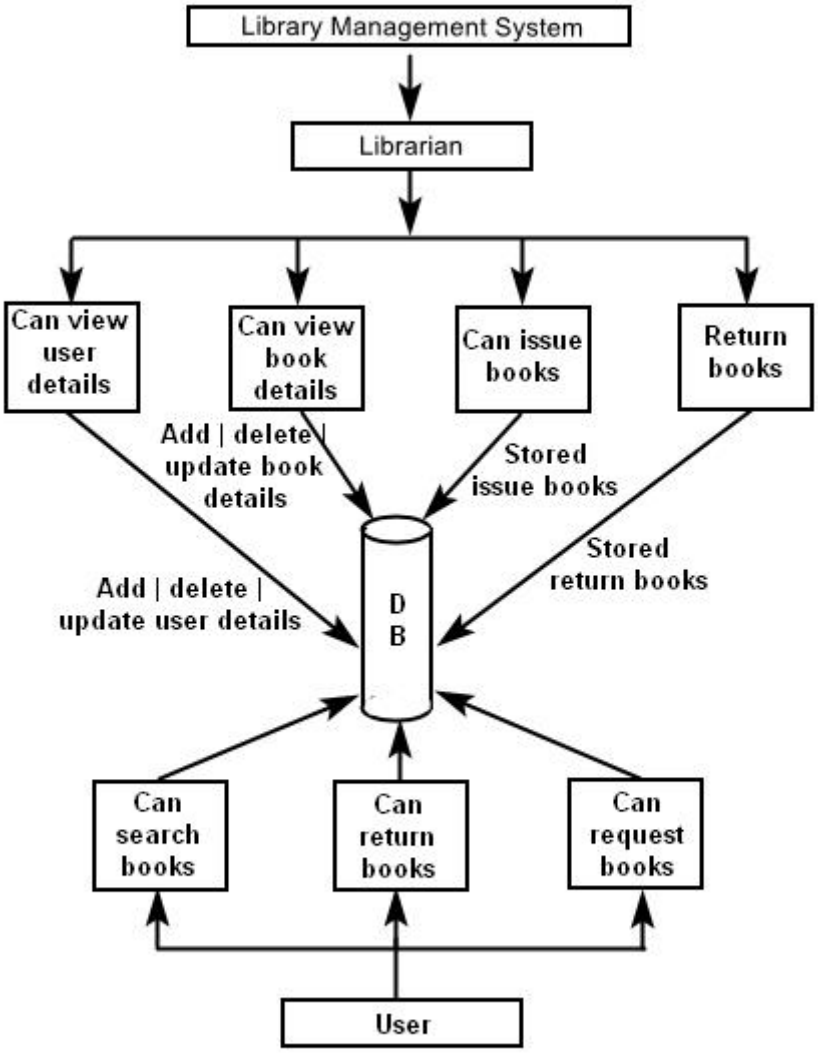
PROPOSED SYSTEM:

Proposed system is an automated Online Library Management System. Through our software amin can add members, add books, search members, search books, update information, edit information, borrow and return books in quick time. Our proposed system has the following advantages.

- User friendly interface
- Fast access to database
- Less error
- More Storage Capacity
- Search facility
- Look and Feel Environment

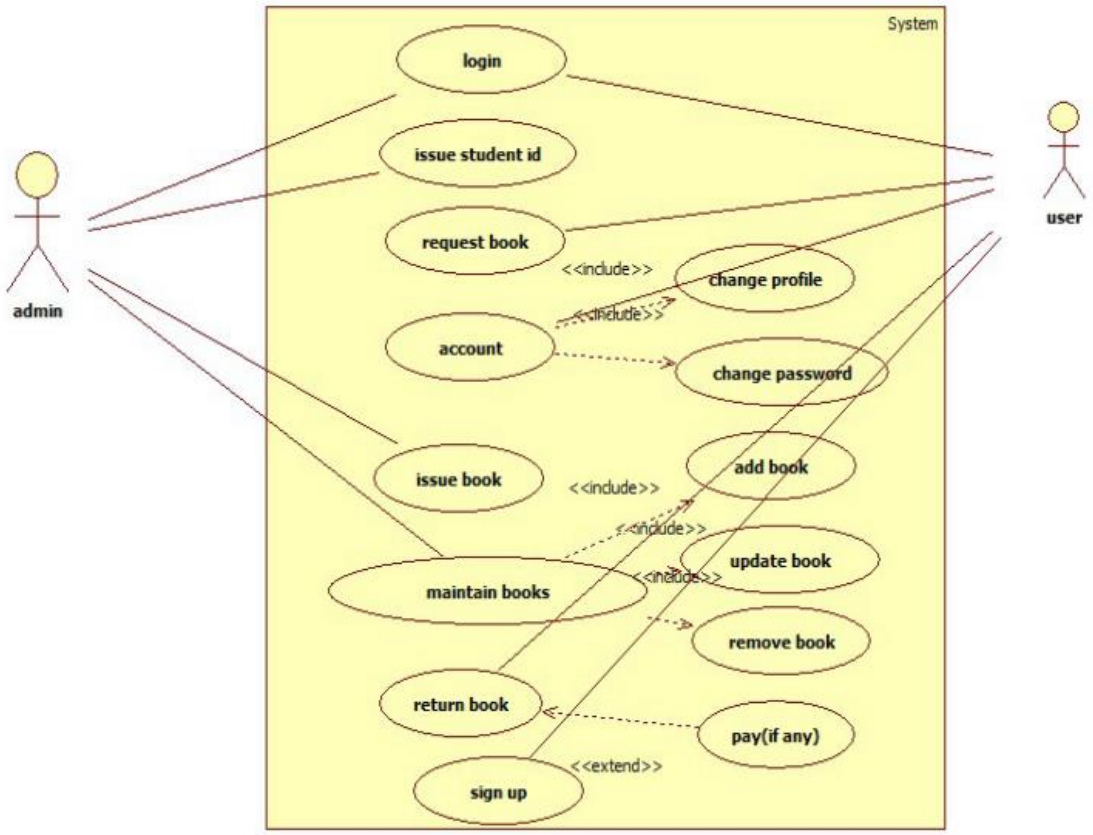
All the manual difficulties in managing the Library have been rectified by implementing computerization.

SYSTEM ARCHITECTURE



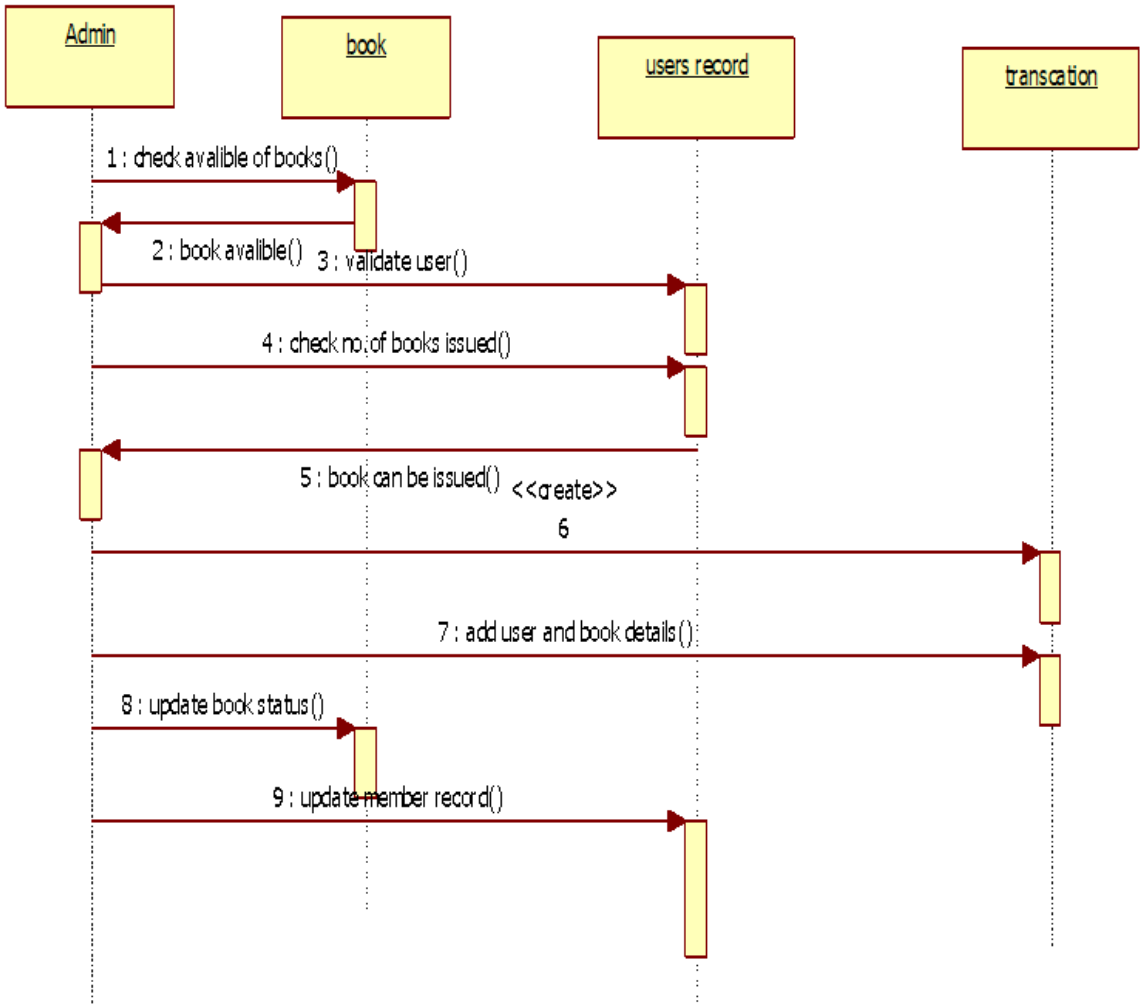
UML DIAGRAMS

Use Case Diagram:



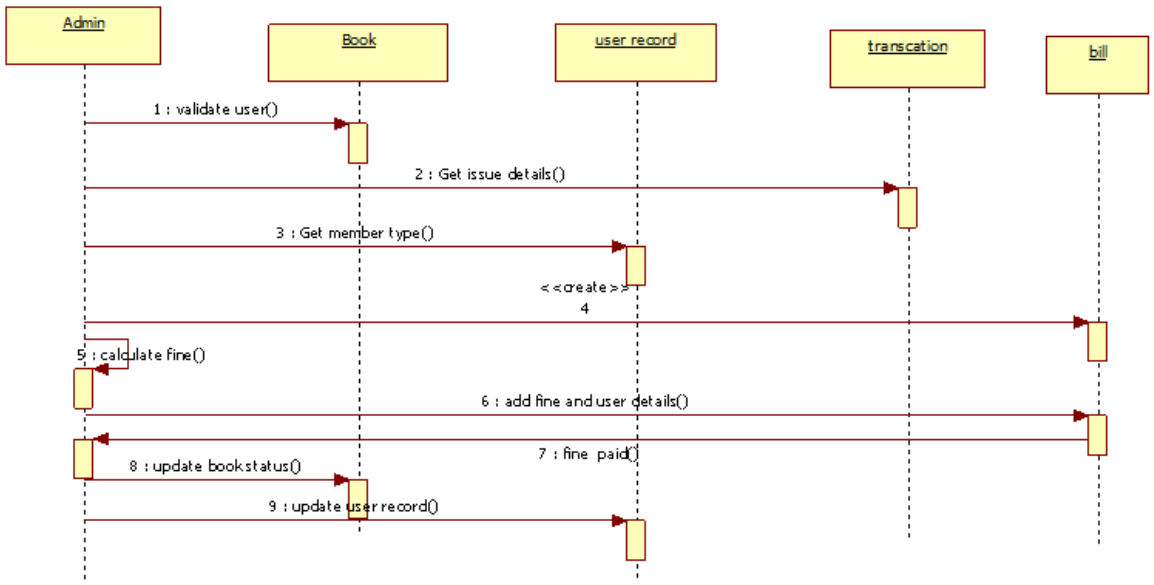
Use Case diagrams give a graphic overview of the actors involved in a system, different functions needed by those actors and how different functions interact. In that have two actors that is admin and user. Admin can manage the users account details, and manage the books information also. But the user can manage your account, request book and return book.

Sequence Diagram for issue book:



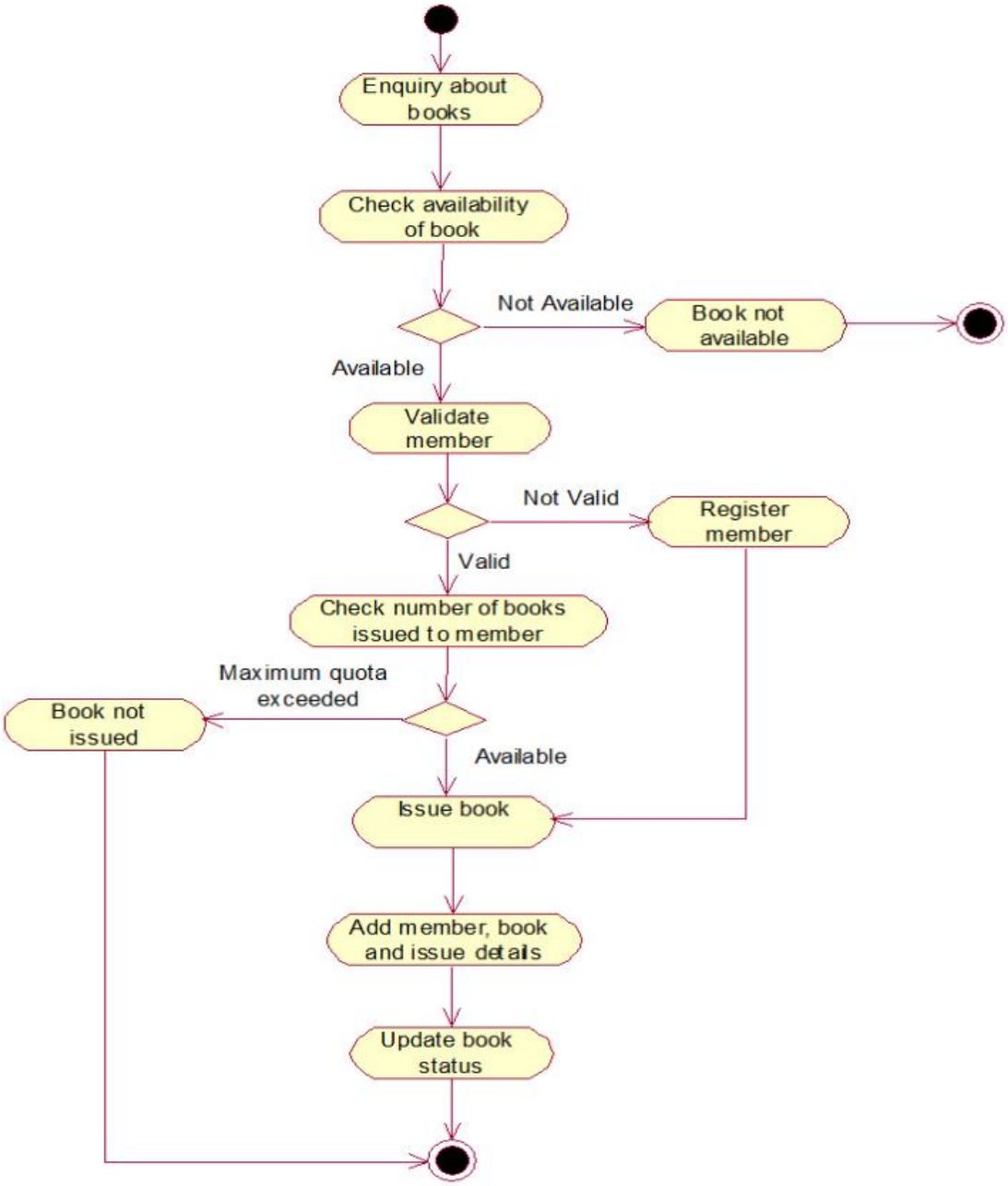
The sequence diagram can show the librarian can availability of books based on the users request, validate member, and then check no of books issued to the user in the member record, and transaction is need to create, update book status and member record table.

Sequence Diagram for Return Book:



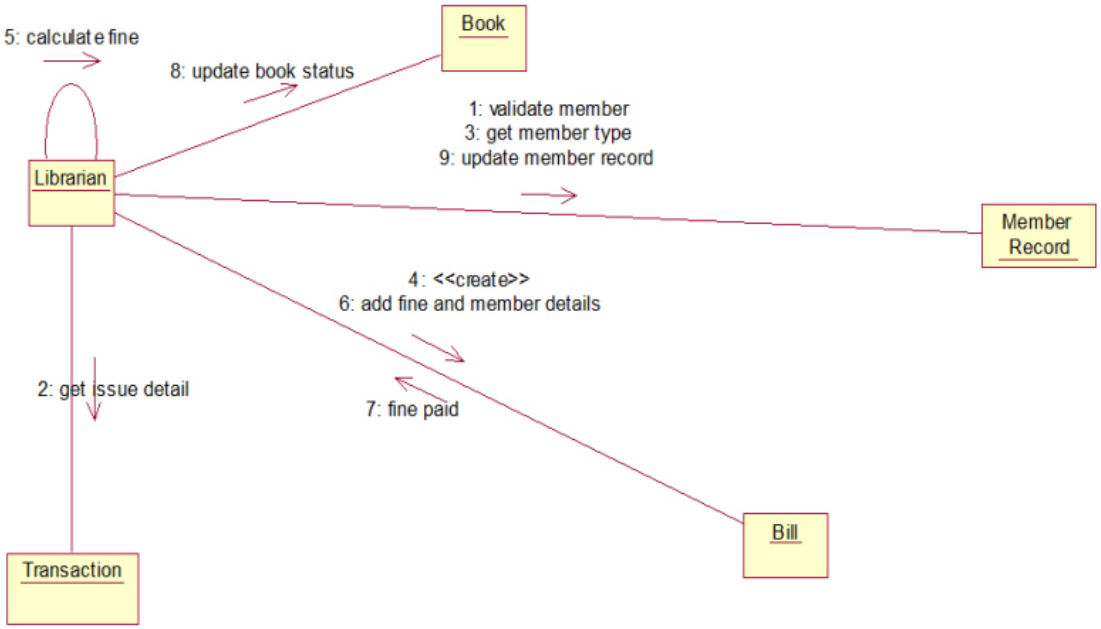
Sequence diagram for return book the member (user) cannot return the book in time then the admin can calculate the fine depends upon the duration. And that transaction is generated by librarian and update their status.

Activity Diagram:



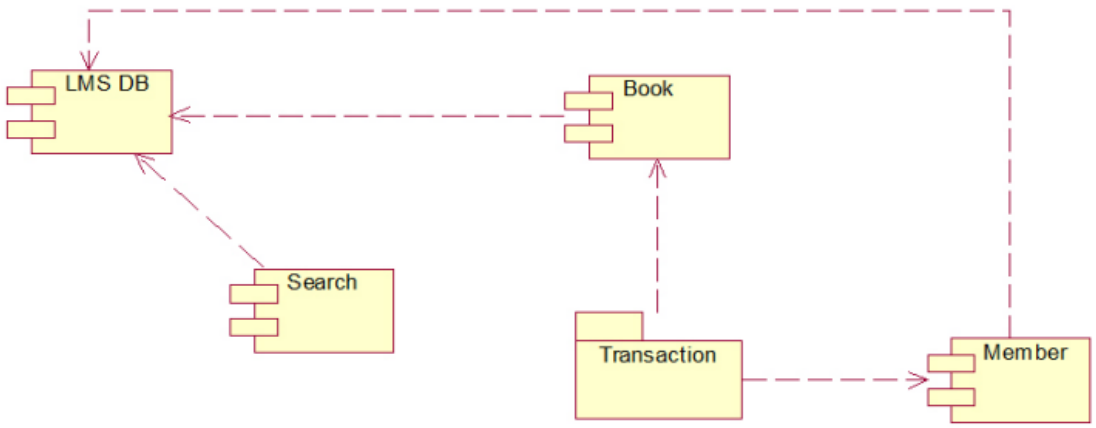
Activity Diagram represent workflows in a graphical way in library management system. In that have mainly describes the book issued to the users. The librarian can check the validity the user. If the user can validate the user can admin give gook to the user otherwise not issued book to the user.

Collaboration Diagram:



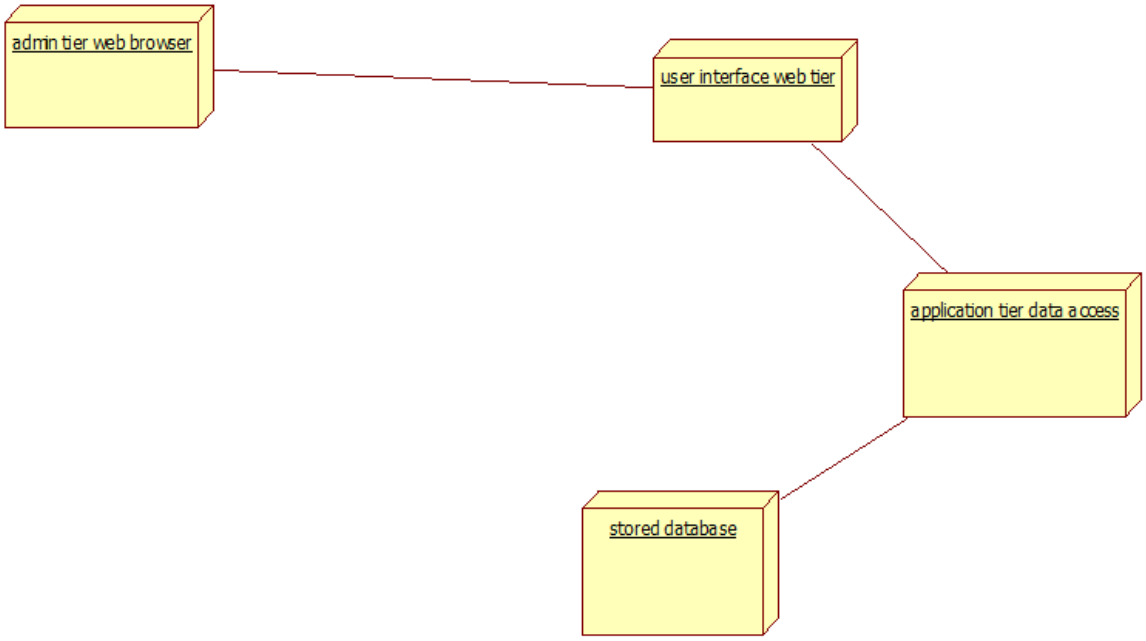
The collaboration diagram show how the users registers and authorities maintains the details of the registered users in the information system. Here the sequence is numbered according to the flow of execution and access the information of the users in librarian database.

Component Diagram:



Component diagram displays the structural relationship of components of a software system. Components communicate with each other using interfaces. The interfaces are linked using connectors.

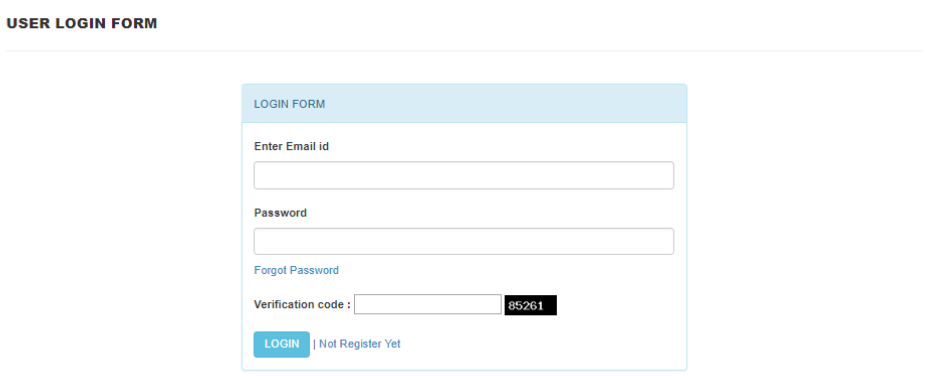
Deployment Diagram:



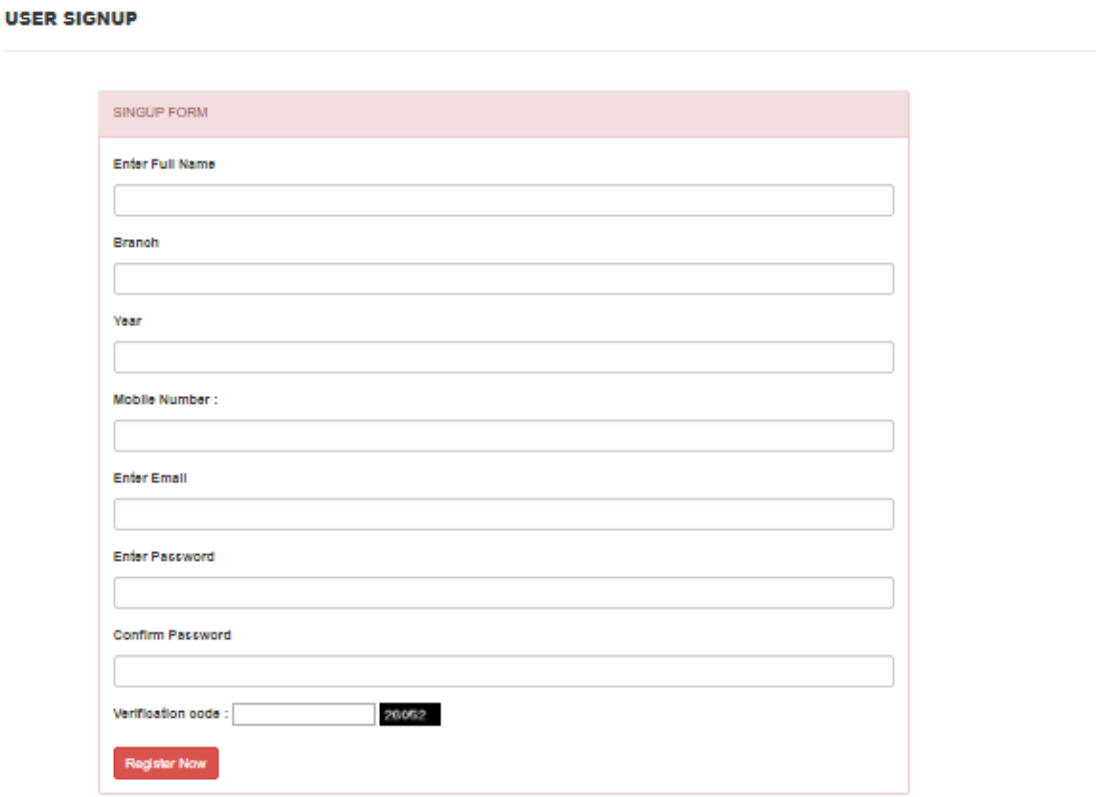
A Deployment diagram shows the hardware and software in that system. It can describe the main roles in that software system. The deployment diagram captures the configuration of the run time element of the application. We use deployment diagram diagram to model the static and dynamic view of an system.

USER SCREENS

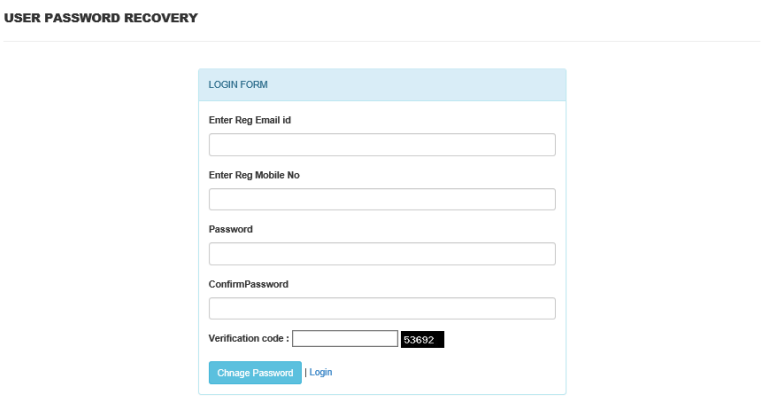
User Login:



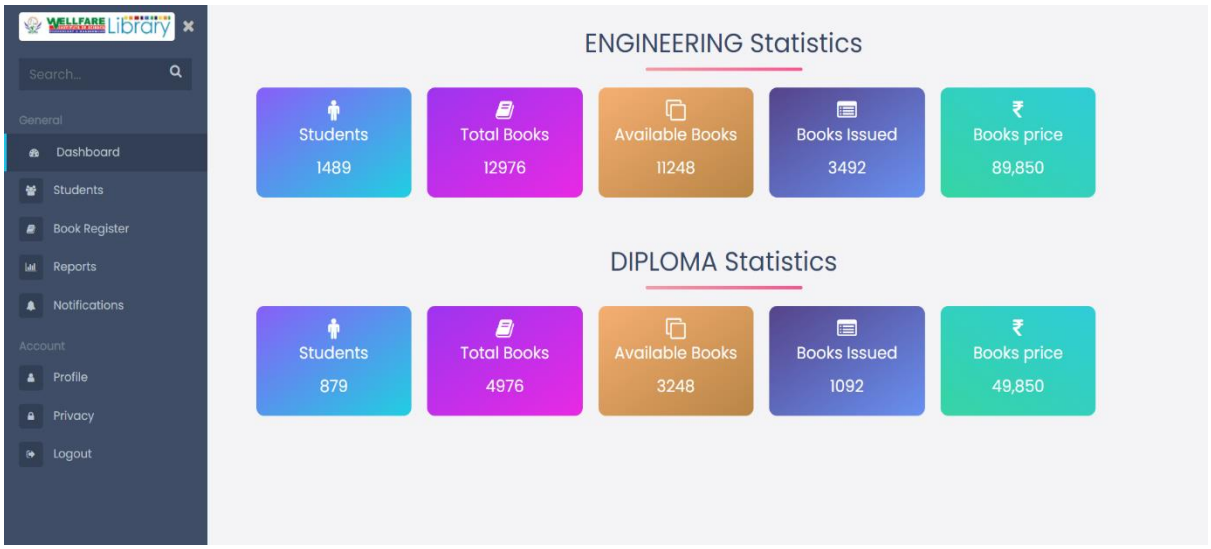
User Signup:



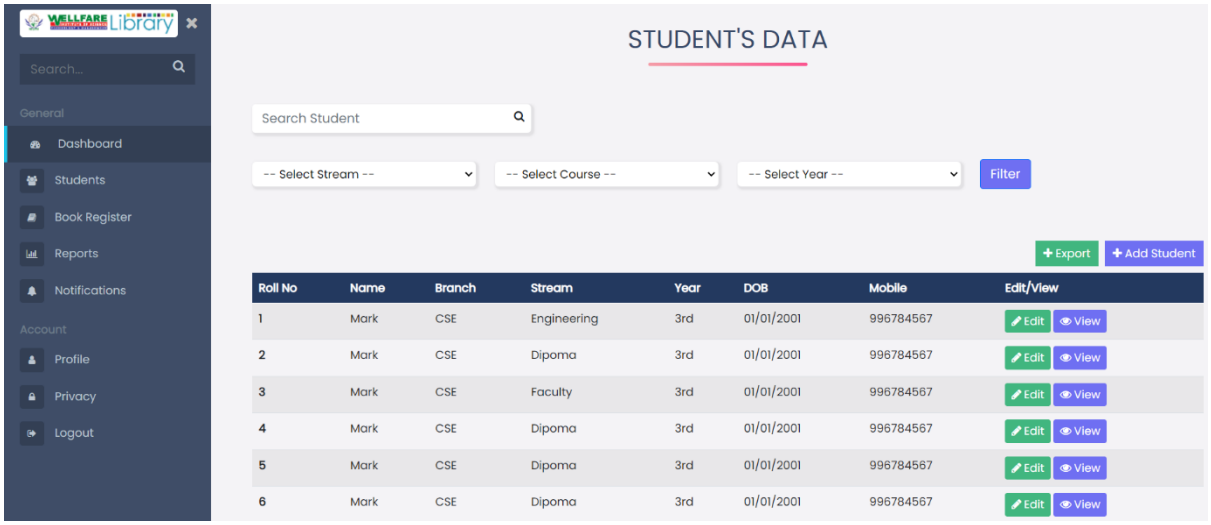
User Forgot Password:



Admin Dashboard :



Admin Students Data Screen :



Hardware Requirements

- Processor : Pentium 3.0GHz or higher
- RAM : 1GB or more
- Hard Drive : 10GB or more

Software Requirements

- Operating System : Windows XP/7 or latest
- Front End : HTML, CSS, JavaScript
- Backend : Python, MySQL
- Framework : Django
- Code editor : Visual Studio Code

CODING STATUS

70% of the project code is completed that includes all the front-end design and database models. Handling different users and backend validations has to be coded.

CONCLUSION:

The Library Management System allows the user to store the book details and the persons details. This software allows storing the details of all the data related to library. The implementation of the system will reduce data entry time and provide readily calculated reports.