Group No-27

**Library Management System**

This project (Library management system) provides the online facility to issue books from Library. This will provide the centralized online facility where student can register and search for the particular book and issue. Admin can manage the books. After the registration student need to login into system to access the other features of the system. All the data of books which is provided by the library management system, the registered students and admin details, everything will be stored in the database and maintained by the centralized admin body. After the registration students will be able to issue the preferred books as needed.

**Requirement Analysis:**

**Problems in the existing system:**

* Lots of paper work is included in the current system that need to store properly and to search any previous record of the student will be difficult for the library management and to store the huge amount of information in the papers will also be very difficult. Lots of papers are also wasted in filling the issue form (The papers that are used to take the registration information).
* To handle the manual system of library management is also needed a huge amount of manpower and this is uneconomical as well as inaccurate.
* To retrieve the information is time consuming and so much effort is also needed. To handle and to store this physical data records, a place is also required.
* Searching for a particular field book is not an easy task.
* Students forget to return issued books, because of that it becomes difficult to issue that book to someone else.
* Manual calculation of fine needs to keep proper record which is not an easy task.
* Students are waiting in the queue for hours to issue the books. This is very much inconvenient for the students as well as for the library management committee.

**The Proposed System:**

* The problems that are available in the existing system, we can resolve by the proposed centralized system very easily. The below mentioned point will describe the system that we are proposing:
* As we are going to manage the entire system online so the paper work is going to be zero. We can keep the separate copy of database as well and we can find the previous records very easily. The maintainability of the records will decrease very much in comparison to the existing system, reliability of the database and records will increase.
* For managing the online system the requirement of the manpower will decrease and it will be accurate as well as economical.
* Student can search the particular book easily category wise and can check the availability of the book.
* Student will get the system generated email as notification for due date.

* No physical place is required to store the soft data and to retrieve the information won’t be time consuming as well as instant information will be available without any effort

**The below mentioned modules are available in the proposed system:**

1. Student Registration
2. Student Login
3. Check availability
4. Search by category
5. Issue book
6. Return book
7. Enquiry
8. Admin Login (Centralized)
9. Manage books
10. Manage registered student
11. Send notification on due date

**Requirements:**

**Software Requirements:**

1. JDK: JDK 8.

2. Backend: SPRING MVC.

3. Frontend: Angular, Html, CSS, Bootstrap, java script, jQuery.

4. Programming Languages: JAVA, J2EE.

5. Database: MySQL5.

6. IDE/Workbench: STS.

**Hardware Requirements:**

1. Operating System: Windows 10 (32/64).

2. RAM: 2GB (Minimum) / 4GB (Recommended).

3. Memory: 500GB.

4. Processor: Intel i3.