**Lab Assignment-1**

**Title- Library Management System**

**Introduction-**

A Library Management System (LMS) is a comprehensive software solution designed to streamline and automate the management of library resources, services, and operations. Libraries, whether in educational institutions, public spaces, or corporate settings, play a critical role in organizing, preserving, and disseminating information.

**Software Requirement Specification(SRS)[Functional Requirements]**

**User Registration and Management**-

User Registration-

User registration is the process through which individuals become members of the library community, enabling them to borrow materials, access digital resources, and benefit from various library services.

User Login- User login is a core feature within a Library Management System (LMS) that enables registered users to access their accounts and take advantage of various services offered by the library.

**Book Management-**

Add a book**-** Adding a book to the Library Management System (LMS) is a fundamental operation that enables librarians and administrators to expand and organize the library's collection effectively. It involves cataloging the book's information, assigning it a unique identifier,

and making it accessible to library patrons.

Remove a Book- The process of removing a book from a Library Management System (LMS) is an essential administrative task. It involves taking a book out of circulation, updating the catalog, and potentially reallocating resources.

Update Book Information- Maintaining accurate and up-to-date book information in a Library Management System

(LMS) is crucial for effective library operations. Books may undergo changes such as new editions, author updates, or corrections to bibliographic data.

**Borrowing and Returning Books-**

Borrowing Book- Borrowing a book from a library using a Library Management System (LMS) typically involves

several steps, whether it's done through librarian assistance or self-checkout counter.

Returning a Book- Returning a book in a Library Management System (LMS) is a straightforward process for

client, whether done with the assistance of library staff or through self-check-in counter.

**Search and Browse-**

Search for Books- Searching for books in a Library Management System (LMS) is a crucial function that enables library users to find the books they need efficiently. The LMS typically provides various search options and filters to help users discover relevant materials.

Browse Books by Category- Browsing books by category or genre is a useful feature in a Library Management System (LMS) .It allows library patrons to explore books based on their interests and preferences.

**Admin Functions-**

User Management- This process ensures that library

patrons have the necessary privileges, access, and services while also maintaining the security and integrity of the system.

Book Management- Book management in a Library Management System (LMS) involves various tasks related to cataloging, tracking, and maintaining the library's collection of books.

Report Management- Report management in a Library Management System (LMS) involves the generation, storage, and analysis of various reports that provide valuable insights and data related to library operations, collection management, and user activities.