

RAJIV GANDHI UNIVERSITY OF KNOWLEDGE AND TECHNOLOGIES

LIBRARY MANAGEMENT SYSTEM FOR OUR IIIT SRIKAKULAM



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INTRODUCTION:

THE “LIBRARY MANAGEMENT SYSTEM” IS A SOFTWARE USES A RECORD OF LIBRARY.

- Library is the collection of different types of Books.
- It provides books for large number of readers and to maintain the records is difficult task.
- We need software for managing the library.
- Thus we have proposed department library management system software that provides the systematic handling the records of books and users.

MOTIVATION:

- Currently in our campus library records are managed manually.
- In the digital world where education sector is working towards making its space automated.
- Hence Library Management System can transform the manually operating libraries into automated ones seamlessly making it efficient ,effective at the same time.
- This motivated us to make Library Management automated by developing user friendly application to manage book records where all the transaction details are in one place and save lot of time by avoiding manual power.

Backend code for the library management system:

- ✓ The Organization route and user route are primarily handled by the Library Management System's backend code.
- ✓ A "ROUTE" is nothing but a predefined URL pattern that directs incoming requests to specific functions or controllers in the backend code.

<http://localhost:2018/org>

- Create_org
- Delete_org
- Forget_password
- Reset_password
- Pending/org_id(request pending list)

Organization route

<http://localhost:2018/user>

- Register user
- Login
- Forget_Password
- Reset_password
- Bookings
- Get_bookings_data

User route

1. ORGANIZATION ROUTE:

- **Description:** The Organization Route handles functionalities related to managing organizations within the Library Management System . It Manages organization-related functionalities.
- **Key Features:**
 - ❑ It allows for the creation, updating, deletion, and retrieval of organization information
 - ❑ It enables administrators or authorized users to add new organizations
 - ❑ modify existing organization details
 - ❑ remove organizations if necessary.
 - ❑ retrieve organization-specific data, such as contact information or associated resources.
 - ❑ It provides the necessary endpoints to interact with organization-related data in the backend, facilitating efficient organization management within the Library Management System.

2. User Route:

- **Description:** The User Route manages user-related operations and authentication within the Library Management System .Handles User-related operations and authentication.
- **Key Features:**
 - ❑ It handles tasks such as user registration, login authentication, user profile management, and access control.
 - ❑ Users can manage their personal information or settings, register their accounts, and securely confirm their identities during login using this method.
 - ❑ It offers endpoints that enable seamless user interaction and safe authentication.

How our Library management system works?

Organization → .XLSX file

```
graph TD; A[Organization → .XLSX file] --> B[It converts into JSON (Key-value pair)]; B --> C[Upload file by using Multer(NPM package)]; C --> D[It saves in database]; D --> E[In the collection of BOOKS];
```

It converts into JSON (Key-value pair)

Upload file by using Multer(NPM package)

It saves in database

In the collection of BOOKS

Using JSON format for XLSX files would ultimately make it easier to integrate and manipulate structured spreadsheet data within web applications.

SCHEMAS:

The schema defines the database structure for storing information related to organizations, users, books, transactions, and other relevant entities in the Library Management System.

- ✓ Organization_schema
- ✓ User_schema
- ✓ Books_schema
- ✓ Bookings_schema
- ✓ OTP_schema



THANK YOU!