SOCIAL OR BUSINESS IMPACT

TEAM ID	NM2023TMID04391
PROJECT TITTLE	BLOCKCHAIN POWERED LIBRARY MANAGEMENT

INTRODUCTION :

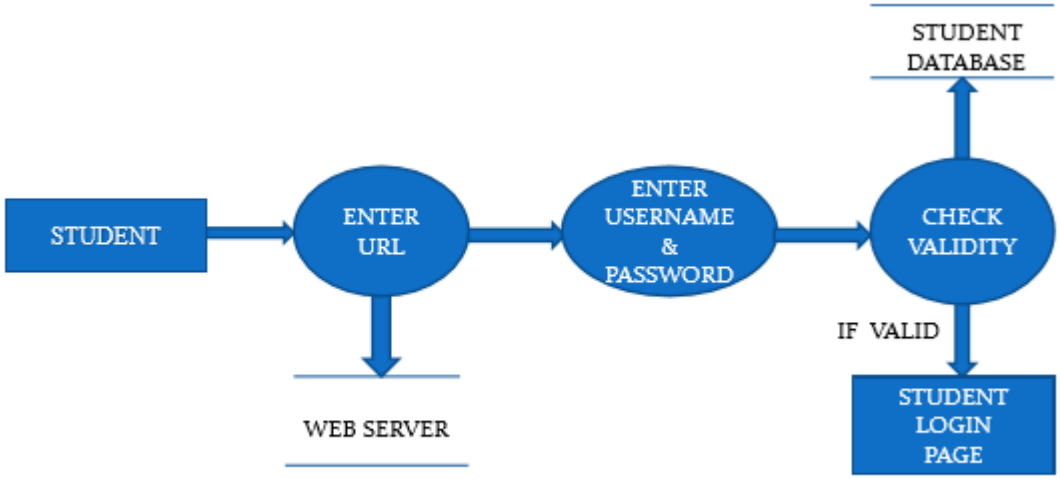
- A library management system can help you seamlessly transition from manually managed libraries to automated libraries, making them more efficient and effective.
- The Library management system's primary role is to securely keep all data on materials discovered in a library in a cloud data storage.

Existing System:

- Presently we are using manual card system for librarymanagement.
- The staff of the library itself should noteevery transactions occurring at the library like issuing the book, adding new books, returning of books etc.For eachstudent a member ship .
- form will be provided. Then afterfilling that form they get a member deforms to issue a book, student has to bring their library card. Then thelibrarian will do every transaction.
- Librarian will keep aregister for to store the entire details of the books like,name of the book, author name, accession number,classification number etc.
- Library Management System (LMS) using PHP provides a simple GUI (Graphical User Interface) for the Library Staff to maintain the records of the books and the whole library

management system digital. It is designed & develops for the receipt and Issuance of books in the library.

- a non-computerize Library management system, when a book is issued or returned. It is noted down in a register after which data entry is done to update the status of the books. This process is a time-consuming and proper update of this information cannot be guaranteed



WORK EFFICIENCY:

- The Library Management System improves efficiency by filling in the gaps in a library's struggles
- The LMS can cut down time spent on administrative tasks, such as searching for books, checking in or checking out books, and handling lost or damaged items
- . Libraries can do the smart work instead of the hard work and grow their patrons' satisfaction with excellent services

ARCHITECTURE:

- we know, any software application consists of broadly three parts: Front-End, Back-End and a Database part. This application also has these three parts.
- The front-end part helps the admin and librarian to interact with the database.
- 4The front-end part is further divided in to three different sections or application modules.
- Those application modules are Admin Module, Librarian Module and Student Module
- . These modules can be accessed by the administrator, librarian and students by interacting with the front-end screens of the application respectively. The modules are

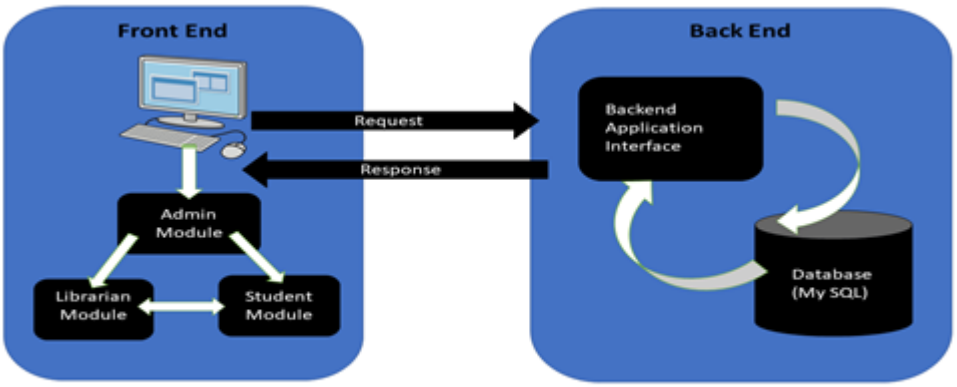


Fig-1: High level design of the application

Application Module:

- The whole software application is divided in to three modules which are Admin Module, Librarian Module and Student Module.
- These three sections are accessible through the application's three different panels, making it user-friendly.
- The modules are interconnected with each other so that they can communicate the information between them.
- For example, admin module is connected to the librarian module and only those people can access the librarian module which are authorised by the administrator under the admin module.

- Similarly, the students will be able to access the student module only if they are registered in the library database by the librarian.

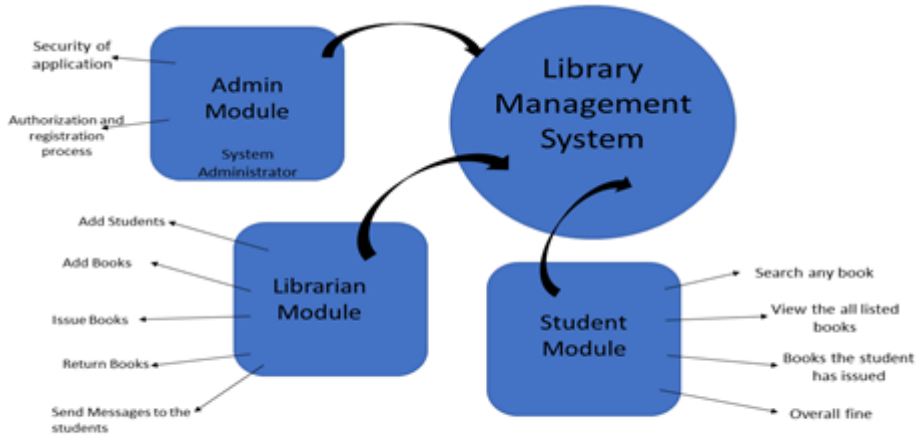


Fig-2: Application Module

RESULTS AND OUTPUTS:

- When the librarian opens the application, a login page will come on the screen.
- After successful login by the librarian, a home screen will come in front of it where he can do all the operations
- . He can go to different sections on the home screen to perform various operations.

Fig-3: Login Page and Home screen of Librarian Module

CONCLUSION:

- This paper mainly focuses on how we can improve the traditional method of working of a library because the traditional method includes doing all the things in manual mode which is slow, less efficient, less secure, and difficult to manage.
- The solution to this is an online library management system which take care of all the work by automating and digitizing the whole process.
- Our application is based on Java and is linked to a relational database (sql). The frontend part has been coded using Java and its packages like awt and swing.
- The backend is supported and connected with database using java, its libraries and APIs. With the increase in the workload of the library, new features can be added to the existing application to make it relevant in the future as well.