**Department of Computer Science and Engineering (CSE)**

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**Lab Project Name: Library Management System**

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| **Lab Project Status**  **Marks: ………………………………… Signature: .....................**  **Comments: .............................................. Date: ..............................** |

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# Chapter 1 Introduction

## Introduction

A library management system is a task that oversees an stores books data electronically, as indicted understudies need.

This system is handy for people going to the library and searching for their desired book and for the librarian to guide them and take care of these things. It ensures that everything works in systematic order, given that each person taking or returning books needs to enter the record in the system.

## Design Goals/Objective

The main objective of the library management system is to manage books, people as well as their count and also books taken by people, the date on which they took that particular book, expected date of return, late due fees, membership details.

This library management is very efficient and also cost-effective. It saves a lot of time for both librarians and also students. With this, manual work is reduced, requiring less staff and maintenance. This system is user-friendly and also very easy to use.

# Chapter 2

# Analysis of Features

**We will start with features required by library staff**

* Record while issuing books- When anyone takes a book, staff should be able to scan the barcode on the book and should be able to enter the record.
* Profile editing- Staff should be able to edit the profile and the profiles of the people with membership in that library.
* They should be able to keep track of books issued by them.
* Should be able to ask, request, or demand the books from the people who took that if they crossed the due date.
* They should be able to track books, their place, and so on.
* If there occurs any change in the system, or if anyone else entered details or tried to access the system, staff should get the notification.

**Next going to features required by a student**

* They should be able to create their account themselves
* If their desired book is not available in the library, they should be able to request that particular book.
* They should be able to receive notification if the due date for any particular book is exceeded.
* A payment option should be there so that students can pay their membership fees, late fees, and so on.

# Chapter 3

# Performance evaluation

## Creating Tables

## Let us create a database as db\_LibraryManagement and then create all the required tables inside it.

## Create a table for a book

## Library

## Storing Book

## Author

## Inserting Data

## Next is having some data inserted into the tables.

## Adding data into the table book.

## Structure of the table for book issue.

## Structure of librarian table.

## Adding details of the librarian

## Structure of table for the member.

## Now let’s add primary keys to these tables.

## Testing

## Now it’s time to test our database. In this project we will test this Database using SQL through XAMPP.

## TOOLS

## XAMPP application

## Windows or Linux OS

# Conclusion

## Introduction

So overall, we have seen-

* To build a database to maintain all the related information
* We built tables separately to store data.
* Learned the purpose of the library management system.
* What features are required for students and librarians to use LMS?
* We have seen all the implementations using MYSQL
* and how the software allows storing all the details related to the library.
* Finally, we tested the final database.

## Scope of Future Work

There is a future scope of this facility that many more features such as online lectures video tutorials can be added by teachers as well as online assignments submission facility, a feature of group chat where students can discuss various issues of engineering can be added to this project thus making it more interactive more user friendly and project which fulfills each user need in the best way possible.

# References

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2. <https://www.analyticsvidhya.com/blog/2022/07/library-management-system-using-mysql/>