GE-103

LIBRARY MANAGEMENT SYSTEM

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***Abstract* – A library is a collection of books and other sources of information that are made accessible to a community for taking any reference or borrowing. The process of handling a library is very troublesome and labour-intensive. So as to make the process of handling a library easier, faster, and more comprehensive way this project aims to design a computerized library management system using python and MySQL.**

***Keywords* – Library Management System, More Efficient, Automated Management, Increases Productivity, User Friendly**

I. INTRODUCTION

A **library management system** is software that has been developed to handle the basic housekeeping functions of library management for the admin staff of the library. It's a well-organized software solution for library management for the admin staff of the library. It helps to provide information on any book present in the library to the user as well as a staff member. It also involves maintaining the database of maintaining new books and the record of books that have been retrieved or issued, with their respective dates. It is developed to automate the task of entering the records of new books and retrieving the details of books available in the library. Using the library management system staff can also maintain the late fine of library members who return the issued book after the due date. Library Management systems are useful for many organizations such as School Libraries, College Libraries, Public Libraries, etc.

II. OBJECTIVE

The main objective of the Library Management System is to eliminate all the problems faced in manual management of library such as lack of availability of accurate information, time consuming process of manual recording of transactions, frequent loss of older records, etc. The main overall aim is to provide the user an easy to handle and automated library management system which supersedes all the drawbacks of manual managing of library. This management system helps to eliminate the paperwork in the library and shift everything to technology and make the functioning of the library faster. It records every transaction in a computerised system so that problems and such as recording files missing won't happen. We have tried to design a user-friendly working model that suits the user and saves time and money. It provides a system where the library staff can catch defaulters and not let them escape.

III. LITERATURE REVIEW

Before the advent of computer in modern age there are different methods of keeping records in the library. Records are kept in the library on shelves and each shelf are labelled in an alphabetical order, in which the categories of books available are arranged on different position on the shelves and as well are recorded on the library manuscript.

After the invention of computer The first library management system to be reviewed is the KOHA library management system. Since the original implementation in1999, KOHA functionality has been adopted by thousands of libraries worldwide, each adding features and functions, deepening the capability of the system.

Another Library Management System is the Capital's library software with the following benefits increases support available for staff and users in any modern library service, provides efficiency, innovative system that's saves library time and improves the user experience.

IV. NEED FOR LIBRARY MANAGEMENT SYSTEM

Library Management System has many uses such as:

1. Increased productivity and job satisfaction among staff members as it eliminated duplication of efforts.
2. More economical and secure way of storing all the data
3. More accurate and faster access to all the information.
4. Greater accountability and transparency in operations.

V. PRE -REQUISITES

1. **SOFTWARE REQUIREMENTS:**
   - **a.** INTERFACE : Python 3.7.0 & above
   - **b.** DATABASE : SQL(Structured Query Language)
   - **c.** PLATFORM : Windows 7 & above
   - **d.** ADDITIONAL REQUIREMENTS : Python IDLE with mysql-connector package

VI. CONCLUSION

In this project, we have learned a lot of new things about Python and MySQL. We used MySQL to store all the transactions of the library and storing all the different things involve in managing of library. We used python as means to code all the important parts so that the system stays interactive for the users.

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