

INT 213 PYTHON PROGRAMMING

PROJECT

LIBRARY MANAGEMENT SYSTEM

Submitted by

Harshvardhan S A

12102820

**INTRODUCTION:**

Library management system is a project which aims in developing a computerized system to maintain all the daily work of library. This project has many features which are generally not available in normal library management systems like facility of user login. It also has a facility of admin login through which the admin can monitor the whole system. It has also a facility where student after logging in their accounts can see list of books issued and its issue date and return date.

Overall, this project of ours is being developed to help the students as well as staff of library to maintain the library in the best way possible and reduce the human efforts.

**OBJECTIVE:**

**Project Objectives**:

The project objectives that will be achieved after completion of this project are discussed below.

The objectives are as follows:

• Online book issue

• Request column by user for providing new books

• A separate column for digital library

• User login page where user can find books issued by him/her and date of return.

• A search column to search availability of books.

**System Objectives:**

• Improvement in control and performance the system - is developed to cope up with the current issues and problems of library. The system can add user, validate user and is also bug free.

• Save cost - After computerized system is implemented less human force will be required to maintain the library thus reducing the overall cost.

• Save time - Admin can search record by using few clicks of mouse and few search keywords thus saving his valuable time.

DESIGN:

**Graphical User Interface:**

A Graphical user interface is an interface through which an user can interact with electronic devices such as computer and other applications ,with the help of mouse there are so many graphical user interfaces Tkinter is mostly used as it is fast and easy to create GUI applications This interface uses icons, menus and other visual indicator representations to display information and related user controls, unlike text-based interfaces, where data and commands are in text. Book Management System: The purpose of this project was to develop a GUI interface for Book Management System in LPU using python.

**BMS:** The BMS module contains Login, Register and Available Books option through which user can access the System.

**REGISTER**: The REGISTER module is developed to get some data about the user and to giving them access to the BMS. This contains data like name, address, gender, mobile no, email id.

**LOGIN**: The LOGIN module allows user to access the BMS with their registered credentials. The Credentials contain username and password.

**SUBMIT BOOK**: This module let user to submit the issued book by using their credentials.

**REQUEST BOOK:** This module let user to raise a request for a book to be issued.

(a). TOOLS USED:

1. Python 3.10.6: Python is a general-purpose programming language. Hence, you can use the programming language for developing both desktop and web applications. Also, you can use Python for developing complex scientific and numeric applications. Python is designed with features to facilitate data analysis and visualization.

2. Tkinter: Tkinter is Python's standard GUI (Graphical User Interface) package. Tkinter is not the only GUI Programming toolkit for Python. It is however the most co used one.

CONCLUSION:

In conclusion, the Library Management System developed using Python and Tkinter is an efficient and effective way to manage library operations. The system allows librarians to easily add, delete, and modify book records, manage borrower information, and generate reports. The use of Tkinter GUI provides a user-friendly interface that simplifies the process of managing library operations. With this system, librarians can keep track of book borrowing, monitor overdue books, and generate various reports, including borrower lists, book lists, and overdue books. The system also enables librarians to save time and reduce the possibility of errors while performing their duties. Overall, the Library Management System is a great solution for any library looking to modernize their operations and simplify their tasks. The use of Python and Tkinter ensures that the system is flexible, scalable, and easy to maintain.

REFERENCES:

Book: Coding with Python