# Jaypee university of information technology

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# Library management system

# Contents

# Introduction

The library management system facilitates the user to add new book records and delete it, it allows the user to manage the library system online and efficiently

not only this we can delete an individual record as well as full inventory update the book details change the book availability status

and clear fields too we have options to add book name, book id, book's author as well as card id of the issuer.

In a place like library where you have hectic record maintaince this system comes very helpful it reduces manual error in case of updating book records.

# About the project

In this project:

user can add book name.

user can add book id.

User can also add the name of Author, Book Id.

User can add status of book wether its available or issued.

User can add new record and clear fields.

User can delete book record and delete full inventory too.

User can update book details and change availability after initializing it first.

# Tools and modules used

we have used two modules and various functions from these two modules

import sqlite3

Python SQLite3 module is used to integrate the SQLite database with Python.

It is a standardized Python DBI API 2.0 and provides a straightforward and simple-to-use interface for interacting with SQLite databases

The sqlite3.connect() function returns a Connection object that we will use to interact with the SQLite database held in the file aquarium.db.

The aquarium.db file is created automatically by sqlite3.connect() if aquarium.db does not already exist on our computer.

In short it connects sql database to our program.

# Continued..

import tkinter

Tkinter module which is the standard GUI library for Python. Python when combined with Tkinter provides a fast and easy way to create GUI applications.

Tkinter provides a powerful object-oriented interface to the Tk GUI toolkit.
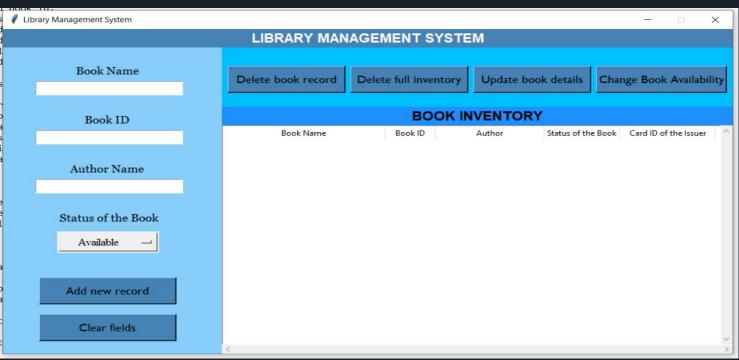
in our program we have used messagebox, simpledialogal widget from tkinter.ttk

MessageBox Widget is used to display the message boxes in the python applications. This module is used to display a message using provides a number of functions.
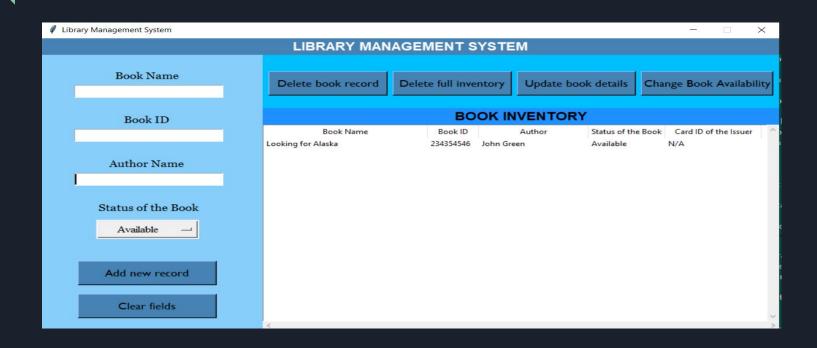
The tkinter.simpledialog module contains convenience classes and functions for creating simple modal dialogs to get a value from the user.

The above functions provide dialogs that prompt the user to enter a value of the desired type

# Application snapshot

# After adding a record (cont..)

# Applications

Our project mainly aims for libraries in managing their records:-

Using library management system the librarian can catalogue and maintain all types of books, journals, CD's etc.

Provision to request for new titles, journals and magazines.

Powerful search engine allows users to find information in the library in no time.

Charge users for lost/damaged books.

Automatic fine fees calculation.

Newspapers attendance is maintained.

# Future scope of the project

Authenticate users at their login.

rovide the list of books the users can borrow.

Facility to reserve books that are available.

A status page for all users to view books reserved by them.

Facility to cancel the reservation for a book made earlier.

A status page for all users to view books borrowed by them, their individual due dates and their individual penalties if any.

# Continued..

An interface to view and edit the own profile.

Provide method for adjusting account settings such as passwords.

Mechanism to reset the password in case user forgets it.

Providing interface to add or delete books to staffs.

# Conclusion

We have successfully devloped the library management system, we have used tkinter and sqlite3 modules and from them we used messagebox, simpledialog and connect functions as well as graphical user interface for better user interface and user experience.

In our project library Management System we have stored all the information about the workings of library like add, delete and update the status of book, delete inventory, clear fields etc.

This data is helpful for the applications to facilitate users to know the details of the book. We had considered the most important requirement only,

many more features and details can be added to our project in order to obtain even more user-friendly applications

# Acknowledgement

I would like to express my special thanks of gratitude to my teacher MR JAGPREET SIDDHU who gave me the golden opportunity to do this wonderful project on the topic LIBRARY MANAGEMENT SYSTEM, which also helped me in doing a lot of Research and i came to know about so many new things I am really thankful to them.

# Thank you

# Any Questions?