DATABASE PROJECT.

PROJECT ON LIBRARY MANAGEMENT SYSTEM

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import tkinter as tk

import sqlite3

# Function to add a book to the library

def add\_book():

title = title\_entry.get()

author = author\_entry.get()

category = category\_entry.get()

if title and author and category:

try:

cursor.execute(

"INSERT INTO books (title, author, category) VALUES (?, ?, ?)",

(title, author, category)

)

db.commit()

status\_label.config(text="Book added successfully", fg="green")

except Exception as e:

db.rollback()

status\_label.config(text=f"Error: {e}", fg="red")

else:

status\_label.config(text="Title, Author, and Category are required", fg="red")

# Function to view all books in the library

def view\_books():

cursor.execute("SELECT \* FROM books")

books = cursor.fetchall()

book\_list.delete(0, tk.END)

for book in books:

book\_list.insert(tk.END, book)

# Create an SQLite database connection

db = sqlite3.connect("library.db")

cursor = db.cursor()

# Create the "books" table if it doesn't exist

cursor.execute("""

CREATE TABLE IF NOT EXISTS books (

id INTEGER PRIMARY KEY AUTOINCREMENT,

title TEXT NOT NULL,

author TEXT NOT NULL,

category TEXT NOT NULL

)

""")

db.commit()

# Create the main window

root = tk.Tk()

root.title("Library Management System")

# Create and configure GUI components

title\_label = tk.Label(root, text="Title:")

author\_label = tk.Label(root, text="Author:")

category\_label = tk.Label(root, text="Category:")

title\_entry = tk.Entry(root)

author\_entry = tk.Entry(root)

category\_entry = tk.Entry(root)

add\_button = tk.Button(root, text="Add Book", command=add\_book)

view\_button = tk.Button(root, text="View Books", command=view\_books)

status\_label = tk.Label(root, text="", fg="green")

book\_list = tk.Listbox(root, height=10, width=50)

# Place GUI components on the window

title\_label.grid(row=0, column=0)

author\_label.grid(row=1, column=0)

category\_label.grid(row=2, column=0)

title\_entry.grid(row=0, column=1)

author\_entry.grid(row=1, column=1)

category\_entry.grid(row=2, column=1)

add\_button.grid(row=3, column=0, columnspan=2)

view\_button.grid(row=4, column=0, columnspan=2)

status\_label.grid(row=5, column=0, columnspan=2)

book\_list.grid(row=6, column=0, columnspan=2)

# Start the GUI application

root.mainloop()

# Close the database connection when done

db.close()





