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Python Mini Project Documentation

1. Topic: Library Management System

2. Technology used:
   Front-end GUI: Tkinter
   Database: MySQL

3. Short Description:
   We have created a library management system. This system is meant to be used by the Admin of any Library to keep track of the books in the Library and who has the books. This system has different functionalities such as login/registration, adding new books, deleting books, issuing books, viewing list of all books, returning books, checking availability status of any particular book, etc.

4. Connectivity code:
   ```
   mypass = "neil"
   mydatabase="db"

   con=pymysql.connect(host="localhost",user="root",password=mypass,database=mydatabas
   e)
   cur = con.cursor()   #Cursor object is used to call execute() method to perform SQL
   commands
   ```

5. Code of any 1 functionality:

   Deleting a book code:
   ```
   from tkinter import *
   from PIL import ImageTk,Image
   from tkinter import messagebox
   import pymysql


   mypass = "neil"
   mydatabase="db"

   con =
   pymysql.connect(host="localhost",user="root",password=mypass,database=mydatabase)
   cur = con.cursor()


   issueTable = "books_issued"
   bookTable = "books" #Book Table


   def deleteBook():

       bid = bookInfo1.get()
   ```

```python
        deleteSql = "delete from "+bookTable+" where bid = '"+bid+"'"
        deleteIssue = "delete from "+issueTable+" where bid = '"+bid+"'"
        try:
            cur.execute(deleteSql)
            con.commit()
            cur.execute(deleteIssue)
            con.commit()
            messagebox.showinfo('Success',"Book Record Deleted Successfully")
        except:
            messagebox.showinfo("Please check Book ID")


        print(bid)

        bookInfo1.delete(0, END)
        root.destroy()

def delete():

    global bookInfo1,bookInfo2,bookInfo3,bookInfo4,Canvas1,con,cur,bookTable,root

    root = Tk()
    root.title("Library")
    root.minsize(width=400,height=400)
    root.geometry("600x500")


    Canvas1 = Canvas(root)

    Canvas1.config(bg="#006B38")
    Canvas1.pack(expand=True,fill=BOTH)

    headingFrame1 = Frame(root,bg="#FFBB00",bd=5)
    headingFrame1.place(relx=0.25,rely=0.1,relwidth=0.5,relheight=0.13)

    headingLabel = Label(headingFrame1, text="Delete Book", bg='black', fg='white',
font=('Courier',15))
    headingLabel.place(relx=0,rely=0, relwidth=1, relheight=1)

    labelFrame = Frame(root,bg='black')
    labelFrame.place(relx=0.1,rely=0.3,relwidth=0.8,relheight=0.5)

    # Book ID to Delete
    lb2 = Label(labelFrame,text="Book ID : ", bg='black', fg='white')
    lb2.place(relx=0.05,rely=0.5)

    bookInfo1 = Entry(labelFrame)
    bookInfo1.place(relx=0.3,rely=0.5, relwidth=0.62)

    #Submit Button
```

```
SubmitBtn = Button(root,text="SUBMIT",bg='#d1ccc0', fg='black',command=deleteBook)
SubmitBtn.place(relx=0.28,rely=0.9, relwidth=0.18,relheight=0.08)

quitBtn = Button(root,text="Quit",bg='#f7f1e3', fg='black', command=root.destroy)
quitBtn.place(relx=0.53,rely=0.9, relwidth=0.18,relheight=0.08)

root.mainloop()
```

6. MySQL Database:

```
create database db;
use db;
create table books(bid varchar(20) primary key, title varchar(30), author varchar(30), status
varchar(30));
create table books_issued(bid varchar(20) primary key, issuedto varchar(30));
create table member(Name varchar(20) primary key, Password varchar(20));
INSERT INTO member(Name,Password) VALUES ('neil','neil');

drop table member;
select * from member;
```
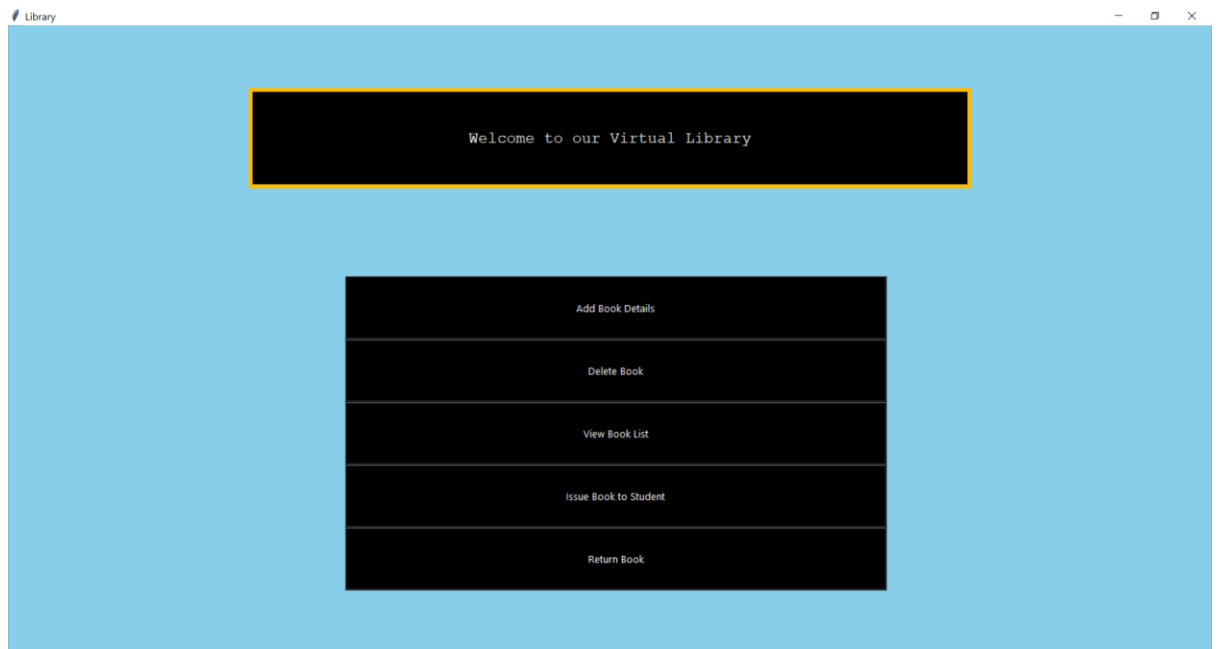
7. Few screenshots:

Option to login or register:

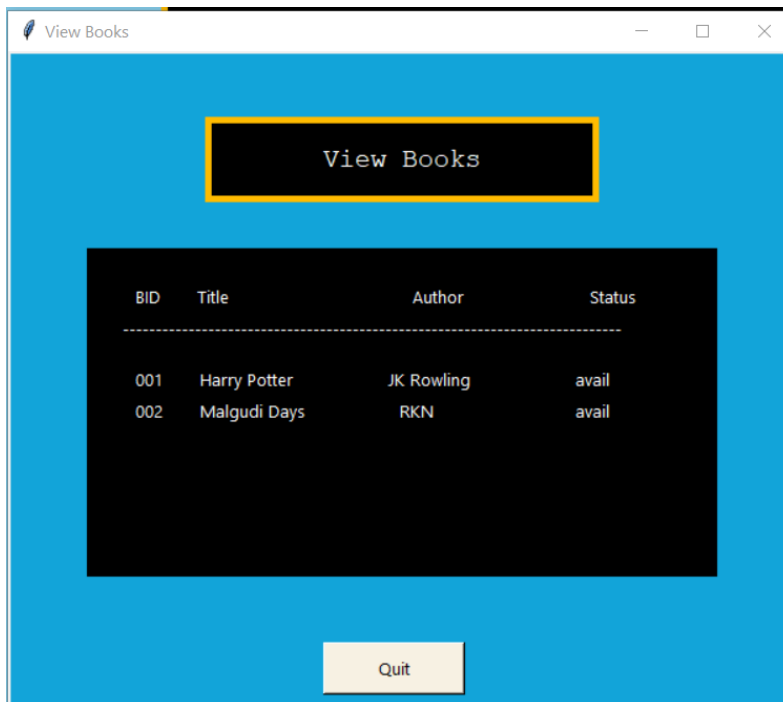Welcome page after you login:

Add Books:

View Book List:

Issuing books:

We have issued book 001, so the status of the book will also change from avail to issued in the book list: