CENTRAL BOARD OF SECONDARY EDUCATION

AISSCE- 2021-22

*Library Management System
using Python and SQL.*

NAME: -

CLASS: -   XII

STREAM: -   SCIENCE

ROLL NO.: -

SUBJECT: - COMPUTER SCIENCE

REGISTRATION NO.: -

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(Student's Signature)

Class - XII

Source Code

Main File code: −

```python
from tkinter import *
import mysql.connector

from add import *
from delete import *
from issue import *
from Return import *
from view import *

db = mysql.connector.connect(host ="localhost",user = "root",password =
'jeet',database='db')
cursor = db.cursor()

window=Tk()
window.title("MCMS LIBRARY MANAGEMENT SYSTEM")

greet = Label(window, font = ('arial', 30, 'bold'), text = "Welcome to MCMS
LIBRARY MANAGEMENT SYSTEM")
greet.grid(row = 0,columnspan = 3)

addbtn=Button(window,text="Add
Books",command=addBooks,bg="DodgerBlue2",fg="white",font = ('arial', 20, 'bold'))
addbtn.grid(row=3,columnspan=3)

deletebtn=Button(window,text="Delete
Books",command=deleteBooks,bg="DodgerBlue2",fg="white",font = ('arial', 20,
'bold'))
deletebtn.grid(row=5,columnspan=3)

issuebtn=Button(window,text="Issue
Books",command=issueBooks,bg="DodgerBlue2",fg="white",font = ('arial', 20,
'bold'))
issuebtn.grid(row=7,columnspan=3)
```

```
returnbtn=Button(window,text="Return
Books",command=returnBooks,bg="DodgerBlue2",fg="white",font = ('arial', 20,
'bold'))
returnbtn.grid(row=9,columnspan=3)

viewbtn=Button(window,text="View
Books",command=viewBooks,bg="DodgerBlue2",fg="white",font = ('arial', 20,
'bold'))
viewbtn.grid(row=11,columnspan=3)

greet = Label(window, font = ('arial', 15, 'bold'), text = "Thank you")
greet.grid(row = 13,columnspan = 3)

window.mainloop()
```

Add books File code: -

```
from tkinter import *
from tkinter import messagebox
import mysql.connector

def add_db():

    global id
    global title
    global author

    bid=id.get()
    btitle=title.get()
    bauthor=author.get()

    db = mysql.connector.connect(host ="localhost",user = "root",password =
'jeet',database='db')
    cursor = db.cursor()

    print(bid,end='--')
    print(btitle,end='--')
    print(bauthor,end='--')
    print("add")
```

```python
    sqlquery= "insert into books values('" + bid
+"','"+btitle+"','"+bauthor+"','YES');"
    print(sqlquery)

    try:
        cursor.execute(sqlquery)
        db.commit()
        messagebox.showinfo('Success',"Book added Successfully")
    except:
        messagebox.showinfo("Error","Cannot add given book data into Database")

    window.destroy()

def addBooks():

    global id
    global title
    global author

    window=Tk()
    window.title('MCMS LIBRARY MANAGEMENT SYSTEM')

    greet = Label(window, font = ('arial', 30, 'bold'), text = "Add Books")
    greet.grid(row = 0,columnspan = 3)

    #----------id-------------------

    L = Label(window, font = ('arial', 15, 'bold'), text = "Enter Book id: ")
    L.grid(row = 2, column = 1)

    L = Label(window, font = ('arial', 15, 'bold'), text = "   ")
    L.grid(row = 2, column = 2)

    id=Entry(window,width=5,font =('arial', 15, 'bold'))
    id.grid(row=2,column=3)

    #----------title-------------------

    L = Label(window, font = ('arial', 15, 'bold'), text = "Enter Title: ")
    L.grid(row = 4, column = 1)

    L = Label(window, font = ('arial', 15, 'bold'), text = "   ")
    L.grid(row = 4, column = 2)

    title=Entry(window,width=5,font =('arial', 15, 'bold'))
```

```python
    title.grid(row=4,column=3)

    #---------author-------------------

    L = Label(window, font = ('arial', 15, 'bold'), text = "Enter Author: ")
    L.grid(row = 6, column = 1)

    L = Label(window, font = ('arial', 15, 'bold'), text = "   ")
    L.grid(row = 6, column = 2)

    author=Entry(window,width=5,font =('arial', 15, 'bold'))
    author.grid(row=6,column=3)


submitbtn=Button(window,text="Submit",command=add_db,bg="DodgerBlue2",fg="white",
font = ('arial', 15, 'bold'))
    submitbtn.grid(row=8,columnspan=3)

    print("add")
    pass
```

Delete books File code: –

```python
from tkinter import *
from tkinter import messagebox
import mysql.connector

def delete_db():

    global id

    bid=id.get()

    db = mysql.connector.connect(host ="localhost",user = "root",password =
'jeet',database='db')
    cursor = db.cursor()

    print(bid,end='--')
    print("delete")

    sqlquery= "delete from books where bid='"+bid+"';"
    print(sqlquery)
```

```python
    try:
        cursor.execute(sqlquery)
        db.commit()
        messagebox.showinfo('Success',"Book deleted Successfully")
    except:
        messagebox.showinfo("Error","Book with given id does not exist")

    window.destroy()

def deleteBooks():

    global id

    window=Tk()
    window.title('ProjectGurukul Library Management System')

    greet = Label(window, font = ('arial', 30, 'bold'), text = "Delete Books")
    greet.grid(row = 0,columnspan = 3)

    #----------id-------------------

    L = Label(window, font = ('arial', 15, 'bold'), text = "Enter Book id: ")
    L.grid(row = 2, column = 1)

    L = Label(window, font = ('arial', 15, 'bold'), text = "   ")
    L.grid(row = 2, column = 2)

    id=Entry(window,width=5,font =('arial', 15, 'bold'))
    id.grid(row=2,column=3)


submitbtn=Button(window,text="Submit",command=delete_db,bg="DodgerBlue2",fg="whit
e",font = ('arial', 15, 'bold'))
    submitbtn.grid(row=8,columnspan=3)

    print("delete")
    pass
```

Issue books File code: -

```python
from tkinter import *
from tkinter import messagebox
import mysql.connector

def issue_db():

    global id
    global StudentName

    bid=id.get()
    bStudentName=StudentName.get()

    db = mysql.connector.connect(host ="localhost",user = "root",password =
'jeet',database='db')
    cursor = db.cursor()

    print(bid,end='--')
    print(bStudentName,end='--')
    print("issue")

    try:
        checkavailability=" select * from books where available='YES';"
        print(checkavailability)
        cursor.execute(checkavailability)

        flag=0

        for i in cursor:
            print(i[0])
            if(i[0]==bid):
                flag=1
                break;

        if flag==1:
            updatequery="update books set available='NO' where bid='"+bid +"';"
            print(updatequery)
            cursor.execute(updatequery)
            db.commit()

            sqlquery= "insert into issue values('" + bid +"','" +bStudentName+"'
);"

            print(sqlquery)

            cursor.execute(sqlquery)
            db.commit()
```

```python
                messagebox.showinfo('Success',"Book issued Successfully")
            else:
                messagebox.showinfo("Error","Required Book is not available")
        except:
            messagebox.showinfo("Error","Cannot issue given book ")

def issueBooks():

    global id
    global StudentName

    window=Tk()
    window.title('ProjectGurukul Library Management System')

    greet = Label(window, font = ('arial', 30, 'bold'), text = "Issue Books")
    greet.grid(row = 0,columnspan = 3)

    #----------id-------------------

    L = Label(window, font = ('arial', 15, 'bold'), text = "Enter Book id: ")
    L.grid(row = 2, column = 1)

    L = Label(window, font = ('arial', 15, 'bold'), text = "   ")
    L.grid(row = 2, column = 2)

    id=Entry(window,width=5,font =('arial', 15, 'bold'))
    id.grid(row=2,column=3)

    #----------StudentName-------------------

    L = Label(window, font = ('arial', 15, 'bold'), text = "Enter StudentName: ")
    L.grid(row = 4, column = 1)

    L = Label(window, font = ('arial', 15, 'bold'), text = "   ")
    L.grid(row = 4, column = 2)

    StudentName=Entry(window,width=5,font =('arial', 15, 'bold'))
    StudentName.grid(row=4,column=3)


submitbtn=Button(window,text="Submit",command=issue_db,bg="DodgerBlue2",fg="white
",font = ('arial', 15, 'bold'))
    submitbtn.grid(row=8,columnspan=3)
```

```
    print("issue")
    pass
```

Return books File code: –

```python
from tkinter import *
from tkinter import messagebox
import mysql.connector

def return_db():

    global id

    bid=id.get()

    db = mysql.connector.connect(host ="localhost",user = "root",password =
'jeet',database='db')
    cursor = db.cursor()

    print(bid,end='--')
    print("return")

    try:
        checkavailability=" select * from books where available='NO';"
        print(checkavailability)
        cursor.execute(checkavailability)

        flag=0

        for i in cursor:
            print(i[0])
            if(i[0]==bid):
                flag=1
                break;

        if flag==1:
            updatequery="update books set available='YES' where bid='"+bid +"';"
            print(updatequery)
            cursor.execute(updatequery)
            db.commit()

            sqlquery= "delete from issue where bid='" + bid +"';"
```

```python
            print(sqlquery)

            cursor.execute(sqlquery)
            db.commit()

            messagebox.showinfo('Success',"Book returned Successfully")
        else:
            messagebox.showinfo("Error","Invalid Book id")
    except:
        messagebox.showinfo("Error","Cannot return given book ")

def returnBooks():

    global id

    window=Tk()
    window.title('ProjectGurukul Library Management System')

    greet = Label(window, font = ('arial', 30, 'bold'), text = "Return Books")
    greet.grid(row = 0,columnspan = 3)

    L = Label(window, font = ('arial', 15, 'bold'), text = "Enter Book id: ")
    L.grid(row = 2, column = 1)

    L = Label(window, font = ('arial', 15, 'bold'), text = "   ")
    L.grid(row = 2, column = 2)

    id=Entry(window,width=5,font =('arial', 15, 'bold'))
    id.grid(row=2,column=3)



submitbtn=Button(window,text="Submit",command=return_db,bg="DodgerBlue2",fg="whit
e",font = ('arial', 15, 'bold'))
    submitbtn.grid(row=8,columnspan=3)

    print("return")
    pass
```

View books File code: -

```python
from tkinter import *
from tkinter import messagebox
import mysql.connector

def viewBooks():

    global id

    window=Tk()
    window.title('MCMS LIBRARY MANAGEMENT SYSTEM')

    greet = Label(window, font = ('arial', 30, 'bold'), text = "View Books")
    greet.grid(row = 0,columnspan = 3)

    db = mysql.connector.connect(host ="localhost",user = "root",password =
'jeet',database='db')
    cursor = db.cursor()

    sqlquery= "select * from books ;"
    print(sqlquery)

    try:
        cursor.execute(sqlquery)
        # db.commit()
        L = Label(window, font = ('arial', 20), text = "%-10s%-20s%-20s%-
20s"%('BID','Title','Author','Available'))
        L.grid(row = 1,columnspan = 4)

        L = Label(window, font = ('arial', 20), text = "-------------------------
--------------------------------------")
        L.grid(row = 2,columnspan = 4)

        x=4
        for i in cursor:
            L = Label(window, font = ('arial', 15), text = "%-10s%-20s%-20s%-
20s"%(i[0],i[1],i[2],i[3]))
            L.grid(row = x,columnspan = 4)
            x+=1

    except:
        messagebox.showinfo("Error","Cannot Fetch data.")
```
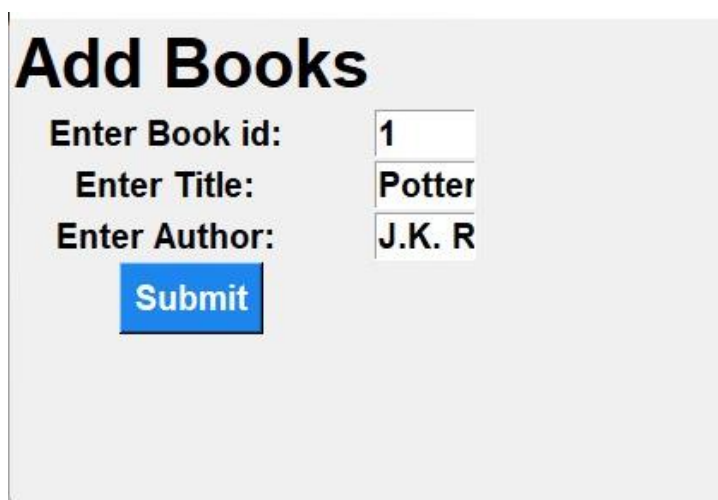
```
print("view")
pass
```

Output

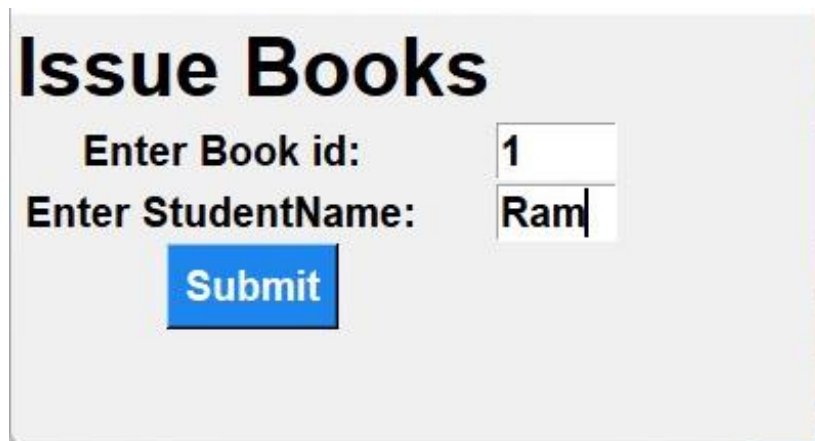## Main File Output: –
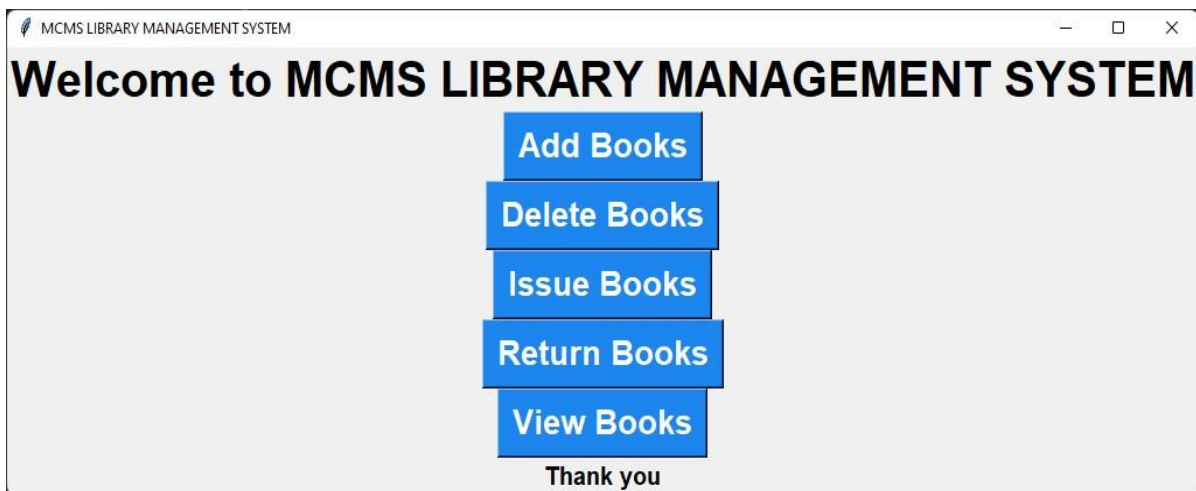
Add books File Output: –

Delete books File Output: –

Issue books File Output: –

Return books File Output: –

Return Books

Enter Book id: 1

Submit

View books File Output: –

View Books

BID	Title	Author	Available
1	Harry potter	J.k. Rowling	YES
2	Maths	R.D. Sharma	YES
3	Computer Science	Sumita Aurora	YES