तत् त्वं पूषन् अपावृणु
केन्द्रीय विद्यालय संगठन
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ROLL NO. -
SUBJECT-COMPUTER
            SCIENCE (083)
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"LIBRARY BOOK MANAGEMENT"

CERTIFICATE

THIS IS TO CERTIFY THAT THE PROJECT ENTITLED:

"LIBRARY BOOK MANAGEMENT"

ARNAV MODANWAL UNDER MY SUPERVISION

IS A GENUINE WORK.

_____   _____

SIGNATURE OF   SIGNATURE OF INTERNAL

PRINCIPAL   EXAMINER
(DR. DIWAKAR SINGH)   (MRS. PREETI SHARMA)

_____

SIGNATURE OF EXTERNAL EXAMINER

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INTRODUCTION

This project helps to manage book record in Library.

This project contains two modules:

- i.   MENU
- ii. BOOK

Module MENU provides six options:

- i.   Add Book Record
- ii.   Display Book Record
- iii. Search Book Record
- iv.   Delete Book Record
- v.   Update Book Record
- vi.   Exit

Module BOOK has five functions:

- i.   insertData(): Helps to add a new Book record
- ii.   display(): Shows all the Book records
- iii. SearchBookrRec(): Helps to Search a Book record
- iv.   deleteBook(): Helps to delete a Book record
- v.   UpdateBook(): Helps to update a Book record

DATABASE USED: library

TABLE USED: bookrecord

SOFTWARE REQIRED ARE: Python (version 3.x and above)

XAMPP or MySQL

PRE-REQISITES: Module mysql.connector must be installed in python

using command pip install mysql-connector-python

FUTRE SCOPE: This project can further be extended to include student details, teacher details, fine calculation etc. It can also be further improved by using error handling.

CODING

MySQL QUERY

CREATE DATABASE library;

USE DATABASE library;

CREATE TABLE bookrecord(Bno int(4) PRIMARY KEY,

Bname varchar(50),

Author vachar(20),

price float(5,2),

publ varchar(15),

qty int(3),

d_o_purchase varchar(12));

PYTHON MODULE 'MENU'

```python
import BOOK

def MenuBook():
    while True:
        print("\t\t\t Book Record Management\n " )
        print("==================================")
        print("1.Add Book Record          ")
        print("2.Display Book Records      ")
        print("3.Search Book Record        ")
        print("4.Delete Book Record        ")
        print("5.Update Book Record         ")
        print("6.Exit                        ")
        print("==================================")
        choice=int(input("Enter choice between 1 to 5------->:"))
        if choice==1:
            BOOK.insertData()
        elif choice==2:
            BOOK.display()
        elif choice==3:
            BOOK.SearchBookRec()
        elif choice==4:
            BOOK.deleteBook()
        elif choice==5:
```

```python
            BOOK.UpdateBook()

        elif choice==6:

            break

        else:

            print("Wrong Choice................Enter your choice again ")

            x=input("Enter any key to continue ")

MenuBook()
```

PYTHON MODULE 'BOOK'

```python
import mysql.connector as ms
```

#FUNCTION TO DISPLAY BOOKS IN LIBRARY

```python
def display():

    cnx=ms.connect(user='root',passwd='',host='localhost',database='library')

    cursor=cnx.cursor()

    query=("SELECT * FROM bookrecord")

    cursor.execute(query)

    for (Bno,Bname,Author,price,publ,qty,d_o_purchase) in cursor:

        print("=============================================")

        print("BOOK CODE                    :",Bno)

        print("BOOK NAME                    :",Bname)

        print("AUTHOR OF BOOK               :",Author)

        print("PRICE OF BOOK                :",price)

        print("PUBLISHER                    :",publ)

        print("TOTAL QUANTITY IN HAND    :",qty)

        print("PURCHASED ON                  :",d_o_purchase)

        print("=============================================")
    print("YOU HAVE DONE IT!!!!!!")

    cnx.close()
```

#FUNCTION TO INSERT A BOOK IN RECORD

```python
def insertData():
    cnx=ms.connect(user="root",passwd="",host="localhost",database="library")
    cursor=cnx.cursor()
    bno=int(input("ENTER BOOK CODE  :"))
    bname=input("ENTER BOOK NAME  :")
    Auth=input("ENTER BOOK AUTHOR'S NAME  :")
    price=float(input("ENTER BOOK PRICE  :"))
    publ=input("ENTER PUBLISHER OF BOOK  :")
    qty=int(input("ENTER QUANTITY PURCHASED  :"))
    print("ENTER DATE OF PURCHASE (DATE,MONTH AND YEAR
        SEPARATELY:")
    DD=input("ENTER DATE  :")
    MM=input("ENTER MONTH  :")
    YY=input("ENTER YEAR  :")
    dop=YY+'-'+MM+'-'+DD
    Qry=("INSERT INTO BookRecord VALUES (%s,%s,%s,%s,%s,%s,%s)")
    data=(bno,bname,Auth,price,publ,qty,dop)
    cursor.execute(Qry,data)
    cnx.commit()
    cnx.close()
    print("RECORD INSERTED.........")
```

#FUNCTION TO DELETE A BOOK RECORD

```python
def deleteBook():
    cnx=ms.connect(user="root",passwd="",host="localhost",database="library")
    cursor=cnx.cursor()
    bno=int(input("ENTER BOOK CODE OF BOOK TO BE DELETED FROM THE
                LIBRARY  :"))
    Qry=("DELETE FROM BookRecord WHERE Bno=%s ")
    del_rec=(bno,)
    cursor.execute(Qry,del_rec)
    cnx.commit()
    cursor.close()
    cnx.close()
    print(cursor.rowcount,"RECORD(S) DELETED SUCCESSFULLY..........")
```

#FUNCTION TO SEARCH BOOK RECORD

```python
def SearchBookRec():
    cnx=ms.connect(user="root",passwd="",host="localhost",database="library")
    cursor=cnx.cursor()
    bno=int(input("ENTER BOOK TO BE SEARCHED FROM THE LIBRARY  :"))
    Qry=("SELECT * FROM BookRecord WHERE Bno=%s")
    rec_srch=(bno,)
    cursor.execute(Qry,rec_srch)
    rec_count=0
    for (Bno,Bname,Author,price,publ,qty,d_o_purchase) in cursor:
        rec_count+=1
        print("=================================================")
```

```python
        print("BOOK CODE                      :",Bno)

        print("BOOK NAME                      :",Bname)

        print("AUTHOR OF BOOK                 :",Author)

        print("PRICE OF BOOK                  :",price)

        print("PUBLISHER                      :",publ)

        print("TOTAL QUANTITY IN HAND         :",qty)

        print("PURCHASED ON                   :",d_o_purchase)

        print("=========================================== ")

        if rec_count%2==0:

            input("PRESS ANY KEY TO CONTINUE")

            print(rec_count,"RECORD(S) FOUND")

    cnx.commit()

    cursor.close()

    cnx.close()
```

#FUNCTION TO UPDATE A BOOK RECORD

```python
def UpdateBook():

    cnx=ms.connect(user="root",passwd="",host="localhost",database="library")

    cursor=cnx.cursor()

    bno=int(input("ENTER BOOK CODE OF BOOK TO BE UPDATED FROM THE

                LIBRARY  :"))

    Qry=("SELECT * FROM BookRecord WHERE Bno=%s")

    rec_srch=(bno,)

    print("ENTER NEW DATA")

    bname=input("ENTER BOOK NAME  :")

    Auth=input("ENTER BOOK AUTHOR'S NAME  :")

    price=float(input("ENTER BOOK PRICE  :"))

    publ=input("ENTER PUBLISHER OF BOOK  :")
```

```python
qty=int(input("ENTER QUANTITY PURCHASED  :"))
print("ENTER DATE OF PURCHASE (DATE,MONTH AND YEAR
      SEPARATELY:")
DD=input("ENTER DATE  :")
MM=input("ENTER MONTH  :")
YY=input("ENTER YEAR  :")
dop=YY+'-'+MM+'-'+DD
Qry=("UPDATE BookRecord SET
      Bname=%s,Author=%s,price=%s,publ=%s,qty=%s,d_o_purchase=%s WHERE
      Bno=%s")
data=(bname,Auth,price,publ,qty,dop,bno)
cursor.execute(Qry,data)
cnx.commit()
cursor.close()
cnx.close()
print(cursor.rowcount,"RECORD(S) UPDATED SUCCESSFULLY...............")
```

OUTPUT SCREENSHOTS

Table bookrecord:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐ 1	Bno 🔑	int(4)			No	None			🖋 Change ⊖ Drop ▽ More
☐ 2	Bname	varchar(50)	latin1_swedish_ci		Yes	NULL			🖋 Change ⊖ Drop ▽ More
☐ 3	Author	varchar(20)	latin1_swedish_ci		Yes	NULL			🖋 Change ⊖ Drop ▽ More
☐ 4	price	float(5,2)			No	None			🖋 Change ⊖ Drop ▽ More
☐ 5	publ	varchar(15)	latin1_swedish_ci		Yes	NULL			🖋 Change ⊖ Drop ▽ More
☐ 6	qty	int(3)			Yes	NULL			🖋 Change ⊖ Drop ▽ More
☐ 7	d_o_purchase	varchar(12)	latin1_swedish_ci		Yes	NULL			🖋 Change ⊖ Drop ▽ More

Output:

```
                        C:\WINDOWS\py.exe
                    Book Record Management

===================================
1.Add Book Record
2.Display Book Records
3.Search Book Record
4.Delete Book Record
5.Update Book Record
6.Exit
===================================
Enter choice between 1 to 6-------->:_
```

```
                    Book Record Management
==================================
1.Add Book Record
2.Display Book Records
3.Search Book Record
4.Delete Book Record
5.Update Book Record
6.Exit
==================================
Enter choice between 1 to 6------->:1
ENTER BOOK CODE   :1235
ENTER BOOK NAME   :THE SECRET
ENTER BOOK AUTHOR'S NAME   :RHONDA BYRNE
ENTER BOOK PRICE  :575.00
ENTER PUBLISHER OF BOOK   :BEYOND WORDS PUBLISHER
ENTER QUANTITY PURCHASED   :2
ENTER DATE OF PURCHASE (DATE,MONTH AND YEAR SEPARATELY:
ENTER DATE   :12
ENTER MONTH  :08
ENTER YEAR   :2017
RECORD INSERTED.........
```



```
                    Book Record Management
==================================
1.Add Book Record
2.Display Book Records
3.Search Book Record
4.Delete Book Record
5.Update Book Record
6.Exit
==================================
Enter choice between 1 to 6------->:2
==============================================
BOOK CODE                            : 1234
BOOK NAME                            : HARRY POTTER AND THE PHILOSPHER'S ST
ONE
AUTHOR OF BOOK                       : J.K. ROWLING
PRICE OF BOOK                        : 230.0
PUBLISHER                            : BLOOMSBURY
TOTAL QUANTITY IN HAND               : 3
PURCHASED ON                         : 2018-05-22
==============================================
BOOK CODE                            : 1235
BOOK NAME                            : THE SECRET
AUTHOR OF BOOK                       : RHONDA BYRNE
PRICE OF BOOK                        : 575.0
PUBLISHER                            : BEYOND WORDS PU
TOTAL QUANTITY IN HAND               : 2
PURCHASED ON                         : 2017-08-12
==============================================
BOOK CODE                            : 1241
BOOK NAME                            : FIVE POINT SOMEONE
AUTHOR OF BOOK                       : CHETAN BHAGAT
PRICE OF BOOK                        : 320.0
PUBLISHER                            : RUPA PUBLICATIO
TOTAL QUANTITY IN HAND               : 2
PURCHASED ON                         : 2016-05-07
==============================================
YOU HAVE DONE IT!!!!!!
```

Book Record Management

```
====================================
1.Add Book Record
2.Display Book Records
3.Search Book Record
4.Delete Book Record
5.Update Book Record
6.Exit
====================================
Enter choice between 1 to 6------->:3
ENTER BOOK TO BE SEARCHED FROM THE LIBRARY  :1235
====================================
BOOK CODE                              : 1235
BOOK NAME                              : THE SECRET
AUTHOR OF BOOK                  : RHONDA BYRNE
PRICE OF BOOK                          : 575.0
PUBLISHER                                  : BEYOND WORDS PU
TOTAL QUANTITY IN HAND          : 2
PURCHASED ON                           : 2017-08-12
====================================
```

Book Record Management

```
====================================
1.Add Book Record
2.Display Book Records
3.Search Book Record
4.Delete Book Record
5.Update Book Record
6.Exit
====================================
Enter choice between 1 to 6------->:4
ENTER BOOK CODE OF BOOK TO BE DELETED FROM THE LIBRARY  :1235
-1 RECORD(S) DELETED SUCCESSFULLY..........
```

Book Record Management

```
====================================
1.Add Book Record
2.Display Book Records
3.Search Book Record
4.Delete Book Record
5.Update Book Record
6.Exit
====================================
Enter choice between 1 to 6------->:5
ENTER BOOK CODE OF BOOK TO BE UPDATED FROM THE LIBRARY  :1234
ENTER NEW DATA
ENTER BOOK NAME  :HARRY POTTER AND THE PHILOSPHER'S STONE
ENTER BOOK AUTHOR'S NAME  :J.K. ROWLING
ENTER BOOK PRICE  :230.00
ENTER PUBLISHER OF BOOK  :BLOOMSBURY
ENTER QUANTITY PURCHASED  :3
ENTER DATE OF PURCHASE (DATE,MONTH AND YEAR SEPARATELY:
ENTER DATE  :22
ENTER MONTH  :05
ENTER YEAR  :2018
-1 RECORD(S) UPDATED SUCCESSFULLY..............
```

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