```
import mysql.connector

mydatabase=None

#(frontend-->python),(backend-->sql):
#CREATING DATABASE:

def connect():
    global mydatabase
    mydatabase=mysql.connector.connect(host="localhost",
                                       user="root",
                                       password="tejas@1723")
    global mycursor
    mycursor=mydatabase.cursor()
    mycursor.execute("drop database library")
    mycursor.execute("create database library")
    mycursor.execute("use library")
    mydatabase.commit()

#CREATING TABLES:
def tables():
    mycursor.execute("create table users(username varchar(30), password
varchar(30))")
    mycursor.execute("create table member(mid varchar(20),name varchar(50),email
varchar(50), phone varchar(20))")
    mycursor.execute("create table book(bid varchar(20),title varchar(50), author
varchar(50), publisher varchar(50), cost int)")
    mycursor.execute("create table issue(mid varchar(20), bid varchar(20),
dateofissue date)")
    mycursor.execute("create table issuelog(mid varchar(20), bid varchar(20),
dateofissue date, dateofreturn date)")
    mycursor.execute("insert into users values('user','123')")
    mydatabase.commit()

#CREATING FUNCTIONS:
def login():
    print("-"*30)
    print("Library Management System")
    print("-"*30)
    print("LOGIN")
    name=input("Enter User Name : ")
    passw=input("Enter Password : ")
    query=("select * from users where username=%s and password=%s ")
    val=(name,passw)
    mycursor.execute(query,val)
    res=mycursor.fetchall()
    print("-"*50)
    mydatabase.commit()
    if len(res)==0:
        print("Invalid User Name or Password ")
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        print("-"*30)
        return False
    else:
        print("Access Granted !!!")
        print("-"*30)
        return True

def addmember():
  print("-"*30)
  print("ADDING A NEW MEMBER")
  print("-"*30)
  mid=input("Enter Member Id : ")
  name=input("Enter Member Name : ")
  phone=input("Enter Phone Number : ")
  email=input("Enter Email :")
  query=("insert into member values (%s,%s,%s,%s)")
  val=(mid,name,phone,email)
  mycursor.execute(query,val)
  mydatabase.commit()
  print("Member Added Successfully")

def delmember():
  print("-"*30)
  print("DELETING A MEMBER")
  print("-"*30)
  mid=input("Enter Member Id : ")
  query=("delete from member where mid="+mid)
  mycursor.execute(query)
  mydatabase.commit()
  print("Member Deleted Successfully")

def showmembers():
  mycursor.execute("Select * from Member")
  res=mycursor.fetchall()
  mydatabase.commit()
  print("-"*30)
  print("MEMBER DETAILS")
  print("-"*30)
  print("Id,Name,Email,Phone")
  for k in res:
    print(k[0],k[1],k[2],k[3])

def delBook():
  print("-"*30)
  print("DELETING A BOOK")
  print("-"*30)
  bid=input("Enter Book Id : ")
  query=("delete from book where bid="+bid)
  mycursor.execute(query)
  mydatabase.commit()
```

```
  print("Book Deleted Successfully")

def addBook():
  print("-"*30)
  print("ADDING A NEW BOOK")
  print("-"*30)
  bid=input("Enter Book Id : ")
  title=input("Enter Book Title : ")
  author=input("Enter Author name : ")
  pub=input("Enter Publisher :")
  cost=int(input("Enter Cost of the book :"))
  query=("insert into book values (%s,%s,%s,%s,%s)")
  val=(bid,title,author,pub,cost)
  mycursor.execute(query,val)
  mydatabase.commit()
  print("Book Added Successfully")

def showBooks():
    mycursor.execute("Select * from Book")
    res=mycursor.fetchall()
    mydatabase.commit()
    print("-"*30)
    print("BOOK DETAILS")
    print("-"*30)
    print("Id,Title,Author,Publisher,cost")
    for k in res:
        print(k[0],k[1],k[2],k[3],k[4])

def showIssued():
    mycursor.execute("Select * from issue")
    res=mycursor.fetchall()
    mydatabase.commit()
    print("LIST OF ISSUED BOOKS")
    print("-"*30)
    print("Member,Bookid,Issue Date")
    for k in res:
        print(k[0],k[1],k[2])
    print("-"*30)

def showReturned():
    mycursor.execute("Select * from issuelog")
    res=mycursor.fetchall()
    mydatabase.commit()
    print("LIST OF RETURNED BOOKS")
    print("-"*30)
    print("Member,Bookid,Issue Date,Return Date")
    for k in res:
        print(k[0],k[1],k[2],k[3])
    print("-"*30)
```

```
def issueBook():
    bid=input("Enter the book id to be issued : ")
    query=("select * from issue where bid="+bid)
    mycursor=mydatabase.cursor()
    mycursor.execute(query)
    res=mycursor.fetchall()
    mydatabase.commit()
    if len(res)==0:
        mid=input("Enter the member id : ")
        doi=input("Enter the date of issue : ")
        query="insert into issue (mid,bid,dateofissue) values(%s,%s,%s)"
        data=(mid,bid,doi)
        mycursor.execute(query,data)
        mydatabase.commit()
        print("-"*30)
        print("Book Issued Successfully")
        print("-"*30)

    else:
        print("-"*30)
        print("Sorry ! The Book is not available")
        print("-"*30)

def returnBook():
    bid=input("Enter the book id to be returned : ")
    mid=input("Enter the Member id : ")
    query="select dateofissue from issue where bid='" + bid +"' and mid='" + mid
+"'"
    mycursor.execute(query)
    res =mycursor.fetchall()
    if len(res)== 0:
        print("-" * 30)
        print("This Book is not Issued to This Member   ")
        print("-" * 30)
    else:
        dort = input("Enter the date of return : ")
        q="delete from issue where bid='" + bid + "' and mid='" + mid + "'"
        mycursor.execute(q)
        mydatabase.commit()
        q="insert into issuelog values(%s,%s,%s,%s)"
        data=(mid,bid,res[0][0],dort)
        mycursor.execute(q,data)
        mydatabase.commit()
        print("Book Returned !!!")

connect()
tables()

#CREATING MENU FOR USER FRIENDLY INTERFACE:
if login():
```

```
while True:
    print("-"*30)
    print("CHOOSE AN OPERATION ")
    print("-"*30)
    print("Press 1 _ Add a New Member")
    print("Press 2 - Delete an Existing Member")
    print("Press 3 - Show all Members")
    print("Press 4 - Add a New Book")
    print("Press 5 - Delete an Existing Book")
    print("Press 6 - Show all Books")
    print("Press 7 - Issue a Book")
    print("Press 8 - Return a Book")
    print("Press 9 - Show Issued Books")
    print("Press 10 - Show Returned Books")
    print("Press 11 - Quit")
    ch = int(input("Enter Your Choice : "))
    if ch == 1:
        addmember()
    elif ch == 2:
        delmember()
    elif ch == 3:
        showmembers()
    elif ch == 4:
        addBook()
    elif ch == 5:
        delBook()
    elif ch == 6:
        showBooks()
    elif ch == 7:
        issueBook()
    elif ch == 8:
        returnBook()
    elif ch == 9:
        showIssued()
    elif ch == 10:
        showReturned()
    elif ch == 11:
        break
```