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ABSTRACT

Library Management System is a system which maintains the information about the books present in the library, their authors, the members of library to whom books are issued, library staff and all. This is very difficult to organize manually. Maintenance of all this information manually is a very complex task. Owing to the advancement of technology, organization of a Library becomes much simple.

The Library Management has been designed to computerize and automate the operations performed over the information about the members, book issues and returns and all other operations. This computerization of library helps in many instances of its maintenances. It reduces the workload of management as most of the manual work done is reduced.

INTRODUCTION

The project titled Library Management System is library management software for monitoring and controlling the transactions in a library. The project “LIBRARY MANAGEMNET SYSTEM” is developed in python as well as MYSQL, which mainly focuses on basic operations in a library like adding new member, new books, and updating new information, searching books and members and facility to borrow and return books.

“LIBRARY MANAGEMENT SYSTEM” is a windows application written in 64 bit windows operating systems. Our library software is easy to use for both beginners and advanced users. It features a familiar and well thought out, an attractive user interface, combined with strong searching insertion and reporting capabilities.

PROJECT AIMS AND OBJECTIVES

The project aims and objectives that will be achieved after completion of this project are discussed in this subchapter. The aims and objectives are as follows:

- Adding books, user details, return details.
- A search column to search availability of books.
- Facility to update or delete required book.
- Students can take book.
- Users information details.
- Maintenance of library digital.

BACKGROUND OF PROJECT

E-Library Management System is an application which refers to library systems which are generally small or medium in size. It is used by librarian to manage the library using a computerized system where he/she can add new books, videos and Page sources.

Books and student maintenance modules are also included in this system which would keep track of the students using the library and also a detailed description about the books a library contains. With this computerized system there will be no loss of book record or member record which generally happens when a non- computerized system is used.

All these modules are able to help librarian to manage the library with more convenience and in a more efficient way as compared to library systems which are not computerized.

PROCESSOR	INTEL CORE PROCESSOR OR BETTER PERFORMANCE
OPERATING SYSTEM	WINDOWS VISTA ,WINDOWS7, window 8,window 10
MEMORY	1GB RAM OR MORE
HARD DISK SPACE	MINIMUM 3 GB FOR DATABASE USAGE FOR FUTURE
DATABASE	MY SQL

SOFTWARE AND HARDWARE

REQUIREMENTS

SOFTWARE:-

- Operating system- Windows 7 is used as the operating system as it is stable and supports more features and is more user friendly.
- Database MYSQL-MYSQL is used as database as it easy to maintain and retrieve records by simple queries which are in English language which are easy to understand and easy to write.

HARDWARE :-

Intel core i5 2 generation is used as a processor

because it is fast than other processors a provide reliable and stable and we can run our pc for longtime.

By using this processor we can keep on developing our project without any worries.

☐ Ram 1 GB is used as it will provide fast reading and writing capabilities and will in turn support in processing.

MODULES OF THE PROJECT

1. Bookdetails
2. Bookuser
3. Issuebook
4. Main function test

FEATURES OF MODULES

A MODULE IS A PYTHON OBJECT WITH ARBITRARILY NAMED ATTRIBUTES THAT YOU CAN BIND AND REFERENCE.

YOU CAN USE ANY PYTHON SOURCE FILE AS A MODULE BY EXECUTING AN IMPORT STATEMENT IN SOME OTHER PYTHON SOURCE FILE.

EXAMPLE:- `IMPORT (MODULE NAME)`

IN LIBRARY MANAGEMENT SYSTEM WE USE 3 MODULE FIRST IS BOOKDETAIL, SECOND BOOKUSER AND LAST ISSUEBOOK.

ALL MODULE CONTAIN UPDATE, DELETE, ADD, SHOW DATA.

WE CAN IMPORT IT AS SHOWN NEXT PAGE.

File Edit Format Run Options Window Help

```
import bookdetail
import BookUser
import issuebook
def Book():
    while True:
        print("""149
        print("\t\tBOOK MENU")
        print("""149
        print("<-----PRESS 1 FOR ADDING MORE BOOKS----->")
        print("<-----PRESS 2 FOR REMOVING BOOKS----->")
        print("<-----PRESS 3 FOR DIPLAY BOOKS----->")
        print("<-----PRESS 4 FOR SEARCH BOOK----->")
        print("<-----PRESS 5 FOR UPDATE BOOK----->")
        print("<-----PRESS 6 FOR RETURN TO MAIN MENU-->")
        print("""149
        choice=int(input("<===ENTER THE CHOICE===>_"))
        print("""149
        if choice==1:
            bookdetail.addbook()
        elif choice==2:
            bookdetail.deletebook()
        elif choice==3:
            bookdetail.display()
        elif choice==4:
            bookdetail.search()
        elif choice==5:
            bookdetail.update()
        elif choice==6:
            break
        else:
            print("PRESS ANY KEY TO CONTINUE AND BACK TO MENU")
            ch=input('<----ENTER ANY KEY---->_')

def User():
    while True:
        print("""149
        print("\t\tUSER DETAILS")
        print("""149
        print("<-----PRESS 1 FOR ADDING USER DETAIL----->")
        print("<-----PRESS 2 FOR DISPLAY USER DETAIL----->")
        print("<-----PRESS 3 FOR SEARCH USER----->")
        print("<-----PRESS 4 FOR UPDATE USER----->")
        print("<-----PRESS 5 FOR DELETE USER DETAIL----->")
        print("<-----PRESS 6 FOR RETURN TO MAIN MENU----->")
```

Activate Windows
Go to Settings to activate Windows.

IMPORTANT SOURCE CODE

1. CONNECTION WITH MYSQL

```
def addbook():
    import mysql.connector
    mycon=mysql.connector.connect(host="localhost",user="root",password="aditya",database='library')
    cursor=mycon.cursor()
    print("\n"*150)
    A=int(input('ENTER BOOK ID:----->_'))
    B=input('ENTER BOOK NAME:----->_')
    C=input('ENTER THE AUTHOR'S NAME----->')

    G="INSERT INTO book (i_d,name,author) VALUES ({},'{}','{}').format(A,B,C)
    cursor.execute(G)
    mycon.commit()
    print("NEW BOOK RECORD ADDED")
    print("\n"*100)
```

2. FUNCTION USE:-

```
def addbook():
```

MAIN PROGRAM SOURCE CODE

MANAGMENTPROGRAM.py - C:\Users\adity\Desktop\project\MANAGMENTPROGRAM.py (3.7.4)

File Edit Format Run Options Window Help

[illegible]

Activate Windows
Go to Settings to activate Windows.

Ln: 1 Col: 0

```
print("""149)
choice=int(input("<===ENTER THE CHOICE===>_"))
print("""149)
if choice==1:
    BookUser.adduser()
elif choice==2:
    BookUser.display()
elif choice==3:
    BookUser.search()
elif choice==4:
    BookUser.update()
elif choice==5:
    BookUser.delete()
elif choice==6:
    break
else:
    print("INVALID ENTERY")

def Issue():
    while True:
        print("""149)
        print("\t\tUSER DETAILS")
        print("""149)
        print("<-----PRESS 1 FOR ISSUE BOOK----->")
        print("<-----PRESS 2 FOR SEARCH PERSON DETAIL----->")
        print("<-----PRESS 3 FOR RETURN BOOKS----->")

        print("<-----PRESS 4 FOR RETURN TO MAIN MENU----->")
        print("""149)
        choice=int(input("<===ENTER THE CHOICE===>_"))
        print("""149)
        if choice==1:
            issuebook.issue()
        elif choice==2:
            issuebook.search()
        elif choice==3:
            issuebook.returnbook()
        elif choice==4:
            break

        else:
            print("PRESS ANY KEY TO CONTINUE AND BACK TO MENU")
            ch=input('<-----ENTER ANY KEY----->_')
```

Activate Windows
Go to Settings to activate Windows.

```
while True:
    print("\t", "\t", "\t", "\t", "\t", "\t", "*****--", "MENU DRIVE", "--*****",)
    print("\n"*149)
    print("<-----PRESS 1 FOR BOOK DETAILS MENU DRIVE----->")
    print("<-----PRESS 2 FOR BOOK USER MENU DRIVE----->")
    print("<-----PRESS 3 FOR BOOK ISSUE AND DEPOSITING MUNU DRIVE ----->")
    print("<-----PRESS 4 FOR EXIT----->")
    print("\n"*149)
    CH=int(input('ENTER YOUR CHOICE AGAIN:====>_'))
    if CH==1:
        Book()
    elif CH==2:
        User()
    elif CH==3:
        Issue()
    elif CH==4:
        break
    else:
        print("ENTER VALID DATA")
```

Activate Windows
Go to Settings to activate Windows.

FOR BOOKDETAIL:-

1) DISPLAY OF BOOK

[illegible]

2) ADDING BOOK TO LIBRARY

```
C:\WINDOWS\py.exe

***** WELCOME TO DIGITAL LIBRARY MANAGMENT SOFTWARE *****

*****_-- MENU DRIVE _--*****

#####

<-----PRESS 1 FOR BOOK DETAILS MENU DRIVE----->
<-----PRESS 2 FOR BOOK USER MENU DRIVE----->
<-----PRESS 3 FOR BOOK ISSUE AND DEPOSITING MUNU DRIVE ----->
<-----PRESS 4 FOR EXIT----->

#####
ENTER YOUR CHOICE AGAIN:=====>_1
*****

          BOOK MENU
*****

<-----PRESS 1 FOR ADDING MORE BOOKS---->
<-----PRESS 2 FOR REMOVING BOOKS----->
<-----PRESS 3 FOR DIPLAY BOOKS----->
<-----PRESS 4 FOR SEARCH BOOK----->
<-----PRESS 5 FOR UPDATE BOOK----->
<-----PRESS 6 FOR RETURN TO MAIN MENU-->
*****

<==ENTER THE CHOICE==>_1
*****

#####
ENTER BOOK ID:----->_5
ENTER BOOK NAME:----->_CS WITH PYTHON
ENTER THR AUTHORS NAME----->SUNMITA ARORA
NEW BOOK RECORD ADDED
*****

<---ENTER ANY KEY--->_6
*****

          BOOK MENU
*****

<-----PRESS 1 FOR ADDING MORE BOOKS---->
<-----PRESS 2 FOR REMOVING BOOKS----->
<-----PRESS 3 FOR DIPLAY BOOKS----->
<-----PRESS 4 FOR SEARCH BOOK----->
<-----PRESS 5 FOR UPDATE BOOK----->
<-----PRESS 6 FOR RETURN TO MAIN MENU-->
*****

<==ENTER THE CHOICE==>_
```


4) SEARCHING OF BOOK

```
C:\WINDOWS\py.exe  
PRESS 3 FOR DELETE BY AUTHOR NAME  
\-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|-|  
ENTER YOUR CHOICE---->_2  
ENTER BOOK NAME TO DELETE---->_5  
DELETE  
*  
<---ENTER ANY KEY----> _R  
*****  
BOOK MENU  
*****  
<-----PRESS 1 FOR ADDING MORE BOOKS---->  
<-----PRESS 2 FOR REMOVING BOOKS----->  
<-----PRESS 3 FOR DIPLAY BOOKS----->  
<-----PRESS 4 FOR SEARCH BOOK----->  
<-----PRESS 5 FOR UPDATE BOOK----->  
<-----PRESS 6 FOR RETURN TO MAIN MENU-->  
*****  
<==ENTER THE CHOICE==> _4  
*****  
#####  
/////////////////////  
*****MENU FOR SEARCHING DETAILS ON THE BASIS OD CHOICE*****  
<-----PRESS 1 FOR BOOK ID----->  
<-----PRESS 2 FOR BOOK NAME----->  
<-----PRESS 3 FOR AUTHOR NAME----->  
  
ENTER YOUR CHOICE1  
ENTER THE BOOK ID TO SEARCH----->_2  
[(2, 'pride and prejudice', 'Jane Austen')]  
<---ENTER ANY KEY---->_2  
*****  
BOOK MENU  
*****  
<-----PRESS 1 FOR ADDING MORE BOOKS---->  
<-----PRESS 2 FOR REMOVING BOOKS----->  
<-----PRESS 3 FOR DIPLAY BOOKS----->  
<-----PRESS 4 FOR SEARCH BOOK----->  
<-----PRESS 5 FOR UPDATE BOOK----->  
<-----PRESS 6 FOR RETURN TO MAIN MENU-->  
*****  
<==ENTER THE CHOICE==>
```

FOR BOOKUSER:-

1) DISPLAY USER

```
C:\WINDOWS\py.exe
#####
ENTER THE PHONE NUMBER OF THE USER TO BE SEARCHED:----->_231
[]
#####
USER DETAILS
#####
<-----PRESS 1 FOR ADDING USER DETAIL----->
<-----PRESS 2 FOR DISPLAY USER DETAIL----->
<-----PRESS 3 FOR SEARCH USER----->
<-----PRESS 4 FOR UPDATE USER----->
<-----PRESS 5 FOR DELETE USER DETAIL----->
<-----PRESS 6 FOR RETURN TO MAIN MENU----->
#####
<===ENTER THE CHOICE===>_2
#####
('ADOTYA', 234, 221307, 'VARANASI', datetime.datetime(2003, 7, 9, 0, 0))
#####
USER DETAILS
#####
<-----PRESS 1 FOR ADDING USER DETAIL----->
<-----PRESS 2 FOR DISPLAY USER DETAIL----->
<-----PRESS 3 FOR SEARCH USER----->
<-----PRESS 4 FOR UPDATE USER----->
<-----PRESS 5 FOR DELETE USER DETAIL----->
<-----PRESS 6 FOR RETURN TO MAIN MENU----->
#####
<===ENTER THE CHOICE===>_
```

2) ADDING USER

```
C:\WINDOWS\py.exe
<==ENTER THE CHOICE==>_2
*****
#####
('ADOTYA', 234, 221307, 'VARANASI', datetime.datetime(2003, 7, 9, 0, 0))
*****
      USER DETAILS
*****
<-----PRESS 1 FOR ADDING USER DETAIL----->
<-----PRESS 2 FOR DISPLAY USER DETAIL----->
<-----PRESS 3 FOR SEARCH USER----->
<-----PRESS 4 FOR UPDATE USER----->
<-----PRESS 5 FOR DELETE USER DETAIL----->
<-----PRESS 6 FOR RETURN TO MAIN MENU----->
*****
<==ENTER THE CHOICE==>_1
*****
#####
ENTER THE USERS NAME----->_ABHAY
ENTER LAST 3 DIGITE NUMBER OF THE USER PHONE NO.-->_213
ENTER POSTAL CODE----->_221307
ENTER THE CITY NAME----->_VNS
ENTER THE DATE OF BIRTH----->_2003-4-5
USERS DETAIL IS ADDED
*****
      USER DETAILS
*****
<-----PRESS 1 FOR ADDING USER DETAIL----->
<-----PRESS 2 FOR DISPLAY USER DETAIL----->
<-----PRESS 3 FOR SEARCH USER----->
<-----PRESS 4 FOR UPDATE USER----->
<-----PRESS 5 FOR DELETE USER DETAIL----->
<-----PRESS 6 FOR RETURN TO MAIN MENU----->
*****
<==ENTER THE CHOICE==>_.
```

3) SEARCH USER

```
C:\WINDOWS\py.exe
<-----PRESS 1 FOR ADDING USER DETAIL----->
<-----PRESS 2 FOR DISPLAY USER DETAIL----->
<-----PRESS 3 FOR SEARCH USER----->
<-----PRESS 4 FOR UPDATE USER----->
<-----PRESS 5 FOR DELETE USER DETAIL----->
<-----PRESS 6 FOR RETURN TO MAIN MENU----->
*****
<==ENTER THE CHOICE==>_3
*****
#####
ENTER THE PHONE NUMBER OF THE USER TO BE SEARCHED:----->_213
[('ABHAY', 213, 221307, 'VNS', datetime.datetime(2003, 4, 5, 0, 0))]
*****
      USER DETAILS
*****
<-----PRESS 1 FOR ADDING USER DETAIL----->
<-----PRESS 2 FOR DISPLAY USER DETAIL----->
<-----PRESS 3 FOR SEARCH USER----->
<-----PRESS 4 FOR UPDATE USER----->
<-----PRESS 5 FOR DELETE USER DETAIL----->
<-----PRESS 6 FOR RETURN TO MAIN MENU----->
*****
<==ENTER THE CHOICE==>_
```

FOR ISSUE:-

1)ISSUE BOOK

```
C:\WINDOWS\py.exe

***** WELCOME TO DIGITAL LIBRARY MANAGMENT SOFTWARE *****

*****--- MENU DRIVE ---*****

*****
<-----PRESS 1 FOR BOOK DETAILS MENU DRIVE----->
<-----PRESS 2 FOR BOOK USER MENU DRIVE----->
<-----PRESS 3 FOR BOOK ISSUE AND DEPOSITING MUNU DRIVE ----->
<-----PRESS 4 FOR EXIT----->
*****
ENTER YOUR CHOICE AGAIN:=====>_3
*****

USER DETAILS
*****
<-----PRESS 1 FOR ISSUSE BOOK----->
<-----PRESS 2 FOR SEARCH PERSON DETAIL----->
<-----PRESS 3 FOR RETURN BOOKS----->
<-----PRESS 4 FOR DISPLAY ISSUED BOOK----->
<-----PRESS 5 FOR RETURN TO MAIN MENU----->
*****
<==ENTER THE CHOICE==>_1
*****

*****
ISSUE THE BOOK
*****
ENTER BOOK ID---->1
ENTER BOOK NAME->PRIDE AND PRIJUDICE
ENTER AUTHOR NAME--->JANE AUSTEN
*****
-----***INFORMATION ADDED***-----
-----***BOOK HAS BEEN ISSUED***-----
*****

USER DETAILS
*****
<-----PRESS 1 FOR ISSUSE BOOK----->
<-----PRESS 2 FOR SEARCH PERSON DETAIL----->
<-----PRESS 3 FOR RETURN BOOKS----->
<-----PRESS 4 FOR DISPLAY ISSUED BOOK----->
<-----PRESS 5 FOR RETURN TO MAIN MENU----->
*****
```

2) DISPLAY ISSUE BOOK

```
C:\WINDOWS\py.exe
ENTER BOOK NAME->PRIDE AND PRIJUDICE
ENTER AUTHOR NAME--->JANE AUSTEN
*****
-----***INFORMATION ADDED***-----
-----***BOOK HAS BEEN ISSUED***-----

*****
USER DETAILS
*****
<-----PRESS 1 FOR ISSUSE BOOK----->
<-----PRESS 2 FOR SEARCH PERSON DETAIL----->
<-----PRESS 3 FOR RETURN BOOKS----->
<-----PRESS 4 FOR DISPLAY ISSUED BOOK----->
<-----PRESS 5 FOR RETURN TO MAIN MENU----->
*****
<===ENTER THE CHOICE===>_4
*****
#####
[(1, 'war and peace', 'Tolstoy'), (1, 'PRIDE AND PRIJUDICE', 'JANE AUSTEN')]

*****
USER DETAILS
*****
<-----PRESS 1 FOR ISSUSE BOOK----->
<-----PRESS 2 FOR SEARCH PERSON DETAIL----->
<-----PRESS 3 FOR RETURN BOOKS----->
<-----PRESS 4 FOR DISPLAY ISSUED BOOK----->
<-----PRESS 5 FOR RETURN TO MAIN MENU----->
*****
<===ENTER THE CHOICE===>_
```


FUTURE SCOPE

There is a future scope of this facility that many more features such as online lectures video tutorials can be added by teachers as well as online assignments submission facility, a feature Of group chat where students can discuss various issues of engineering can be added to this project thus making it more interactive more user friendly and project which fulfills each users need in the best way possible,

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- WWW.academia.COM
- FROM CLASS 12 PYTHON BOOK (COMPUTER SCIENCE WITH PYTHON BY SUMITA ARORA}