LIBRARY MANAGEMENT SYSTEM

**Roll Number: CB.EN.P2EBS22002**

**Date of Submission: 21-01-2022**

**objective:**

The objective of this project is to keep the records of books, borrowing and returning of books in a digital way.

**Tools Required:**

PyCharm and python compiler

CODE

Main.py

import Return

import ListSplit

import dt

import Borrow

def start():

while(True):

print(" Welcome to the library management system ")

print("------------------------------------------------------")

print("Enter 1. To Display")

print("Enter 2. To Borrow a book")

print("Enter 3. To return a book")

print("Enter 4. To exit")

try:

a=int(input("Select a choice from 1-4: "))

print()

if(a==1):

with open("stock.txt","r") as f:

lines=f.read()

print(lines)

print ()

elif(a==2):

ListSplit.listSplit()

Borrow.borrowBook()

break

elif(a==3):

ListSplit.listSplit()

Return.returnBook()

elif(a==4):

print("Thank you for using library management system")

break

else:

print("Please enter a valid choice from 1-4")

except ValueError:

print("Please input as suggested.")

start()

Borrow.py

import dt

import ListSplit

def borrowBook():

success=False

while(True):

firstName=input("Enter the first name of the borrower: ")

if firstName.isalpha():

break

print("please input alphabet from A-Z")

while(True):

lastName=input("Enter the last name of the borrower: ")

if lastName.isalpha():

break

print("please input alphabet from A-Z")

t="Borrow-"+firstName+".txt"

with open(t,"w+") as f:

f.write(" Library Management System \n")

f.write(" Borrowed By: "+ firstName+" "+lastName+"\n")

f.write(" Date: " + dt.getDate()+" Time:"+ dt.getTime()+"\n\n")

f.write("S.N. \t\t Bookname \t Authorname \n" )

while success==False:

print("Please select a option below:")

for i in range(len(ListSplit.bookname)):

print("Enter", i, "to borrow book", ListSplit.bookname[i])

try:

a=int(input())

try:

if(int(ListSplit.quantity[a])>0):

print("Book is available")

with open(t,"a") as f:

f.write("1. \t\t"+ ListSplit.bookname[a]+"\t\t "+ListSplit.authorname[a]+"\n")

ListSplit.quantity[a]=int(ListSplit.quantity[a])-1

with open("Stock.txt","w+") as f:

for i in range(3):

f.write(ListSplit.bookname[i]+","+ListSplit.authorname[i]+","+str(ListSplit.quantity[i])+","+"$"+ListSplit.cost[i]+"\n")

*#multiple book borrowing code*

loop=True

count=1

while loop==True:

choice=str(input("Do you want to borrow more books? Press y for yes and n for no."))

if(choice.upper()=="Y"):

count=count+1

print("Please select an option below:")

for i in range(len(ListSplit.bookname)):

print("Enter", i, "to borrow book", ListSplit.bookname[i])

a=int(input())

if(int(ListSplit.quantity[a])>0):

print("Book is available")

with open(t,"a") as f:

f.write(str(count) +". \t\t"+ ListSplit.bookname[a]+"\t\t "+ListSplit.authorname[a]+"\n")

ListSplit.quantity[a]=int(ListSplit.quantity[a])-1

with open("Stock.txt","w+") as f:

for i in range(3):

f.write(ListSplit.bookname[i]+","+ListSplit.authorname[i]+","+str(ListSplit.quantity[i])+","+"$"+ListSplit.cost[i]+"\n")

success=False

else:

loop=False

break

elif (choice.upper()=="N"):

print ("Thank you for borrowing books from us. ")

print("")

loop=False

success=True

else:

print("Please choose as instructed")

else:

print("Book is not available")

borrowBook()

success=False

except IndexError:

print("")

print("Please choose book according to their number.")

except ValueError:

print("")

print("Please choose as suggested.")

Dt.py

def getDate():

import datetime

now=datetime.datetime.now

*#print("Date: ",now().date())*

return str(now().date())

def getTime():

import datetime

now=datetime.datetime.now

*#print("Time: ",now().time())*

return str(now().time())

ListSplit.py

def listSplit():

global book name

global author name

global quantity

global cost

book name=[]

author name=[]

quantity=[]

cost=[]

with open("stock.txt","r") as f:

lines=f.readlines()

lines=[x.strip('\n') for x in lines]

for i in range(len(lines)):

ind=0

for a in lines[i].split(','):

if(ind==0):

book name.append(a)

elif(ind==1):

authorname.append(a)

elif(ind==2):

quantity.append(a)

elif(ind==3):

cost.append(a.strip("$"))

ind+=1

Return.py

import ListSplit

import dt

def returnBook():

name=input("Enter name of borrower: ")

a="Borrow-"+name+".txt"

try:

with open(a,"r") as f:

lines=f.readlines()

lines=[a.strip("$") for a in lines]

with open(a,"r") as f:

data=f.read()

print(data)

except:

print("The borrower name is incorrect")

returnBook()

b="Return-"+name+".txt"

with open(b,"w+")as f:

f.write(" Library Management System \n")

f.write(" Returned By: "+ name+"\n")

f.write(" Date: " + dt.getDate()+" Time:"+ dt.getTime()+"\n\n")

f.write("S.N.\t\tBookname\t\tCost\n")

total=0.0

for i in range(3):

if ListSplit.bookname[i] in data:

with open(b,"a") as f:

f.write(str(i+1)+"\t\t"+ListSplit.bookname[i]+"\t\t$"+ListSplit.cost[i]+"\n")

ListSplit.quantity[i]=int(ListSplit.quantity[i])+1

total=float(ListSplit.cost[i])

print("\t\t\t\t\t\t\t"+"$"+str(total))

print("Is the book return date expired?")

print("Press Y for Yes and N for No")

stat=input()

if(stat.upper()=="Y"):

print("By how many days was the book returned late?")

day=int(input())

fine=2\*day

with open(b,"a")as f:

f.write("\t\t\t\t\tFine: $"+ str(fine)+"\n")

total=total+fine

print("Final Total: "+ "$"+str(total))

with open(b,"a")as f:

f.write("\t\t\t\t\tTotal: $"+ str(total))

with open("Stock.txt","w+") as f:

for i in range(3):

f.write(ListSplit.bookname[i]+","+ListSplit.authorname[i]+","+str(ListSplit.quantity[i])+","+"$"+ListSplit.cost[i]+"\n")

OUTPUT





