**from pickle import load,dump**

**from os import remove,rename**

**import os**

**import random**

**import time**

**print**

**print**

**print**

**print**

**print**

**print "\t \t \t WELCOME TO A & A LIBRARY \t \t \t"**

**print**

**print**

**print**

**print**

**print**

**print**

**print "\t \t \t \t \t \t \t PROJECT DONE BY:"**

**print**

**print**

**print "\t \t \t \t \t \t \......... "**

**print**

**print "\t \t \t \t \t \t \t……….. "**

**print**

**print**

**a=raw\_input("PRESS ENTER TO CONTINUE:")**

**a=str(a)**

**if a.isalpha():**

**pass**

**class book:**

**def \_\_init\_\_(self,bno=" ",bname=" ",auname=" "):**

**self.bno=bno**

**self.bname=bname**

**self.auname=auname**

**def create\_book(self):**

**print**

**print "\t\t\t Creating Book Record \t\t\t"**

**print**

**self.bno=raw\_input("\t Enter Book Number:")**

**print**

**self.bname=raw\_input("\t Enter Name of the Book:")**

**print**

**self.auname=raw\_input("\t Enter Name of the Author:")**

**print**

**print**

**print "\t \t \t Book Created \t \t \t"**

**def show\_book(self):**

**print**

**print**

**print "\t \t Book Number:",self.bno**

**print**

**print "\t \t Book Name:",self.bname**

**print**

**print "\t \t Author Name:",self.auname**

**print**

**print**

**def modify\_book(self):**

**print**

**print**

**print "\t \t Book No.: ",self.bno**

**print**

**self.bname=raw\_input("\t \t Enter New Book Name:")**

**print**

**self.auname=raw\_input("\t \t Enter New Author Name:")**

**print**

**print**

**print "\t \t Book Modified"**

**print**

**def ret\_bno(self):**

**return (self.bno)**

**def report\_book(self):**

**print self.bno,self.bname,self.auname**

**class student:**

**def \_\_init\_\_(self,admno=" ",name=" ",stbno=" ",token=0):**

**self.admno=admno**

**self.name=name**

**self.stbno=stbno**

**self.token=token**

**def createstud(self):**

**print**

**print "\t \t \t Creating Student Record \t \t \t"**

**print**

**self.admno=raw\_input("\t \t Enter Admission Number:")**

**print**

**self.name=raw\_input("\t \t Enter Name of the Student:")**

**self.stbno=" "**

**self.token=0**

**print**

**print**

**print "\t \t \t Student Record Created \t \t \t"**

**print**

**print "#"\*70**

**print**

**def showstud(self):**

**print**

**print**

**print "\t Admission No.:",self.admno**

**print**

**print "\t Name:",self.name**

**print**

**print "\t Stbno:",self.stbno**

**print**

**print**

**def displaystud(self):**

**print**

**print ("\t Admission Number of the Student is:",self.admno)**

**print**

**print ("\t Name of the Student is:",self.name)**

**if (self.token==1):**

**print "\t Book Number is:",self.stbno**

**def modifystud(self):**

**print**

**print "\t Admission No:",self.admno**

**print**

**self.name=raw\_input("\t New Student Name:")**

**print**

**print "\t \t Student's Name Modified !!"**

**def ret\_admno(self):**

**return self.admno**

**def ret\_stbno(self):**

**return self.stbno**

**def ret\_token(self):**

**return self.token**

**def add\_token(self):**

**self.token=1**

**def reset\_token(self):**

**self.token=0**

**def get\_stbno(self,t):**

**self.stbno=t**

**def reportstud(self):**

**print self.admno, self.name, self.token**

**def writebook():**

**ch="Y"**

**fp=open("book1.dat","ab")**

**while ch=="Y":**

**bk.create\_book()**

**dump(bk,fp)**

**print**

**ch=raw\_input("\t \t Do You Want to Continue<y/n>:")**

**print**

**print "#"\*70**

**print**

**ch=ch.upper()**

**def writestudent():**

**ch="Y"**

**fp=open("student1.dat","ab")**

**while ch=="Y":**

**st.createstud()**

**dump(st,fp)**

**ch=raw\_input("\t \t Do You Want to Continue <y/n>:")**

**ch=ch.upper()**

**print**

**display\_alls():**

**fin=open("student1.dat","rb")**

**if not (fin):**

**print "\t \t File is Not Found.."**

**else:**

**try:**

**while True:**

**print**

**st=load(fin)**

**st.showstud()**

**except EOFError:**

**pass**

**fin.close()**

**def display\_allb():**

**fin=open("book1.dat","rb")**

**if not (fin):**

**print**

**print**

**print "Book File is Not Found.."**

**else:**

**try:**

**while True:**

**bk=load(fin)**

**bk.show\_book()**

**except EOFError:**

**pass**

**fin.close()**

**def display\_spb(no):**

**flag=0**

**fin=open("book1.dat","rb")**

**try:**

**while True:**

**bk=load(fin)**

**if(bk.ret\_bno()==no):**

**bk.show\_book()**

**flag=1**

**except EOFError:**

**pass**

**fin.close()**

**if flag==0:**

**print**

**print**

**print "\t \t \t \t BOOK NOT PRESENT..!!"**

**def display\_sps(n):**

**flag=0**

**fin=open("student1.dat","rb")**

**try:**

**while True:**

**st=load(fin)**

**if(st.ret\_admno()==n):**

**st.showstud()**

**flag=1**

**except EOFError:**

**pass**

**fin.close()**

**if flag==0:**

**print**

**print "\t \t \t STUDENT NOT PRESENT..!!"**

**def modify\_bookrecord():**

**found=0**

**print**

**print**

**print "\t \t \t Modify Book"**

**print**

**print**

**n=raw\_input("\t \t Enter Book Number to be Modified:")**

**print**

**fin=open("book1.dat","rb")**

**fout=open("temp.dat","wb")**

**try:**

**while True:**

**bk=load(fin)**

**if bk.ret\_bno()==n:**

**print**

**print "\t \t \t Book Details"**

**bk.show\_book()**

**print**

**print"\t \t Enter New Details"**

**print**

**print**

**bk.modify\_book()**

**dump(bk,fout)**

**found=1**

**else:**

**dump(bk,fout)**

**except EOFError:**

**pass**

**if found==0:**

**print "\t \t \t \t Book Not Present"**

**fin.close()**

**fout.close()**

**remove("book1.dat")**

**rename("temp.dat","book1.dat")**

**def modify\_student\_record():**

**found=0**

**print**

**print "\t \t \t Modify Student Record"**

**print**

**print**

**n=raw\_input("\t \t Enter Student's Admission Number to be Modified:")**

**print**

**fin=open("student1.dat","rb")**

**fout=open("temp.dat","wb")**

**try:**

**while True:**

**st=load(fin)**

**if st.ret\_admno()==n:**

**print**

**print "\t \t \t STUDENT DETAILS"**

**st.showstud()**

**print**

**print "\t \t \t Enter New Student Details:"**

**st.modifystud()**

**dump(st,fout)**

**found=1**

**else:**

**dump(st,fout)**

**except EOFError:**

**pass**

**if found==0:**

**print "\t \t \t \t STUDENT NOT PRESENT"**

**fin.close()**

**fout.close()**

**remove("student1.dat")**

**rename("temp.dat","student1.dat")**

**def del\_stud():**

**flag=0**

**print**

**print**

**n=raw\_input("\t \t Enter Admission to be Deleted:")**

**print**

**fin=open("student1.dat","rb")**

**fout=open("temp.dat","wb")**

**try:**

**while True:**

**st=load(fin)**

**if st.ret\_admno()<>n:**

**dump(st,fout)**

**else:**

**flag=1**

**except EOFError:**

**pass**

**fin.close()**

**fout.close()**

**remove("student1.dat")**

**rename("temp.dat","student1.dat")**

**if flag==1:**

**print**

**print "\t \t \t \t RECORD DELETED..!!"**

**else:**

**print**

**print "\t \t \t \t SORYY..!! RECORD DOES NOT EXIST..!!.."**

**def del\_book():**

**flag=0**

**print**

**print**

**n=raw\_input("\t \t Enter Book No to be Deleted:")**

**print**

**fin=open("book1.dat","rb")**

**fout=open("temp.dat","wb")**

**try:**

**while True:**

**bk=load(fin)**

**if bk.ret\_bno()<>n:**

**dump(bk,fout)**

**else:**

**flag=1**

**except EOFError:**

**pass**

**fin.close()**

**fout.close()**

**remove("book1.dat")**

**rename("temp.dat","book1.dat")**

**if flag==1:**

**print "\t \t \t Record Deleted"**

**else:**

**print "\t \t \t SORRY..!! RECORD NOT PRESENT.."**

**def book\_issue():**

**sn=" "**

**bn=" "**

**found=0**

**flag=0**

**print**

**print**

**print "\t \t \t BOOK ISSUE.. \t \t \t"**

**print**

**print**

**sn=raw\_input("\t \t Enter the Student's Admission Number:")**

**print**

**fin1=open("book1.dat","rb")**

**fin2=open("student1.dat","rb")**

**fout=open("temp.dat","wb")**

**try:**

**while True:**

**st=load(fin2)**

**if (st.ret\_admno()==sn):**

**st.showstud()**

**found=1**

**if st.ret\_token()==0:**

**bn=raw\_input("\t \t Enter Book Number:")**

**try:**

**while True:**

**bk=load(fin1)**

**if bk.ret\_bno()==bn:**

**bk.show\_book()**

**flag=1**

**st.add\_token()**

**st.get\_stbno(bk.ret\_bno())**

**dump(st,fout)**

**os.system("cls")**

**print**

**print**

**print "\t \t \t Book Issued Successfully \t \t \t"**

**print**

**print "\t PLEASE NOTE : Write the current date in backside of your book "**

**print "\t \t and submit within 15 days"**

**print**

**print "\t \t Fine Rs.20 for each day after 15 days period..!!"**

**print**

**except EOFError:**

**pass**

**else:**

**print"\t You have not returned the last book.."**

**except EOFError:**

**pass**

**if(flag==0):**

**print "\t \t \t No Such Book Present !!!"**

**if(found==0):**

**print "\t \t \t No Such Student Exists !!!"**

**fin1.close()**

**fin2.close()**

**fout.close()**

**remove("student1.dat")**

**rename("temp.dat","student1.dat")**

**def book\_deposit():**

**print**

**print**

**print**

**print "\t \t \t BOOK DEPOSITING."**

**sn=" "**

**found=0**

**flag=0**

**day=0**

**fine=0**

**print**

**print**

**sn=raw\_input("\t \t Enter Students Admission Number:")**

**print**

**fin1=open("student1.dat","rb")**

**fin2=open("book1.dat","rb")**

**fout=open("temp.dat","wb")**

**try:**

**while True:**

**st=load(fin1)**

**if st.ret\_admno()==sn:**

**found=1**

**print**

**print "\t Student Token Number",st.ret\_token()**

**if st.ret\_token()==1:**

**try:**

**while True:**

**bk=load(fin2)**

**if bk.ret\_bno()==st.ret\_stbno():**

**bk.show\_book()**

**flag=1**

**print**

**days=int(raw\_input("\t Book Deposited In no. of days:"))**

**if days>=15:**

**fine=(days-15)\*20**

**print**

**print "\t Fine : Rs.",fine**

**st.reset\_token()**

**st.get\_stbno(0)**

**st.showstud()**

**dump(st,fout)**

**print**

**print "\t \t BOOK DEPOSITED !!!"**

**except EOFError:**

**pass**

**else:**

**print**

**print"\t \t You have not issued the book.."**

**except EOFError:**

**pass**

**if(found==0):**

**print**

**print"\t No Such Student Exists"**

**fin1.close()**

**fin2.close()**

**fout.close()**

**remove("student1.dat")**

**rename("temp.dat","student1.dat")**

**bk=book()**

**st=student()**

**def adminmenu():**

**ch="Y"**

**while ch=="Y":**

**print**

**print**

**print "\t \t \t ADMINISTRATION MENU \t \t \t"**

**print**

**print**

**print "\t 1. CREATE STUDENT RECORD"**

**print**

**print "\t 2. DISPLAY ALL STUDENTS RECORD"**

**print**

**print "\t 3. DISPLAY SPECIFIC STUDENT RECORD"**

**print**

**print "\t 4. MODIFY STUDENT RECORD"**

**print**

**print "\t 5. DELETE STUDENT RECORD"**

**print**

**print "\t 6. CREATE BOOK"**

**print**

**print "\t 7. DISPLAY ALL BOOKS"**

**print**

**print "\t 8. DISPLAY SPECIFIC BOOK"**

**print**

**print "\t 9. MODIFY BOOK"**

**print**

**print "\t 10.DELETE BOOK RECORD"**

**print**

**ch1=int(raw\_input("\t \t Enter Your Choice:"))**

**print**

**os.system("cls")**

**if ch1==1:**

**writestudent()**

**elif ch1==2:**

**display\_alls()**

**elif ch1==3:**

**print**

**print**

**ad=raw\_input("\t \t Enter Student's Admno to be Displayed:")**

**display\_sps(ad)**

**elif ch1==4:**

**modify\_student\_record()**

**elif ch1==5:**

**del\_stud()**

**elif ch1==6:**

**writebook()**

**elif ch1==7:**

**display\_allb()**

**elif ch1==8:**

**print**

**print**

**bn=raw\_input("\t \t ENTER BOOK NUMBER TO BE DISPLAYED:")**

**display\_spb(bn)**

**elif ch1==9:**

**modify\_bookrecord()**

**elif ch1==10:**

**del\_book()**

**print**

**ch=raw\_input("\t \t Do you want Continue with ADMINMENU<y/n>:")**

**ch=ch.upper()**

**print**

**os.system("cls")**

**if ch=="Y":**

**continue**

**else:**

**mainmenu()**

**def mainmenu():**

**ch="Y"**

**while ch=="Y":**

**print**

**print**

**print "\t \t \t MAIN MENU \t \t \t"**

**print**

**print "\t 1. BOOK ISSUE"**

**print**

**print "\t 2. BOOK DEPOSIT"**

**print**

**print "\t 3. ADMINISTRATION MENU"**

**print**

**print "\t 4. EXIT"**

**print**

**ch1=int(raw\_input("\t \t Enter Your Choice:"))**

**print**

**print "\t \t Loading ...."**

**time.sleep(5)**

**os.system("cls")**

**if ch1==1:**

**book\_issue()**

**elif ch1==2:**

**book\_deposit()**

**elif ch1==3:**

**adminmenu()**

**else:**

**exit(0)**

**print**

**ch=raw\_input("\t \t \t Do You Want to Continue <y/n>:")**

**ch=ch.upper()**

**if ch=="N":**

**break**

**print**

**print**

**print "\t \t Loading..."**

**time.sleep(30)**

**os.system("cls")**

**os.system("cls")**

**mainmenu()**