#include<iostream>

#include<fstream>

#include<stdio.h>

#include<stdlib.h>

#define CLRSCR system(“clear”); // We seeked some help from internet to get this clear screen function

using namespace std;

void show\_all\_books(){

ifstream book;

string data;

book.open("allbooks");

if ( book.is\_open() )

{

while ( book )

{

getline (book, data);

cout << data<<endl;

}

}

else {

cout<<"Record could not be opened."<<endl;

}

}

void new\_book(){

cout<<" Adding new Book in the record"<<endl;

cout<<"\n\n Note : Avoid use of space while entering data. \n\n "<<endl;

string name, publ, issn;

float cost;

int sr;

cout<<"Enter the SR number of the number : ";

cin>>sr;

cout<<"Enter the name of the book : ";

cin>>name;

cout<<"Enter the name of the publisher : ";

cin>>publ;

cout<<"Enter the ISSN : ";

cin>>issn;

cout<<"Enter the cost of the book : ";

cin>>cost;

ofstream bookout;

ifstream bookin;

bookin.open("allbooks");

bookout.open ("allbooks",ios::app);

if(bookin.is\_open()){

cout<<endl;

bookout<<" "<<endl;

bookout<<"SR of the book : " <<sr<<endl;

bookout<<"Name of the book : " <<name<<endl;

bookout<<"Publisher of the book : "<<publ<<endl;

bookout<<"The ISSN of the books : "<<issn<<endl;

bookout<<"Cost of the book : " <<cost<<endl;

bookout<<endl;

bookout<<"Record entered successfully."<<endl;

bookout.close();

}

bookin.close();

bookout.close();

}

void issue\_book(){

cout<<" Issuing a Book to a student"<<endl;

cout<<"\n\n Note : Avoid use of space while entering data. \n\n "<<endl;

string stname, section, bookname;

int rollno;

cout<<"Enter the name of the student : ";

cin>>stname;

cout<<endl;

ifstream student;

student.open(stname);

if ( student.is\_open() )

{

cout<<endl;

cout<<"You have already borrowed a book so please return that book and get "<<endl;

cout<<"your name removed from the borrower list if you want to get a new one."<<endl;

}

else{

cout<<"Enter the roll number of the student : ";

cin>>rollno;

cout<<"Enter the name of the book that is being issued : ";

cin>>bookname;

ofstream newstudent(stname);

newstudent<<"Name of the student : "<<stname<<endl;

newstudent<<"Roll Number of the student : "<<rollno<<endl;

newstudent<<"Book issued : "<<bookname<<endl;

newstudent.close();

cout<<endl;

cout<<"Book issued successfully."<<endl;

}

}

void search\_student(){

cout<<" Searching for a student in the record"<<endl;

cout<<"\n\n Note : Avoid use of space while entering data. \n\n "<<endl;

ifstream student;

string data;

string studentname;

cout<<"Enter name of the Student whose record you want : ";

cin >> studentname;

cout<<endl;

student.open(studentname);

if ( student.is\_open() )

{

while ( student )

{

getline (student, data);

cout << data<<endl;

}

}

else{

cout<<"Student not found in the record."<<endl;

}

}

void remove\_name() //We seeked some help from internet to get this file removing function

{

char name[20];

cout<<"Enter the name that you want to remove from the borrower list : ";

cin>>name;

remove(name);

cout<<endl;

cout<<"Name removed from the list sucessfully."<<endl;

}

char ask()

{

char ch;

cout<<endl;

cout<<"Do you want to continue (y or n)? : ";

cin>>ch;

if(ch=='n'){

exit(0);

}

return ch;

}

int main()

{

char choice;

string anykey;

do

{

system ("CLS");

cout<<" Library Management "<<endl;

cout<<endl;

cout<<"Enter the any of the followig choice :" <<endl;

cout<<"1. Show the details of all books." <<endl;

cout<<"2. Enter a new book in the record." <<endl;

cout<<"3. Issue a book to a student." <<endl;

cout<<"4. Show the student detail record." <<endl;

cout<<"5. Remove a name from the book borrower list."<<endl;

cout<<"6. Exit"<<endl;

cout<<endl;

cout<<"Enter your choice : ";

cin>>choice;

switch(choice){

case'1':

{

system ("CLS");

show\_all\_books();

ask();

break;

}

case'2':

{

system ("CLS");

new\_book();

ask();

break;

}

case'3':

{

system ("CLS");

issue\_book();

ask();

break;

}

case'4':

{

system ("CLS");

search\_student();

ask();

break;

}

case'5':

{

system ("CLS");

remove\_name();

ask();

break;

}

case'6':

{

system ("CLS");

exit(0);

break;

}

default:

system ("CLS");

cout<<"\n\n Invalid Choice. Press any key to continue..";

cin>>anykey;

}

}

while(choice!='6');

return 0;

}