**Bookshop Management System**

#include<iostream>

#include<conio.h>

#include<string.h>

#include<fstream>

#include<iomanip>

using namespace std;

class book

{

char book\_id[30];

char book\_name[50];

char author\_name[20];

int copies;

public:

static int count;

void book\_details()

{

cout<<"\nEnter The Book Number: ";

cin>>book\_id;

cout<<"\nEnter The Name of The Book: ";

cin.ignore();

cin.getline(book\_name,50);

cout<<"\nEnter The Author's Name: ";

cin.ignore();

cin.getline(author\_name,50);

fflush(stdin);

cout<<"\nEnter No. Of Copies : ";

cin>>copies;

count=count+copies; }

void show\_book()

{

cout<<"\nBook Number: "<<book\_id;

cout<<"\nBook Name: "<<book\_name;

cout<<"\nAuthor's Name: "<<author\_name;

cout<<"\nCOPIES : "<<copies<<"\n";

// cout<<"total copies"<<count<<"\n";

}

void modify\_book()

{

cout<<"\nBook number : "<<book\_id;

cout<<"\nModify Book Name : ";

cin.ignore();

cin.getline(book\_name,50);

cout<<"\nModify Author's Name: ";

cin.ignore();

cin.getline(author\_name,50);

fflush(stdin);

cout<<"\nEnter No. Of Copies : ";

cin>>copies;

}

char\* getbooknumber()

{

return book\_id;

}

void report()

{

cout<<book\_id<<setw(30)<<book\_name<<setw(30)<<author\_name<<setw(30)<<copies<<endl;

}

};

int book::count=0;

fstream fp;

book bk;

void write\_book()

{

system("cls");

int more\_or\_main;

fp.open("bookshop.dat",ios::out|ios::app);

do

{

bk.book\_details();

fp.write((char\*)&bk,sizeof(book));

cout<<"\nPress 1 to add more books.";

cout<<"\nPress 2 to return to main menu.\n";

cout<<"Press 1 to add and Press 2 to go main menu: ";

cin>>more\_or\_main;

}

while(more\_or\_main == 1);

fp.close();

}

void display\_book(char n[])

{

system("cls");

cout<<"\nBook Details\n";

int check=0;

fp.open("bookshop.dat",ios::in);

while(fp.read((char\*)&bk,sizeof(book)))

{

if(strcmpi(bk.getbooknumber(),n)==0)

{

bk.show\_book();

check=1;

}

}

fp.close();

if(check==0)

cout<<"\n\nBook does not exist\n";

getch();

}

void modify\_book()

{

system("cls");

char n[20];

int found=0;

cout<<"\n\n\tModify Book";

cout<<"\n\n\tEnter The book number: ";

cin>>n;

fp.open("bookshop.dat",ios::in|ios::out);

while(fp.read((char\*)&bk,sizeof(book)) && found==0)

{

if(strcmpi(bk.getbooknumber(),n)==0)

{

bk.show\_book();

cout<<"\nEnter The New Details of book"<<endl;

bk.modify\_book();

int pos=1\*sizeof(bk);

fp.seekp(pos,ios::cur);

fp.write((char\*)&bk,sizeof(book));

cout<<"\n\n\tRecord Updated Successfully\n";

found=1;

}

}

fp.close();

if(found==0)

cout<<"\n\n Record Not Found ";

getch();

}

void delete\_book()

{

system("cls");

char n[20];

int flag=0;

cout<<"\n\n\n\tDelete Book";

cout<<"\n\nEnter The Book's number You Want To Delete: ";

cin>>n;

fp.open("bookshop.dat",ios::in|ios::out);

fstream fp2;

fp2.open("Temp.dat",ios::out);

fp.seekg(0,ios::beg);

while(fp.read((char\*)&bk,sizeof(book)))

{

if(strcmpi(bk.getbooknumber(),n)!=0)

{

fp2.write((char\*)&bk,sizeof(book));

}

else

flag=1;

}

fp2.close();

fp.close();

remove("bookshop.dat");

rename("Temp.dat","bookshop.dat");

if(flag==1)

cout<<"\n\n\tRecord Deleted";

else

cout<<"\n\nRecord not found";

getch();

}

void display\_allb()

{

system("cls");

fp.open("bookshop.dat",ios::in);

if(!fp)

{

cout<<"ERROR!!! FILE COULD NOT BE OPEN ";

getch();

return;

}

cout<<"\n\n\t\tBook List\n\n\n";

cout<<"Book Number"<<setw(20)<<"Book Name"<<setw(25)<<"Author"<<setw(25)<<"Copies"<<endl<<"\n";

while(fp.read((char\*)&bk,sizeof(book)))

{

bk.report();

}

cout<<"\n\nTotal no copies="<<bk.count<<"\n";

fp.close();

getch();

}

int main()

{

int option = 0;

for(;;)

{

cout<<"\t\t\nBook Shop Management System\n";

cout<<"\n\t\tPress 1 to Insert Books";

cout<<"\n\t\tPress 2 to Show all Books";

cout<<"\n\t\tPress 3 to Check for avalibility";

cout<<"\n\t\tPress 4 to Modify Books";

cout<<"\n\t\tPress 5 to Delete Books";

cout<<"\n\t\tPress 6 to Exit";

cout<<"\n\t\t\n";

cout<<"\n\t\tSelect Options: ";

cin>>option;

switch(option)

{

case 1: system("cls");

write\_book();

break;

case 2: display\_allb();

break;

case 3:

char num[20];

system("cls");

cout<<"\n\n\tPlease Enter The book No. \n";

cin>>num;

display\_book(num);

break;

case 4: modify\_book();break;

case 5: delete\_book();break;

case 6: exit(0);

break;

default:cout<<"\a";

}

}

}