Capstone Project Library System management

C code :

// Md. zahidul islam

// 221-35-1082

// section D

// Capstone Project for Library managment system

#include<stdio.h>

#include<stdlib.h>

#include<time.h>

struct books{

int id;

char bookName[50];

char authorName[50];

char date[12];

}b;

struct student{

int id;

char sName[50];

char sClass[50];

int sRoll;

char bookName[50];

char date[12];

}s;

FILE \*fp;

int main(){

system("color 7D");

int ch;

while(1){

system("cls");

printf("\t\t\t\*\*\*\*\*\*\*\*\*\*\*\*=====Md=====Zahidul=====islam=====\*\*\*\*\*\*\*\*\*\*\*\*");

printf("\n\t\t\t\*\*\* \*\*\*");

printf("\n\t\t\t\*\*\* Daffodil Library management System \*\*\*");

printf("\n\t\t\t\*\*\* \*\*\*");

printf("\n\t\t\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*=====221=====35=====1082=====\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

printf("\n\t\t\t==========================================================");

printf("\n");

printf("\n");

printf("\n \t\t\t 1.Add Book\n");

printf("\n \t\t\t 2.Books List\n");

printf("\n \t\t\t 3.Remove Book\n");

printf("\n \t\t\t 4.Issue Book\n");

printf("\n \t\t\t 5.Issued Book List\n");

printf("\n \t\t\t 0.Exit\n\n");

printf("\n\t\t\t==========================================================");

printf("\n \t\t\tNow Enter your choice: ");

scanf("%d", &ch);

switch(ch){

case 0:

exit(0);

case 1:

addBook();

break;

case 2:

booksList();

break;

case 3:

del();

break;

case 4:

issueBook();

break;

case 5:

issueList();

break;

default:

printf("Invalid Choice...\n\n");

}

printf("\n\t\t\tPress Any Key To Continue...");

getch();

}

return 0;

}

void addBook(){

char myDate[12];

time\_t t = time(NULL);

struct tm tm = \*localtime(&t);

sprintf(myDate, "%02d/%02d/%d", tm.tm\_mday, tm.tm\_mon+1, tm.tm\_year + 1900);

strcpy(b.date, myDate);

fp = fopen("books.txt", "ab");

printf("\n \t\t\tEnter book id: ");

scanf("%d", &b.id);

printf("\n \t\t\tEnter book name: ");

fflush(stdin);

gets(b.bookName);

printf("\n \t\t\tEnter author name: ");

fflush(stdin);

gets(b.authorName);

printf(" ================================================\n");

printf(" Book Added Successfully In your library\n");

printf(" ================================================= \n");

fwrite(&b, sizeof(b), 1, fp);

fclose(fp);

}

void booksList(){

system("cls");

printf("\t\t\t\*\*\*\*\*\*\*\*\*\*\*\*=====Md=====Zahidul=====islam=====\*\*\*\*\*\*\*\*\*\*\*\*");

printf("\n\t\t\t \*\*\* \*\*\*");

printf("\n\t\t\t \*\*\* Available Books \*\*\*");

printf("\n\t\t\t \*\*\* \*\*\*");

printf("\n\t\t\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*=====221=====35=====1082=====\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

printf("\n");

printf("\n");

printf("\n");

printf("%-10s %-30s %-20s %s\n\n", "\n\t\t\tBook id", "Book Name", "Author", "Date");

fp = fopen("books.txt", "rb");

while(fread(&b, sizeof(b), 1, fp) == 1){

printf("\n\t\t\t%-10d %-30s %-20s %s\n", b.id, b.bookName, b.authorName, b.date);

}

fclose(fp);

}

void del(){

int id, f=0;

system("cls");

printf(" ==================================================================\n");

printf(" || Remove Books ||\n");

printf(" ==================================================================\n");

printf("Enter Book id to remove: ");

scanf("%d", &id);

FILE \*ft;

fp = fopen("books.txt", "rb");

ft = fopen("temp.txt", "wb");

while(fread(&b, sizeof(b), 1, fp) == 1){

if(id == b.id){

f=1;

}else{

fwrite(&b, sizeof(b), 1, ft);

}

}

if(f==1){

printf("\n\nDeleted Successfully.");

}else{

printf("\n\nRecord Not Found !");

}

fclose(fp);

fclose(ft);

remove("books.txt");

rename("temp.txt", "books.txt");

}

void issueBook(){

char myDate[12];

time\_t t = time(NULL);

struct tm tm = \*localtime(&t);

sprintf(myDate, "%02d/%02d/%d", tm.tm\_mday, tm.tm\_mon+1, tm.tm\_year + 1900);

strcpy(s.date, myDate);

int f=0;

system("cls");

printf(" ==================================================================\n");

printf(" || Books Issue ||\n");

printf(" ==================================================================\n");

printf("Enter Book id to issue: ");

scanf("%d", &s.id);

fp = fopen("books.txt", "rb");

while(fread(&b, sizeof(b), 1, fp) == 1){

if(b.id == s.id){

strcpy(s.bookName, b.bookName);

f=1;

break;

}

}

if(f==0){

printf("No book found with this id\n");

printf("Please try again...\n\n");

return;

}

fp = fopen("issue.txt", "ab");

printf("Enter Student Name: ");

fflush(stdin);

gets(s.sName);

printf("Enter Student Class: ");

fflush(stdin);

gets(s.sClass);

printf("Enter Student Roll: ");

scanf("%d", &s.sRoll);

printf("Book Issued Successfully\n\n");

fwrite(&s, sizeof(s), 1, fp);

fclose(fp);

}

void issueList(){

system("cls");

printf(" ==================================================================\n");

printf(" || Books Issue List ||\n");

printf(" ==================================================================\n");

printf("%-10s %-30s %-20s %-10s %-30s %s\n\n", "S.id", "Name", "Class", "Roll", "Book Name", "Date");

fp = fopen("issue.txt", "rb");

while(fread(&s, sizeof(s), 1, fp) == 1){

printf("%-10d %-30s %-20s %-10d %-30s %s\n", s.id, s.sName, s.sClass, s.sRoll, s.bookName, s.date);

}

fclose(fp);

}