**C++ Project on Library Management using file handling**

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**Features**

* Add books
* Admin login
* User name and psssword
* Delete books
* Update books
* List of complete books store the file and delete the books in file
* Borrow the books of students 5 days for free otherwise per day 500 fine charge

**Source Code**

This project has two files main.cpp & main.h

/\*

file: main.cpp

\*/

#include

#include "main.h"

#include

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#include

using namespace std;

/\* run this program using the console pauser or add your own getch,

system("pause") or input loop \*/

int main(int argc, char\*\* argv) {

int outerChoice = 0;

while(outerChoice!=9){

system("cls");

cout<<"\n Library Management Version 1.0 \n\n";

cout<<"\n1. Amin";

cout<<"\n2. User";

cout<<"\n9. Exit";

cout<<"\n\nEnter your choice : ";

cin>>outerChoice;

if( outerChoice == 1 )

{

char adminUser[10];

char adminPassword[10];

system("cls");

cout<<"\n ---------- Admin Login -------";

cout<<"\n\n Enter username: ";

cin>>adminUser;

cout<<"\n Enter password:";

cin>>adminPassword;

if( (strcmp(adminUser, ADMINUSER) == 0) &&

( strcmp(adminPassword, ADMINPASSWORD) == 0)){

getchar(); getchar();

system("cls");

int innerChoice = 0;

while(innerChoice != 9){

cout<<"\n\n Admin Login is Successful !! Press any key to continue..";

cout<<"\n1. Add Book";

cout<<"\n2. Update Book";

cout<<"\n3. Delete Book";

cout<<"\n4. List of All Books";

cout<<"\n9. Exit";

cout<<"\n\n Enter your choice : ";

cin>>innerChoice;

switch(innerChoice){

case 1: addBook(); break;

case 2: updateBook(); break;

case 3: deleteBook(); break;

case 4: listOfAllBooks(); break;

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

getchar();

}

system("cls");

}

}

else

{

cout<<"\n\n Error : Invalid Credentials. Press any key to conitnue";

getchar();getchar();

}

}

else if(outerChoice ==2) {

char studentUser[10];

char studentPassword[10];

system("cls");

cout<<"\n ---------- Student Login -------";

cout<<"\n\n Enter username: ";

cin>>studentUser;

cout<<"\n Enter password:";

cin>>studentPassword;

if( (strcmp(studentUser, USER) ==0) &&

(strcmp(studentPassword, USERPASSWORD) == 0)){

int innerChoice = 0;

while(innerChoice != 9){

system("cls");

cout<<"\n1. Borrow a Book";

cout<<"\n2. Return a Book";

cout<<"\n3. List of All Books";

cout<<"\n9. Exit";

cout<<"\n\n Enter your choice : ";

cin>>innerChoice;

switch(innerChoice){

case 1: borrowBook();break;

case 2: returnBook();break;

case 3: listOfAllBooks(); break;

case 9: break;

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

getchar();getchar();

}

}

system("cls");

}

else

{

cout<<"\n\n Error : Invalid Credentials. Press any key to conitnue";

getchar();getchar();

}

}

else if(outerChoice!=9){

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

getchar();getchar();

}

else

{

cout<<"\n\n Thank you for using it !! Press any key to exit";

getchar();getchar();

}

}

return 0;

}

int addBook(){

int bookid;

char bookname[20];

char bookauthor[20];

int year, month, day;

time\_t t = time(NULL);

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

year = tm.tm\_year + 1900;

month = tm.tm\_mon +1;

day = tm.tm\_mday;

system("cls");

cout<<"\n ---- Add a new Book ----";

cout<<"\n\n Enter 4 digit numberic id :";

cin>>bookid;

cout<<"\n Enter book name : ";

cin>>bookname;

cout<<"\n Enter book author : ";

cin>>bookauthor;

char filename[20];

sprintf(filename,"%d%s",bookid,".dat");

ofstream file(filename);

file<<bookname<<"\n";

file<<bookauthor<<"\n";

file<<year<<"\n";

file<<month<<"\n";

file<<day<<"\n";

file.close();

cout<<"\n File Saved Successfully !!";

getchar(); getchar();

}

int deleteBook(){

}

int updateBook(){

}

int listOfAllBooks(){

}

int borrowBook(){

}

int returnBook(){

}

int adminLogin(){

}

int userLogin(){

}

/\*--------------- End of Main.cpp -----------\*/

/\* ---------------- main.h ----------------- \*/

#define ADMINUSER "admin"

#define ADMINPASSWORD "admin123"

#define USER "user"

#define USERPASSWORD "user123"

#define FINE 500

int addBook();

int deleteBook();

int updateBook();

int listOfAllBooks();

int borrowBook();

int returnBook();

int adminLogin();

int userLogin();

/\* - -------------------- end of main.h -----------------\*/