//Library management System Project in C

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#define MAX\_BOOKS 100

struct Book

{

char title[50];

char author[50];

int id;

int is\_available;

} Book;

struct Book books[MAX\_BOOKS];

int num\_books = 0;

void welcomeMessage()

{

printf("\t\t\t###########################################################################");

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

printf("\n\t\t\t############ Wellcome ############");

printf("\n\t\t\t############ to ############");

printf("\n\t\t\t############ Library management System Project in C ############");

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

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

}

void add\_book()

{

if (num\_books == MAX\_BOOKS)

{

printf("Error: Maximum number of books reached.\n");

return;

}

struct Book new\_book;

printf("\nEnter title: ");

scanf("%s", &new\_book.title);

printf("Enter author: ");

scanf("%s", &new\_book.author);

printf("Enter ID: ");

scanf("%d", &new\_book.id);

new\_book.is\_available = 1;

books[num\_books++] = new\_book;

printf("Book added successfully.\n");

}

void display\_books()

{

for (int i = 0; i < num\_books; i++)

{

printf("ID : %d \t\t Tittle : %s \t\t Author : %s \t\t Available : %s\n", books[i].id, books[i].title, books[i].author, books[i].is\_available ? "Yes" : "No");

}

}

void borrow\_book()

{

int id;

printf("Enter ID of book to borrow: ");

scanf("%d", &id);

for (int i = 0; i < num\_books; i++)

{

if (books[i].id == id)

{

if (books[i].is\_available)

{

books[i].is\_available = 0;

printf("Book borrowed successfully.\n");

}

else

{

printf("Error: Book not available for borrowing.\n");

}

return;

}

}

printf("Error: Book not found.\n");

}

void return\_book()

{

int id;

printf("Enter ID of book to return: ");

scanf("%d", &id);

for (int i = 0; i < num\_books; i++)

{

if (books[i].id == id)

{

if (!books[i].is\_available)

{

books[i].is\_available = 1;

printf("Book returned successfully.\n");

}

else

{

printf("Error: Book not borrowed.\n");

}

return;

}

}

printf("Error: Book not found.\n");

}

int main()

{

welcomeMessage();

int choice;

while(1)

{

printf("\n\n----Library Management System----\n\n");

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

printf("2. Display Books\n");

printf("3. Search Book\n");

printf("4. Borrow Book\n");

printf("5. Return Book\n");

printf("6. Delete Book\n");

printf("7. Total Book\n");

printf("8. Exit\n");

printf("\nEnter your choice: ");

scanf("%d", &choice);

switch (choice)

{

case 1:

add\_book();

break;

case 2:

display\_books();

break;

case 4:

borrow\_book();

break;

case 5:

return\_book();

break;

case 8:

printf("\nThank You for using Library Management System.\n");

return 0;

default:

printf("\nInvalid Choice!\n");

}

}

}