**Mozilla Firefox Club**

**Domain :CP**

**Task:LIBRARY MANAGEMENT SYSTEM**

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#define MAX\_BOOKS 100

struct Library {

char BookName[50];

char authorName[50];

int quantity;

};

void addBook(struct Library lib[], int \*numBooks) {

if (\*numBooks >= MAX\_BOOKS) {

printf("Library is full. Cannot add more books.\n");

return;

}

printf("Enter Book Name: ");

scanf("%s", lib[\*numBooks].BookName);

printf("Enter Author Name: ");

scanf("%s", lib[\*numBooks].authorName);

printf("Enter Quantity: ");

scanf("%d", &lib[\*numBooks].quantity);

(\*numBooks)++;

}

void displayBooks(struct Library lib[], int numBooks) {

if (numBooks == 0) {

printf("No books added yet.\n");

return;

}

printf("\n=== List of Books ===\n");

for (int i = 0; i < numBooks; i++) {

printf("%d. %s by %s - Quantity: %d\n", i + 1, lib[i].BookName, lib[i].authorName, lib[i].quantity);

}

}

void updateBook(struct Library lib[], int numBooks) {

char name[50];

printf("Enter the name of the book to update: ");

scanf("%s", name);

for (int i = 0; i < numBooks; i++) {

if (strcmp(lib[i].BookName, name) == 0) {

printf("Enter new Book Name: ");

scanf("%s", lib[i].BookName);

printf("Enter new Author Name: ");

scanf("%s", lib[i].authorName);

printf("Enter new Quantity: ");

scanf("%d", &lib[i].quantity);

printf("Book details updated successfully.\n");

return;

}

}

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

}

void deleteBook(struct Library lib[], int \*numBooks) {

char name[50];

printf("Enter the name of the book to delete: ");

scanf("%s", name);

for (int i = 0; i < \*numBooks; i++) {

if (strcmp(lib[i].BookName, name) == 0) {

for (int j = i; j < \*numBooks - 1; j++) {

lib[j] = lib[j + 1];

}

(\*numBooks)--;

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

return;

}

}

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

}

int main() {

int choice;

struct Library lib[MAX\_BOOKS];

int numBooks = 0;

do {

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

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

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

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

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

printf("5. Exit\n");

printf("Enter your choice: ");

scanf("%d", &choice);

switch (choice) {

case 1:

addBook(lib, &numBooks);

break;

case 2:

displayBooks(lib, numBooks);

break;

case 3:

updateBook(lib, numBooks);

break;

case 4:

deleteBook(lib, &numBooks);

break;

case 5:

printf("Exiting...\n");

break;

default:

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

}

} while (choice != 5);

return 0;

}