

```
#include<iostream>

using namespace std;

int main()
{
    const int MAX_BOOKS = 100;
    int bookIds[MAX_BOOKS];
    string bookTitles[MAX_BOOKS];
    string bookAuthors[MAX_BOOKS];
    bool bookStatus[MAX_BOOKS];
    int bookCount = 0;

    while (true) {
        displayMenu();
        int choice;
        cin >> choice;

        switch (choice) {
            case 1:
                addBook();
                break;
            case 2:
                displayBooks();
                break;
            case 3:
                borrowBook();
                break;
```

```

        case 4:
            returnBook();
            break;
        case 5:
            cout << "thank you" << endl;
            return 0;
        default:
            cout <<"error"<< endl;
    }
}
}

```

```

void addBook() {
    if (bookCount >= MAX_BOOKS) {
        cout << "the library is full." << endl;
        return;
    }
}

```

```

cout << "add a new book " << endl;
cout << "enter the id book :";
int id;
cin >> id;

```

```

for (int i = 0; i < bookCount; i++) {
    if (bookIds[i] == id) {

```

```
        cout << "there is book has same the id." << endl;
        return;
    }
}
```

```
cout << "enter the title book: ";
string title;
cin >> title;
```

```
cout << "enter the name of author : ";
string author;
cin >> author;
```

```
bookIds[bookCount] = id;
bookTitles[bookCount] = title;
bookAuthors[bookCount] = author;
bookStatus[bookCount] = false;
```

```
bookCount++;
cout << "the book is add successful " << endl;
}
```

```
void displayBooks() {
    if (bookCount == 0) {
        cout << "the library is embity ." << endl;
        return;
    }
}
```

```
}
```

```
cout << "Book list" << endl;
```

```
Cout <<ID" "Title" "Author" "Status << endl;
```

```
for (int i = 0; i < bookCount; i++) {
```

```
    cout << bookIds[i] << " " << bookTitles[i] << " " << bookAuthors[i] << endl;
```

```
}
```

```
}
```

```
void borrowBook() {
```

```
    if (bookCount == 0) {
```

```
        cout << "the library is embity." << endl;
```

```
        return;
```

```
}
```

```
cout << "Enter the ID of the book you want to borrow.: ";
```

```
int id;
```

```
cin >> id;
```

```
bool found = false;
```

```
for (int i = 0; i < bookCount; i++) {
```

```
    if (bookIds[i] == id) {
```

```
        found = true;
```

```
        if (bookStatus[i]) {
```

```
            cout << "The book is borrowed" << endl;
```

```
    } else {  
        bookStatus[i] = true;  
        cout << " The book has been successfully borrowed." << endl;  
    }  
    break;  
}  
}
```

```
if (!found) {  
    cout << "No book with the requested ID." << endl;  
}  
}
```

```
void returnBook() {  
    if (bookCount == 0) {  
        cout << "the library is embity ." << endl;  
        return;  
    }  
}
```

```
cout << " Enter the ID of the book you want to return:"<<endl;
```

```
int id;  
cin >> id;
```

```
bool found = false;  
for (int i = 0; i < bookCount; i++) {  
    if (bookIds[i] == id) {
```

```
    found = true;
    if (!bookStatus[i]) {
        cout << " This book is currently not available for borrowing." << endl;
    } else {
        bookStatus[i] = false;
        cout << " The book has been returned successfully" << endl;
    }
    break;
}
}

if (!found) {
    cout << " No book with the requested ID << endl;
}
}
return 0;
}
```