

```
#include <iostream>
#include <string>
#include <vector>
#include <algorithm>
```

```
class Book {
private:
    std::string title;
    std::string author;
    std::string isbn;
    bool isIssued;
```

```
public:
```

```
    Book(std::string t, std::string a, std::string i)
        : title(t), author(a), isbn(i), isIssued(false) {}
```

```
    std::string getTitle() const { return title; }
    std::string getAuthor() const { return author; }
    std::string getISBN() const { return isbn; }
    bool getStatus() const { return isIssued; }
```

```
    void issueBook() { isIssued = true; }
    void returnBook() { isIssued = false; }
```

```
    void display() const {
        std::cout << "Title: " << title << ", Author: " << author
            << ", ISBN: " << isbn << ", Status: "
            << (isIssued ? "Issued" : "Available") << std::endl;
    }
};
```

```
class Library {
private:
    std::vector<Book> books;
```

public:

```
void addBook(const Book& book) {  
    books.push_back(book);  
    std::cout << "Book added successfully." << std::endl;  
}
```

```
void searchByISBN(const std::string& isbn) {  
    auto it = std::find_if(books.begin(), books.end(), [&](const Book& b){  
        return b.getISBN() == isbn;  
    });
```

```
    if (it != books.end()) {  
        it->display();  
    } else {  
        std::cout << "No book found with that ISBN." << std::endl;  
    }  
}
```

```
void displayAllBooks() const {  
    std::cout << "\n--- Library Catalog ---" << std::endl;  
    for (const auto& book : books) {  
        book.display();  
    }  
    std::cout << "-----" << std::endl;  
}
```

```
};
```

```
int main() {  
    Library myLibrary;  
  
    myLibrary.addBook(Book("Objectorientedprogramming", "Daniel ",  
"978000000"));  
    myLibrary.addBook(Book("c++ programming", "Jane", "97845000"));
```

```
myLibrary.displayAllBooks();  
myLibrary.searchByISBN("978000000");
```

```
return 0;
```

```
}
```