

```

1  #include <iostream>
2  #include "Library.h"
3  using namespace std;
4
5  int main(){
6
7      Library myLibrary("NCKU Library");
8      myLibrary.addBook(Book("C++ Programming", "Bjarne Stroustrup", "9780321563842"));
9      myLibrary.addBook(Book("Data Structures", "Nicola Lacey", "9780131986190"));
10     myLibrary.addBook(Book("Algorithm Design", "Jon Kleinberg", "9780321295354"));
11     myLibrary.addBook(Book("Operating Systems", "Andrew S. Tanenbaum", "9780133591620"));
12     myLibrary.addBook(Book("Computer Networks", "Andrew S. Tanenbaum", "9780132126953"));
13     myLibrary.displayLibrary();
14
15     return 0;
16 }

```

```

1  #include "Library.h"
2  #include <iostream>
3  #include <string>
4  using namespace std;
5
6  Library::Library(string Lname) : libraryName(Lname), booknum(0){}
7
8  void Library::addBook(Book book){
9      if (booknum < 10){
10         listOfBooks[booknum] = book;
11         booknum++;
12     }
13     else if (booknum > 10){
14         cout << "Exceed the array limit!" << endl;
15     }
16 }
17
18 void Library::displayLibrary(){
19     cout << "Library name: " << libraryName << endl;
20     cout << "\nIt contains: \n" << endl;
21     for (int order=0; order<booknum; order++){
22         cout << order+1 << ". ";
23         listOfBooks[order].displayBook();
24         cout << endl;
25     }
26 }
27
28 }
29

```

```

1  #ifndef LIBRAYR_H
2  #define LIBRAYR_H
3
4  #include "Book.h"
5  #include <string>
6  using namespace std;
7
8  class Library{
9      private:
10         const string libraryName;
11         static const int SIZE = 10;
12         Book listOfBooks[SIZE];
13         int booknum;
14
15     public:
16         Library(string);
17         void addBook(Book book);
18         void displayLibrary();
19 };
20
21 #endif

```

```

1  #include "Book.h"
2  #include <iostream>
3  #include <string>
4  using namespace std;
5
6  Book::Book(){}
7
8  Book::Book(string t, string a, string i) : title(t), author(a), ISBN(i){}
9
10 void Book::displayBook() const{
11     cout << "Title: " << title << ", " << "Author: " << author << ", " << "ISBN: " << ISBN << endl;
12 }

```

```

1  #ifndef BOOK_H
2  #define BOOK_H
3
4  #include <string>
5  using namespace std;
6
7  class Book{
8      private:
9          string title;
10         string author;
11         string ISBN;
12
13     public:
14         Book();
15         Book(string, string, string);
16         void displayBook() const;
17 };
18
19 #endif

```

Library name: NCKU Library

It contains:

1. Title: C++ Programming, Author: Bjarne Stroustrup, ISBN: 9780321563842
2. Title: Data Structures, Author: Nicola Lacey, ISBN: 9780131986190
3. Title: Algorithm Design, Author: Jon Kleinberg, ISBN: 9780321295354
4. Title: Operating Systems, Author: Andrew S. Tanenbaum, ISBN: 9780133591620
5. Title: Computer Networks, Author: Andrew S. Tanenbaum, ISBN: 9780132126953