Problem Statement: Library Management System

Objective:
Develop a **Library Management System** using **Object-Oriented Programming (OOP) in C++**, incorporating **static members, arrays of objects, and encapsulation**.

Problem Description:
A library needs a digital system to maintain its book collection and allow users to view and search books efficiently. The system should be able to:

1. **Allow the librarian to enter details of multiple books**, including:

   o   ISBN (Unique identifier for the book)

   o   Name of the book

   o   Category (e.g., Fiction, Science, History)

   o   Author's name

   o   Price

2. **Store all books in an array of objects** to manage multiple books efficiently.

3. **Implement a static data member** for the library name, shared by all books.

4. **Enable users to perform the following operations:**

   o   **View the complete list of books available** in the library.

   o   **Search for books by category**, displaying relevant books.

Constraints & Assumptions:

- The system will handle **up to N books**, entered by the librarian.

- Book details should be **stored in an array of objects**.

- The library name should be **common for all books** using a **static member variable**.

- **Search functionality** should show books matching the user's category query.

Expected Outcome:

- A user-friendly system where a librarian can **input book details**.

- Users can **view all books** and **search books by category**.

- Implementation of **OOP concepts** such as **static members, encapsulation, and arrays of objects** in C++.