Library Management System

Program:

```cpp
#include<iostream>
#include<string.h>
using namespace std;

class Library_Information
{

	private:
		char b_name[100];
		char aut_name[100];
		int pub_date;
		int b_id;
		int b_price;
		int b_qut;
		int b_no;
		int b_pg;

	public:
		void case1_data()
		{
			cout <<endl;
			cout <<endl<<"\t\t\t\t=============== Add Book Information
			==================="<<endl<<endl;
			cout <<"\t\t\t\t. Enter Book Name : ";		cin >> this->b_name;
			cout <<"\t\t\t\t. Enter Author Name : ";		cin >this->aut_name;
			cout <<"\t\t\t\t. Enter Publication Date : ";	cin this->pub_date;
			cout <<"\t\t\t\t. Enter Book's ID : ";		cin >> this->b_id;
			cout <<"\t\t\t\t. Enter Book's price : ";		cin >> this->b_price;
			cout <<"\t\t\t\t. Enter Book's Quantity : ";	cin >> this->b_qut;
			cout<<"\t\t\t\t=============================================
			================"<<endl<<endl;
		}
```

```cpp
void case2_data()
{
        cout <<endl<<endl;
        cout <<endl<<"\t\t\t\t\t=============== Display Book Information
        =================="<<endl<<endl;
        cout <<"\t\t\t\t\t.  Enter Book No : ";          cin >>this->b_no;
        cout <<"\t\t\t\t\t.  Enter Book Name : ";        cin >>this->b_name;
        cout <<"\t\t\t\t\t.  Enter Author Name : ";      cin >>this->aut_name;
        cout <<"\t\t\t\t\t.  Enter No.of pages : ";      cin >>this->b_pg;
        cout<<"\t\t\t\t\t==========================================
        ================="<<endl<<endl;
}

void case3_data()
{
        cout <<endl<<"\t\t\t\t\t========= List the count of books in the library
        ========="<<endl;
}

char case4_data()
{
        return this->b_name[100];
}

int case5_data()
{
        return this->b_id;
}
};

int main()
{

        Library_Information i[100];
        int count=0;
        int choice ,j,n;
        cout <<endl<<"\t\t\t\t\t* How Many Record You Want To Add :-  ";          cin >> n;
        do
        {
```

```cpp
cout<<"\t\t\t\t\t==================================================
============";
cout <<endl<<"\t\t\t\t\t============== Library Management System
==================";
cout<<endl<<"\t\t\t\t\t==================================================
================"<<endl;

cout <<endl;
cout <<"\t\t\t\t\t. Press 1 for Add Book Information ... "<<endl;
cout <<"\t\t\t\t\t. Press 2 for Display Book Information ... "<<endl;
cout <<"\t\t\t\t\t. Press 3 for List the count of books in the library ... "<<endl;
cout <<"\t\t\t\t\t. Press 4 for List the title of specified book ... "<<endl;
cout <<"\t\t\t\t\t. Press 5 for List the books for books id's ... "<<endl;
cout <<"\t\t\t\t\t. Press 0 for Exit :- "<<endl;


cout <<endl;
cout <<"\t\t\t\t\t* Enter your choice : ";
cin  >> choice;

switch(choice)
{
        case 1 :
                for(j=0;j<n;j++)
                {
                        i[j].case1_data();
                }
                break;
        case 2 :
                for(j=0;j<n;j++)
                {
                        i[j].case2_data();
                }
                break;
        case 3 :
                i[j].case3_data();

                for(j=0;j<n;j++)
                {
```

```cpp
                    count++;
                }
                cout <<endl<<"\t\t\t\t\t Total number of book : "<<count
                <<endl<<endl;
                break;
        case 4 :
                cout<<endl<<"\t\t\t\t\t================== List of books title
                ==================="<<endl;
                cout <<endl<<"\t\t\t\t\t=> Books title :- ";
                for(j=0;j<n;j++)
                {
                        cout << i[j].case4_data()<<"  ";
                }
                cout << endl<<endl;
                break;
        case 5 :
                cout<<endl<<"\t\t\t\t\t============== List of books for book's
                ID =============="<<endl;
                cout <<endl<<"\t\t\t\t\t=> Books ID :- ";
                for(j=0;j<n;j++)
                {
                        cout << i[j].case5_data() << "  ";
                }
                cout << endl<<endl;
                break;
        case 0 :
                break;
        default :
                cout <<"Invalid Entry.....";

            }
    }while(choice!=0);

    return 0;

}
```

Output:


```
                 * How Many Record You Want To Add :-  1
        ========================================================
        ============== Library Management System ==============
        ========================================================

        . Press 1 for Add Book Information ...
        . Press 2 for Display Book Information ...
        . Press 3 for List the count of books in the library ...
        . Press 4 for List the title of specified book ...
        . Press 5 for List the books for books id's ...
        . Press 0 for Exit :-

        * Enter your choice : 1


        ================ Add Book Information ================

        .   Enter Book Name : Brain_Rules
        .   Enter Author Name : Mark
        .   Enter Publication Date : 2019
        .   Enter Book's ID : 26
        .   Enter Book's price : 500
        .   Enter Book's Quantity : 25
        ========================================================


        ========================================================
        ============== Library Management System ==============
        ========================================================
```



```
        ========================================================
        ============== Library Management System ==============
        ========================================================

        . Press 1 for Add Book Information ...
        . Press 2 for Display Book Information ...
        . Press 3 for List the count of books in the library ...
        . Press 4 for List the title of specified book ...
        . Press 5 for List the books for books id's ...
        . Press 0 for Exit :-

        * Enter your choice : 2



        ============== Display Book Information ==============

        .   Enter Book No : 24
        .   Enter Book Name : Brain_Rules
        .   Enter Author Name : Mark
        .   Enter No.of pages : 19
        ========================================================


        ========================================================
        ============== Library Management System ==============
        ========================================================

        . Press 1 for Add Book Information ...
        . Press 2 for Display Book Information ...
        . Press 3 for List the count of books in the library ...
```

```
                    ========================================================
                    ============== Library Management System ===============
                    ========================================================

                    . Press 1 for Add Book Information ...
                    . Press 2 for Display Book Information ...
                    . Press 3 for List the count of books in the library ...
                    . Press 4 for List the title of specified book ...
                    . Press 5 for List the books for books id's ...
                    . Press 0 for Exit :-

                    * Enter your choice : 3

                    ========= List the count of books in the library  =========

                     Total number of book : 1


                    ========================================================
                    ============== Library Management System ===============
                    ========================================================

                    . Press 1 for Add Book Information ...
                    . Press 2 for Display Book Information ...
                    . Press 3 for List the count of books in the library ...
                    . Press 4 for List the title of specified book ...
                    . Press 5 for List the books for books id's ...
                    . Press 0 for Exit :-

                    * Enter your choice :
```

```
                    ========================================================
                    ============== Library Management System ===============
                    ========================================================

                    . Press 1 for Add Book Information ...
                    . Press 2 for Display Book Information ...
                    . Press 3 for List the count of books in the library ...
                    . Press 4 for List the title of specified book ...
                    . Press 5 for List the books for books id's ...
                    . Press 0 for Exit :-

                    * Enter your choice : 4

                    ================= List of books title ==================

                    => Books title :- M


                    ========================================================
                    ============== Library Management System ===============
                    ========================================================

                    . Press 1 for Add Book Information ...
                    . Press 2 for Display Book Information ...
                    . Press 3 for List the count of books in the library ...
                    . Press 4 for List the title of specified book ...
                    . Press 5 for List the books for books id's ...
                    . Press 0 for Exit :-

                    * Enter your choice :
```

```
                    ========================================================
                    ============== Library Management System ===============
                    ========================================================

                    . Press 1 for Add Book Information ...
                    . Press 2 for Display Book Information ...
                    . Press 3 for List the count of books in the library ...
                    . Press 4 for List the title of specified book ...
                    . Press 5 for List the books for books id's ...
                    . Press 0 for Exit :-

                    * Enter your choice : 5

                    ============== List of books for book's ID ==============

                    => Books ID :- 26


                    ========================================================
                    ============== Library Management System ===============
                    ========================================================

                    . Press 1 for Add Book Information ...
                    . Press 2 for Display Book Information ...
                    . Press 3 for List the count of books in the library ...
                    . Press 4 for List the title of specified book ...
                    . Press 5 for List the books for books id's ...
                    . Press 0 for Exit :-

                    * Enter your choice :
```

```
                    => Books ID :- 26


                    ========================================================
                    ============== Library Management System ===============
                    ========================================================

                    . Press 1 for Add Book Information ...
                    . Press 2 for Display Book Information ...
                    . Press 3 for List the count of books in the library ...
                    . Press 4 for List the title of specified book ...
                    . Press 5 for List the books for books id's ...
                    . Press 0 for Exit :-

                    * Enter your choice : 0

--------------------------------
Process exited after 38.34 seconds with return value 0
Press any key to continue . . .
```