ASSESSMENT REPORT

LIBRARY MANAGEMENT SYSTEM

TESTCASES:

1. **Test case for adding book**
   After refactoring code:

```
                                                    python -m pytest test_library.py::test_add_book
PS E:\akan_practices\Incubyte_task\Library_Management_System>
=============================== test session starts ===============================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                            [100%]

=============================== 1 passed in 0.16s ===============================
PS E:\akan_practices\Incubyte_task\Library_Management_System>
```

2. **Test case for already added books:**
   After refactoring:

```
added\akan_practices\Incubyte_task\Library_Management_System>
=============================== test session starts ===============================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                            [100%]

=============================== 1 passed in 0.04s ===============================
```

3. **Test case for adding book with missing values:**
   After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_add_book
_missing_info
=============================== test session starts ===============================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                            [100%]

=============================== 1 passed in 0.05s ===============================
```

4. **Test case for adding multiple books:**
   After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_add_mult
iple_books
=============================== test session starts ===============================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                            [100%]

=============================== 1 passed in 0.03s ===============================
```

5. **Test case for adding multiple unique books:**
   After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_add_mult
iple_unique_books
================================ test session starts =================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 3 items

test_library.py ...                                                           [100%]

================================ 3 passed in 0.04s =================================
```

6. Test case for borrowing books:

After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_borrow_b
ook
================================ test session starts =================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                             [100%]

================================ 1 passed in 0.03s =================================
```

7. Test case for borrowing book which is not available:

After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_borrow_b
ook_not_available
================================ test session starts =================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                             [100%]

================================ 1 passed in 0.03s =================================
```

8. Testcase for borrowing book which is not exist:

After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_borrow_n
onexistent_book
================================ test session starts =================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                             [100%]

================================ 1 passed in 0.03s =================================
```

9. Testcase for borrowing book with invalid ISBN:

After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_borrow_i
nvalid_isbn
================================ test session starts =================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                             [100%]

================================ 1 passed in 0.06s =================================
```

10. Test case for borrowing multiple books:

After refactoring:

```
==================================== test session starts ====================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                                      [100%]

===================================== 1 passed in 0.04s =====================================
```

11. **Test case for returning a book**

    After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_return_b
ook
==================================== test session starts ====================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                                      [100%]

===================================== 1 passed in 0.03s =====================================
```

12. **Testcase for returning a book which is not borrowed:**

    After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_return_b
ook_not_borrowed
==================================== test session starts ====================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                                      [100%]

===================================== 1 passed in 0.03s =====================================
```

13. **Test case for returning a non existing book:**

    After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_return_n
onexistent_book
==================================== test session starts ====================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                                      [100%]

===================================== 1 passed in 0.03s =====================================
```

14. **Testcase for returning book with invalid ISBN:**

    After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_return_i
nvalid_isbn
==================================== test session starts ====================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                                      [100%]

===================================== 1 passed in 0.03s =====================================
```

15. **Testcase to see book availability is empty:**

    After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_availabl
e_books_empty
================================ test session starts ================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                            [100%]

================================ 1 passed in 0.04s ================================
```

16. **Testcase to see all available books:**

After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_all_avai
lable_books
================================ test session starts ================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                            [100%]

================================ 1 passed in 0.03s ================================
```

17. **Testcase to see available book after borrowing:**

After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_view_ava
ilable_books_borrowed
================================ test session starts ================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                            [100%]

================================ 1 passed in 0.02s ================================
```

18. **Testcase to view available books output:**

After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_view_ava
ilable_books_output
================================ test session starts ================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                            [100%]

================================ 1 passed in 0.03s ================================
```

19. **Testcase to borrow and return multiple books:**

After refactoring:

```
PS E:\akan_practices\Incubyte_task\Library_Management_System> python -m pytest test_library.py::test_borrow_a
nd_return_multiple_books
================================ test session starts ================================
platform win32 -- Python 3.11.5, pytest-8.3.2, pluggy-1.5.0
rootdir: E:\akan_practices\Incubyte_task\Library_Management_System
plugins: anyio-4.0.0
collected 1 item

test_library.py .                                                            [100%]

================================ 1 passed in 0.03s ================================
```