

21IT0467

I.M.D.W.Dissanayake

IT1207 - OOP - Continuous Assessment- 02



INTRODUCTION

This is a basic console-based library management system that allows users to manage a library's book inventory functions such as adding new books, displaying the list of available books, borrowing books, and returning books.

FEATURES AND FUNCTIONALITIES

- ✓ Provides a user-friendly menu for simple navigation.
- ✓ Displays accessible novels classified as Mystery, Horror, and Romance.
- ✓ Displays registered user information.
- ✓ Enter the title of a book to borrow it.
- ✓ Enter the title of a borrowed book to return it.
- ✓ Add a new book to the library with title, author, ISBN, and book category.

Sample Output

- How the system looks when you first log in

```
D:\Dili\DILI_Java>javac Library.java
D:\Dili\DILI_Java>java Library

----- LIBRARY MANAGEMENT SYSTEM -----
1. Borrow a book
2. Return a book
3. Display user information
4. Display book information
5. Add a new book
0. Exit
Enter your choice:
```

- First Option - Borrow a book.

```
----- LIBRARY MANAGEMENT SYSTEM -----
1. Borrow a book
2. Return a book
3. Display user information
4. Display book information
5. Add a new book
0. Exit
Enter your choice: 1

Enter user name: Dilini
Enter book title to borrow: The Exorcist
----Dilini has successfully borrowed The Exorcist----

----- LIBRARY MANAGEMENT SYSTEM -----
1. Borrow a book
2. Return a book
3. Display user information
4. Display book information
5. Add a new book
0. Exit
Enter your choice: 1

Enter user name: Abhi
Enter book title to borrow: The Hound of the Baskervilles
----Abhi has successfully borrowed The Hound of the Baskervilles----
```

- Second Option – Return a book.

```
----- LIBRARY MANAGEMENT SYSTEM -----
1. Borrow a book
2. Return a book
3. Display user information
4. Display book information
5. Add a new book
0. Exit
Enter your choice: 2

Enter user name: Dilini
Enter book title to return: The Exorcist
----Dilini has successfully returned The Exorcist----
```

- **Third Option – Display user information.**

```
----- LIBRARY MANAGEMENT SYSTEM -----
1. Borrow a book
2. Return a book
3. Display user information
4. Display book information
5. Add a new book
0. Exit
Enter your choice: 3

----- User Information -----
Dilini has borrowed these books: [The Exorcist by William Peter Blatty (ISBN: 978-0061007224) - Available: false]
Rashmika has borrowed these books: []
Abhi has borrowed these books: [The Hound of the Baskervilles by Sir Arthur Conan Doyle (ISBN: 978-1503312753) - Available: false]
```

- **Fourth Option – Display book information.**

```
----- LIBRARY MANAGEMENT SYSTEM -----
1. Borrow a book
2. Return a book
3. Display user information
4. Display book information
5. Add a new book
0. Exit
Enter your choice: 4

----- Book Information -----
The Hound of the Baskervilles by Sir Arthur Conan Doyle (ISBN: 978-1503312753) - Available: false
The Exorcist by William Peter Blatty (ISBN: 978-0061007224) - Available: false
Pride and Prejudice by Jane Austen (ISBN: 978-0141439518) - Available: true
```

- **Fifth Option – Add a new book.**

```
----- LIBRARY MANAGEMENT SYSTEM -----
1. Borrow a book
2. Return a book
3. Display user information
4. Display book information
5. Add a new book
0. Exit
Enter your choice: 5

----- Add a New Book -----
Enter book title: Haunted
Enter book author: Chuck Palahniuk
Enter book ISBN: 978-0099458371
Select book category:
1. Mystery
2. Horror
3. Romance
Enter category choice: 2
New book added successfully: Haunted by Chuck Palahniuk (ISBN: 978-0099458371) - Available: true
```

- Updated book information.

```

----- Add a New Book -----
Enter book title: Haunted
Enter book author: Chuck Palahniuk
Enter book ISBN: 978-0099458371
Select book category:
1. Mystery
2. Horror
3. Romance
Enter category choice: 2
New book added successfully: Haunted by Chuck Palahniuk (ISBN: 978-0099458371) - Available: true

----- LIBRARY MANAGEMENT SYSTEM -----
1. Borrow a book
2. Return a book
3. Display user information
4. Display book information
5. Add a new book
0. Exit
Enter your choice: 2

Enter user name: Dilini
Enter book title to return: The Exorcist
----Dilini has successfully returned The Exorcist----

----- LIBRARY MANAGEMENT SYSTEM -----
1. Borrow a book
2. Return a book
3. Display user information
4. Display book information
5. Add a new book
0. Exit
Enter your choice: 4

----- Book Information -----
The Hound of the Baskervilles by Sir Arthur Conan Doyle (ISBN: 978-1503312753) - Available: false
The Exorcist by William Peter Blatty (ISBN: 978-0061007224) - Available: true
Pride and Prejudice by Jane Austen (ISBN: 978-0141439518) - Available: true
Haunted by Chuck Palahniuk (ISBN: 978-0099458371) - Available: true

```

- Exiting the system

```

----- LIBRARY MANAGEMENT SYSTEM -----
1. Borrow a book
2. Return a book
3. Display user information
4. Display book information
5. Add a new book
0. Exit
Enter your choice: 0
**__Exiting the Library__**

D:\Dili\DILI_Java>

```

How the system works.....

Users can borrow/return books, see user information and book information whether they are available in the library or not. Furthermore, users can add new books to the library by using book title, author, ISBN and its category.

*****System is capable of Error-handling if user enters an invalid input.**