**Library Management System**

**A simple Java console application that simulates a library management system. This program allows users to add books, display available books, issue books, and return books. It serves as a beginner-friendly project for learning Java and understanding basic object-oriented programming concepts.**

**Features**

**Add Book: Adds a new book with a title, author, and ISBN to the library.**

**Display Books: Shows a list of all books in the library with their details (title, author, ISBN, and issue status).**

**Issue Book: Allows a book to be issued to a user by its ISBN if it is available.**

**Return Book: Allows a previously issued book to be returned by its ISBN.**

**Getting Started**

**Prerequisites**

**Java Development Kit (JDK) installed on your computer.**

**A text editor or IDE (e.g., VS Code, IntelliJ IDEA, Eclipse) to write and run the code.**

**Installation**

**Clone this repository:**

**bash**

**Copy code**

**git clone https://github.com/yourusername/library-management-system.git**

**cd library-management-system**

**Compile the main Java file:**

**bash**

**Copy code**

**javac LibraryManagementSystem.java**

**Run the program:**

**bash**

**Copy code**

**java LibraryManagementSystem**

**Usage**

**When you run the program, you will see a menu with several options:**

**Add Book: Enter the title, author, and ISBN to add a new book to the library.**

**Display Books: View all books currently in the library, with information on each book.**

**Issue Book: Enter the ISBN of the book you want to issue. If the book is available, it will be marked as issued.**

**Return Book: Enter the ISBN of a previously issued book to return it to the library.**

**Exit: Close the program.**

**Here’s an example of how to use the application:**

**plaintext**

**Copy code**

**Library Management System:**

**1. Add Book**

**2. Display Books**

**3. Issue Book**

**4. Return Book**

**5. Exit**

**Choose an option: 1**

**Enter book title: Java Programming**

**Enter book author: John Doe**

**Enter book ISBN: 1234567890**

**Book added successfully.**

**Project Structure**

**Book: Represents a book in the library with properties such as title, author, ISBN, and issue status.**

**Library: Manages the collection of books, with functions to add, issue, return, and display books.**

**LibraryManagementSystem: The main class with a menu-driven interface to interact with the library system.**

**Contributing**

**Contributions are welcome! If you have suggestions for improvements or find bugs, please open an issue or submit a pull request.**

**License**

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