**Case Study: Library System**

**Objective:**

Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will manage a library system, allowing users to manage books, members, and book loans.

**Functionalities:**

1. **Book Management:**
   * Add a new book
   * View book details
   * Update book information
   * Delete a book
2. **Member Management:**
   * Register a new member
   * View member details
   * Update member information
   * Delete a member
3. **Loan Management:**
   * Issue a book to a member
   * View loan details
   * Return a book
   * List all loans for a specific member

**Database Schema:**

* **Book Table:**
  + book\_id (Primary Key)
  + title
  + author
  + genre
  + publication\_year
  + quantity
* **Member Table:**
  + member\_id (Primary Key)
  + name
  + email
  + phone\_number
  + membership\_date
* **Loan Table:**
  + loan\_id (Primary Key)
  + book\_id (Foreign Key references Book Table)
  + member\_id (Foreign Key references Member Table)
  + issue\_date
  + return\_date
  + status (issued/returned)

**Requirements:**

* Develop a menu-based console application using Core Java.
* Use JDBC for interactions with the MySQL database.
* Implement menu options for managing books, members, and loans.
* Ensure that the application updates the quantity in the Book table appropriately after a book is issued or returned.
* Handle exceptions effectively and provide user-friendly error messages.
* Ensure the application code is clean, well-documented, and follows standard coding conventions.

**Submission:**

* Submit the complete source code along with a README file that provides setup and usage instructions.
* Share your project by uploading it to a public GitHub repository.
* Provide the link to the GitHub repository.