**Case Study: Loan Management System**

**Objective:**

Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will simulate a loan management system for a financial institution.

**Functionalities:**

1. **Loan Management:**
   * Add new loan accounts
   * View loan details
   * Update loan information
   * Remove loan accounts
2. **Payment Management:**
   * Record loan payments
   * Calculate interest
   * View payment history for a loan

**Database Schema:**

* **Loan Table:**
  + loan\_id (Primary Key)
  + customer\_id (Foreign Key references Customer Table)
  + loan\_amount
  + interest\_rate
  + start\_date
  + end\_date
  + status (Active, Closed)
* **Payment Table:**
  + payment\_id (Primary Key)
  + loan\_id (Foreign Key references Loan Table)
  + payment\_amount
  + payment\_date

**Requirements:**

* Develop a menu-based console application using Core Java.
* Use JDBC for interactions with the MySQL database.
* Implement menu options for managing loans and payments.
* Ensure the application allows for adding, viewing, updating, and removing loan accounts, as well as recording payments and calculating interest.
* 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 to the coaches.