**Case Study: Personal Finance Management System**

**Objective:**

Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will simulate a personal finance management system, allowing users to manage their expenses, income, and budgets.

**Functionalities:**

1. **Expense Management:**
   * Add new expenses
   * View expense details
   * Update expense information
   * Delete expenses
2. **Income Tracking:**
   * Record new income sources
   * View income details
   * Update income information
   * Delete income records
3. **Budget Planning:**
   * Set monthly budgets for different categories (e.g., food, rent, entertainment)
   * View budget details
   * Update budget information
   * Delete budget records

**Database Schema:**

* **Expense Table:**
  + expense\_id (Primary Key)
  + category\_id (Foreign Key references Category Table)
  + amount
  + expense\_date
  + description
* **Income Table:**
  + income\_id (Primary Key)
  + source
  + amount
  + income\_date
  + description
* **Category Table:**
  + category\_id (Primary Key)
  + category\_name
* **Budget Table:**
  + budget\_id (Primary Key)
  + category\_id (Foreign Key references Category Table)
  + budget\_amount
  + month
  + year

**Requirements:**

* Develop a menu-based console application using Core Java.
* Use JDBC for interactions with the MySQL database.
* Implement menu options for managing expenses, income, and budgets.
* Ensure that the application allows users to track their expenses and income, set budgets, and view financial summaries.
* 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.