**Case Study: Payroll System**

**Objective:**

Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will manage a simple payroll system, allowing users to manage employees, departments, and payroll processing.

**Functionalities:**

1. **Employee Management:**
   * Add a new employee
   * View employee details
   * Update employee information
   * Delete an employee
2. **Department Management:**
   * Add a new department
   * View department details
   * Update department information
   * Delete a department
3. **Payroll Management:**
   * Process payroll for an employee
   * View payroll details
   * Update payroll information
   * List payroll history for an employee

**Database Schema:**

* **Employee Table:**
  + employee\_id (Primary Key)
  + name
  + department\_id (Foreign Key references Department Table)
  + designation
  + salary
* **Department Table:**
  + department\_id (Primary Key)
  + name
  + location
* **Payroll Table:**
  + payroll\_id (Primary Key)
  + employee\_id (Foreign Key references Employee Table)
  + payment\_date
  + amount

**Requirements:**

* Develop a menu-based console application using Core Java.
* Use JDBC for interactions with the MySQL database.
* Implement menu options for managing employees, departments, and payroll.
* Ensure that the application updates the salary information in the Employee table appropriately after payroll is processed.
* 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.