**Case Study: Blood Bank Management System**

**Objective:**

Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will simulate a blood bank management system, allowing users to manage blood donations, inventory, and requests.

**Functionalities:**

1. **Donor Management:**
   * Add new donors to the system
   * View donor details
   * Update donor information
   * Delete donors
2. **Inventory Management:**
   * Add blood donations to the inventory
   * View blood inventory details
   * Update inventory information
   * Delete blood inventory records
3. **Request Management:**
   * Register blood requests
   * View request details
   * Update request status
   * Delete requests

**Database Schema:**

* **Donor Table:**
  + donor\_id (Primary Key)
  + donor\_name
  + blood\_group
  + contact\_number
  + email
  + last\_donation\_date
* **Inventory Table:**
  + donation\_id (Primary Key)
  + donor\_id (Foreign Key references Donor Table)
  + donation\_date
  + blood\_group
  + quantity
  + expiry\_date
* **Request Table:**
  + request\_id (Primary Key)
  + requester\_name
  + blood\_group\_requested
  + request\_date
  + request\_status (Pending, Fulfilled, Cancelled)

**Requirements:**

* Develop a menu-based console application using Core Java.
* Use JDBC for interactions with the MySQL database.
* Implement menu options for managing donors, blood inventory, and requests.
* Ensure the application allows for adding donations, updating inventory, and managing requests efficiently.
* 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.