**Case Study: Parts Inventory Management System**

**Objective:**

Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will simulate a parts inventory management system for an automobile repair shop, allowing users to manage parts, suppliers, and orders.

**Functionalities:**

1. **Part Management:**
   * Add new parts to the inventory
   * View part details
   * Update part information
   * Delete parts from the inventory
2. **Supplier Management:**
   * Register new suppliers
   * View supplier details
   * Update supplier information
   * Delete supplier accounts
3. **Order Management:**
   * Place orders for parts
   * View order details
   * Update order information
   * Cancel orders

**Database Schema:**

* **Part Table:**
  + part\_id (Primary Key)
  + part\_name
  + description
  + price
  + quantity\_available
* **Supplier Table:**
  + supplier\_id (Primary Key)
  + supplier\_name
  + contact\_name
  + email
  + phone\_number
* **Order Table:**
  + order\_id (Primary Key)
  + part\_id (Foreign Key references Part Table)
  + supplier\_id (Foreign Key references Supplier Table)
  + order\_date
  + delivery\_date
  + status (Placed, Shipped, Delivered)

**Requirements:**

* Develop a menu-based console application using Core Java.
* Use JDBC for interactions with the MySQL database.
* Implement menu options for managing parts, suppliers, and orders.
* Ensure that the application allows for adding, viewing, updating, and deleting parts and suppliers, as well as placing, viewing, updating, and canceling orders.
* 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.