**Case Study: Manufacturing Management System**

**Objective:**

Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will simulate a manufacturing management system, allowing users to manage products, suppliers, and production orders.

**Functionalities:**

1. **Product Management:**
   * Add a new product
   * View product details
   * Update product information
   * Delete a product
2. **Supplier Management:**
   * Add a new supplier
   * View supplier details
   * Update supplier information
   * Delete a supplier
3. **Production Order Management:**
   * Create a new production order
   * View production order details
   * Update production order information
   * Cancel a production order

**Database Schema:**

* **Product Table:**
  + product\_id (Primary Key)
  + name
  + description
  + unit\_price
  + quantity\_in\_stock
* **Supplier Table:**
  + supplier\_id (Primary Key)
  + name
  + email
  + phone\_number
  + address
* **Production Order Table:**
  + order\_id (Primary Key)
  + product\_id (Foreign Key references Product Table)
  + supplier\_id (Foreign Key references Supplier Table)
  + order\_date
  + due\_date
  + status (open/closed)

**Requirements:**

* Develop a menu-based console application using Core Java.
* Use JDBC for interactions with the MySQL database.
* Implement menu options for managing products, suppliers, and production orders.
* Ensure that the application updates the quantity\_in\_stock in the Product table appropriately after a production order is completed.
* 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.