**Case Study: E-commerce Order Management System**

**Objective:**

Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will simulate an e-commerce order management system, allowing users to manage products, customers, and orders.

**Functionalities:**

1. **Product Management:**
   * Add a new product
   * View product details
   * Update product information
   * Delete a product
2. **Customer Management:**
   * Add a new customer
   * View customer details
   * Update customer information
   * Delete a customer
3. **Order Management:**
   * Create a new order
   * View order details
   * Update order information
   * Cancel an order

**Database Schema:**

* **Product Table:**
  + product\_id (Primary Key)
  + name
  + description
  + price
  + quantity\_in\_stock
* **Customer Table:**
  + customer\_id (Primary Key)
  + name
  + email
  + phone\_number
  + address
* **Order Table:**
  + order\_id (Primary Key)
  + customer\_id (Foreign Key references Customer Table)
  + order\_date
  + total\_amount
  + status (pending/confirmed/shipped/delivered/cancelled)
* **OrderItem Table:**
  + order\_item\_id (Primary Key)
  + order\_id (Foreign Key references Order Table)
  + product\_id (Foreign Key references Product Table)
  + quantity
  + price

**Requirements:**

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