**Case Study: Production Scheduling System**

**Objective:**

Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will simulate a production scheduling system for a manufacturing company, allowing users to manage production orders, resources, and schedules.

**Functionalities:**

1. **Production Order Management:**
   * Add a new production order
   * View production order details
   * Update production order information
   * Delete a production order
2. **Resource Management:**
   * Add a new resource (e.g., machine, equipment)
   * View resource details
   * Update resource information
   * Delete a resource
3. **Scheduling Management:**
   * Schedule a production order
   * View production schedule
   * Update schedule information
   * Cancel a schedule

**Database Schema:**

* **Production Order Table:**
  + order\_id (Primary Key)
  + product\_id
  + quantity
  + order\_date
  + due\_date
  + status (open/closed)
* **Resource Table:**
  + resource\_id (Primary Key)
  + name
  + type
  + availability
* **Schedule Table:**
  + schedule\_id (Primary Key)
  + order\_id (Foreign Key references Production Order Table)
  + resource\_id (Foreign Key references Resource Table)
  + start\_time
  + end\_time

**Requirements:**

* Develop a menu-based console application using Core Java.
* Use JDBC for interactions with the MySQL database.
* Implement menu options for managing production orders, resources, and schedules.
* Ensure that the application updates the availability of resources and tracks production schedules.
* 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.