**Case Study: Patient Management System**

**Objective:**

Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will simulate a patient management system for a healthcare facility, allowing users to manage patient records, appointments, and medical staff.

**Functionalities:**

1. **Patient Management:**
   * Add new patients to the system
   * View patient details
   * Update patient information
   * Delete patients from the system
2. **Appointment Management:**
   * Schedule new appointments for patients
   * View appointment details
   * Update appointment information
   * Cancel appointments
3. **Medical Staff Management:**
   * Add new medical staff (doctors, nurses, etc.) to the system
   * View medical staff details
   * Update medical staff information
   * Delete medical staff from the system

**Database Schema:**

* **Patient Table:**
  + patient\_id (Primary Key)
  + patient\_name
  + date\_of\_birth
  + contact\_number
  + email
  + gender
* **Appointment Table:**
  + appointment\_id (Primary Key)
  + patient\_id (Foreign Key references Patient Table)
  + appointment\_date
  + appointment\_time
  + doctor\_id (Foreign Key references Medical Staff Table)
  + appointment\_status
* **Medical Staff Table:**
  + staff\_id (Primary Key)
  + staff\_name
  + staff\_type (Doctor, Nurse, etc.)
  + department
  + contact\_number
  + email

**Requirements:**

* Develop a menu-based console application using Core Java.
* Use JDBC for interactions with the MySQL database.
* Implement menu options for managing patients, appointments, and medical staff.
* Ensure the application allows for scheduling appointments, updating appointment status, and managing patient records 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.