**Case Study: Hospital Management System**

**Objective:**

Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will simulate a hospital management system, allowing users to manage patients, doctors, and medical records.

**Functionalities:**

1. **Patient Management:**
   * Register a new patient
   * View patient details
   * Update patient information
   * Delete a patient
2. **Doctor Management:**
   * Add a new doctor
   * View doctor details
   * Update doctor information
   * Delete a doctor
3. **Medical Record Management:**
   * Create a new medical record for a patient
   * View medical record details
   * Update medical record information
   * Delete a medical record

**Database Schema:**

* **Patient Table:**
  + patient\_id (Primary Key)
  + name
  + date\_of\_birth
  + gender
  + address
* **Doctor Table:**
  + doctor\_id (Primary Key)
  + name
  + specialization
  + contact\_number
  + email
* **Medical Record Table:**
  + record\_id (Primary Key)
  + patient\_id (Foreign Key references Patient Table)
  + doctor\_id (Foreign Key references Doctor Table)
  + date
  + diagnosis
  + treatment

**Requirements:**

* Develop a menu-based console application using Core Java.
* Use JDBC for interactions with the MySQL database.
* Implement menu options for managing patients, doctors, and medical records.
* Ensure that the application updates the records in the database appropriately after any operation.
* 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.