**Case Study: Gym Management System**

**Objective:**

Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will simulate a gym management system, allowing users to manage members, trainers, and class schedules.

**Functionalities:**

1. **Member Management:**
   * Register new members
   * View member details
   * Update member information
   * Delete members
2. **Trainer Management:**
   * Add new trainers
   * View trainer details
   * Update trainer information
   * Delete trainers
3. **Class Schedule Management:**
   * Create new class schedules
   * View class schedules
   * Update class information
   * Cancel classes

**Database Schema:**

* **Member Table:**
  + member\_id (Primary Key)
  + name
  + contact\_number
  + email
  + membership\_type
* **Trainer Table:**
  + trainer\_id (Primary Key)
  + name
  + contact\_number
  + email
  + speciality
* **Class Schedule Table:**
  + schedule\_id (Primary Key)
  + class\_name
  + trainer\_id (Foreign Key references Trainer Table)
  + day\_of\_week
  + 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 members, trainers, and class schedules.
* Ensure the application allows for registering members, scheduling classes, and managing trainer information 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.