**Case Study: University Grading System**

**Objective:**

Develop a menu-based console application to assess your proficiency in Core Java, MySQL, and JDBC. The application will simulate a university grading system, allowing users to manage courses, students, grades, and transcripts.

**Functionalities:**

1. **Course Management:**
   * Add new courses to the university curriculum
   * View course details
   * Update course information
   * Delete courses from the curriculum
2. **Student Management:**
   * Register new students
   * View student details
   * Update student information
   * Delete student accounts
3. **Grading and Transcript Management:**
   * Enter grades for students in courses
   * Calculate GPA for students
   * Generate transcripts for students
   * View student transcripts

**Database Schema:**

* **Course Table:**
  + course\_id (Primary Key)
  + course\_name
  + instructor
  + schedule
  + location
* **Student Table:**
  + student\_id (Primary Key)
  + student\_name
  + email
  + major
  + year
* **Grade Table:**
  + grade\_id (Primary Key)
  + course\_id (Foreign Key references Course Table)
  + student\_id (Foreign Key references Student Table)
  + grade

**Requirements:**

* Develop a menu-based console application using Core Java.
* Use JDBC for interactions with the MySQL database.
* Implement menu options for managing courses, students, grades, and transcripts.
* Ensure that the application allows for the entry of grades, calculation of GPA, generation of transcripts, and viewing of student information.
* 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.