**Coding Assignment 1: JDBC**

**Problem Statement: Employee Database Management System**

Create a Java program using JDBC to manage an employee database. The program should perform the following operations:

1. **Create a Table**: Create an employees table with the following columns:
   * id (INT, Primary Key)
   * name (VARCHAR)
   * department (VARCHAR)
   * salary (DOUBLE)
2. **Insert Records**: Allow the user to insert new employee records into the table.
3. **Display Records**: Fetch and display all employee records from the database.
4. **Update Salary**: Update the salary of an employee based on their id.
5. **Delete Employee**: Delete an employee record based on their id.

**Requirements**

* Use a Scanner to accept input from the user for the operations.
* Use PreparedStatement for SQL operations to prevent SQL injection.
* Handle exceptions such as invalid SQL queries or connection issues gracefully.

**Coding Assignment 2: JPA**

**Problem Statement: Student Management System**

Create a Java application using JPA to manage a student database. The application should perform the following operations:

1. **Add a Student**: Persist a new student entity with attributes:
   * id (Primary Key)
   * name (String)
   * age (Integer)
   * department (String)
2. **Retrieve All Students**: Fetch and display all student records from the database.
3. **Update Student Age**: Update the age of a student based on their id.
4. **Delete a Student**: Remove a student entity from the database based on their id.