package dbms\_connection;

import java.sql.\*;

import java.util.Scanner;

public class databaseNavigation {

static final String DB\_URL = "jdbc:mysql://10.10.13.97:3306/te31333\_db";

static final String USER = "te31333"; // Your MySQL username

static final String PASS = "te31333"; // Your MySQL password

public static void addStudent(Connection conn, String name, int age, String course) throws SQLException {

String query = "INSERT INTO students (name, age, course) VALUES (?, ?, ?)";

PreparedStatement pstmt = conn.prepareStatement(query);

pstmt.setString(1, name);

pstmt.setInt(2, age);

pstmt.setString(3, course);

pstmt.executeUpdate();

System.out.println("Student added successfully!");

}

public static void editStudent(Connection conn, int id, String name, int age, String course) throws SQLException {

String query = "UPDATE students SET name=?, age=?, course=? WHERE id=?";

PreparedStatement pstmt = conn.prepareStatement(query);

pstmt.setString(1, name);

pstmt.setInt(2, age);

pstmt.setString(3, course);

pstmt.setInt(4, id);

pstmt.executeUpdate();

System.out.println("Student updated successfully!");

}

public static void deleteStudent(Connection conn, int id) throws SQLException {

String query = "DELETE FROM students WHERE id=?";

PreparedStatement pstmt = conn.prepareStatement(query);

pstmt.setInt(1, id);

pstmt.executeUpdate();

System.out.println("Student deleted successfully!");

}

public static void viewStudents(Connection conn) throws SQLException {

String query = "SELECT \* FROM students";

Statement stmt = conn.createStatement();

ResultSet rs = stmt.executeQuery(query);

System.out.println("ID | Name | Age | Course");

while (rs.next()) {

System.out.println(rs.getInt("id") + " | " +

rs.getString("name") + " | " +

rs.getInt("age") + " | " +

rs.getString("course"));

}

}

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

try {

Connection conn = DriverManager.getConnection(DB\_URL, USER, PASS);

System.out.println("Connected to the database!");

while (true) {

System.out.println("\nDatabase Operations:");

System.out.println("1. Add Student");

System.out.println("2. Edit Student");

System.out.println("3. Delete Student");

System.out.println("4. View All Students");

System.out.println("5. Exit");

System.out.print("Enter your choice (1-5): ");

int choice = scanner.nextInt();

scanner.nextLine(); // Consume newline

switch (choice) {

case 1:

System.out.print("Enter student name: ");

String name = scanner.nextLine();

System.out.print("Enter student age: ");

int age = scanner.nextInt();

scanner.nextLine();

System.out.print("Enter student course: ");

String course = scanner.nextLine();

addStudent(conn, name, age, course);

break;

case 2:

System.out.print("Enter student ID to edit: ");

int editId = scanner.nextInt();

scanner.nextLine();

System.out.print("Enter new name: ");

String newName = scanner.nextLine();

System.out.print("Enter new age: ");

int newAge = scanner.nextInt();

scanner.nextLine();

System.out.print("Enter new course: ");

String newCourse = scanner.nextLine();

editStudent(conn, editId, newName, newAge, newCourse);

break;

case 3:

System.out.print("Enter student ID to delete: ");

int deleteId = scanner.nextInt();

deleteStudent(conn, deleteId);

break;

case 4:

viewStudents(conn);

break;

case 5:

System.out.println("Exiting...");

conn.close();

return;

default:

System.out.println("Invalid choice, please try again.");

}

}

} catch (SQLException e) {

e.printStackTrace();

} finally {

scanner.close();

}

}

}