**package** p1;

**import** java.sql.\*;

**import** java.util.Scanner;

**public** **class** StudentMgmt {

**static** Connection *conn*;

**static** Scanner *scanner* = **new** Scanner(System.***in***);

**public** **static** **void** main(String[] args) {

**try** {

Class.*forName*("oracle.jdbc.driver.OracleDriver");

*conn* = DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:8181:xe","Amrit","kumar");

**int** choice;

**do** {

System.***out***.println("\n--- Student Management ---");

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

System.***out***.println("2. View Students");

System.***out***.println("3. Update Student");

System.***out***.println("4. Delete Student");

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

System.***out***.print("Choice: ");

choice = *scanner*.nextInt();

**switch** (choice) {

**case** 1 -> *addStudent*();

**case** 2 -> *viewStudents*();

**case** 3 -> *updateStudent*();

**case** 4 -> *deleteStudent*();

**case** 5 -> System.***out***.println("Thanks!");

**default** -> System.***out***.println("Invalid choice!");

}

} **while** (choice != 5);

*conn*.close();

} **catch** (SQLException e) {

System.***out***.println("DB Connection Failed!");

e.printStackTrace();

} **catch** (ClassNotFoundException e) {

e.printStackTrace();

}

}

**static** **void** addStudent() **throws** SQLException {

System.***out***.print("Enter ID: ");

**int** id = *scanner*.nextInt();

*scanner*.nextLine(); // flush

System.***out***.print("Enter Name: ");

String name = *scanner*.nextLine();

System.***out***.print("Enter Age: ");

**int** age = *scanner*.nextInt();

String sql = "INSERT INTO student VALUES (?, ?, ?)";

PreparedStatement stmt = *conn*.prepareStatement(sql);

stmt.setInt(1, id);

stmt.setString(2, name);

stmt.setInt(3, age);

stmt.executeUpdate();

System.***out***.println("Student added.");

}

**static** **void** viewStudents() **throws** SQLException {

String sql = "SELECT \* FROM student ";

Statement stmt = *conn*.createStatement();

ResultSet rs = stmt.executeQuery(sql);

System.***out***.println("ID\tName\tAge");

**while** (rs.next()) {

System.***out***.println(rs.getInt("id") + "\t" + rs.getString("name") + "\t" + rs.getInt("age"));

}

}

**static** **void** updateStudent() **throws** SQLException {

System.***out***.print("Enter ID to update: ");

**int** id = *scanner*.nextInt();

*scanner*.nextLine();

System.***out***.print("New Name: ");

String name = *scanner*.nextLine();

System.***out***.print("New Age: ");

**int** age = *scanner*.nextInt();

String sql = "UPDATE student SET name=?, age=? WHERE id=?";

PreparedStatement stmt = *conn*.prepareStatement(sql);

stmt.setString(1, name);

stmt.setInt(2, age);

stmt.setInt(3, id);

**int** rows = stmt.executeUpdate();

System.***out***.println(rows > 0 ? "Student updated." : "Student not found.");

}

**static** **void** deleteStudent() **throws** SQLException {

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

**int** id = *scanner*.nextInt();

String sql = "DELETE FROM student WHERE id=?";

PreparedStatement stmt = *conn*.prepareStatement(sql);

stmt.setInt(1, id);

**int** rows = stmt.executeUpdate();

System.***out***.println(rows > 0 ? "Student deleted." : "Student not found.");

}

}