Week 11 : Programming Assignment 3

Delete a Record from a Table Using JDBC

📝 Problem Statement

You are given a table named `players` that contains player records.
Your task is to delete the record of the player whose UID is 3 using JDBC.
You need to complete **only one line of code** using a `PreparedStatement` to delete the matching record.
This is a basic exercise in executing a DELETE query safely with placeholders.

🔢 Sample Output

```
3 Priya Singh 24
// (This line will NOT appear after deletion)
```

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1			NA	Passed

The due date for submitting this assignment has passed.
1 out of 1 tests passed.
You scored 100.0/100.

Assignment submitted on 2025-04-08, 22:06 IST
Your last recorded submission was :

```java
import java.sql.*;

public class W11_P3 {
    public static void main(String args[]) {
        try {
            // Set SQLite temp directory (required in sandboxed environments like NPTEL)
            System.setProperty("org.sqlite.tmpdir", "/tempfs");

            // Connect to SQLite database
            Connection conn = DriverManager.getConnection("jdbc:sqlite:/tempfs/db");

            // Create the 'players' table if not already present
            Statement stmt = conn.createStatement();
            String CREATE_TABLE_SQL = "CREATE TABLE IF NOT EXISTS players (UID INT, First_Name VARCHAR(45), Last_Name VAR
            stmt.executeUpdate(CREATE_TABLE_SQL);

            // Clear previous data and insert a new player with UID = 3
            stmt.executeUpdate("DELETE FROM players");
            stmt.executeUpdate("INSERT INTO players VALUES(3, 'Priya', 'Singh', 24)");

            // Prepare the DELETE SQL statement
            String sql = "DELETE FROM players WHERE UID = ?";
            PreparedStatement pstmt = conn.prepareStatement(sql);
        pstmt.setInt(1, 3);
            pstmt.executeUpdate();
// Check if the record still exists (it should not be found)
            ResultSet rs = stmt.executeQuery("SELECT * FROM players WHERE UID = 3");
            while (rs.next()) {
                System.out.println(rs.getInt(1) + "  " +
                            rs.getString(2) + "  " +
                            rs.getString(3) + "  " +
                            rs.getInt(4));
            }

            // Clean up
            conn.close();
        } catch (Exception e) {
            System.out.println(e);
        }
    }
}
```

Sample solutions (Provided by instructor)

```java
import java.sql.*;

public class W11_P3 {
    public static void main(String args[]) {
        try {
            // Set SQLite temp directory (required in sandboxed environments like NPTEL)
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            // Connect to SQLite database
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            stmt.executeUpdate(CREATE_TABLE_SQL);

            // Clear previous data and insert a new player with UID = 3
            stmt.executeUpdate("DELETE FROM players");
            stmt.executeUpdate("INSERT INTO players VALUES(3, 'Priya', 'Singh', 24)");

            // Prepare the DELETE SQL statement
            String sql = "DELETE FROM players WHERE UID = ?";
            PreparedStatement pstmt = conn.prepareStatement(sql);
        pstmt.setInt(1, 3);  // Set the UID to delete (placeholder 1 refers to '?')
        pstmt.executeUpdate();  // Execute the delete operation

        /*
        Explanation:
        - The DELETE SQL uses one placeholder (?) to specify which UID to match.
        - We bind the value 3 to that placeholder using setInt.
        - After calling executeUpdate(), the matching row is removed from the database.
        */
// Check if the record still exists (it should not be found)
            ResultSet rs = stmt.executeQuery("SELECT * FROM players WHERE UID = 3");
            while (rs.next()) {
                System.out.println(rs.getInt(1) + "  " +
                            rs.getString(2) + "  " +
                            rs.getString(3) + "  " +
                            rs.getInt(4));
            }

            // Clean up
            conn.close();
        } catch (Exception e) {
            System.out.println(e);
        }
    }
}
```