Week 11 : Programming Assignment 4

Due on 2025-04-10, 23:59 IST

Retrieve and Display Records from a Table Using JDBC

📝 Problem Statement

You are given a table named `players` containing player records.
Your task is to retrieve **all rows** from the table and display their details.

In this task, the SQL query is already written.
You just need to **write one line of code** to execute the query using `Statement.executeQuery()` and store the result in a `ResultSet` .

This problem introduces the basics of how Java retrieves records using JDBC.

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1		4 Neha Sharma 25\n 5 Aman Verma 21	4 Neha Sharma 25\n 5 Aman Verma 21\n	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, 22:07 IST

Your last recorded submission was :

```java
import java.sql.*;

public class W11_P4 {
    public static void main(String args[]) {
        try {
            // Set SQLite temp path (required for NPTEL environment)
            System.setProperty("org.sqlite.tmpdir", "/tempfs");

            // Establish database connection
            Connection conn = DriverManager.getConnection("jdbc:sqlite:/tempfs/db");

            // Create table and insert records
            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 rows and add new ones
            stmt.executeUpdate("DELETE FROM players");
            stmt.executeUpdate("INSERT INTO players VALUES(4, 'Neha', 'Sharma', 25)");
            stmt.executeUpdate("INSERT INTO players VALUES(5, 'Aman', 'Verma', 21)");

            // Define the SQL query string
            String sql = "SELECT * FROM players";
ResultSet rs = stmt.executeQuery(sql);
// Print out each row from the result set
            while (rs.next()) {
                System.out.println(rs.getInt(1) + "  " +
                                   rs.getString(2) + "  " +
                                   rs.getString(3) + "  " +
                                   rs.getInt(4));
            }

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

Sample solutions (Provided by instructor)

```java
import java.sql.*;

public class W11_P4 {
    public static void main(String args[]) {
        try {
            // Set SQLite temp path (required for NPTEL environment)
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            stmt.executeUpdate("INSERT INTO players VALUES(4, 'Neha', 'Sharma', 25)");
            stmt.executeUpdate("INSERT INTO players VALUES(5, 'Aman', 'Verma', 21)");

            // Define the SQL query string
            String sql = "SELECT * FROM players";
ResultSet rs = stmt.executeQuery(sql); // Execute the SQL SELECT query and store result

/*
Explanation:
- The query "SELECT * FROM players" is stored in 'sql'.
- stmt.executeQuery(sql) sends the query and returns results.
- These are stored in ResultSet, which can be iterated using rs.next().
*/
// Print out each row from the result set
            while (rs.next()) {
                System.out.println(rs.getInt(1) + "  " +
                                   rs.getString(2) + "  " +
                                   rs.getString(3) + "  " +
                                   rs.getInt(4));
            }

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