

MODERN APPLICATION DEVELOPMENT (JAVA SPRING BOOT)

ASSIGNMENT-3

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GOOGLE DRIVE LINK:

https://drive.google.com/drive/folders/1JAhLFfPshM_W3SUYOyVQd4q0AEha4qNX?usp=drive_link

1.IMPLEMENT JDBC CONNECTIVITY USING JAVA

a.Statement

b.PreparedStatement

In Mysql:

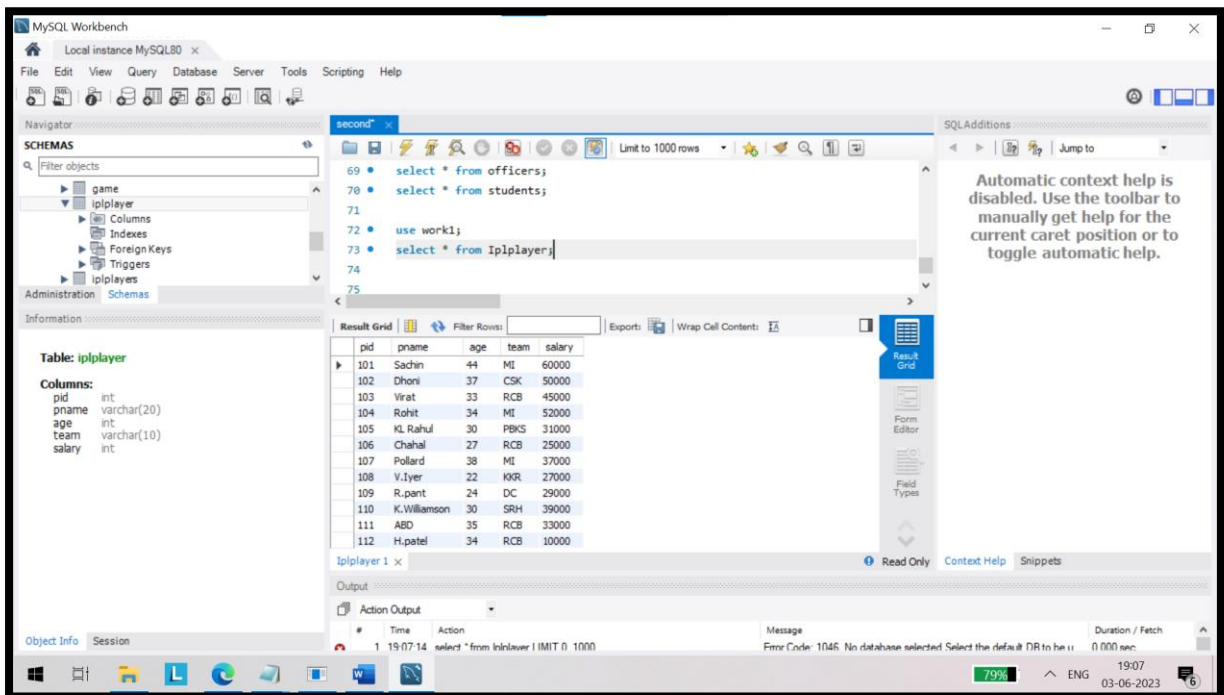
I Created table Iplplayer with attributes (pid,pname,age,team,salary).

```
create table Iplplayer(  
  pid int,  
  pname varchar(20),  
  age int,  
  team varchar(10),  
  salary int  
);
```

Inserting values for the table:

```
insert into Iplplayer values(101,'Sachin',44,'MI',60000);  
insert into Iplplayer values(102,'Dhoni',37,'CSK',50000);  
insert into Iplplayer values(103,'Virat',33,'RCB',45000);  
insert into Iplplayer values(104,'Rohit',34,'MI',52000);  
insert into Iplplayer values(105,'KL Rahul',30,'PBKS',31000);  
insert into Iplplayer values(106,'Chahal',27,'RCB',25000);  
insert into Iplplayer values(107,'Pollard',38,'MI',37000);  
insert into Iplplayer values(108,'V.Iyer',22,'KKR',27000);  
insert into Iplplayer values(109,'R.pant',24,'DC',29000);  
insert into Iplplayer values(110,'K.Williamson',30,'SRH',39000);  
insert into Iplplayer values(111,'ABD',35,'RCB',33000);
```

```
select * from Iplplayer;
```



A. STATEMENT INTERFACE(staticqueries)

JAVE CODE:

In this code, I have used a query to select the details of players who are getting salary greater than 47000

Query:

Select * from Iplplayer where salary>47000.

```
package com.csintamil;
```

```
import java.sql.*;
```

```
public class Main {
```

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

```

// variables
Connection connection = null;
Statement statement = null;
ResultSet resultSet = null;

// Step 1: Loading or
// registering MySQL JDBC driver class
try {
    Class.forName("com.mysql.jdbc.Driver");
}
catch(ClassNotFoundException cnfex) {
    System.out.println("Problem in"
        + " loading MySQL JDBC driver");
    cnfex.printStackTrace();
}

// Step 2: Opening database connection
try {
    // Step 2.A: Create and
    // get connection using DriverManager class
    connection = DriverManager.getConnection(
        "jdbc:mysql://localhost:3306/work1",
        "root",
        "sairam");

// Step 3: Creating JDBC Statement
    statement = connection.createStatement();

// Step 4: Executing SQL and
// retrieve data into ResultSet
    resultSet = statement.executeQuery("select * from
Iplplayer where salary>47000");
    System.out.println("Pid\tName\tAge\tTeam Salary");
    System.out.println("==\t=====\t==\t====");
// processing returned data and printing into console
    while(resultSet.next()) {
        System.out.println(resultSet.getInt(1) + "\t" +
            resultSet.getString(2) + "\t" +
            resultSet.getInt(3) + "\t" +
            resultSet.getString(4) + "\t" +
            resultSet.getInt(5));
    }
}
catch(SQLException sqlex){
    sqlex.printStackTrace();
}
finally {

// Step 5: Closing database connection
    try {

```

```

        if(null != connection) {

// cleanup resources, once after processing
            resultSet.close();
            statement.close();

// and then finally close connection
            connection.close();
        }
    }
    catch (SQLException sqlex) {
        sqlex.printStackTrace();
    }
}
}
}

```

OUTPUT SCREENSHOTS:

The screenshot displays the IntelliJ IDEA IDE with a Java project named 'jdbc4'. The code in the 'Main.java' file is as follows:

```

35 // retrieve data into ResultSet
36 resultSet = statement.executeQuery( sql: "select * from Iplplayer where salary>47000");
37 System.out.println("Pid\tName\tAge\tTeam Salary");
38 System.out.println("==\t=====\t==\t=====");
39 // processing returned data and printing into console
40 while(resultSet.next()) {
41     System.out.println(resultSet.getInt( columnIndex: 1) + "\t" +
42         resultSet.getString( columnIndex: 2) + "\t" +
43         resultSet.getInt( columnIndex: 3) + "\t" +
44         resultSet.getString( columnIndex: 4) + "\t" +
45         resultSet.getInt( columnIndex: 5));

```

The 'Run' window shows the output of the program:

```

C:\Users\shannm\..jdk\openjdk-16.0.2\bin\java.exe "-javaagent:C:\Users\shannm\OneDrive\Desktop\Desktop\IntelliJ IDEA Community Edition 2021.2\lib\idea
Loading class 'com.mysql.jdbc.Driver'. This is deprecated. The new driver class is 'com.mysql.cj.jdbc.Driver'. The driver is automatically registered
Pid Name    Age Team Salary
== =====
101 Sachin  44  MI  60000
102 Dhoni   37  CSK 50000
104 Rohit   34  MI  52000

Process finished with exit code 0

```

The bottom status bar indicates the build was completed successfully in 2 seconds and 617 milliseconds.

B. PREPARED STATEMENT:

RETRIEVE VALUES BY PREPARED STATEMENT:

```
package com.csintamil;

import java.sql.*;
public class Main {

    public static void main(String[] args)
    {
        // variables
        Connection connection = null;
        Statement statement = null;
        ResultSet resultSet = null;
        // Step 1: Loading or
        // registering MySQL JDBC driver class
        try {
            Class.forName("com.mysql.jdbc.Driver");
        }
        catch(ClassNotFoundException cnfex) {
            System.out.println("Problem in"
                + " loading MySQL JDBC driver");
            cnfex.printStackTrace();
        }
        // Step 2: Opening database connection
        try {
            // Step 2.A: Create and get connection using DriverManager class
            connection = DriverManager.getConnection(
                "jdbc:mysql://localhost:3306/work1",
                "root",
                "sairam");
            // Step 3: Creating JDBC Statement
            statement = connection.createStatement();
            // Step 4: Executing SQL and
            // retrieve data into ResultSet

            PreparedStatement stmt
                = connection.prepareStatement("select * from
Iplplayer where age>? and team=?");

            stmt.setInt(1, 30);
            stmt.setString(2, "RCB");

            resultSet = stmt.executeQuery();
```

```

        System.out.println("Pid\tName\tAge\tTeam Salary");
        System.out.println("==\t=====\t==\t==== =====");
        // processing returned data and printing into console
        while(resultSet.next()) {
            System.out.println(resultSet.getInt(1) + "\t" +
                resultSet.getString(2) + "\t" +
                resultSet.getInt(3) + "\t" +
                resultSet.getString(4) + "\t" +
                resultSet.getInt(5));

        }
    }
    catch(SQLException sqlex){
        sqlex.printStackTrace();
    }
    finally {
        // Step 5: Closing database connection
        try {
            if(null != connection) {
                // cleanup resources, once after processing
                resultSet.close();
                statement.close();
                // and then finally close connection
                connection.close();
            }
        }
        catch (SQLException sqlex) {
            sqlex.printStackTrace();
        }
    }
}
}
}

```

In the above code ,I have used a query to select the player who's age is greater than 30 and team='RCB' using Prepared Statement.

PreparedStatement

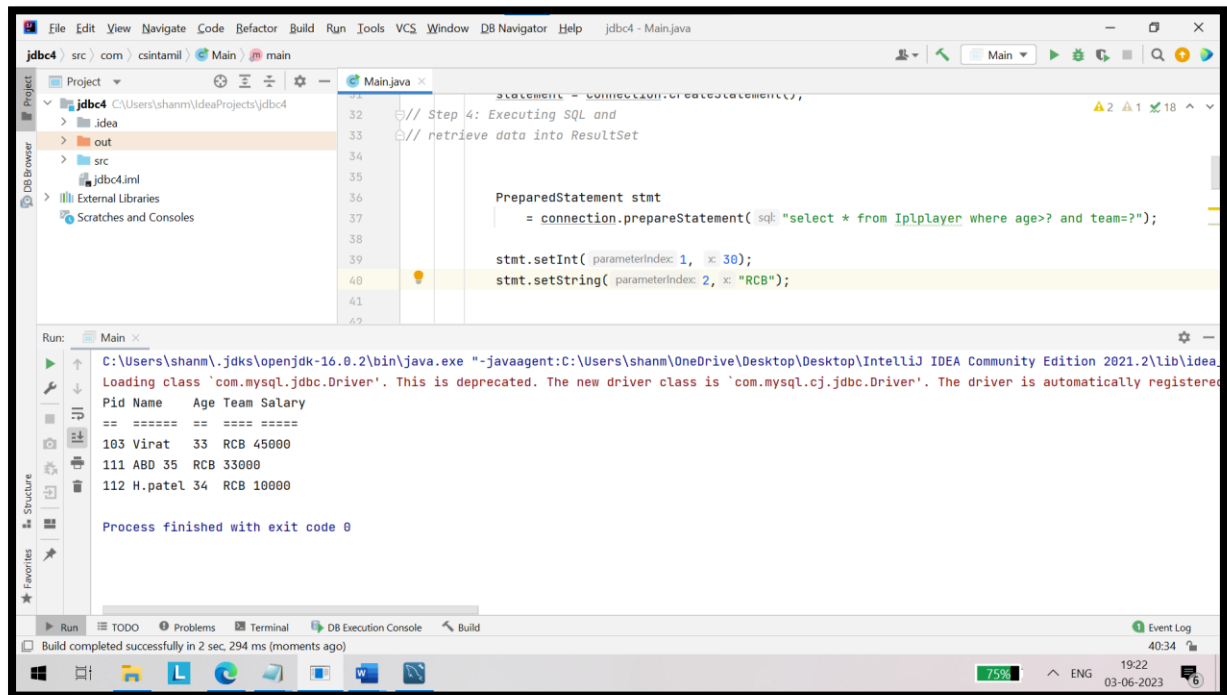
```

stmt=connection.prepareStatement("select * from
Iplplayer where age>? AND team=?");

```

```
stmt.setInt(1, 30);  
stmt.setString(2, "RCB");
```

OUTPUT SCREENSHOT:



The screenshot displays the IntelliJ IDEA IDE with a Java project named 'jdbc4'. The code in 'Main.java' shows a JDBC connection and a query to retrieve player data from a table named 'IplPlayer'. The query filters for players where age is greater than or equal to 30 and the team is 'RCB'. The output window shows the results of the query, listing three players: Virat (Age 33, Salary 45000), ABD (Age 35, Salary 33000), and H.patel (Age 34, Salary 10000).

```
statement = connection.createStatement();  
32 // Step 4: Executing SQL and  
33 // retrieve data into ResultSet  
34  
35  
36 PreparedStatement stmt  
37 = connection.prepareStatement("select * from IplPlayer where age>= ? and team=?");  
38  
39 stmt.setInt( parameterIndex: 1, 30);  
40 stmt.setString( parameterIndex: 2, "RCB");  
41  
42
```

Run: Main x
C:\Users\shann\jdk-16.0.2\bin\java.exe "-javaagent:C:\Users\shann\OneDrive\Desktop\Desktop\IntelliJ IDEA Community Edition 2021.2\lib\idea
Loading class 'com.mysql.jdbc.Driver'. This is deprecated. The new driver class is 'com.mysql.cj.jdbc.Driver'. The driver is automatically registered
== =====
103 Virat 33 RCB 45000
111 ABD 35 RCB 33000
112 H.patel 34 RCB 10000

Process finished with exit code 0