

# Perform CRUD Operation from User using Prepare Statements

```
EmployeeMain.java  JDBC_Methods.java
1 package com.JDBCAssignmentsUsingPreparedStatement;
2
3 import java.sql.Connection;
4
10 //using prepare Statements perform CRUD operation from user
11 public class JDBC_Methods {
12     String url = "jdbc:mysql://localhost:3306/sqldemo";
13     String username = "root";
14     String password = "root";
15
16     // Add data to database
17     public void setdata() throws ClassNotFoundException, SQLException {
18         while (true) {
19             Class.forName("com.mysql.jdbc.Driver");// 1.load driver class
20             Connection con = DriverManager.getConnection(url, username, password);// 2.Establish connection
21             Scanner sc = new Scanner(System.in);
22             System.out.println("Wants to add data press Y/N");
23             char a = sc.next().charAt(0);
24             if (a == 'Y') {
25                 System.out.println("Enter id");
26                 int Eid = sc.nextInt();
27
28                 System.out.println("Enter name");
29                 String Ename = sc.next();
30
31                 System.out.println("Enter Address");
32                 String Eaddress = sc.next();
33
34                 System.out.println("Enter salary");
35                 long Esalary = sc.nextLong();
36
37                 String sql = "insert into EmployeeData values(?, ?, ?)"; // 3. Create query

```

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```
36
37     String sql = "insert into EmployeeData values(?, ?, ?)"; // 3. Create query
38
39     PreparedStatement ps = con.prepareStatement(sql); // 4. create statement
40     ps.setInt(1, Eid);
41     ps.setString(2, Ename);
42     ps.setString(3, Eaddress);
43     ps.setLong(4, Esalary);
44
45     ps.execute(); // 5. submit query
46
47     con.close(); // 6. close connection
48     ps.close();
49
50     System.out.println("Successfully add data");
51 } else if (a == 'N') {
52     break;
53 } else {
54     System.out.println("Invalid Input");
55 }
56 }
57 }
58
59 // get data from database
60 public void getdata() {
61     try {
62         while (true) {
63             Class.forName("com.mysql.jdbc.Driver");// 1.
64             Connection con = DriverManager.getConnection(url, username, password); // 2.
65             Scanner sc1 = new Scanner(System.in);
66             System.out.println("Wants to get data Y/N. Exit \n1. Get all data \n2. Get Id data");

```

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```

63 while (true) {
64     Class.forName("com.mysql.jdbc.Driver");// 1.
65     Connection con = DriverManager.getConnection(url, username, password);// 2.
66     Scanner sc1 = new Scanner(System.in);
67     System.out.println("Want to get data \n0. Exit \n1. Get all data \n2. Get Id data");
68     int i = sc1.nextInt();
69     if (i == 1) {
70         String sql = "Select * from EmployeeData";// 3.
71         PreparedStatement ps = con.prepareStatement(sql);// 4.
72         ResultSet rs = ps.executeQuery(sql);// 5. submit SQL query
73         while (rs.next()) {
74             System.out.println(rs.getInt(1));
75             System.out.println(rs.getString(2));
76             System.out.println(rs.getString(3));
77             System.out.println(rs.getLong(4));
78             System.out.println();
79         }
80
81         ps.close();
82         con.close();
83
84     } else if (i == 2) {
85         System.out.println("Enter Eid");
86         int Eid = sc1.nextInt();
87         String sql = "Select * from EmployeeData where Eid= ? ";
88         PreparedStatement ps = con.prepareStatement(sql);
89         ps.setInt(1, Eid);
90         ResultSet rs = ps.executeQuery(sql);// 5. submit SQL query
91         while (rs.next()) {
92             System.out.println(rs.getInt(1));

```

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```

88     PreparedStatement ps = con.prepareStatement(sql);
89     ps.setInt(1, Eid);
90     ResultSet rs = ps.executeQuery(sql);// 5. submit SQL query
91     while (rs.next()) {
92         System.out.println(rs.getInt(1));
93         System.out.println(rs.getString(2));
94         System.out.println(rs.getString(3));
95         System.out.println(rs.getLong(4));
96         System.out.println();
97     }
98
99     ps.close();
100    con.close();
101
102    } else if (i == 0) {
103        break;
104    } else {
105        System.out.println("Invalid Input");
106    }
107 }
108
109 } catch (ClassNotFoundException e) {
110     // TODO Auto-generated catch block
111     e.printStackTrace();
112 } catch (SQLException e) {
113     // TODO Auto-generated catch block
114     e.printStackTrace();
115 }
116 }

```

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```

118 // Update/replace data to database
119 public void updateData() {
120     try {
121         while (true) {
122             Class.forName("com.mysql.jdbc.Driver");
123             Connection con = DriverManager.getConnection(url, username, password);
124             Scanner sc2 = new Scanner(System.in);
125             System.out.println("Want to update data Press Y/N");
126             char a = sc2.next().charAt(0);
127             if (a == 'Y') {
128                 System.out.println("Enter name");
129                 String Ename = sc2.next();
130
131                 System.out.println("Enter Address");
132                 String Eaddress = sc2.next();
133
134                 System.out.println("Enter salary");
135                 long Esalary = sc2.nextLong();
136
137                 System.out.println("Enter Eid");
138                 int Eid = sc2.nextInt();
139
140                 String sql = "update EmployeeData set Ename=?, Eaddress=?, Esalary=? where Eid=? ";
141                 PreparedStatement ps = con.prepareStatement(sql);
142
143                 ps.setString(1, Ename);
144                 ps.setString(2, Eaddress);
145                 ps.setLong(3, Esalary);
146                 ps.setInt(4, Eid);
147                 ps.executeUpdate(sql); // 5. submit SQL query
148             }
149         }
150     }

```

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```

151     Connection con = DriverManager.getConnection(url, username, password); // 2.
152     Scanner sc2 = new Scanner(System.in);
153
154     Scanner sc3 = new Scanner(System.in);
155     System.out.println("Want to Delete data Press Y/N");
156     char a = sc3.next().charAt(0);
157     if (a == 'Y') {
158         System.out.println("Enter Eid");
159         int Eid = sc3.nextInt();
160         String sql = "Delete from EmployeeData where Eid= ? "; // 3.
161         PreparedStatement ps = con.prepareStatement(sql); // 4.
162
163         ps.setInt(1, Eid);
164
165         ps.executeUpdate(sql); // 5. submit SQL query
166         con.close(); // 6.
167         ps.close();
168         System.out.println("Delete success");
169     } else if (a == 'N') {
170         break;
171     } else {
172         System.out.println("Invalid Input");
173     }
174 }
175 } catch (ClassNotFoundException e) {
176     // TODO Auto-generated catch block
177     e.printStackTrace();
178 } catch (SQLException e) {
179     // TODO Auto-generated catch block
180     e.printStackTrace();
181 }

```

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# Main Class

```
4 import java.util.Scanner;
5 import com.JDBCAssignment.JDBC_Methods;
6 public class EmployeeMain {
7     public static void main(String[] args) throws ClassNotFoundException, SQLException {
8         JDBC_Methods j=new JDBC_Methods();
9
10        Scanner sc=new Scanner(System.in);
11        while(true)
12        {
13            System.out.println("\n Enter your choice \n1. Add data \n2. Get data \n3. Update data \n4. Delete data \n");
14            int i=sc.nextInt();
15
16            switch(i)
17            {
18                case 1:
19                    j.setdata();
20                    break;
21
22                case 2:
23                    j.getdata();
24                    break;
25
26                case 3:
27                    j.updateData();
28                    break;
29
30                case 4:
31                    j.deleteData();
32                    break;
33            }
34        }
```

## Output-

### 1.Insert Data

EmployeeMain (4) [Java Application] C:\Program Files\Java\jdk1	250000
Enter your choice	Successfully add data
1. Add data	Want to add data press Y/N
2. Get data	Y
3. Update data	Enter id
4. Delete data	103
	Enter name
	Ravi
	Enter Address
	Akola
	Enter salary
	30000
	Successfully add data
	Want to add data press Y/N
	N
	Enter your choice
	1. Add data
	2. Get data
	3. Update data
	4. Delete data
	2
	Want to get data
	0. Exit
	1. Get all data
	2. Get single Id data
	1
	101
	Ram

## 2. Get All Data

```
2. Get data
3. Update data
4. Delete data

2
Want to get data
0. Exit
1. Get all data
2. Get single Id data
1
101
  Ram
  Pune
20000

102
  Amol
  Mumbai
25000

103
  Ravi
  Akola
30000

Want to get data
0. Exit
1. Get all data
2. Get single Id data
```

## 3. Get Id Data

```
Want to get data
0. Exit
1. Get all data
2. Get single Id data
2
Enter Eid
102
102
  Amol
  Mumbai
25000

Want to get data
0. Exit
1. Get all data
2. Get single Id data
0

Enter your choice
1. Add data
2. Get data
3. Update data
4. Delete data
```

## SQL data-

Eid	Ename	Eaddress	Esalary
101	Ram	Pune	20000
102	Amol	Mumbai	25000
103	Ravi	Akola	30000

#### 4. Update Data and Check it

```
3
Want to update data Press Y/N
Y
Enter name
Rakesh
Enter Address
Delhi
Enter salary
35000
Enter Eid
101
Update success
Want to update data Press Y/N
N

Enter your choice
1. Add data
2. Get data
3. Update data
4. Delete data


2
Want to get data
0. Exit
1. Get all data
2. Get single Id data
```

```
2
Want to get data
0. Exit
1. Get all data
2. Get single Id data

2
Enter Eid
101
Rakesh
Delhi
35000

Want to get data
0. Exit
1. Get all data
2. Get single Id data
```

#### SQL data-

 Eid	Ename	Eaddress	Esalary
101	Rakesh	Delhi	35000
102	Amol	Mumbai	25000
103	Ravi	Akola	30000

## 5.Delete Data and Check it

```
want to get data
0. Exit
1. Get all data
2. Get single Id data
0

Enter your choice
1. Add data
2. Get data
3. Update data
4. Delete data

4
Want to Delete data Press Y/N
Y
Enter Eid
101
Delete success
Want to Delete data Press Y/N
N

Enter your choice
1. Add data
2. Get data
3. Update data
4. Delete data

2
```

```
Want to get data
0. Exit
1. Get all data
2. Get single Id data
1
102
Amol
Mumbai
25000

103
Ravi
Akola
30000

Want to get data
0. Exit
1. Get all data
2. Get single Id data
```

## SQL Data-

Eid	Ename	Eaddress	Esalary
102	Amol	Mumbai	25000
103	Ravi	Akola	30000

