

## ASSIGNMENT-3

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### Q) Implement Java Assignment for Java JDBC using java

Creating Database in mysql

```
mysql> create database jdbcdb;  
Query OK, 1 row affected (0.01 sec)
```

Creating Table

```
mysql> Create table emp (emp_id int, empname varchar(10), email varchar(30), city varchar(10));  
Query OK, 0 rows affected (0.02 sec)
```

Describing Emp table

```
mysql> desc emp;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| emp_id | int           | YES  |     | NULL    |       |  
| empname | varchar(10)   | YES  |     | NULL    |       |  
| email   | varchar(30)   | YES  |     | NULL    |       |  
| city    | varchar(10)   | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
4 rows in set (0.02 sec)
```

Inserting the Record into table;

Code:

```
package com.jdbc.student;  
import java.sql.DriverManager;  
import java.sql.*;  
public class StudentDatabase {  
    private static Connection con=null;  
    public static void main(String[] args) {  
        try {  
            Class.forName("com.mysql.cj.jdbc.Driver");  
            String dbURL="jdbc:mysql://localhost:3306/jdbcdb";  
            String username="root";  
            String password="root";  
            con=DriverManager.getConnection(dbURL,username,password);  
            //Insert the record  
            String sql = "INSERT INTO emp (emp_id, empname, email, city) VALUES  
(?, ?, ?, ?)";  
            PreparedStatement statement = con.prepareStatement(sql);  
            statement.setInt(1, 104);
```

```

        statement.setString(2, "Saran");
        statement.setString(3, "Saran@gmail.com");
        statement.setString(4, "Vijayawada");
        int rowsInserted = statement.executeUpdate();
        if (rowsInserted > 0)
        {
            System.out.println("A new employee was inserted
successfully!\n");
        }
        // Display the record
        String sql1 = "SELECT * FROM Emp";
        Statement stmt = con.createStatement();
        ResultSet result = stmt.executeQuery(sql1);
        while (result.next())
        {
            System.out.println (result.getInt(1)+" "+
            result.getString(2)+" "+
            result.getString(3)+" "+
            result.getString(4));
        }
    }
    catch(Exception ex)
    {
        ex.printStackTrace();
    }
}
}

```

**Screenshot :**

The screenshot shows an IDE with two windows. The left window, titled 'StudentDatabase.java', contains the following Java code:

```

1 package com.jdbc.student;
2 import java.sql.DriverManager;
3 import java.sql.*;
4 public class StudentDatabase {
5     private static Connection con=null;
6     public static void main(String[] args) {
7         try {
8             Class.forName("com.mysql.cj.jdbc.Driver");
9             String dbURL="jdbc:mysql://localhost:3306/jdbcdb";
10            String username="root";
11            String password="root";
12            con=DriverManager.getConnection(dbURL,username,password);
13            //Insert the record
14            String sql = "INSERT INTO emp (emp_id, empname, email, city) VALUES (?, ?, ?, ?)";
15            PreparedStatement statement = con.prepareStatement(sql);
16            statement.setInt(1, 104);
17            statement.setString(2, "Saran");
18            statement.setString(3, "Saran@gmail.com");
19            statement.setString(4, "Vijayawada");
20            int rowsInserted = statement.executeUpdate();
21            if (rowsInserted > 0)
22            {
23                System.out.println("A new employee was inserted successfully!\n");
24            }
25            // Display the record
26            String sql1 = "SELECT * FROM Emp";
27            Statement stat = con.createStatement();
28            ResultSet result = stat.executeQuery(sql1);
29            while (result.next())
30            {
31                System.out.println (result.getInt(1)+" "+
32                result.getString(2)+" "+
33                result.getString(3)+" "+
34                result.getString(4));
35            }
36        }
37        catch(Exception ex)
38        {
39            ex.printStackTrace();
40        }
41    }
42 }
43 }

```

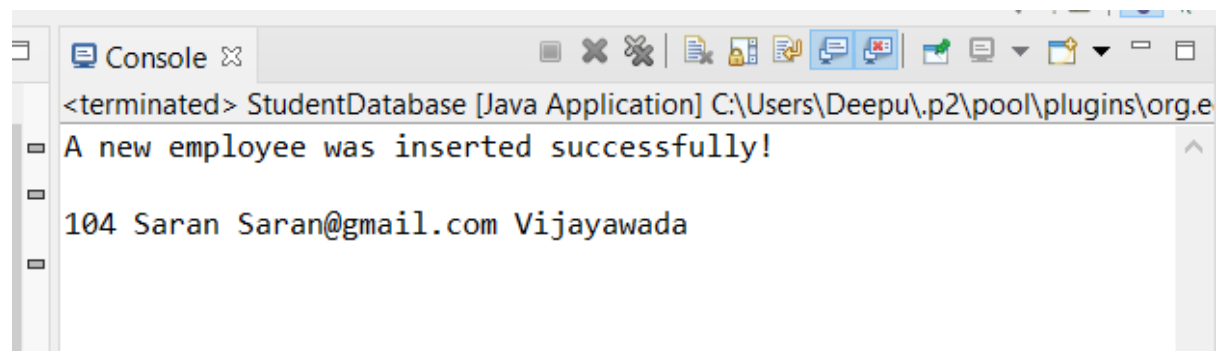
The right window, titled 'Console', shows the output of the program:

```

<terminated> StudentDatabase [Java Application] C:\Users\Deepu\p2\pool\plugins\org.
A new employee was inserted successfully!
104 Saran Saran@gmail.com Vijayawada

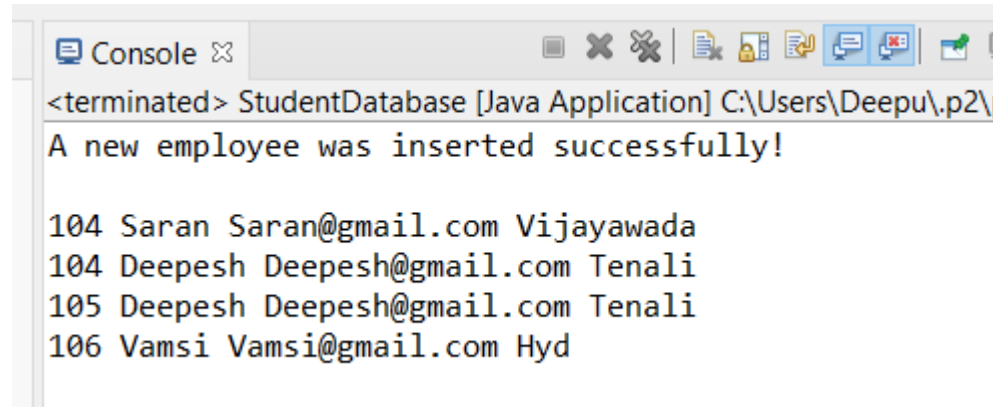
```

Output:



```
<terminated> StudentDatabase [Java Application] C:\Users\Deepu\.p2\pool\plugins\org.e
A new employee was inserted successfully!
104 Saran Saran@gmail.com Vijayawada
```

Inserting More rows:



```
<terminated> StudentDatabase [Java Application] C:\Users\Deepu\.p2\pool\plugins\org.e
A new employee was inserted successfully!
104 Saran Saran@gmail.com Vijayawada
104 Deepesh Deepesh@gmail.com Tenali
105 Deepesh Deepesh@gmail.com Tenali
106 Vamsi Vamsi@gmail.com Hyd
```

```
mysql> select * from emp;
+-----+-----+-----+-----+
| emp_id | empname | email                | city      |
+-----+-----+-----+-----+
| 104    | Saran   | Saran@gmail.com      | Vijayawada |
| 104    | Deepesh | Deepesh@gmail.com    | Tenali     |
| 105    | Deepesh | Deepesh@gmail.com    | Tenali     |
| 106    | Vamsi   | Vamsi@gmail.com      | Hyd        |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

## Deleting a record From Table:

Deleting a record from emp table wher empname is Vamsi

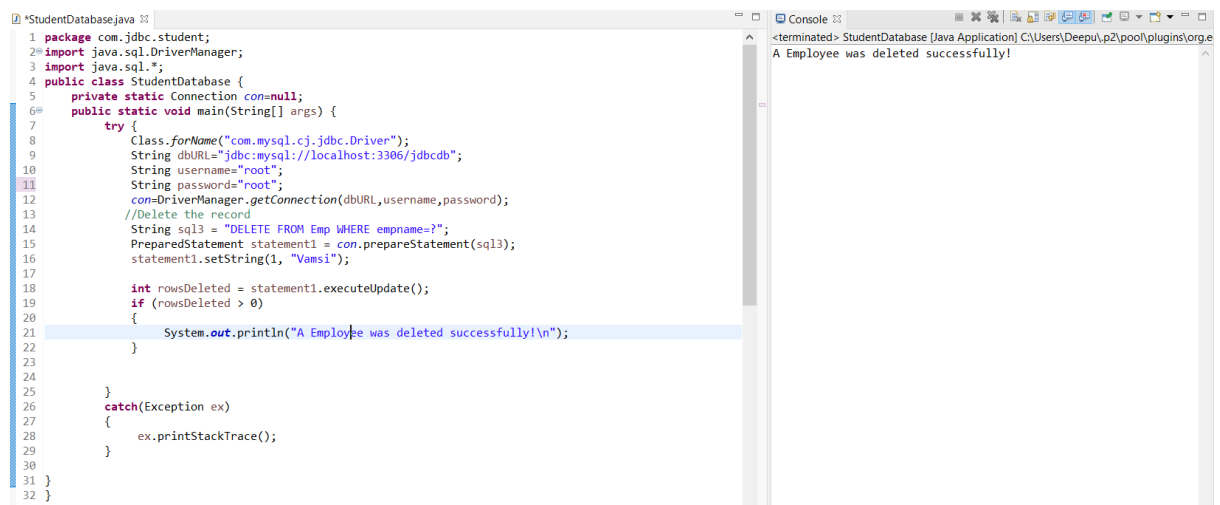
Code:

```
package com.jdbc.student;
import java.sql.DriverManager;
import java.sql.*;
public class StudentDatabase {
    private static Connection con=null;
    public static void main(String[] args) {
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            String dbURL="jdbc:mysql://localhost:3306/jdbcdcb";
            String username="root";
            String password="root";
            con=DriverManager.getConnection(dbURL,username,password);
            //Delete the record
            String sql3 = "DELETE FROM Emp WHERE empname=?";
            PreparedStatement statement1 = con.prepareStatement(sql3);
            statement1.setString(1, "Vamsi");

            int rowsDeleted = statement1.executeUpdate();
            if (rowsDeleted > 0)
            {
                System.out.println("A Employee was deleted
successfully!\n");
            }

        }
        catch(Exception ex)
        {
            ex.printStackTrace();
        }
    }
}
```

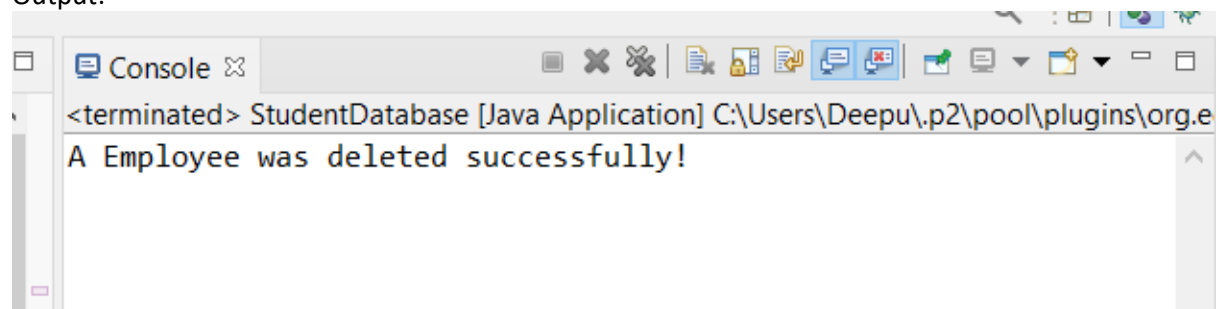
Screenshot:



```
1 package com.jdbc.student;
2 import java.sql.DriverManager;
3 import java.sql.*;
4 public class StudentDatabase {
5     private static Connection con=null;
6     public static void main(String[] args) {
7         try {
8             Class.forName("com.mysql.cj.jdbc.Driver");
9             String dbURL="jdbc:mysql://localhost:3306/jdbcdcb";
10            String username="root";
11            String password="root";
12            con=DriverManager.getConnection(dbURL,username,password);
13            //Delete the record
14            String sql3 = "DELETE FROM Emp WHERE empname=?";
15            PreparedStatement statement1 = con.prepareStatement(sql3);
16            statement1.setString(1, "Vamsi");
17
18            int rowsDeleted = statement1.executeUpdate();
19            if (rowsDeleted > 0)
20            {
21                System.out.println("A Employee was deleted successfully!\n");
22            }
23
24        }
25        catch(Exception ex)
26        {
27            ex.printStackTrace();
28        }
29    }
30 }
31 }
32 }
```

Console: <terminated> StudentDatabase [Java Application] C:\Users\Deepu\p2\pool\plugins\org.e  
A Employee was deleted successfully!

Output:



```
mysql> select * from emp;
+-----+-----+-----+-----+
| emp_id | empname | email          | city      |
+-----+-----+-----+-----+
| 104    | Saran   | Saran@gmail.com | Vijayawada |
| 104    | Deepesh | Deepesh@gmail.com | Tenali    |
| 105    | Deepesh | Deepesh@gmail.com | Tenali    |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

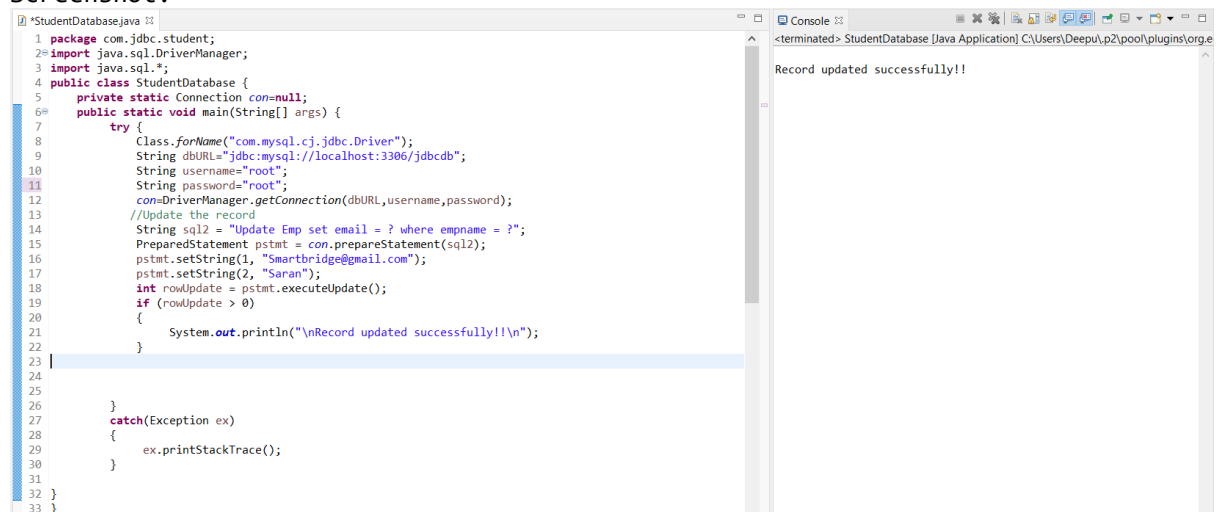
## Updating The Records:

Updating the email of Saran(empname)

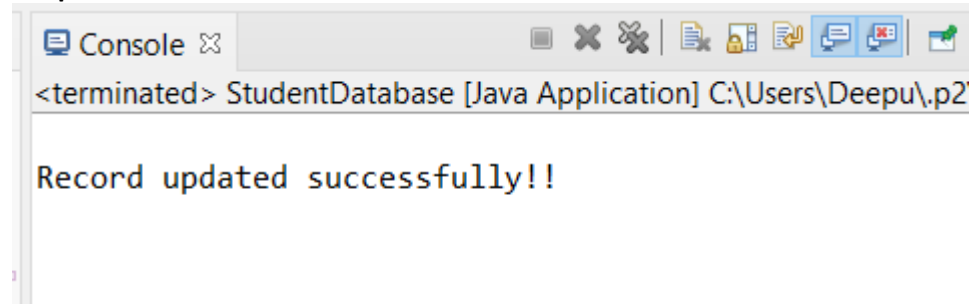
Code:

```
package com.jdbc.student;
import java.sql.DriverManager;
import java.sql.*;
public class StudentDatabase {
    private static Connection con=null;
    public static void main(String[] args) {
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            String dbURL="jdbc:mysql://localhost:3306/jdbcdcb";
            String username="root";
            String password="root";
            con=DriverManager.getConnection(dbURL,username,password);
            //Update the record
            String sql2 = "Update Emp set email = ? where empname = ?";
            PreparedStatement pstmt = con.prepareStatement(sql2);
            pstmt.setString(1, "Smartbridge@gmail.com");
            pstmt.setString(2, "Saran");
            int rowUpdate = pstmt.executeUpdate();
            if (rowUpdate > 0)
            {
                System.out.println("\nRecord updated successfully!!\n");
            }
        }
        catch(Exception ex)
        {
            ex.printStackTrace();
        }
    }
}
```

Screenshot:

The screenshot shows an IDE with two panels. The left panel displays the Java code for 'StudentDatabase.java', which is identical to the code block provided. The right panel shows the console output, which reads '<terminated> StudentDatabase [Java Application] C:\Users\Deepu\p2\pool\plugins\org.e' followed by 'Record updated successfully!!' on a new line. The code in the left panel is highlighted with a blue selection bar, and the console output is also highlighted with a blue selection bar.

**Output:**



```
mysql> select * from emp;
+-----+-----+-----+-----+
| emp_id | empname | email                | city    |
+-----+-----+-----+-----+
| 104    | Saran   | Smartbridge@gmail.com | Vijayawada |
| 104    | Deepesh | Deepesh@gmail.com     | Tenali    |
| 105    | Deepesh | Deepesh@gmail.com     | Tenali    |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```