SMARTBRIDGE ASSIGNMENT – 3

MODERN APPLICATION DEVELOPMENT USING SPRINGBOOT

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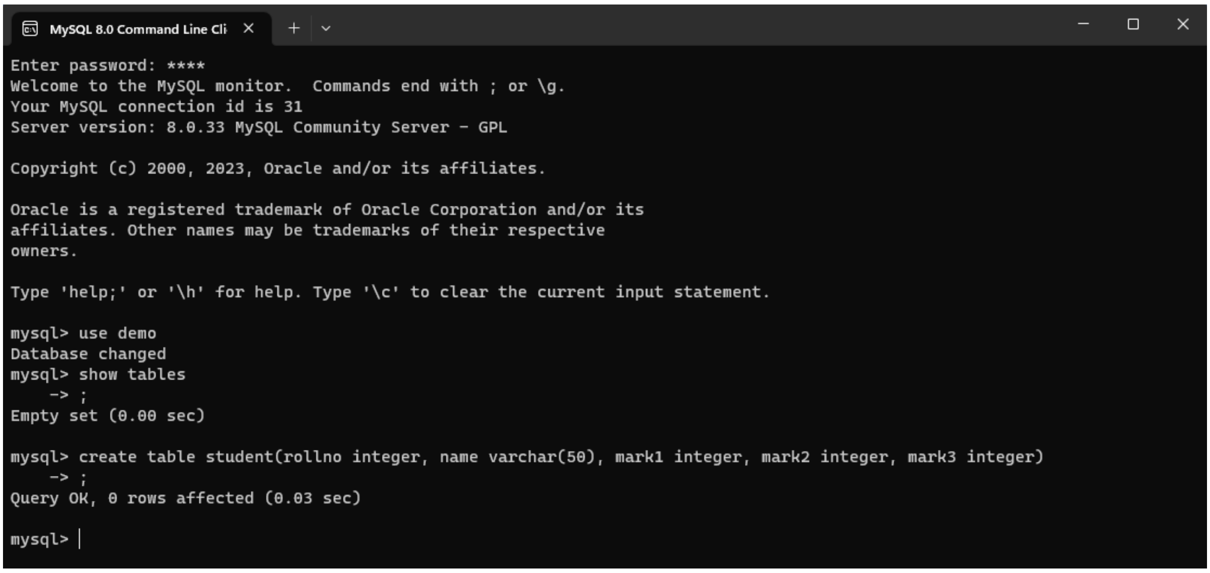
IMPLEMENTING JDBC USING JAVA

Creating the Database demo and the table student in the Command Line Interface (CLI):



```
Enter password: ****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 31
Server version: 8.0.33 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use demo
Database changed
mysql> show tables
    -> ;
Empty set (0.00 sec)

mysql> create table student(rollno integer, name varchar(50), mark1 integer, mark2 integer, mark3 integer)
    -> ;
Query OK, 0 rows affected (0.03 sec)

mysql> |
```
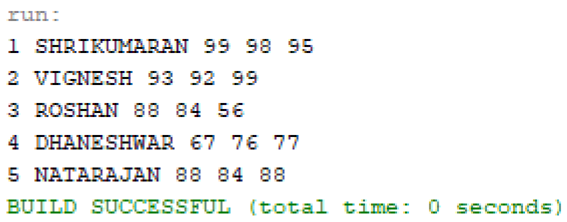

JDBC Program to insert records using Statement and Display it using Result Set

Code:

```
package studentjdbc;
import java.sql.*;
public class insertrecords
{
   public void inserting()
   {
      final String url = "jdbc:mysql://localhost:3307/demo";
      final String user = "root";
```

```
        final String pass = "root";
        try
        {
//            Class.forName("com.mysql.jdbc.Driver");
            Connection conn = DriverManager.getConnection(url,user,pass);
            Statement st = conn.createStatement();
            st.executeUpdate("INSERT INTO student VALUES
(1,'SHRIKUMARAN',99,98,95);");
            st.executeUpdate("INSERT INTO student VALUES
(2,'VIGNESH',93,92,99);");
            st.executeUpdate("INSERT INTO student VALUES (3,'ROSHAN',
88,84,56);");
            st.executeUpdate("INSERT INTO student VALUES
(4,'DHANESHWAR',67,76,77);");
            st.executeUpdate("INSERT INTO student VALUES
(5,'NATARAJAN',88,84,88);");
            ResultSet rs = st.executeQuery("SELECT * FROM student");

            while(rs.next())
            {
                System.out.println(rs.getInt(1)+" "+rs.getString(2)+" "+rs.getInt(3)+"
"+rs.getInt(4)+" "+rs.getInt(5));
            }
            st.close();
            rs.close();
        }
        catch(Exception e)
        {
            System.out.println(e);
        }
    }
}
```

Output:



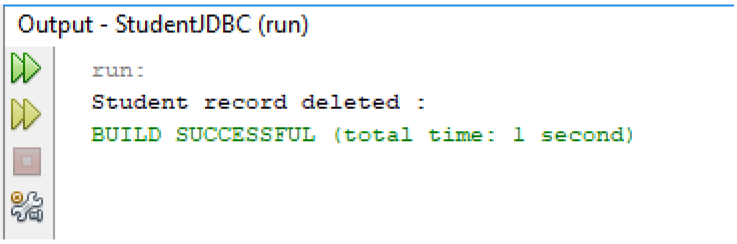
```
run:
1 SHRIKUMARAN 99 98 95
2 VIGNESH 93 92 99
3 ROSHAN 88 84 56
4 DHANESHWAR 67 76 77
5 NATARAJAN 88 84 88
BUILD SUCCESSFUL (total time: 0 seconds)
```

JDBC Program to Delete rows that satisfies a particular condition:

CODE:

```
package studentjdbc;
import java.sql.*;
public class deleterecords {

   final String url = "jdbc:mysql://localhost:3307/demo";
   final String user = "root";
   final String pass = "root";
   public void delete()
   {
      try
      {
         Connection conn = DriverManager.getConnection(url,user,pass);
         Statement st = conn.createStatement();
         int count = st.executeUpdate("delete from student where mark1>80 and
mark1<90");
         if(count>0)
            System.out.println("Student record deleted :");
         else
            System.out.println("NO records deleted : ");
      }
      catch(Exception e)
      {
         System.out.println(e);
      }
   }
}
```

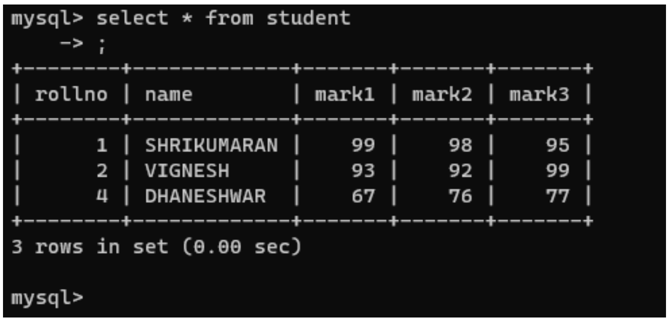
OUTPUT:



Output - StudentJDBC (run)

```
run:
Student record deleted :
BUILD SUCCESSFUL (total time: 1 second)
```

Student table after deletion:



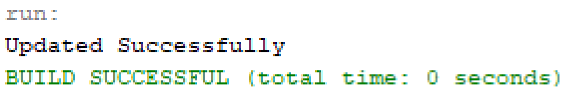
```
mysql> select * from student
    -> ;
+--------+-------------+-------+-------+-------+
| rollno | name        | mark1 | mark2 | mark3 |
+--------+-------------+-------+-------+-------+
|      1 | SHRIKUMARAN |    99 |    98 |    95 |
|      2 | VIGNESH     |    93 |    92 |    99 |
|      4 | DHANESHWAR  |    67 |    76 |    77 |
+--------+-------------+-------+-------+-------+
3 rows in set (0.00 sec)

mysql>
```

UPDATING THE TABLE BASED ON A CONDITION:

Code:

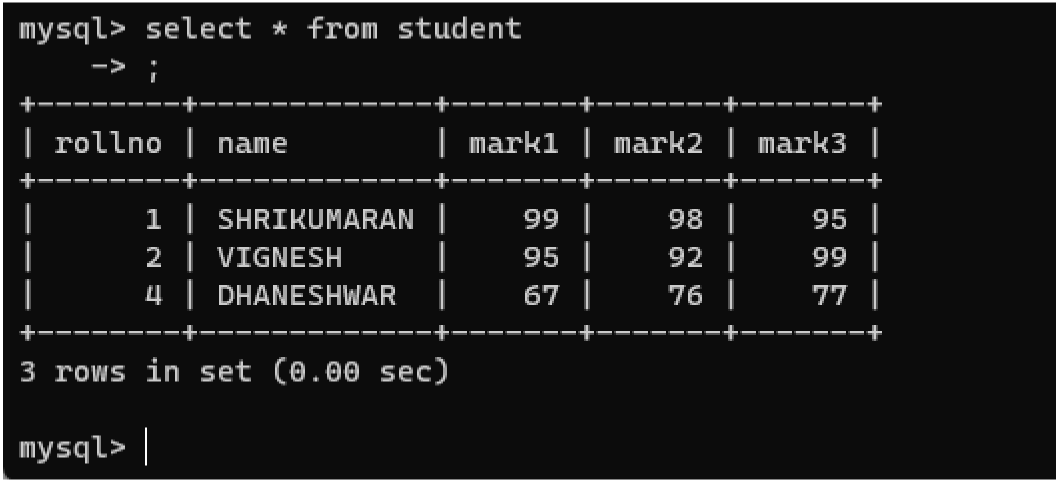
```
public void update()
{
    try
    {
        Connection conn = DriverManager.getConnection(url,user,pass);
        Statement st = conn.createStatement();
        int res = st.executeUpdate("UPDATE student set mark1=95 where rollno=2");
        if(res>0)
            System.out.println("Updated Successfully");
        else
            System.out.println("No Rows affected : ");

    }
    catch(Exception e)
    {
        System.out.println(e);
    }
}
```

Output:



```
run:
Updated Successfully
BUILD SUCCESSFUL (total time: 0 seconds)
```

Student Table after updating:



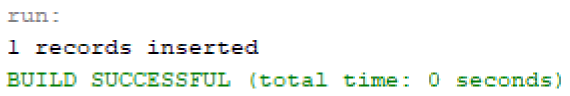
```
mysql> select * from student
    -> ;
+--------+-------------+-------+-------+-------+
| rollno | name        | mark1 | mark2 | mark3 |
+--------+-------------+-------+-------+-------+
|      1 | SHRIKUMARAN |    99 |    98 |    95 |
|      2 | VIGNESH     |    95 |    92 |    99 |
|      4 | DHANESHWAR  |    67 |    76 |    77 |
+--------+-------------+-------+-------+-------+
3 rows in set (0.00 sec)

mysql> |
```

INSERTING USING PREPARED STATEMENT:

Code:

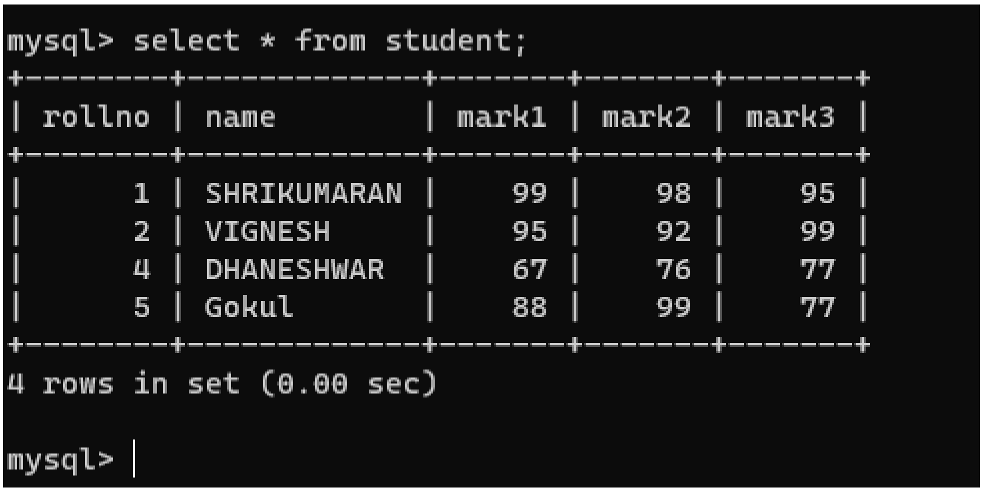
```
public void insPrep() {
        try {
            Connection conn = DriverManager.getConnection(url, user, pass);
            PreparedStatement stmt = conn.prepareStatement("insert into student
values(?,?,?,?,?)");
            stmt.setInt(1, 5);//1 specifies the first parameter in the query
            stmt.setString(2, "Gokul");
            stmt.setInt(3,88);
            stmt.setInt(4,99);
            stmt.setInt(5,77);

            int i = stmt.executeUpdate();
            System.out.println(i + " records inserted");

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

Output:



```
run:
1 records inserted
BUILD SUCCESSFUL (total time: 0 seconds)
```

Student Table after insertion:



```
mysql> select * from student;
+--------+-------------+-------+-------+-------+
| rollno | name        | mark1 | mark2 | mark3 |
+--------+-------------+-------+-------+-------+
|      1 | SHRIKUMARAN |    99 |    98 |    95 |
|      2 | VIGNESH     |    95 |    92 |    99 |
|      4 | DHANESHWAR  |    67 |    76 |    77 |
|      5 | Gokul       |    88 |    99 |    77 |
+--------+-------------+-------+-------+-------+
4 rows in set (0.00 sec)

mysql>
```

THANK YOU!!