```java
//Problem Statement :Implement MySQL Java Connectivity (2 tier)
//to implement insert, delete, update, select operations.

import java.sql.*;
import java.util.Scanner;
public class demojdbc {

    public static void main(String args[])throws SQLException {

            String uname="root";
            String url="jdbc:mysql://localhost:3306/students";
            String password="Doit12345@";

            Scanner sc=new Scanner(System.in);
            Scanner sc1=new Scanner(System.in);
            int choice;
            try {
                    Class.forName("java.sql.DriverManager");
            }

            catch(ClassNotFoundException e) {

                    e.printStackTrace();
            }

            try {


                    do
                    {
                    System.out.println("Menu");
                    System.out.println("1.Insert into table");
                    System.out.println("2.Update student city using roll no");
                    System.out.println("3.Delete student using roll no");
                    System.out.println("4.Display all the students");
                    System.out.println("5.Exit");

                    Connection con=DriverManager.getConnection(url,uname,password);

                    String name,phNo,scity,c1;
                    int age;
                    int r1,r2;
                    String query="select * from thirdyear;";

                    PreparedStatement insert=con.prepareStatement("insert into
thirdyear(sName,phone,city,age) values(?,?,?,?);");
                    PreparedStatement update=con.prepareStatement("update thirdyear
set city = ? where rollNo = ?;");
                    PreparedStatement delrecord=con.prepareStatement("delete from
thirdyear where rollNo = ?;");

                    Statement stmt=con.createStatement();

                  System.out.println("Enter your choice:");
                    choice=sc.nextInt();
```

```java
                switch(choice) {
                case 1:System.out.println("Enter student name:");
                        name=sc.next();
                        System.out.println("Enter student phone number:");
                        phNo=sc1.next();
                        System.out.println("Enter student city:");
                        scity=sc.next();
                        System.out.println("Enter student age:");
                        age=sc1.nextInt();

                        insert.setString(1,name);
                        insert.setString(2,phNo);
                        insert.setString(3, scity);
                        insert.setInt(4, age);
                        try {
                           insert.execute();
                           System.out.println("Student data inserted
sucessfully");

                        }
                        catch(Exception e) {
                           e.printStackTrace();
                        }
                            break;

                case 2:System.out.println("Enter the student's roll no to update
her city:");
                          r1=sc.nextInt();
                          System.out.println("Enter new city to insert in
database:");

                          c1=sc.next();
                          update.setString(1, c1);
                          update.setInt(2, r1);
                          try {
                              update.execute();
                              System.out.println("Student record updated
sucessfully");

                          }
                          catch(Exception e) {
                              e.printStackTrace();
                          }
                          break;

                case 3:System.out.println("Enter the student's roll no to delete
her record:");
                          r2=sc.nextInt();
                          delrecord.setInt(1, r2);
                          try {
                             delrecord.execute();
                             System.out.println("Student data deleted sucessfully");
                          }
                          catch(Exception e) {
                             e.printStackTrace();
                          }
                          break;
```

```
                case 4:ResultSet result=stmt.executeQuery(query);
                        while(result.next()) {
                            System.out.println("Name:"+result.getString(1));
                            System.out.println("Roll No:"+result.getInt(2));
                            System.out.println("Phone No:"+result.getString(3));
                            System.out.println("City:"+result.getString(4));
                            System.out.println("Age:"+result.getInt(5));
                            System.out.println();
                        }

                        break;

                case 5:System.out.println("Exited");
                        break;

                }
                }while(choice!=5);
        }

        catch(Exception e) {
            e.printStackTrace();
        }

    }

}
```

MySQL Command Line Client

mysql> create database students;

Query OK, 1 row affected (0.06 sec)

mysql> use students;

Database changed

mysql> show tables;

Empty set (0.08 sec)

mysql> create table thirdyear(sName varchar(40) not null, rollNo int primary key auto_increment, phone varchar(12), city varchar(30) not null, age int);

Query OK, 0 rows affected (0.07 sec)

mysql> insert into thirdyear(sname,rollNo,phone,city,age) values ("Sneha",1,"8965789754","Pune",20),("Ahana",2,"7687987865","Kolkata",20),("Prajakta",3,"8734564534","Pune",20),("Siddhi",4,"9543567896","Bengaluru",20);

Query OK, 4 rows affected (0.06 sec)

Records: 4 Duplicates: 0 Warnings: 0

mysql> select * from thirdyear;

+----------+--------+------------+----------+-----+

| sName | rollNo | phone | city | age |

+----------+--------+------------+----------+-----+

| Sneha | 1 | 8965789754 | Pune | 20 |

| Ahana | 2 | 7687987865 | Kolkata | 20 |

| Prajakta | 3 | 8734564534 | Pune | 20 |

| Siddhi | 4 | 9543567896 | Bengaluru | 20 |

+----------+--------+------------+----------+-----+

4 rows in set (0.00 sec)

mysql> delete from thirdyear where rollNo=3;

Query OK, 0 rows affected (0.00 sec)

mysql> select * from thirdyear;

+----------+--------+------------+---------+-----+

| sName | rollNo | phone | city | age |

+----------+--------+------------+---------+-----+

| Sneha | 1 | 8965789754 | Pune | 20 |

| Ahana | 2 | 7687987865 | Kolkata | 20 |

| Siddhi | 4 | 9543567896 | Bengaluru | 20 |

4 rows in set (0.00 sec)

Console

```
Menu
1.Insert into table
2.Update student city using roll no
3.Delete student using roll no
4.Display all the students
```

5.Exit
Enter your choice:
4
Name:Sneha
Roll No:1
Phone No:8965789754
City:Pune
Age:20

Name:Ahana
Roll No:2
Phone No:7687987865
City:Kolkata
Age:20

Name:Siddhi
Roll No:4
Phone No:9543567896
City:Bengaluru
Age:20

Menu
1.Insert into table
2.Update student city using roll no
3.Delete student using roll no
4.Display all the students
5.Exit
Enter your choice:
1
Enter student name:
Prajakta
Enter student phone number:
7378858379
Enter student city:
Pune
Enter student age:
20
Student data inserted sucessfully
Menu
1.Insert into table
2.Update student city using roll no
3.Delete student using roll no
4.Display all the students
5.Exit
Enter your choice:
4
Name:Sneha
Roll No:1
Phone No:8965789754
City:Pune
Age:20

Name:Ahana
Roll No:2
Phone No:7687987865

City:Kolkata
Age:20

Name:Siddhi
Roll No:4
Phone No:9543567896
City:Bengaluru
Age:20

Name:Prajakta
Roll No:5
Phone No:7378858379
City:Pune
Age:20

Menu
1.Insert into table
2.Update student city using roll no
3.Delete student using roll no
4.Display all the students
5.Exit
Enter your choice:
2
Enter the student's roll no to update her city:
4
Enter new city to insert in database:
Mumbai
Student record updated sucessfully
Menu
1.Insert into table
2.Update student city using roll no
3.Delete student using roll no
4.Display all the students
5.Exit
Enter your choice:
4
Name:Sneha
Roll No:1
Phone No:8965789754
City:Pune
Age:20

Name:Ahana
Roll No:2
Phone No:7687987865
City:Kolkata
Age:20

Name:Siddhi
Roll No:4
Phone No:9543567896
City:Mumbai
Age:20

```
Name:Prajakta
Roll No:5
Phone No:7378858379
City:Pune
Age:20

Menu
1.Insert into table
2.Update student city using roll no
3.Delete student using roll no
4.Display all the students
5.Exit
Enter your choice:
6
Menu
1.Insert into table
2.Update student city using roll no
3.Delete student using roll no
4.Display all the students
5.Exit
Enter your choice:
5
Exited
```