INFORMATICS PRACTICES PROJECt

CENTRAL BUREAU OF INVESTIGATION DATABASE

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XII C

CERTIFICATE

This is to certify that Tanishq Nakra,Naman kakroo,Gokul P. Sehgal

of class XII I,XII-C,XII-C, Delhi Public School, Sector 19, has worked on the project

entitled

CBI DATABASE MANAGEMENT SYSTEM

in the School Computer Lab and completed it under my guidance and supervision

Mrs NARINDER KAUR

(Informatics Practices Teacher)

ACKNOWLEDGEMENT

I am very grateful to our Principal Mr. Anil Kumar who permitted me to carry out experiments related to my project on Java Net Beans, MYSQL and HTML in the school.

I express my deep and sincere feeling of gratitude to my Informatics Practices Teacher Mrs. Narinder Kaur for her inspiring guidance and thought in the preparation of this project. This project would not have been completed without her valuable guidance and tremendous effort.

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1.INTRODUCTION

1.1 Problem Definition:

CBI DATABASE MANAGEMENT SYSTEM can be used to maintain records at the main police station of a city from where different sub polices stations and police chowkis are controlled. Achieving this objective is difficult using manual system due to following reasons-

*The information is scattered

* Can be redundant

*Collecting relevant information may be very time consuming.

*Required data from one chowki to another has to be carried personally.

All these problems can be solved using this project.

1.2 Existing System

According to existing manual system it is very tedious and time consuming to maintain paper records. With the increase in criminal activities in recent years large number of criminals doing different types of crimes are adding each day. It requires lot of paper work and consumes more time and place to prepare such type of records and data manually. There is also risk of data loss because of degradation of registers and misplaced or torn register pages. Risk of data manipulation and duplication without prior permission of authority ,and problem of keeping data safe for a long time always persists.

1.3 Proposed System

The proposed system of CBI DATABASE MANAGEMENT is computerized and maintaining the records of criminals doing various crimes and the police officers employed on duty is just a click away. Through this software we can add, delete and update records. It has the following advantages

1. User friendly interface

2. Fast access to database

3. Less chances of error and minimum paper work.

4. Problem of redundancy, data manipulation and data loss could be easily taken care off.

2. SYSTEM REQUIREMENTS

2.1 Hardware:

*Intel Pentium IV processor or equivalent
*RAM: 128 MB or more
*Hard Disk : 20GB
*Monitor : any
*Key Board: 122 keys
*Network Connectivity

2.2 Software :

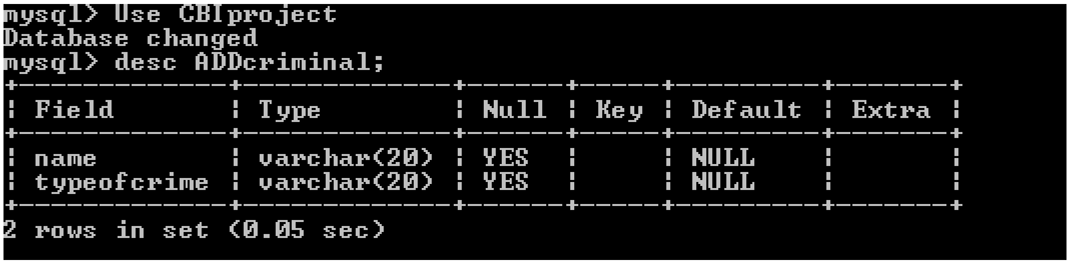
*Operating System : Microsoft Windows
*Front End -JAVA NetBeans IDE 7.0
*Back End - DBMS MySQL server 5.0

3. SPECIFIC REQUIREMENTS FOR THE PROJECT

3.1 MySQL Database Tables

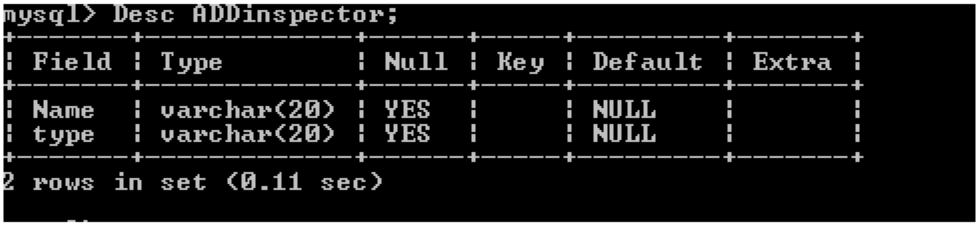
Database Schema

Table ADDcriminal



```
mysql> Use CBIproject
Database changed
mysql> desc ADDcriminal;
+-------------+-------------+------+-----+---------+-------+
¦ Field       ¦ Type        ¦ Null ¦ Key ¦ Default ¦ Extra ¦
+-------------+-------------+------+-----+---------+-------+
¦ name        ¦ varchar(20) ¦ YES  ¦     ¦ NULL    ¦       ¦
¦ typeofcrime ¦ varchar(20) ¦ YES  ¦     ¦ NULL    ¦       ¦
+-------------+-------------+------+-----+---------+-------+
2 rows in set (0.05 sec)
```

Table ADDinspector



```
mysql> Desc ADDinspector;
+-------+-------------+------+-----+---------+-------+
¦ Field ¦ Type        ¦ Null ¦ Key ¦ Default ¦ Extra ¦
+-------+-------------+------+-----+---------+-------+
¦ Name  ¦ varchar(20) ¦ YES  ¦     ¦ NULL    ¦       ¦
¦ type  ¦ varchar(20) ¦ YES  ¦     ¦ NULL    ¦       ¦
+-------+-------------+------+-----+---------+-------+
2 rows in set (0.11 sec)
```

3.2 Import Packages Used In Coding

```
import javax.swing.JOptionPane;
import java.sql.*;
import com.mysql.jdbc.Connection;
import com.mysql.jdbc.Statement;
public class Addcriminal extends javax.swing.JFrame {
public class Deletecriminal extends javax.swing.JFrame {
public class Updatecriminal extends javax.swing.JFrame {
public class Addinspector extends javax.swing.JFrame {
public class Deleteinspector extends javax.swing.JFrame {
public class Updateinspector extends javax.swing.JFrame {
```

4. PROJECT DESIGN WITH CODING AND OUTPUT

4.1 Project Preamble

4.2 Coding for Investigation Record

4.3 Adding Criminal Record and Coding

4.4 Deleting Criminal Record and Coding

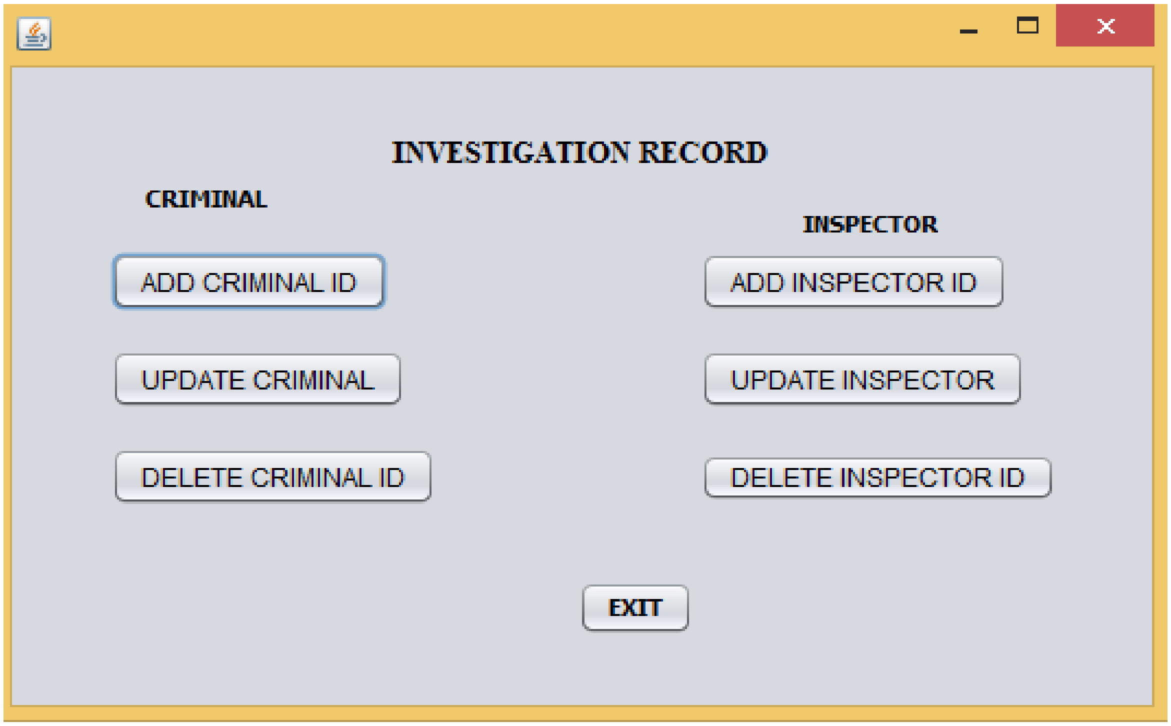
4.5 Updating Criminal Record and Coding

4.6 Adding Inspector Record and Coding

4.7 Deleting Inspector Record and Coding

4.8 Updating Inspector Record and Coding

4.1 Project Preamble

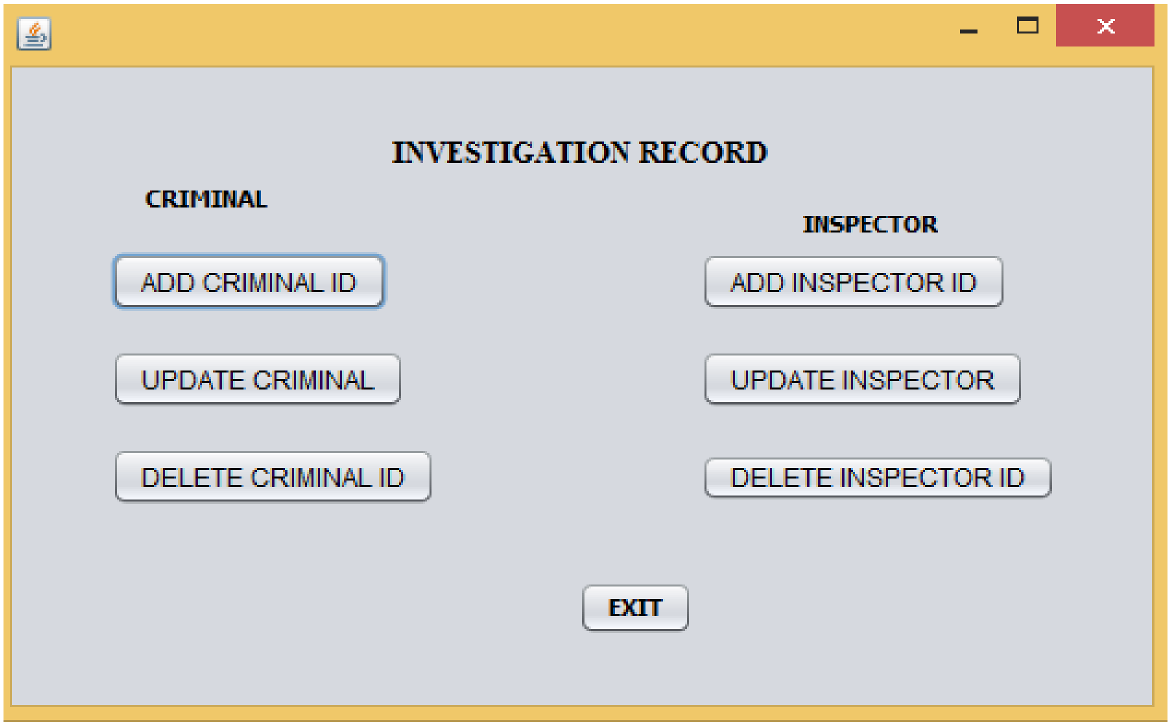


The project titled “ **CBI DATABASE MANAGEMENT SYSTEM”** is a program based on Java NetBeans front end application and programming with MYSQL as backend. The NetBeans is a light weight program with MYSQL which is free open software and freely available on the internet.

The CBI DBMS has a feature of appending the name of a criminal with his /her crime. We can Modify/Update the record if there is error in typing. Further there is an option to Delete the record as well. Similarly a new Inspector/police record with his/her name and Post can be added. There is a provision to Update and Delete the Inspector record too. The application can be closed by using the exit button. All of this data is stored in the MYSQL Database CBIproject under two tables ADDcriminal and ADDinspector.

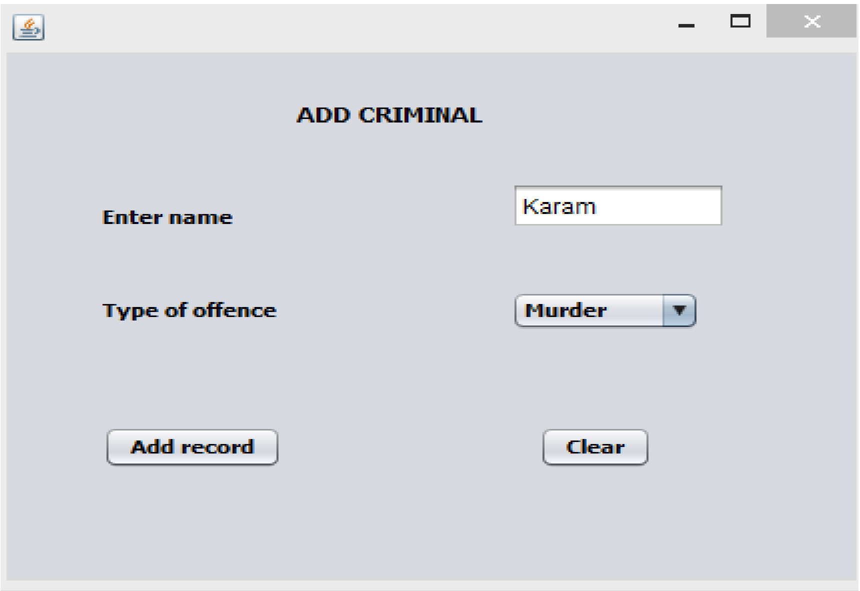
The above screen shot is of main screen. The usage of various buttons is explained in the following pages.

4.2 Coding For the Investigation Record



```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
   this.setVisible(false);
   new Addcriminal().setVisible(true);
}
 private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
   this.setVisible(false);
   new Updatecriminal().setVisible(true);
   }
  private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
   this.setVisible(false);
   new Deletecriminal().setVisible(true);
    }
 private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
   this.setVisible(false);
   new Addinspector().setVisible(true);
   }
  private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {
   this.setVisible(false);
   new Updateinspector().setVisible(true);


}

private void jButton6ActionPerformed(java.awt.event.ActionEvent evt) {
   this.setVisible(false);
   new Deleteinspector().setVisible(true);
}

private void jButton7ActionPerformed(java.awt.event.ActionEvent evt) {
   System.exit(0);
}
```

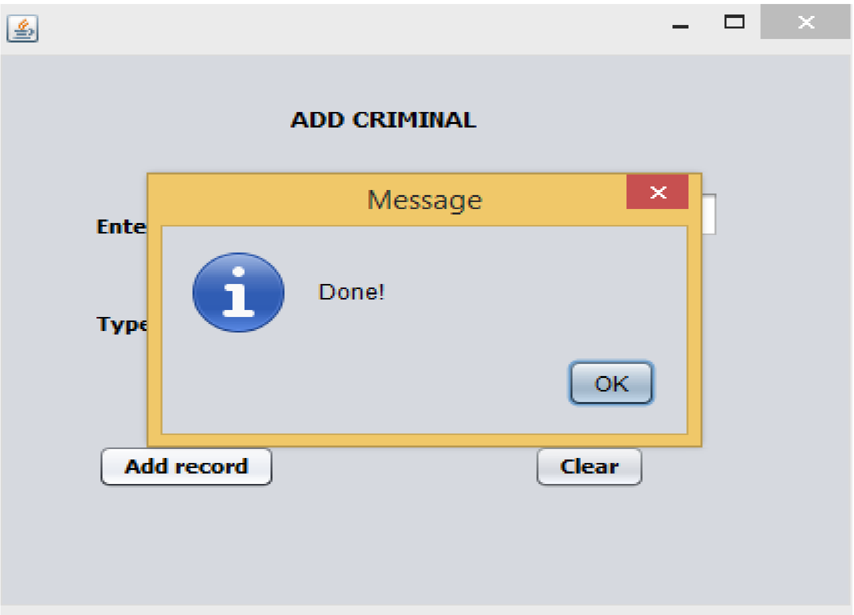
4.3 Adding Criminal Records



ADD CRIMINAL

Enter name: Karam

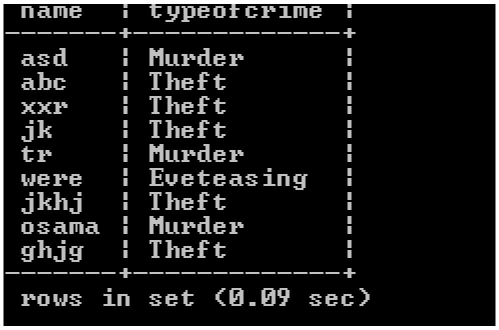
Type of offence: Murder



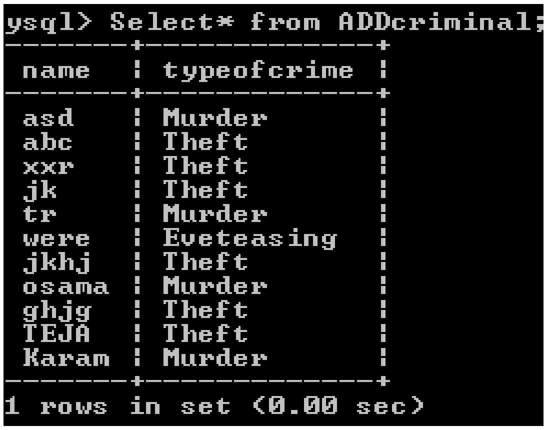
ADD CRIMINAL

Message

Done!



```
 name   | typeofcrime |
-------+-------------+
 asd    | Murder      |
 abc    | Theft       |
 xxr    | Theft       |
 jk     | Theft       |
 tr     | Murder      |
 were   | Eveteasing  |
 jkhj   | Theft       |
 osama  | Murder      |
 ghjg   | Theft       |
-------+-------------+
 rows in set (0.09 sec)
```



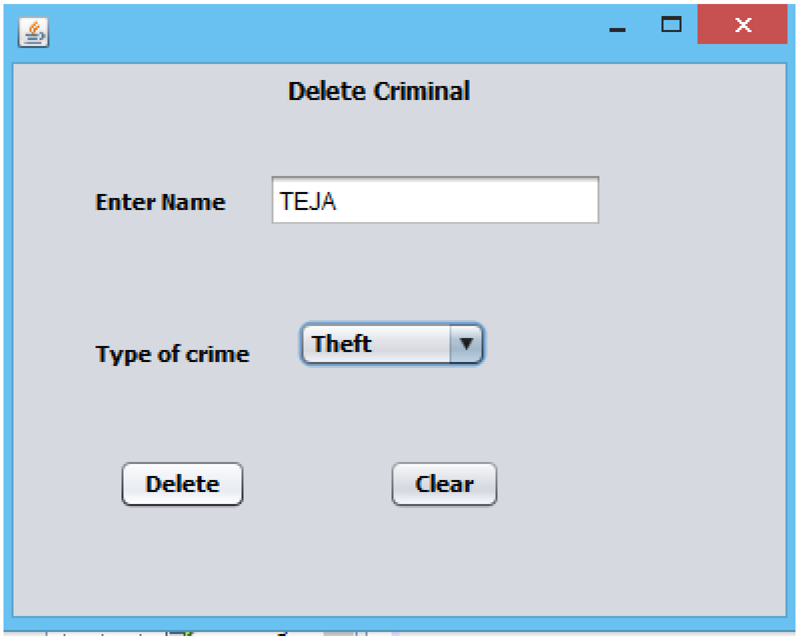
```
ysql> Select* from ADDcriminal;
-------+--------------+
 name   | typeofcrime  |
-------+--------------+
 asd    | Murder       |
 abc    | Theft        |
 xxr    | Theft        |
 jk     | Theft        |
 tr     | Murder       |
 were   | Eveteasing   |
 jkhj   | Theft        |
 osama  | Murder       |
 ghjg   | Theft        |
 TEJA   | Theft        |
 Karam  | Murder       |
-------+--------------+
1 rows in set (0.00 sec)
```

Coding For Add Criminal

```
   private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
      String name1="";
name1=t.getText();
if("".equals(t.getText()))
{
   JOptionPane.showMessageDialog(this,"Please enter name");
}
String type1=null;
if(c.getSelectedIndex()==0)
{
  type1="Theft";
}
else if(c.getSelectedIndex()==1)
        {
         type1="Murder";
      }

else if(c.getSelectedIndex()==2)
{
   type1="Eveteasing";
}
try
{
Class.forName("java.sql.DriverManager");
Connection
con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/CBI
project","root","123");
Statement stmt=(Statement)con.createStatement();
String query="INSERT INTO ADDcriminal VALUES('"+name1+"','"+type1+"');";
stmt.executeUpdate(query);
JOptionPane.showMessageDialog(this,"Done!");}
catch(Exception e)
{
   JOptionPane.showMessageDialog(this,e.getMessage());
}

   }
```

```
private void clearActionPerformed(java.awt.event.ActionEvent evt) {
    t.setText("");
}
```

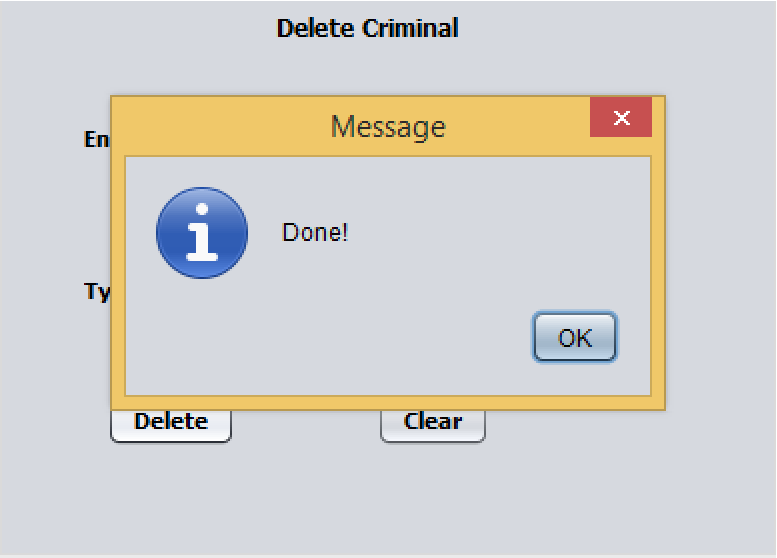
4.4 Delete Criminal Record



Delete Criminal

Enter Name: TEJA

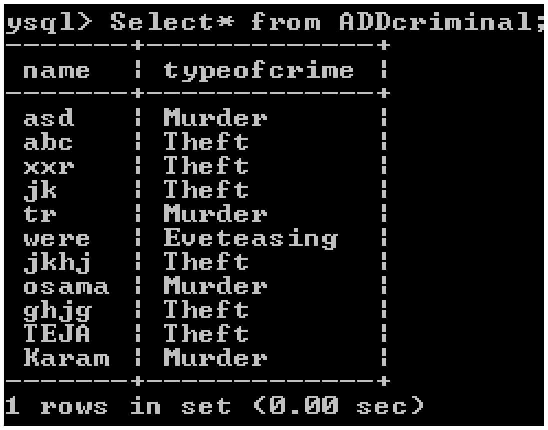
Type of crime: Theft



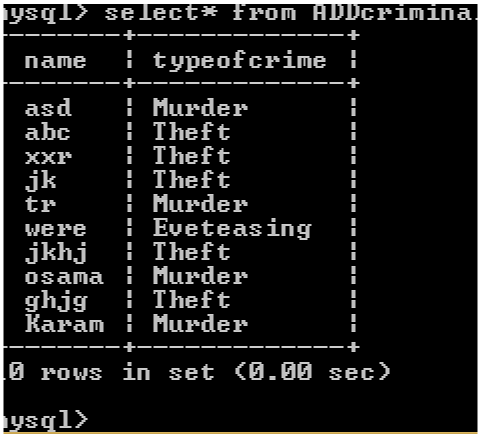
Delete Criminal

Message

Done!



```
ysql> Select* from ADDcriminal;
--------+--------------+
 name   | typeofcrime  |
--------+--------------+
 asd    | Murder       |
 abc    | Theft        |
 xxr    | Theft        |
 jk     | Theft        |
 tr     | Murder       |
 were   | Eveteasing   |
 jkhj   | Theft        |
 osama  | Murder       |
 ghjg   | Theft        |
 TEJA   | Theft        |
 Karam  | Murder       |
--------+--------------+
1 rows in set (0.00 sec)
```

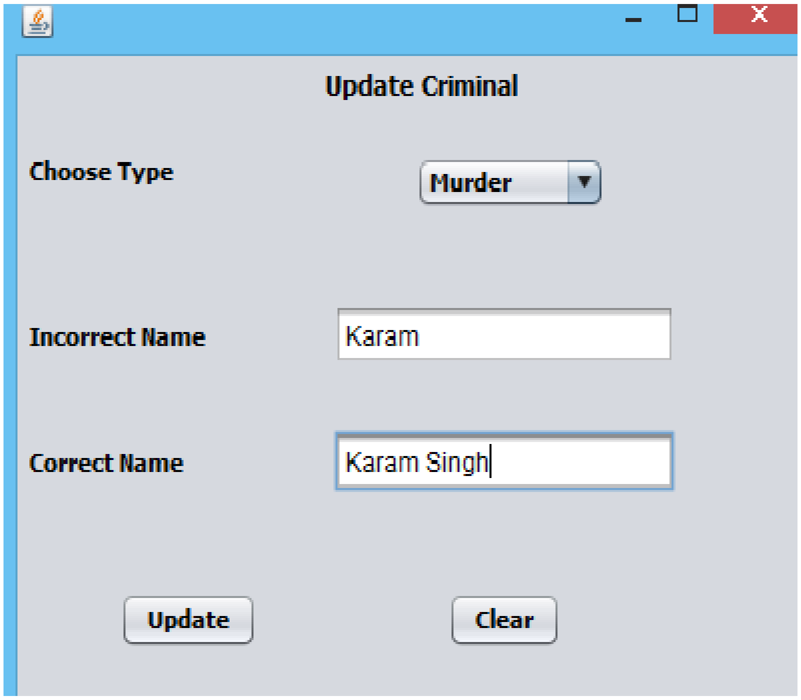


```
ysql> select* from ADDcrimina
--------+--------------+
 name   | typeofcrime  |
--------+--------------+
 asd    | Murder       |
 abc    | Theft        |
 xxr    | Theft        |
 jk     | Theft        |
 tr     | Murder       |
 were   | Eveteasing   |
 jkhj   | Theft        |
 osama  | Murder       |
 ghjg   | Theft        |
 Karam  | Murder       |
--------+--------------+
0 rows in set (0.00 sec)

ysql>
```

Coding For Delete Criminal

```
   private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
      String name=t1.getText();
      String type =null;
  if(c1.getSelectedIndex()==0){
          type="Theft";
            }
      if(c1.getSelectedIndex()==1){
          type="Murder";
      }
      if(c1.getSelectedIndex()==2){
          type="Eveteasing";
      } try
{
Class.forName("java.sql.DriverManager");
Connection
con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/CBI
project","root","123");
Statement stmt=(Statement)con.createStatement();
String query= "DELETE FROM ADDcriminal WHERE name ='"+name+"' and Typeofcrime='"+type+"';";
stmt.executeUpdate(query);
JOptionPane.showMessageDialog(this,"Done!");}
catch(Exception e)
{
    JOptionPane.showMessageDialog(this,e.getMessage());
}
    }
 private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    t1.setText(""); }
```

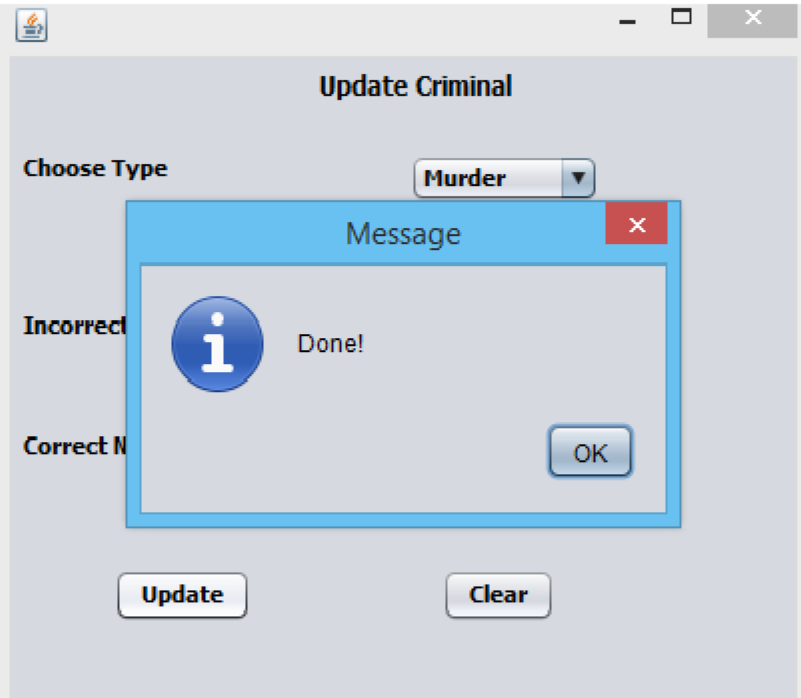
4.5 Update Criminal Record


Update Criminal

Choose Type: Murder

Incorrect Name: Karam

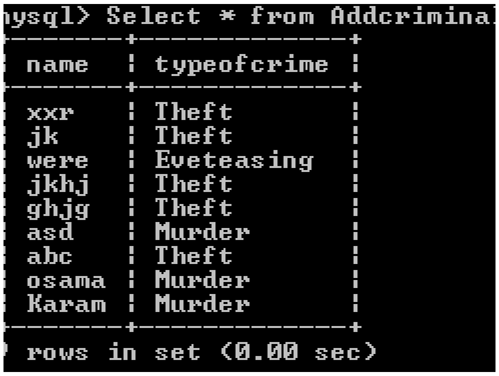
Correct Name: Karam Singh


Update Criminal

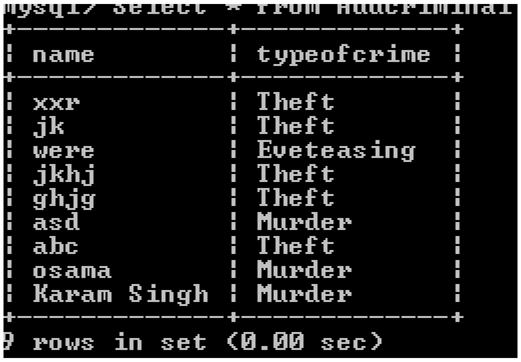
Choose Type: Murder

Message

Done!



```
ysql> Select * from Addcrimina
+-------+--------------+
¦ name  ¦ typeofcrime  ¦
+-------+--------------+
¦ xxr   ¦ Theft        ¦
¦ jk    ¦ Theft        ¦
¦ were  ¦ Eveteasing   ¦
¦ jkhj  ¦ Theft        ¦
¦ ghjg  ¦ Theft        ¦
¦ asd   ¦ Murder       ¦
¦ abc   ¦ Theft        ¦
¦ osama ¦ Murder       ¦
¦ Karam ¦ Murder       ¦
+-------+--------------+
 rows in set (0.00 sec)
```



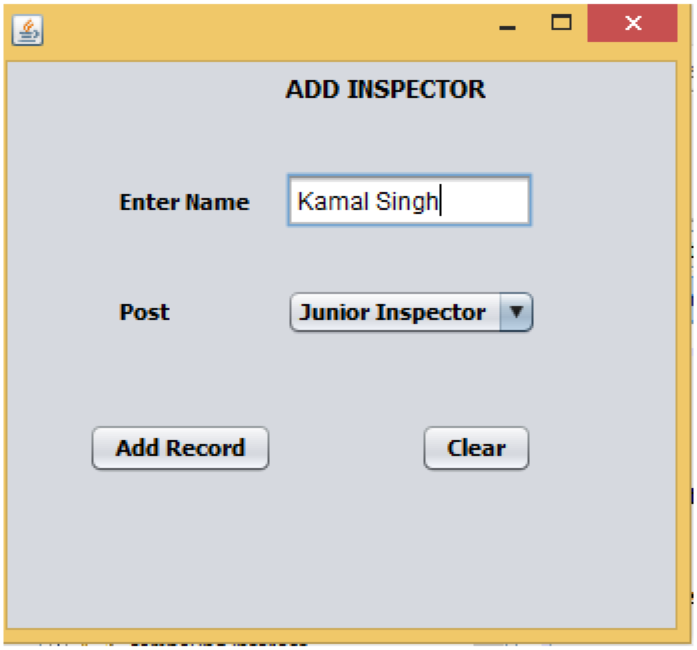
```
ysql> Select * from Addcriminal
+-------------+--------------+
¦ name        ¦ typeofcrime  ¦
+-------------+--------------+
¦ xxr         ¦ Theft        ¦
¦ jk          ¦ Theft        ¦
¦ were        ¦ Eveteasing   ¦
¦ jkhj        ¦ Theft        ¦
¦ ghjg        ¦ Theft        ¦
¦ asd         ¦ Murder       ¦
¦ abc         ¦ Theft        ¦
¦ osama       ¦ Murder       ¦
¦ Karam Singh ¦ Murder       ¦
+-------------+--------------+
9 rows in set (0.00 sec)
```

Coding For Update Criminal

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
       String Name = t.getText();
       String nName = t1.getText();
      if(Name.isEmpty())
        JOptionPane.showMessageDialog(this,"NAME NOT ENTERED");
        else if(nName.isEmpty())
        JOptionPane.showMessageDialog(this,"nNAME NOT ENTERED");
        String type=null;
        if(c1.getSelectedIndex()==0){
            type="Theft";
        }
        if(c1.getSelectedIndex()==1){
            type="Murder";
        }
         if(c1.getSelectedIndex()==2){
```

```
      type="Eveteasing";
    }

  try{
      Class.forName("java.sql.DriverManager");
      Connection con=(Connection)

DriverManager.getConnection("jdbc:mysql://localhost:3306/CBIproject","root","1
23");
      Statement stmt=(Statement) con.createStatement();
      String query="UPDATE Addcriminal SET Name='"+nName+"' Where
TypeofCrime= '"+type+"'and Name='"+Name+"';";
      stmt.executeUpdate(query);
      JOptionPane.showMessageDialog(this,"Done!");
    }
    catch(Exception e)
    {JOptionPane.showMessageDialog(this,e.getMessage());}

  }

  private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    t.setText("");
    t1.setText("");
  }
```

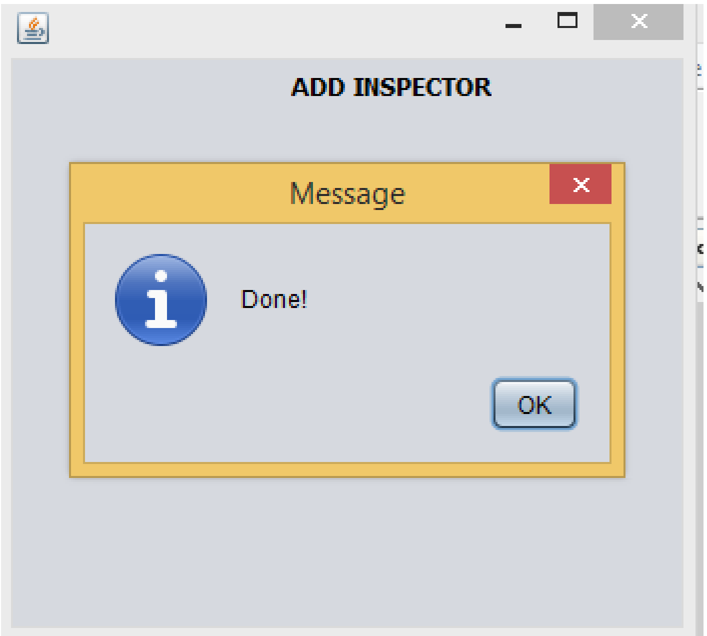
4.6 Adding Inspector Records



ADD INSPECTOR

Enter Name: Kamal Singh

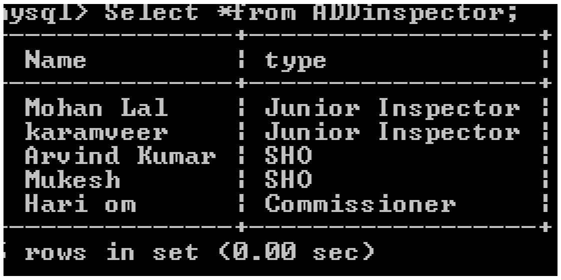
Post: Junior Inspector



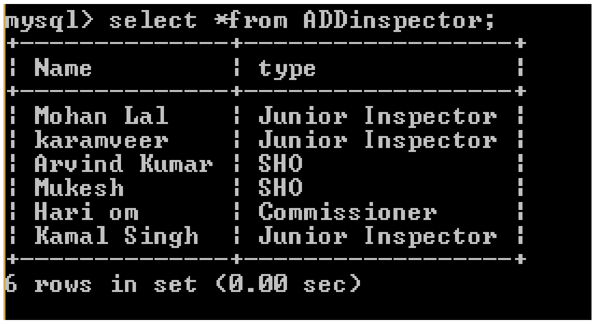
ADD INSPECTOR

Message

Done!



```
ysql> Select *from ADDinspector;
--------------+-------------------+
 Name         | type              |
--------------+-------------------+
 Mohan Lal    | Junior Inspector  |
 karamveer    | Junior Inspector  |
 Arvind Kumar | SHO               |
 Mukesh       | SHO               |
 Hari om      | Commissioner      |
--------------+-------------------+
 rows in set (0.00 sec)
```



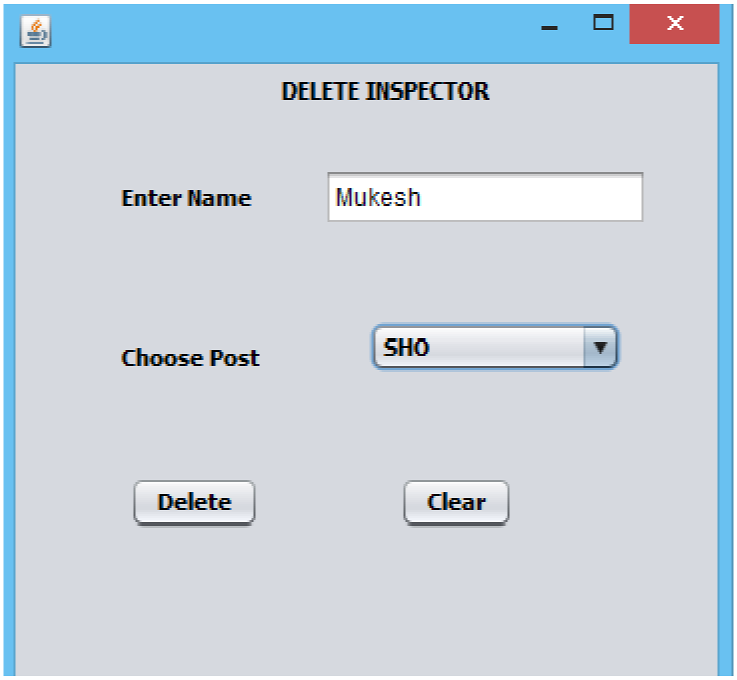
```
mysql> select *from ADDinspector;
+--------------+-------------------+
| Name         | type              |
+--------------+-------------------+
| Mohan Lal    | Junior Inspector  |
| karamveer    | Junior Inspector  |
| Arvind Kumar | SHO               |
| Mukesh       | SHO               |
| Hari om      | Commissioner      |
| Kamal Singh  | Junior Inspector  |
+--------------+-------------------+
6 rows in set (0.00 sec)
```

Coding For Adding Inspector

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        String name ="";
        name = t1.getText();
        if("".equals(t1.getText())){
            JOptionPane.showMessageDialog(this,"Please enter name");
        }
        String type1=null;
        if(c.getSelectedIndex()==0){
            type1="Junior Inspector";

        }
        if(c.getSelectedIndex()==1){
            type1="SHO";
        }
        if(c.getSelectedIndex()==2){
            type1="Commissioner";
        }
        try
{
Class.forName("java.sql.DriverManager");
Connection
con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/CBI
project","root","123");
Statement stmt=(Statement)con.createStatement();
String query="INSERT INTO ADDinspector VALUES('"+name+"','"+type1+"');";
stmt.executeUpdate(query);
JOptionPane.showMessageDialog(this,"Done!");}
catch(Exception e)
{
    JOptionPane.showMessageDialog(this,e.getMessage());
}


    }


    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        t1.setText("");
```

```
}
```

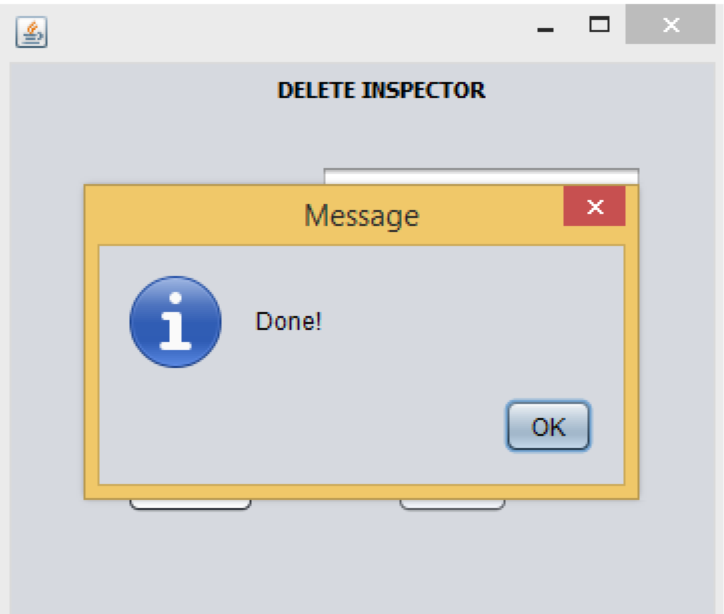
4.7 Deleting Inspector Records



DELETE INSPECTOR

Enter Name Mukesh

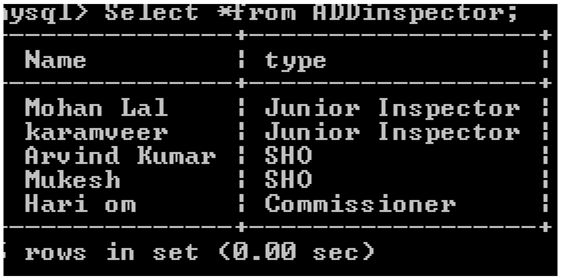
Choose Post SHO



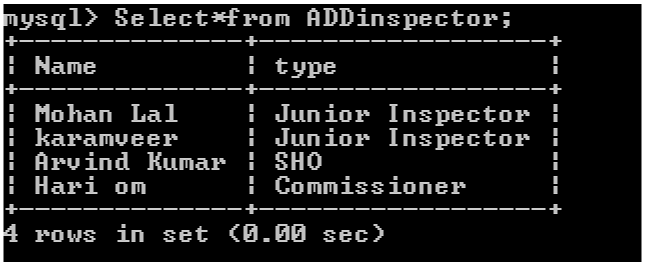
DELETE INSPECTOR

Message

Done!



```
ysql> Select *from ADDinspector;
---------------+-------------------+
 Name          | type              |
---------------+-------------------+
 Mohan Lal     | Junior Inspector  |
 karamveer     | Junior Inspector  |
 Arvind Kumar  | SHO               |
 Mukesh        | SHO               |
 Hari om       | Commissioner      |
---------------+-------------------+
 rows in set (0.00 sec)
```

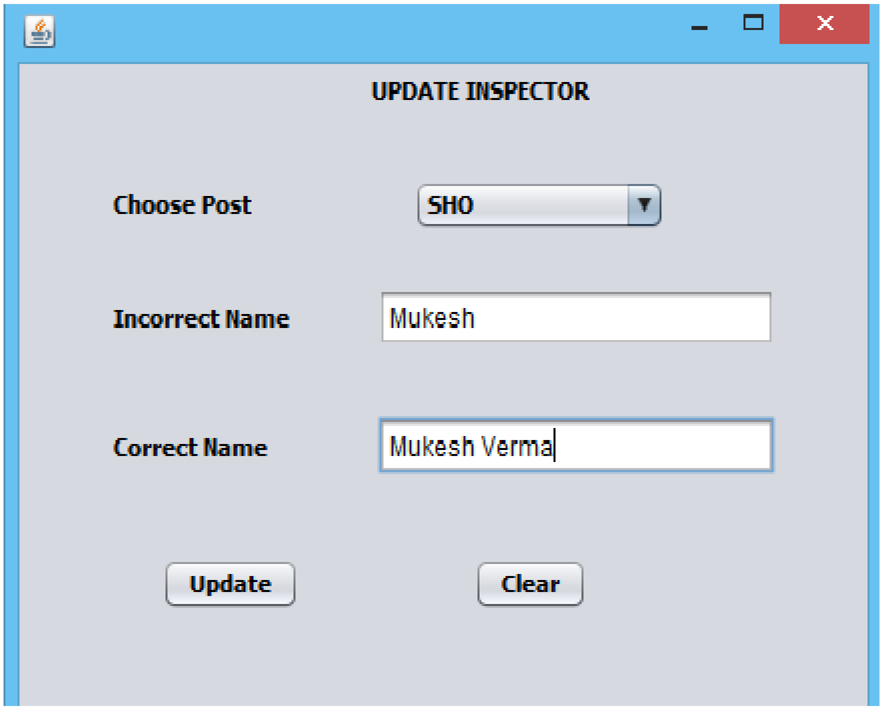


```
mysql> Select*from ADDinspector;
+--------------+------------------+
| Name         | type             |
+--------------+------------------+
| Mohan Lal    | Junior Inspector |
| karamveer    | Junior Inspector |
| Arvind Kumar | SHO              |
| Hari om      | Commissioner     |
+--------------+------------------+
4 rows in set (0.00 sec)
```

Coding For Deleting Inspector

```
  private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
      String name=t1.getText();
      String type =null;
      if(c1.getSelectedIndex()==0){
         type="Junior Inspector";


      }
      if(c1.getSelectedIndex()==1){
         type="SHO";
      }
      if(c1.getSelectedIndex()==2){
         type="Commissioner";
      }
       try
{
Class.forName("java.sql.DriverManager");
Connection
con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/CBI
project","root","123");
Statement stmt=(Statement)con.createStatement();
String query= "DELETE FROM ADDinspector WHERE name ='"+name+"' and
Type='"+type+"';";
stmt.executeUpdate(query);
JOptionPane.showMessageDialog(this,"Done!");}
catch(Exception e)
{
   JOptionPane.showMessageDialog(this,e.getMessage());}
   }
 private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
      t1.setText("");
```

4.8 Updating Inspector Records

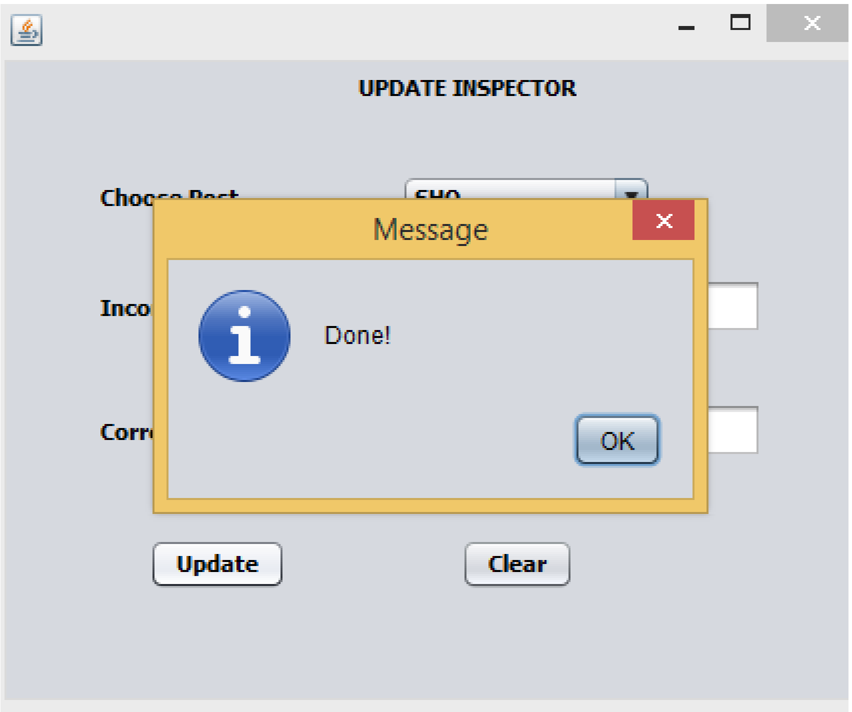


UPDATE INSPECTOR

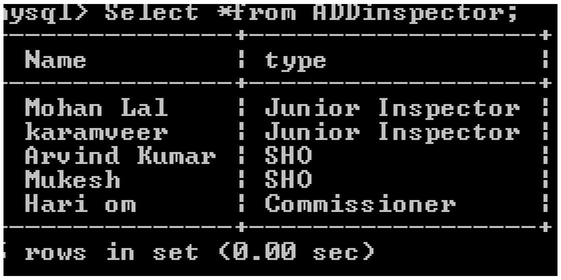
Choose Post: SHO

Incorrect Name: Mukesh

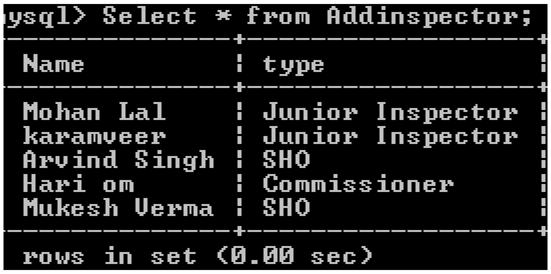
Correct Name: Mukesh Verma



Done!



```
ysql> Select *from ADDinspector;
-------------+-------------------+
 Name        | type              |
-------------+-------------------+
 Mohan Lal   | Junior Inspector  |
 karamveer   | Junior Inspector  |
 Arvind Kumar | SHO              |
 Mukesh      | SHO               |
 Hari om     | Commissioner      |
-------------+-------------------+
 rows in set (0.00 sec)
```



```
ysql> Select * from Addinspector;
--------------+-------------------+
 Name         | type              |
--------------+-------------------+
 Mohan Lal    | Junior Inspector  |
 karamveer    | Junior Inspector  |
 Arvind Singh | SHO               |
 Hari om      | Commissioner      |
 Mukesh Verma | SHO               |
--------------+-------------------+
 rows in set (0.00 sec)
```

Coding For Udating Inspector

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
   String Name = t.getText();
  String nName = t1.getText();
 if(Name.isEmpty())
   JOptionPane.showMessageDialog(this,"NAME NOT ENTERED");
   else if(nName.isEmpty())
   JOptionPane.showMessageDialog(this,"nNAME NOT ENTERED");
```

```
        String type=null;
        if(c1.getSelectedIndex()==0){
           type="Junior Inspector";
        }
        if(c1.getSelectedIndex()==1){
           type="SHO";
        }
         if(c1.getSelectedIndex()==2){
           type="Commissioner";
        }

    try{
           Class.forName("java.sql.DriverManager");
           Connection con=(Connection)

DriverManager.getConnection("jdbc:mysql://localhost:3306/CBIproject","root","1
23");
           Statement stmt=(Statement) con.createStatement();
           String query="UPDATE Addinspector SET Name='"+nName+"' Where
type= '"+type+"'and Name='"+Name+"';";
           stmt.executeUpdate(query);
           JOptionPane.showMessageDialog(this,"Done!");
        }
        catch(Exception e)
```

```
   {JOptionPane.showMessageDialog(this,e.getMessage());}
}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
   t.setText("");
   t1.setText("");
}
```

REFERENCES

1. Text Book On Informatics Practices Class XI (CBSE)
2. Text Book On Informatics Practices Class XII (CBSE)
3. www.wikipedia.com