

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 CB1project
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

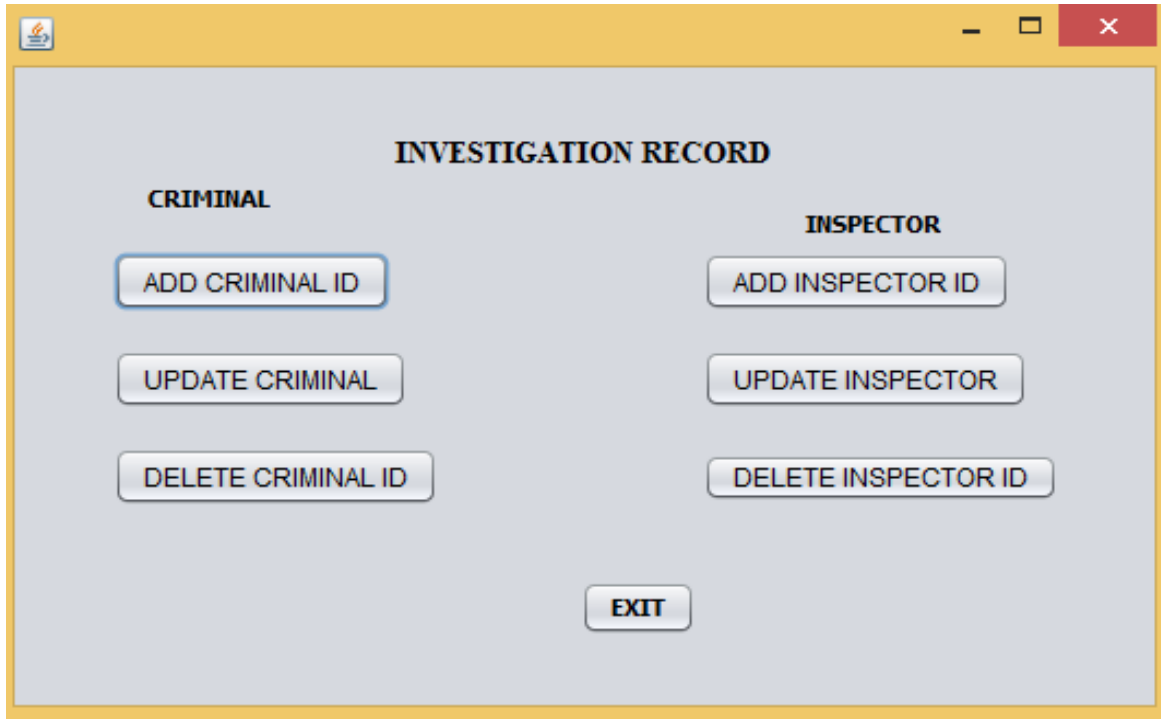
4.5 Updating Criminal Record and Coding

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

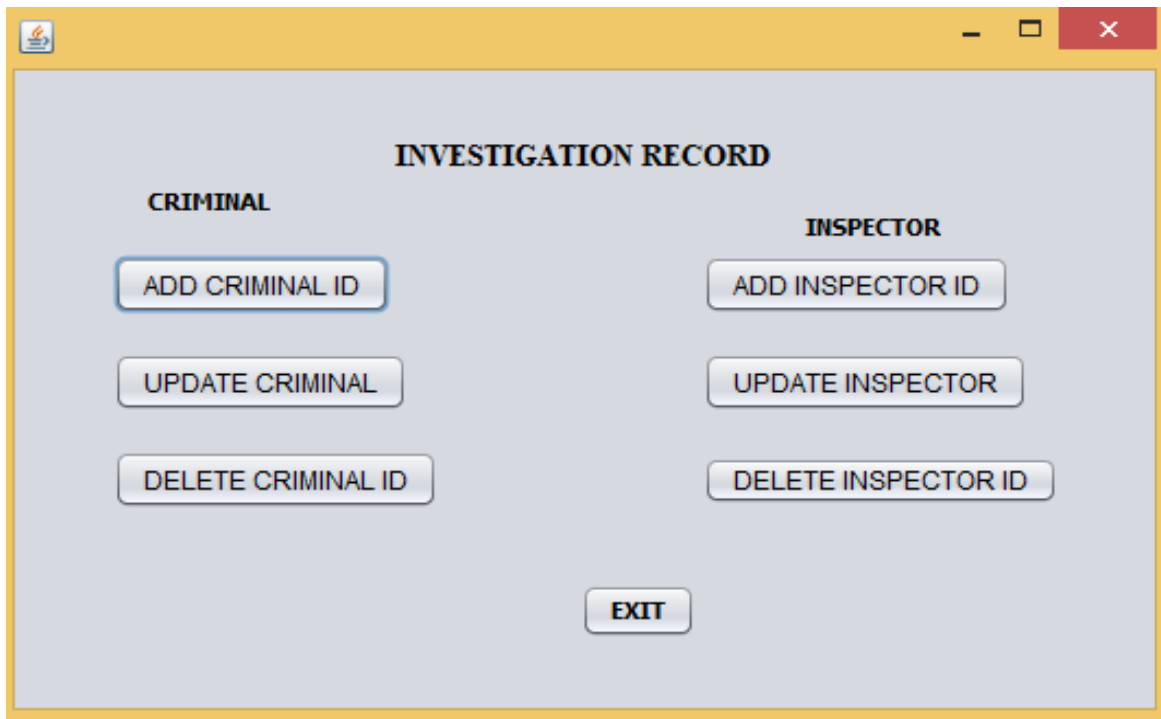


The project titled “ **CBI DATABASE MANAGEMENT SYSTEM**” is a program based on Java NetBeans front end application and programming with MYSQL as backend. The NetBeans is a light weight program with MYSQL which is free open software and freely available on the internet.

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);
}

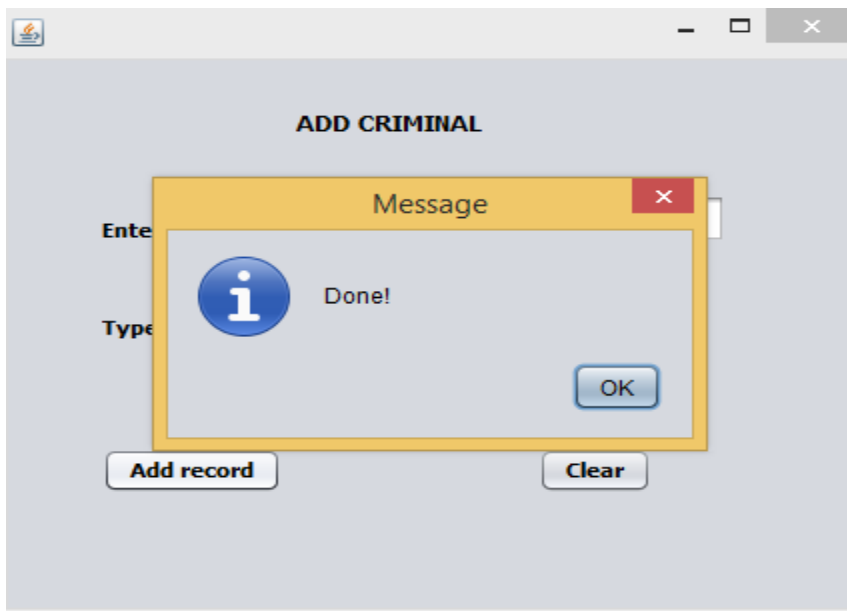
private void jButton7ActionPerformed(java.awt.event.ActionEvent evt) {
    System.exit(0);
}

```

4.3 Adding Criminal Records



A screenshot of a Java Swing window titled "ADD CRIMINAL". The window has a light gray background and standard window controls (minimize, maximize, close) in the title bar. It contains two labels: "Enter name" and "Type of offence". The "Enter name" label is positioned to the left of a text input field containing the text "Karam". The "Type of offence" label is positioned to the left of a dropdown menu showing "Murder" with a downward arrow. At the bottom of the window, there are two buttons: "Add record" and "Clear".



A screenshot of the same "ADD CRIMINAL" window, but with a modal dialog box overlaid in the center. The dialog box is titled "Message" and has a yellow border. It contains a blue information icon (a lowercase 'i' inside a circle) and the text "Done!". At the bottom right of the dialog box is an "OK" button. The background window is partially obscured by the dialog box.

| name | typeofcrime |
|-------|-------------|
| asd | Murder |
| abc | Theft |
| xxr | Theft |
| jk | Theft |
| tr | Murder |
| were | Eveteasing |
| jkhj | Theft |
| osama | Murder |
| ghjg | Theft |

| name | typeofcrime |
|-------|-------------|
| asd | Murder |
| abc | Theft |
| xxr | Theft |
| jk | Theft |
| tr | Murder |
| were | Eveteasing |
| jkhj | Theft |
| osama | Murder |
| ghjg | Theft |
| TEJA | Theft |
| Karam | Murder |

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";
}

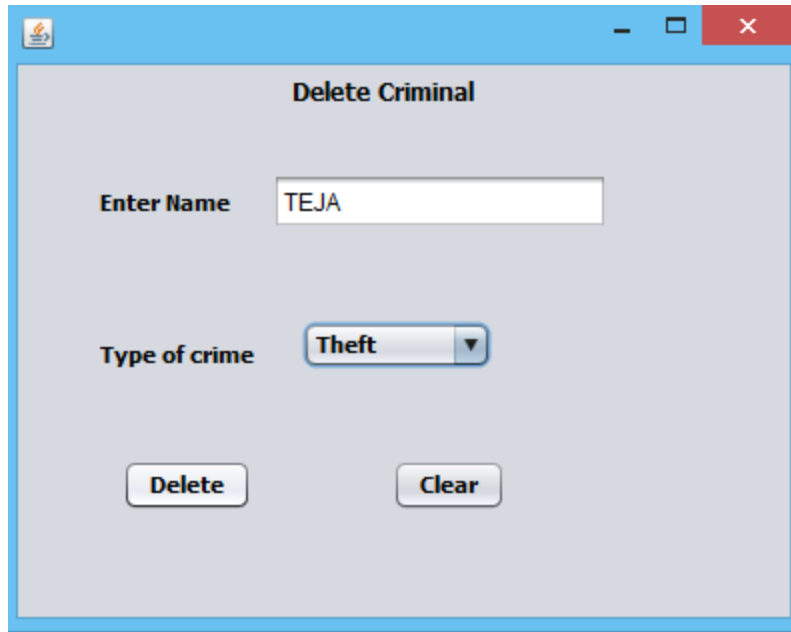
try
{
    Class.forName("java.sql.DriverManager");
    Connection
    con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/CBI
    project","root","123");
    Statement stmt=(Statement)con.createStatement();
    String query="INSERT INTO ADDcriminal VALUES('"+name1+"','"+type1+"');";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

}

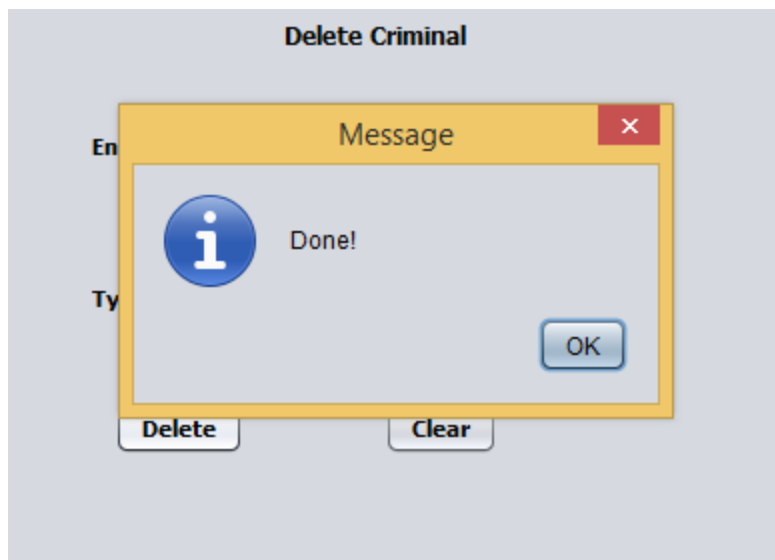
```

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

4.4 Delete Criminal Record



The screenshot shows a Java Swing window titled "Delete Criminal". It has a light gray background and a blue border. Inside the window, there are two labels: "Enter Name" and "Type of crime". The "Enter Name" label is followed by a text input field containing the text "TEJA". The "Type of crime" label is followed by a dropdown menu with "Theft" selected. Below these inputs, there are two buttons: "Delete" and "Clear".




```
mysql> Select* from ADDcriminal;
```

| name | typeofcrime |
|-------|-------------|
| asd | Murder |
| abc | Theft |
| xxr | Theft |
| jk | Theft |
| tr | Murder |
| were | Eveteasing |
| jkhj | Theft |
| osama | Murder |
| ghjg | Theft |
| IEJA | Theft |
| Karam | Murder |

```
1 rows in set (0.00 sec)
```

```
mysql> select* from ADDcriminal;
```

| 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)
```

```
mysql>
```

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());

}

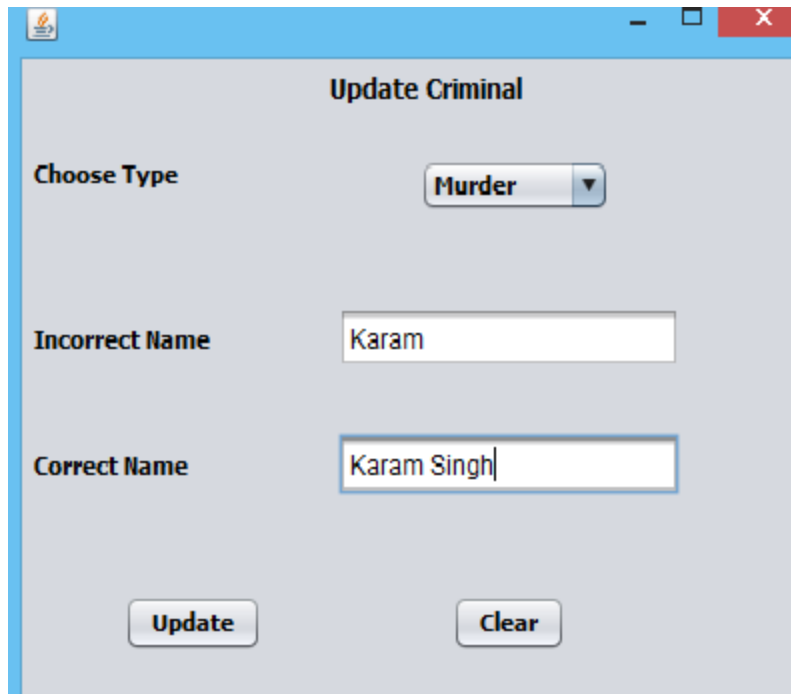
}

private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {

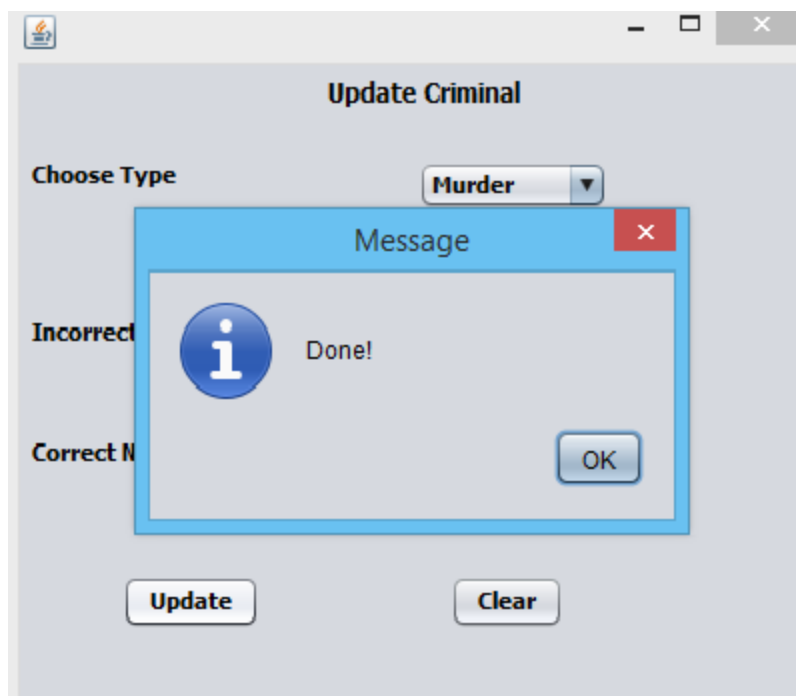
    t1.setText(""); }

```

4.5 Update Criminal Record



The screenshot shows a window titled "Update Criminal" with a light blue border. Inside, there are three labels: "Choose Type", "Incorrect Name", and "Correct Name". The "Choose Type" label is next to a dropdown menu showing "Murder". The "Incorrect Name" label is next to a text box containing "Karam". The "Correct Name" label is next to a text box containing "Karam Singh". At the bottom of the window, there are two buttons: "Update" and "Clear".



The screenshot shows the same "Update Criminal" window, but with a modal dialog box titled "Message" overlaid on top. The dialog box has a blue border and a red close button. It contains a blue information icon (a lowercase 'i' inside a circle) and the text "Done!". At the bottom right of the dialog box is an "OK" button. The "Update Criminal" window is partially visible behind the dialog box.

| mysql> Select * from Addcriminal | | mysql> Select * from Addcriminal | |
|----------------------------------|-------------|----------------------------------|-------------|
| name | typeofcrime | name | typeofcrime |
| xxr | Theft | xxr | Theft |
| jk | Theft | jk | Theft |
| were | Eveteasing | were | Eveteasing |
| jkhj | Theft | jkhj | Theft |
| ghjg | Theft | ghjg | Theft |
| asd | Murder | asd | Murder |
| abc | Theft | abc | Theft |
| osama | Murder | osama | Murder |
| Karam | Murder | Karam Singh | Murder |
| rows in set (0.00 sec) | | 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());}

}

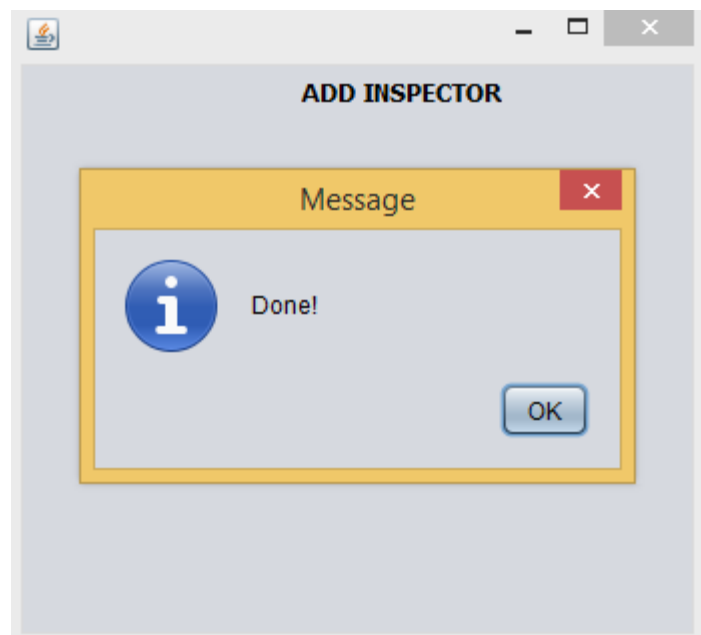
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    t.setText("");
    t1.setText("");
}

```

4.6 Adding Inspector Records



A screenshot of a Java Swing window titled "ADD INSPECTOR". The window has a yellow title bar with standard OS controls. Inside, the background is light gray. At the top, the title "ADD INSPECTOR" is centered in bold black text. Below the title, there are two labels: "Enter Name" and "Post". The "Enter Name" label is to the left of a text input field containing the text "Kamal Singh". The "Post" label is to the left of a dropdown menu showing "Junior Inspector" with a small downward arrow. At the bottom of the form, there are two buttons: "Add Record" and "Clear", both with a light gray background and a thin border.



| Name | type |
|--------------|------------------|
| Mohan Lal | Junior Inspector |
| karamveer | Junior Inspector |
| Arvind Kumar | SHO |
| Mukesh | SHO |
| Hari om | Commissioner |

| Name | type |
|--------------|------------------|
| Mohan Lal | Junior Inspector |
| karamveer | Junior Inspector |
| Arvind Kumar | SHO |
| Mukesh | SHO |
| Hari om | Commissioner |
| Kamal Singh | Junior Inspector |

Coding For Adding Inspector

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    String name = "";
    name = t1.getText();
    if(name.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());
}

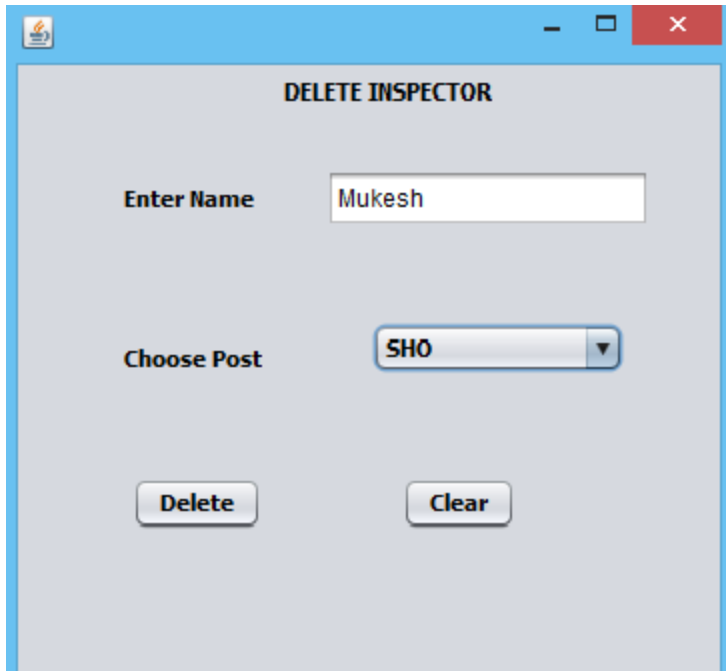
}

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

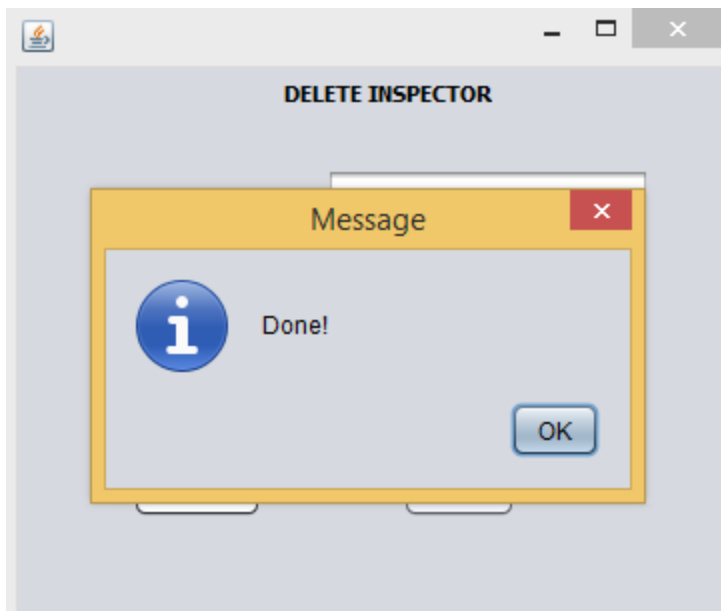
```


}

4.7 Deleting Inspector Records



A screenshot of a Java Swing window titled "DELETE INSPECTOR". The window has a light blue title bar with standard OS controls. The main content area is light gray. It contains two labels: "Enter Name" and "Choose Post". The "Enter Name" label is next to a text input field containing the text "Mukesh". The "Choose Post" label is next to a dropdown menu showing "SHO". Below these fields are two buttons: "Delete" and "Clear".



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

```
{
```

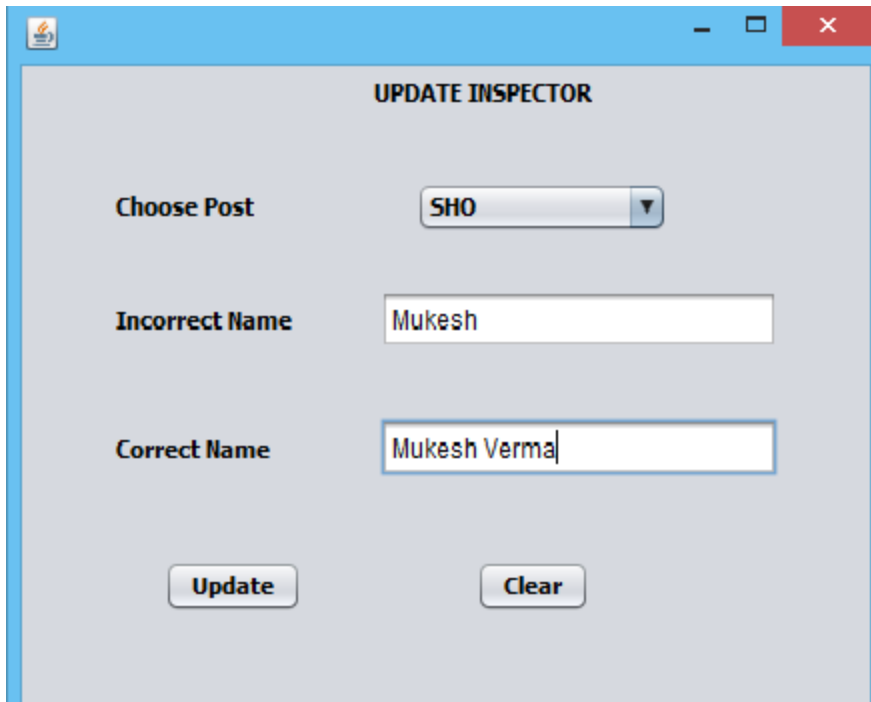
```
    JOptionPane.showMessageDialog(this,e.getMessage());}
```

```
}
```

```
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
```

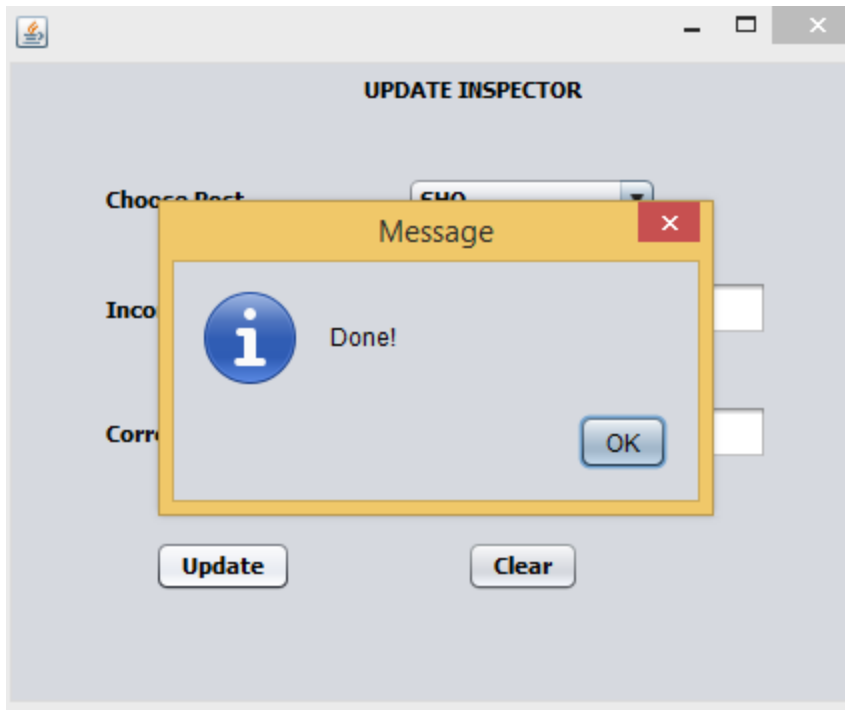
```
    t1.setText("");
```

4.8 Updating Inspector Records



The screenshot shows a software window titled "UPDATE INSPECTOR". It contains three input fields and two buttons. The "Choose Post" field is a dropdown menu currently showing "SHO". The "Incorrect Name" field is a text box containing "Mukesh". The "Correct Name" field is a text box containing "Mukesh Verma". At the bottom, there are two buttons: "Update" and "Clear".

| UPDATE INSPECTOR | |
|-------------------------|--------------|
| Choose Post | SHO |
| Incorrect Name | Mukesh |
| Correct Name | Mukesh Verma |
| <div>Update Clear</div> | |



```
mysql> 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 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

