PAMANTASAN NG LUNGSOD NG MAYNILA

College of Information Systems and Technology Management

Object Oriented Programming (OOP)
Database

Oracle Connection

A.Y. 2024- 2025

Submitted by:

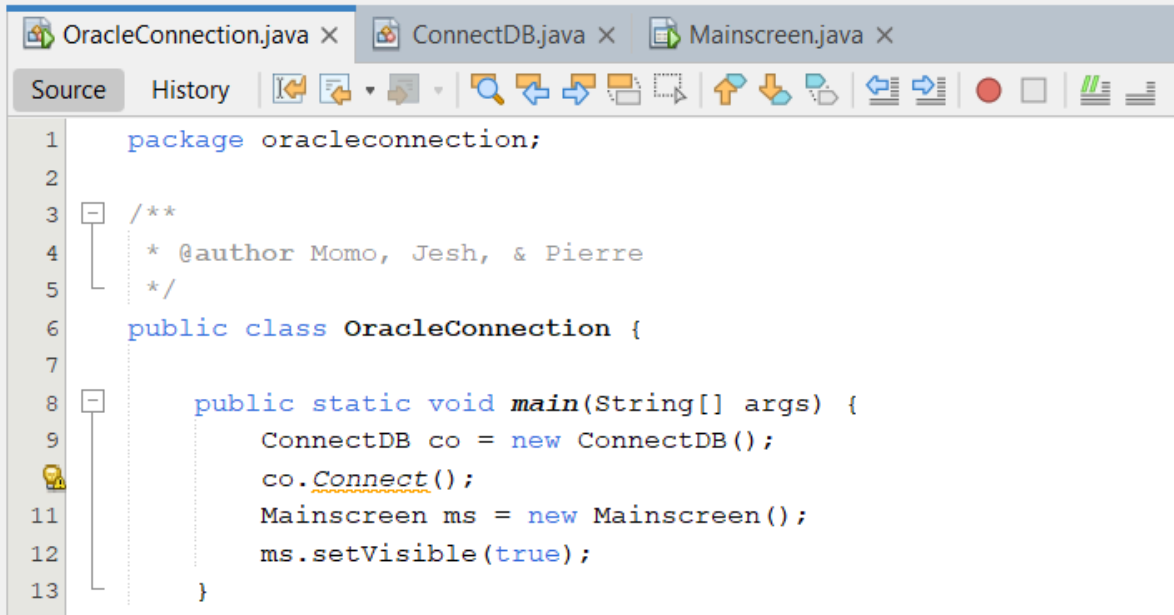Callangan, Moira C.

Dela Rosa, Pierre Andrei B.

Mulleno, Jeshaiah Mae A.

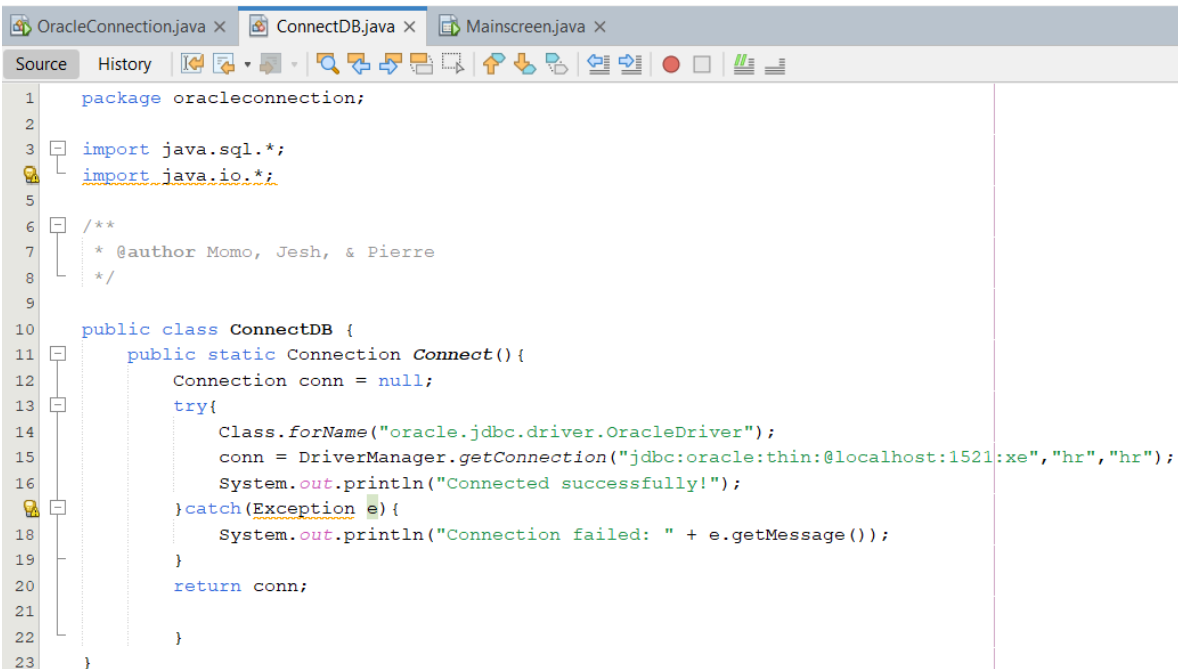**BSCS 2-1**

Professor Francis A. Atienza

OracleConnection
Code

```java
package oracleconnection;

/**
 * @author Momo, Jesh, & Pierre
 */
public class OracleConnection {

    public static void main(String[] args) {
        ConnectDB co = new ConnectDB();
        co.Connect();
        Mainscreen ms = new Mainscreen();
        ms.setVisible(true);
    }
}
```

ConnectDB
Code

```java
package oracleconnection;

import java.sql.*;
import java.io.*;

/**
 * @author Momo, Jesh, & Pierre
 */

public class ConnectDB {
    public static Connection Connect(){
        Connection conn = null;
        try{
            Class.forName("oracle.jdbc.driver.OracleDriver");
            conn = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","hr","hr");
            System.out.println("Connected successfully!");
        }catch(Exception e){
            System.out.println("Connection failed: " + e.getMessage());
        }
        return conn;

    }
}
```
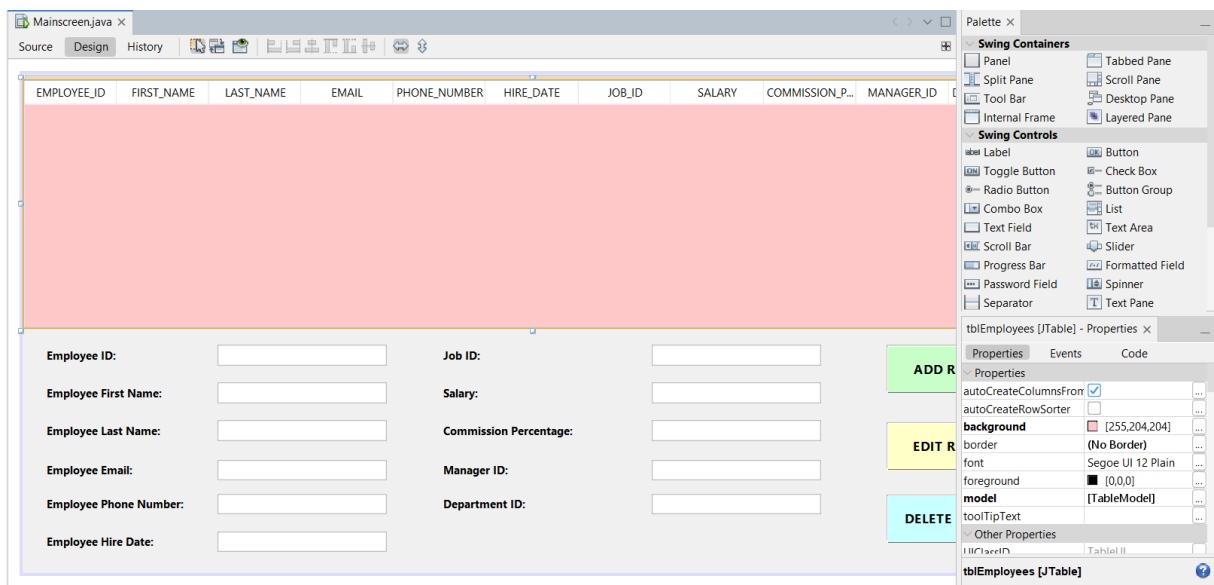
Mainscreen
Code

```java
package oracleconnection;

import java.sql.*;
import java.io.*;
import net.proteanit.sql.DbUtils;
import javax.swing.*;
/**
 * @author Momo, Jesh, & Pierre
 */
public class Mainscreen extends javax.swing.JFrame {

    Connection conn = null;
    PreparedStatement ps = null;
    ResultSet rs = null;

    public Mainscreen() {
        initComponents();
    }
```
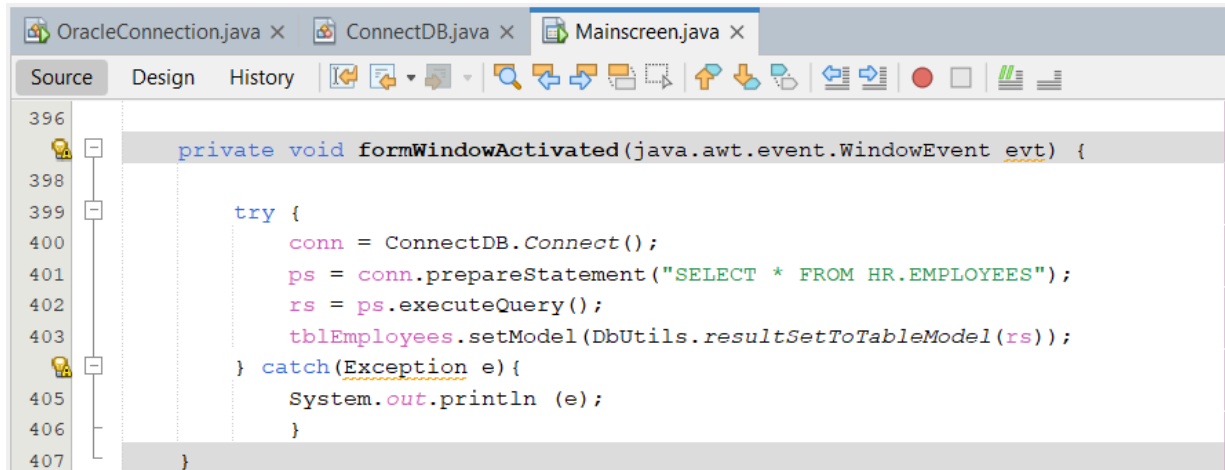
Tabs shown: OracleConnection.java, ConnectDB.java, Mainscreen.java
Toolbar: Source | Design | History

Mainscreen Frame
GUI

Mainscreen.java — Source | Design | History

Table columns: EMPLOYEE_ID | FIRST_NAME | LAST_NAME | EMAIL | PHONE_NUMBER | HIRE_DATE | JOB_ID | SALARY | COMMISSION_P... | MANAGER_ID

Form fields:
- Employee ID:
- Employee First Name:
- Employee Last Name:
- Employee Email:
- Employee Phone Number:
- Employee Hire Date:
- Job ID:
- Salary:
- Commission Percentage:
- Manager ID:
- Department ID:

Buttons: ADD R, EDIT R, DELETE

Palette:
Swing Containers
Panel, Tabbed Pane, Split Pane, Scroll Pane, Tool Bar, Desktop Pane, Internal Frame, Layered Pane

Swing Controls
Label, Button, Toggle Button, Check Box, Radio Button, Button Group, Combo Box, List, Text Field, Text Area, Scroll Bar, Slider, Progress Bar, Formatted Field, Password Field, Spinner, Separator, Text Pane

tblEmployees [JTable] - Properties
Properties | Events | Code

Properties	
autoCreateColumnsFrom	☑
autoCreateRowSorter	☐
background	[255,204,204]
border	(No Border)
font	Segoe UI 12 Plain
foreground	[0,0,0]
model	[TableModel]
toolTipText	

Other Properties
tblEmployees [JTable]

View Record

Code

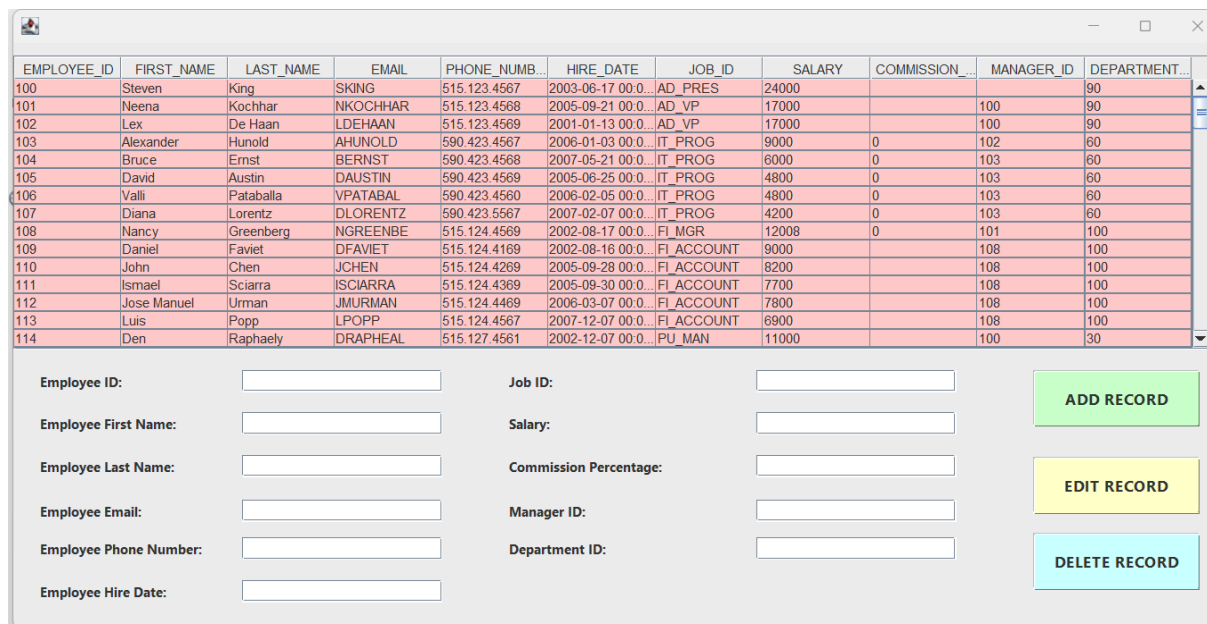| OracleConnection.java ✕ | ConnectDB.java ✕ | Mainscreen.java ✕ |

Source | Design | History

```java
396
397     private void formWindowActivated(java.awt.event.WindowEvent evt) {
398
399         try {
400             conn = ConnectDB.Connect();
401             ps = conn.prepareStatement("SELECT * FROM HR.EMPLOYEES");
402             rs = ps.executeQuery();
403             tblEmployees.setModel(DbUtils.resultSetToTableModel(rs));
404         } catch(Exception e){
405             System.out.println (e);
406         }
407     }
```

Output

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMB...	HIRE_DATE	JOB_ID	SALARY	COMMISSION_...	MANAGER_ID	DEPARTMENT...
100	Steven	King	SKING	515.123.4567	2003-06-17 00:0...	AD_PRES	24000			90
101	Neena	Kochhar	NKOCHHAR	515.123.4568	2005-09-21 00:0...	AD_VP	17000		100	90
102	Lex	De Haan	LDEHAAN	515.123.4569	2001-01-13 00:0...	AD_VP	17000		100	90
103	Alexander	Hunold	AHUNOLD	590.423.4567	2006-01-03 00:0...	IT_PROG	9000	0	102	60
104	Bruce	Ernst	BERNST	590.423.4568	2007-05-21 00:0...	IT_PROG	6000	0	103	60
105	David	Austin	DAUSTIN	590.423.4569	2005-06-25 00:0...	IT_PROG	4800	0	103	60
106	Valli	Pataballa	VPATABAL	590.423.4560	2006-02-05 00:0...	IT_PROG	4800	0	103	60
107	Diana	Lorentz	DLORENTZ	590.423.5567	2007-02-07 00:0...	IT_PROG	4200	0	103	60
108	Nancy	Greenberg	NGREENBE	515.124.4569	2002-08-17 00:0...	FI_MGR	12008	0	101	100
109	Daniel	Faviet	DFAVIET	515.124.4169	2002-08-16 00:0...	FI_ACCOUNT	9000		108	100
110	John	Chen	JCHEN	515.124.4269	2005-09-28 00:0...	FI_ACCOUNT	8200		108	100
111	Ismael	Sciarra	ISCIARRA	515.124.4369	2005-09-30 00:0...	FI_ACCOUNT	7700		108	100
112	Jose Manuel	Urman	JMURMAN	515.124.4469	2006-03-07 00:0...	FI_ACCOUNT	7800		108	100
113	Luis	Popp	LPOPP	515.124.4567	2007-12-07 00:0...	FI_ACCOUNT	6900		108	100
114	Den	Raphaely	DRAPHEAL	515.127.4561	2002-12-07 00:0...	PU_MAN	11000		100	30

Employee ID:

Employee First Name:

Employee Last Name:

Employee Email:

Employee Phone Number:

Employee Hire Date:

Job ID:

Salary:

Commission Percentage:

Manager ID:

Department ID:

ADD RECORD

EDIT RECORD

DELETE RECORD

Add Record

Code

```java
        }
    }

    private void btnAddRecordMouseClicked(java.awt.event.MouseEvent evt) {

        int respond = JOptionPane.showConfirmDialog(null, "Are you sure you want to add this record?","Confirm",JOptionPane.YES_NO_OPTION);
        if (respond == JOptionPane.YES_OPTION){

            try{
                conn = ConnectDB.Connect();
                ps = conn.prepareStatement
                ("INSERT INTO hr.employees (employee_id, first_name, last_name, email, " +
                "phone_number, hire_date, job_id, salary, commission_pct, manager_id, department_id) " +
                    " VALUES('"+txtEmployeeID.getText().trim() +"', '"
                        + txtFirstName.getText().trim() +"', '"
                        + txtLastName.getText().trim() +"', '"
                        + txtEmail.getText().trim() +"', '"
                        + txtPhoneNumber.getText().trim() +"', '"
                        + txtHireDate.getText().trim() +"', '"
                        + txtJobID.getText().trim() +"', '"
                        + txtSalary.getText().trim() +"', '"
                        + txtCommissionPCT.getText().trim() +"', '"
                        + txtManagerID.getText().trim() +"', '"
                        + txtDepartmentID.getText().trim() +"')");
                ps.execute();
                JOptionPane.showMessageDialog(null, "Record added successfully!");
            } catch(Exception e) {
                System.out.print(e);
            }
        } else
            JOptionPane.showMessageDialog(null, "Addition of record cancelled.");
    }
```

Output

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMB...	HIRE_DATE	JOB_ID	SALARY	COMMISSION_...	MANAGER_ID	DEPARTMENT...
193	Britney	Everett	BEVERETT	650.501.2876	2005-03-03 00:0...	SH_CLERK	3900		123	50
194	Samuel	McCain	SMCCAIN	650.501.3876	2006-07-01 00:0...	SH_CLERK	3200		123	50
195	Vance	Jones	VJONES	650.501.4876	2007-03-17 00:0...	SH_CLERK	2800		123	50
196	Alana	Walsh	AWALSH	650.507.9811	2006-04-24 00:0...	SH_CLERK	3100		124	50
197	Kevin	Feeney	KFEENEY	650.507.9822	2006-05-23 00:0...	SH_CLERK	3000		124	50
198	Donald	OConnell	DOCONNEL	650.507.9833	2007-06-21 00:0...	SH_CLERK	2600		124	50
199	Douglas	Grant	DGRANT	650.507.9844	2008-01-13 00:0...	SH_CLERK	2600		124	50
200	Jennifer	Whalen	JWHALEN	515.123.4444	2003-09-17 00:0...	AD_ASST	4400	0	101	10
201	Michael	Hartstein	MHARTSTE	515.123.5555	2004-02-17 00:0...	MK_MAN	13000		100	20
202	Pat	Fay	PFAY	603.123.6666	2005-08-17 00:0...	MK_REP	6000		201	20
203	Susan	Mavris	SMAVRIS	515.123.7777	2002-06-07 00:0...	HR_REP	6500	0	101	40
204	Hermann	Baer	HBAER	515.123.8888	2002-06-07 00:0...	PR_REP	10000	0	101	70
205	Shelley	Higgins	SHIGGINS	515.123.8080	2002-06-07 00:0...	AC_MGR	12008	0	101	110
206	William	Gietz	WGIETZ	515.123.8181	2002-06-07 00:0...	AC_ACCOUNT	8300		205	110
899	MOIRA	CALLANGAN	CALLA@NGAN	091.111.1111	2004-01-02 00:0...	PU_MAN	10000	0	120	30
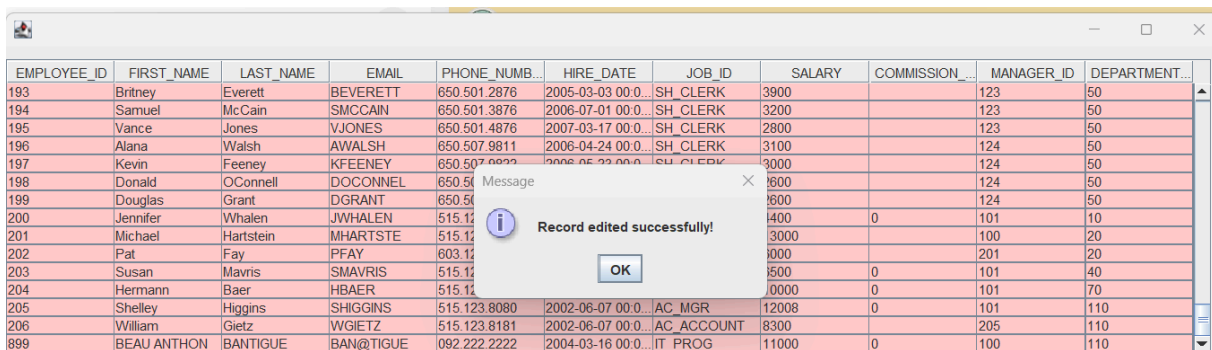
Employee ID:	899	Job ID:	PU_MAN
Employee First Name:	MOIRA	Salary:	10000
Employee Last Name:	CALLANGAN	Commission Percentage:	0
Employee Email:	CALLA@NGAN	Manager ID:	120
Employee Phone Number:	091.111.1111	Department ID:	30
Employee Hire Date:	01-02-2004		

ADD RECORD

EDIT RECORD

DELETE RECORD

Edit Record

Code

```java
        private void btnEditRecordMouseClicked(java.awt.event.MouseEvent evt) {
441         int respond = JOptionPane.showConfirmDialog(null, "Are you sure you want t
442         if (respond == JOptionPane.YES_OPTION){
443
444             try{
445                 conn = ConnectDB.Connect();
446                 ps = conn.prepareStatement
447                 ("UPDATE hr.employees "
448                 + "SET first_name = '" + txtFirstName.getText().trim() +"', "
449                 + "last_name = '" + txtLastName.getText().trim() +"', "
450                 + "email = '" + txtEmail.getText().trim() +"',"
451                 + "phone_number = '" + txtPhoneNumber.getText().trim() +"', "
452                 + "hire_date = '" + txtHireDate.getText().trim() +"', "
453                 + "job_id = '" + txtJobID.getText().trim() +"', "
454                 + "salary = '" + txtSalary.getText().trim() +"', "
455                 + "commission_pct = '" + txtCommissionPCT.getText().trim() +"', "
456                 + "manager_id = '" + txtManagerID.getText().trim() +"', "
457                 + "department_id = '" + txtDepartmentID.getText().trim() +"' "
458                 + "WHERE employee_id = '" + txtEmployeeID.getText().trim()+"'");
459                 ps.execute();
460                 //System.out.println("Edited Successfully!");
461                 JOptionPane.showMessageDialog(null, "Record edited successfully!");
            }catch(Exception e){
463                 System.out.print(e);
464             }
465         }
466         else
467             JOptionPane.showMessageDialog(null, "Editing of record is cancelled.")
468     }
```

Output

Delete Record

Code

```
468        }
469
       private void btnDeleteRecordMouseClicked(java.awt.event.MouseEvent evt) {
471        int respond = JOptionPane.showConfirmDialog(null, "Are you sure you want to delete this record?","Confirm",JOptionPane.YES_NO_OPTION);
472            if (respond == JOptionPane.YES_OPTION){
473
474            try{
475                conn = ConnectDB.Connect();
476                ps = conn.prepareStatement("DELETE FROM hr.employees WHERE employee_id = '"+txtEmployeeID.getText().trim()+"'");
477                ps.execute();
478                JOptionPane.showMessageDialog(null, "Record deleted successfully!");
           }catch(Exception e){
480                System.out.print(e);
481                }
482        }
483        else
484                JOptionPane.showMessageDialog(null, "Record deleting is cancelled.");
485        }
```

Output

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMB...	HIRE_DATE	JOB_ID	SALARY	COMMISSION_...	MANAGER_ID	DEPARTMENT...
192	Sarah	Bell	SBELL	650.501.1876	2004-02-04 00:0...	SH_CLERK	4000		123	50
193	Britney	Everett	BEVERETT	650.501.2876	2005-03-03 00:0...	SH_CLERK	3900		123	50
194	Samuel	McCain	SMCCAIN	650.501.3876	2006-07-01 00:0...	SH_CLERK	3200		123	50
195	Vance	Jones	VJONES	650.501.4876	2007-03-17 00:0...	SH_CLERK	2800		123	50
196	Alana	Walsh	AWALSH	650.507.9811	2006-04-24 00:0...	SH_CLERK	3100		124	50
197	Kevin	Feeney	KFEENEY	650.507.9822	2006-05-23 00:0...	SH_CLERK	3000		124	50
198	Donald	OConnell	DOCONNEL	650.507.9833	2007-06-21 00:0...	SH_CLERK	2600		124	50
199	Douglas	Grant	DGRANT	650.507.9844	2008-01-13 00:0...	SH_CLERK	2600		124	50
200	Jennifer	Whalen	JWHALEN	515.123.4444	2003-09-17 00:0...	AD_ASST	4400	0	101	10
201	Michael	Hartstein	MHARTSTE	515.123.			00		100	20
202	Pat	Fay	PFAY	603.123.			0		201	20
203	Susan	Mavris	SMAVRIS	515.123.			0	0	101	40
204	Hermann	Baer	HBAER	515.123.			000	0	101	70
205	Shelley	Higgins	SHIGGINS	515.123.			008	0	101	110
206	William	Gietz	WGIETZ	515.123.			0		205	110

Message

ℹ **Record deleted successfully!**

OK

Field	Value	Field	Value
Employee ID:	899	Job ID:	IT_PROG
Employee First Name:	BEAU ANTHON	Salary:	11000
Employee Last Name:	BANTIGUE	Commission Percentage:	0
Employee Email:	BAN@TIGUE	Manager ID:	100
Employee Phone Number:	092.222.2222	Department ID:	110
Employee Hire Date:	03-16-2004		

ADD RECORD

EDIT RECORD

DELETE RECORD