```java
package jdbc;

/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
/**
 *
 * @author 4093
 */

import javax.swing.*;
import java.sql.*;
import java.sql.Statement;
import java.util.logging.Level;
import java.util.logging.Logger;

public class JDBC extends javax.swing.JFrame {

    /**
     * Creates new form JDBC
     */
    Connection con;
    Statement st;
    PreparedStatement ps;
    ResultSet rs;
    public JDBC() {
        initComponents();
        try{
            Class.forName("oracle.jdbc.OracleDriver");
            JOptionPane.showMessageDialog(this,"Driver Loaded!");

            try {
                con = DriverManager.getConnection("jdbc:oracle:thin:@10.6.4.33:1521:orcl","4093","nhk2000");
                JOptionPane.showMessageDialog(this,"Connected to Oracle database!");
            }
            catch (SQLException ex) {
                Logger.getLogger(JDBC.class.getName()).log(Level.SEVERE, null, ex);
                JOptionPane.showMessageDialog(this,ex.getMessage());
            }
        }
        catch(ClassNotFoundException ex){
            Logger.getLogger(JDBC.class.getName()).log(Level.SEVERE, null, ex);
            JOptionPane.showMessageDialog(this,ex.getMessage());
        }
    }

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
```

```java
 */
@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">
private void initComponents() {

    name = new javax.swing.JTextField();
    designation = new javax.swing.JTextField();
    salary = new javax.swing.JTextField();
    id = new javax.swing.JTextField();
    Name = new javax.swing.JLabel();
    Designation = new javax.swing.JLabel();
    Salary = new javax.swing.JLabel();
    EmployeeID = new javax.swing.JLabel();
    insert = new javax.swing.JButton();
    update = new javax.swing.JButton();
    delete = new javax.swing.JButton();
    search = new javax.swing.JButton();
    jLabel1 = new javax.swing.JLabel();
    Bonus = new javax.swing.JLabel();
    bonus = new javax.swing.JTextField();
    clear = new javax.swing.JButton();
    exit = new javax.swing.JButton();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

    name.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            nameActionPerformed(evt);
        }
    });

    designation.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            designationActionPerformed(evt);
        }
    });

    salary.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            salaryActionPerformed(evt);
        }
    });

    id.addActionListener(new java.awt.event.ActionListener() {
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            idActionPerformed(evt);
        }
    });

    Name.setText("Name");

    Designation.setText("Designation");
```

```java
Salary.setText("Salary");

EmployeeID.setText("Employee ID");

insert.setText("Insert");
insert.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      insertActionPerformed(evt);
   }
});

update.setText("Update");
update.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      updateActionPerformed(evt);
   }
});

delete.setText("Delete");
delete.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      deleteActionPerformed(evt);
   }
});

search.setText("Search");
search.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      searchActionPerformed(evt);
   }
});

jLabel1.setText("EMPLOYEE DATABASE");

Bonus.setText("Bonus");

bonus.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      bonusActionPerformed(evt);
   }
});

clear.setText("Clear");
clear.addActionListener(new java.awt.event.ActionListener() {
   public void actionPerformed(java.awt.event.ActionEvent evt) {
      clearActionPerformed(evt);
   }
});

exit.setText("Exit");
exit.addActionListener(new java.awt.event.ActionListener() {
```

```java
        public void actionPerformed(java.awt.event.ActionEvent evt) {
            exitActionPerformed(evt);
        }
    });

    javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
    getContentPane().setLayout(layout);
    layout.setHorizontalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addGap(143, 143, 143)
                    .addComponent(jLabel1))
                .addGroup(layout.createSequentialGroup()
                    .addGap(61, 61, 61)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .addComponent(Name)
                        .addComponent(EmployeeID)
                        .addComponent(Designation)
                        .addComponent(Salary)
                        .addComponent(Bonus))
                    .addGap(43, 43, 43)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .addComponent(id)
                        .addComponent(name)
                        .addComponent(bonus)
                        .addComponent(salary)
                        .addComponent(designation)))
            .addGroup(layout.createSequentialGroup()
                .addGap(44, 44, 44)
                .addComponent(insert, javax.swing.GroupLayout.PREFERRED_SIZE, 73,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                    .addGroup(layout.createSequentialGroup()
                        .addGap(10, 10, 10)
                        .addComponent(clear)
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                        .addComponent(exit, javax.swing.GroupLayout.PREFERRED_SIZE, 56,
javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGroup(layout.createSequentialGroup()
                        .addComponent(update, javax.swing.GroupLayout.PREFERRED_SIZE, 75,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                        .addComponent(delete, javax.swing.GroupLayout.PREFERRED_SIZE, 75,
javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                        .addComponent(search, javax.swing.GroupLayout.PREFERRED_SIZE, 74,
javax.swing.GroupLayout.PREFERRED_SIZE)))))
            .addGap(38, 38, 38))
    );
```

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        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(18, 18, 18)
                .addComponent(jLabel1)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(EmployeeID)
                    .addComponent(id, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(name, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(Name))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(designation, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(Designation))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(salary, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(Salary))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(bonus, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(Bonus))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(update)
                    .addComponent(insert)
                    .addComponent(delete)
                    .addComponent(search))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(clear)
                    .addComponent(exit))
                .addContainerGap())
        );

        pack();
    }// </editor-fold>

    private void idActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
    }

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

```java
        // TODO add your handling code here:
    }

    private void designationActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
    }

    private void salaryActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
    }

    private void cleartext(){
        id.setText("");
        name.setText("");
        designation.setText("");
        salary.setText("");
        bonus.setText("");
    }

    private void insertActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
         try {
            String sql = "insert into employees values(?,?,?,?,?)";
            ps = con.prepareStatement(sql);
            ps.setString(1, id.getText());
            ps.setString(2, name.getText());
            ps.setString(3, designation.getText());
            ps.setString(4, salary.getText());
            ps.setString(5, bonus.getText());
            ps.execute();
            JOptionPane.showMessageDialog(this,"Inserted!");
            cleartext();
        }
        catch (SQLException ex) {
            Logger.getLogger(JDBC.class.getName()).log(Level.SEVERE, null, ex);
            JOptionPane.showMessageDialog(this,ex.getMessage());
        }
    }

    private void updateActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        try{
            String sql = "update employees set name=?,designation=?,salary=?,bonus=? where id=?";
            ps = con.prepareStatement(sql);
            ps.setString(5, id.getText());
            ps.setString(1, name.getText());
            ps.setString(2, designation.getText());
            ps.setString(3, salary.getText());
            ps.setString(4, bonus.getText());
            ps.execute();
            JOptionPane.showMessageDialog(this, "Updated!");
            cleartext();
```

```java
        }
        catch (SQLException ex) {
            Logger.getLogger(JDBC.class.getName()).log(Level.SEVERE, null, ex);
            JOptionPane.showMessageDialog(this,ex.getMessage());
        }
    }

    private void deleteActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        try{
            String sql = "delete from employees where id=?";
            ps = con.prepareStatement(sql);
            ps.setString(1, id.getText());
            ps.execute();
            JOptionPane.showMessageDialog(this, "Deleted!");
            cleartext();
        }
        catch (SQLException ex) {
            Logger.getLogger(JDBC.class.getName()).log(Level.SEVERE, null, ex);
            JOptionPane.showMessageDialog(this,ex.getMessage());
        }
    }

    private void searchActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        try {
            // TODO add your handling code here:
            String sql = "select * from employees where id = '"+id.getText()+"'";
            st = con.createStatement(ResultSet.TYPE_SCROLL_SENSITIVE,ResultSet.CONCUR_UPDATABLE);
            rs = st.executeQuery(sql);
            if(rs.next()){
                id.setText(rs.getString(1));
                name.setText(rs.getString(2));
                designation.setText(rs.getString(3));
                salary.setText(rs.getString(4));
                bonus.setText(rs.getString(5));
                JOptionPane.showMessageDialog(this, "Record Found!");
            }
            else
                JOptionPane.showMessageDialog(this, "Record Not Found!");
        }
        catch (SQLException ex) {
            Logger.getLogger(JDBC.class.getName()).log(Level.SEVERE, null, ex);
            JOptionPane.showMessageDialog(this, ex.getMessage());
        }
    }

    private void bonusActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
    }

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

```java
        // TODO add your handling code here:
        cleartext();
    }

    private void exitActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        System.exit(0);
    }

    /**
     * @param args the command line arguments
     */
    public static void main(String args[]) {
        /* Set the Nimbus look and feel */
        //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
        /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
         * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
         */
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(JDBC.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(JDBC.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(JDBC.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(JDBC.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
        }
        //</editor-fold>

        /* Create and display the form */
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new JDBC().setVisible(true);
            }
        });
    }

    // Variables declaration - do not modify
    private javax.swing.JLabel Bonus;
    private javax.swing.JLabel Designation;
    private javax.swing.JLabel EmployeeID;
    private javax.swing.JLabel Name;
    private javax.swing.JLabel Salary;
    private javax.swing.JTextField bonus;
```
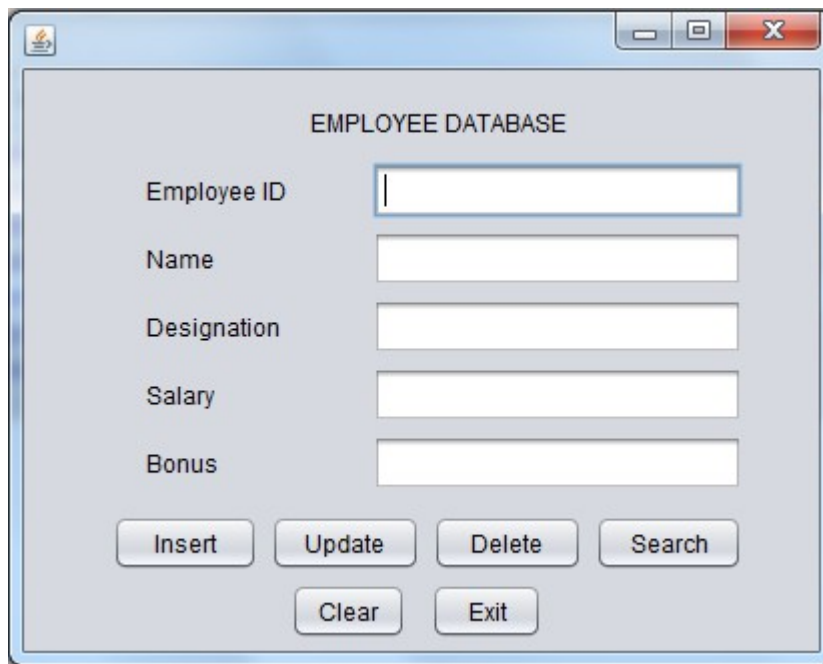
```java
        private javax.swing.JButton clear;
        private javax.swing.JButton delete;
        private javax.swing.JTextField designation;
        private javax.swing.JButton exit;
        private javax.swing.JTextField id;
        private javax.swing.JButton insert;
        private javax.swing.JLabel jLabel1;
        private javax.swing.JTextField name;
        private javax.swing.JTextField salary;
        private javax.swing.JButton search;
        private javax.swing.JButton update;
        // End of variables declaration
}
```

EMPLOYEE DATABASE

Employee ID	E001
Name	Kumar
Designation	Manager
Salary	10000
Bonus	2000

Insert   Update   Delete   Search

Clear   Exit

Message

Updated!

OK

EMPLOYEE DATABASE

Employee ID	E001
Name	
Designation	
Salary	
Bonus	

Insert   Update   Delete   Search

Clear   Exit

Message

Deleted!

OK