OOP Lab-12 Task

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Lab12: Database Connectivity

Designing and implementing Java programs that deal with:

JDBC <-> ODBC

Exercise:

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Create an application for the student enrollment system where student is enrolled in the university. Create proper dataset to store information for a student an apply CRUD operations over the students enrollment application. Also have the appropriate designing and login system for admin.

Code:

Entering data in Dbms on Submit button

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        try {
            int id, salary;
            String name;
            database = new Db();
            name = txtEname.getText();
            id = Integer.parseInt(txtEmpid.getText());
            salary = Integer.parseInt(txtSal.getText());
            String query = "Insert into emp(empno, ename, sal) values (" + id + ",'" + name + "'," +
salary + ")";

        } catch (SQLException ex) {
            Logger.getLogger(EmpForm.class.getName()).log(Level.SEVERE, null, ex);
        }
    }
```

Fetching data from Dbms on Display Button:

```
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        try {
            String name, id, salary;
            database = new Db();
            String query = "select * from emp";

            ResultSet reSet = database.runSelect(query);

            DefaultTableModel model = (DefaultTableModel) tableEmp.getModel();
            while (reSet.next()) {
                id = reSet.getString("empno");
                salary = reSet.getString("sal");
                name = reSet.getString("ename");
                String[] obj = {id, name, salary};
                model.addRow(obj);
            }
        } catch (SQLException ex) {
            Logger.getLogger(EmpForm.class.getName()).log(Level.SEVERE, null, ex);
        }
    }
```

Application Class:

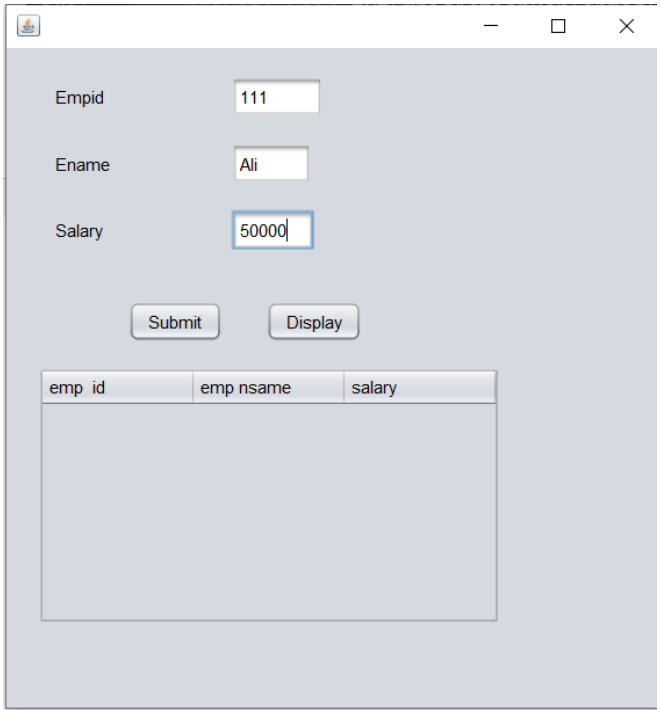
```
package Demodb;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.PreparedStatement;
```

```
import java.sql.SQLException;


public class Db {

    private static final String dLoc = "jdbc:ucanaccess://Demodb.accdb";
    private Connection con;
    private PreparedStatement pState;
    private ResultSet resSet;

    public Db() throws SQLException {
        try {
            con = DriverManager.getConnection(dLoc);
            System.out.println("Connected!");
        } catch (SQLException e) {
            System.out.println(e.getMessage());
        }
    }

    public void dmlOperation(String sqlQuery) {
        try {
            pState = con.prepareStatement(sqlQuery);
            pState.executeUpdate();
            System.out.println("Update sucessfull");
        } catch (SQLException e) {
            System.out.println(e.getMessage());
        }
    }
```

```
    public ResultSet runSelect(String sqlQuery) {
        try {
            pState = con.prepareStatement(sqlQuery);
            resSet = pState.executeQuery();
        } catch (SQLException e) {
            System.out.println(e.getMessage());
            return null;
        }
        return resSet;
    }
}
```

Output:

Entering Data Using form:



emp

empno	ename	sal	Click to Add
10	hafsa	10000	
20	ali	25000	
30	aleena	32000	
111	Ali	50000	
1010	Raza	1000	
0		0	

Fetching Data: