

JAVA PROGRAM TO INTERFACE WITH POSTGRESQL DATABASE

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```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.Statement;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.io.*;
public class employeedb{
    public static void main(String args[])
    {
        Connection c;
        PreparedStatement pst;
        try{
            Class.forName("org.postgresql.Driver");

c=DriverManager.getConnection("jdbc:postgresql://fisatdb.fisat.edu/fisatdb2",
,"fisat2","fisat2");
            Statement stmt=c.createStatement();
            ResultSet rs;
            System.out.println("Connection Established");
            DataInputStream din = new DataInputStream(System.in);
            int id;
            String name,dept;
            float salary;
            int opt=1;

while(opt!=0)
    {
        System.out.println("MENU");
        System.out.println("-----");
        System.out.println("1.INSERT");
        System.out.println("2.DISPLAY");
        System.out.println("3.UPDATE");
        System.out.println("4.QUIT");
        System.out.println("Enter Choice");
        opt=Integer.parseInt(din.readLine());
        switch(opt)
        {
            case 1:
                {
                    // -----INSERT
-----

                    System.out.println("\nID: ");
                    id=Integer.parseInt(din.readLine());
                    System.out.println("\nName: ");
                    name=din.readLine();
                    System.out.println("\nSalary: ");
```

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        salary=Float.parseFloat(din.readLine());
        System.out.println("\nDept: ");
        dept=din.readLine();
        pst=c.prepareStatement("INSERT INTO EMP18
VALUES(?,?,?,?);");
        pst.setInt(1,id);
        pst.setString(2,name);
        pst.setFloat(3,salary);
        pst.setString(4,dept);
        pst.executeUpdate();
        break;
    }

    case 2:
    {
        // ----- DISPLAY
        -----
        String sql="SELECT * from EMP18;";
        rs=stmt.executeQuery(sql);
        System.out.println("ID\tNAME\tSALARY\tDEPARTMENT");
        while(rs.next())
        {
            System.out.println(rs.getInt("id")
+" \t"+rs.getString("name")+" \t"+rs.getFloat("salary")
+" \t"+rs.getString("dept")+" \n");
        }
        break;
    }

    case 3:
    {
        // -----UPDATE
        -----

        System.out.println("\n Update: ");
        System.out.println("\nID: ");
        id=Integer.parseInt(din.readLine());
        System.out.println("\nName: ");
        name=din.readLine();
        System.out.println("\nSalary: ");
        salary=Float.valueOf(din.readLine());
        //System.out.println("type"+typeOf(salary));

        System.out.println("\nDept: ");
        dept=din.readLine();
        pst=c.prepareStatement("UPDATE EMP18 SET id=?,
name=?, salary=?, dept=? WHERE id = ?;");
        pst.setInt(1,id);
        pst.setString(2,name);
        pst.setDouble(3,salary);
        pst.setString(4,dept);
        pst.setInt(5,id);
        pst.executeUpdate();
        break;
    }
}

```

```

        }
        case 4:
        {
            opt=0;
            break;
        }
    }
}
}
catch(Exception e)
{
    System.out.println("Cannot Establish connection or Database
Error "+e);
}
}
}

```

Output

MENU

1.INSERT

2.DISPLAY

3.UPDATE

4.QUIT

Enter Choice

3

Update:

ID:

7

Name:

jisha

Salary:

2200

Dept:

ec

MENU

1.INSERT

2.DISPLAY

3.UPDATE

4.QUIT

Enter Choice

2

ID	NAME	SALARY	DEPARTMENT
1	Farhan	10000.0	CSE

2	MRIDULA	20000.0	CSE
3	MITHUN	25000.0	CSE
5	VAISAKH	10000.0	CSE
6	KIRAN	10000.0	CSE
6	kiran	10000.0	cse
4	MISHA	10000.0	CSE
7	jisha	2200.0	ec

MENU

- 1.INSERT
- 2.DISPLAY
- 3.UPDATE
- 4.QUIT

Enter Choice

4

The screenshot shows a PostgreSQL SQL Editor window titled "Query - fisatdb2 on fisat2@fisatdb.fisat.edu:5432 *". The SQL Editor contains the following query:

```
Create Table EMP18 (id integer, name varchar, salary float, dept varchar);
select * from EMP18
insert into EMP18 values(1,'Farhan',10000,'CSE');
```

The Output pane shows the results of the query, displaying a table with 7 rows and 4 columns: id, name, salary, and dept. The data is as follows:

	id	name	salary	dept
	integer	character varying	double precision	character varying
1	1	Farhan	10000	CSE
2	2	MRIDULA	20000	CSE
3	3	MITHUN	25000	CSE
4	5	VAISAKH	10000	CSE
5	6	KIRAN	10000	CSE
6	6	kiran	10000	cse
7	4	MISHA	10000	CSE

The status bar at the bottom indicates "OK", "Ln 4, Col 1, Ch 148", "7 rows", and "13 ms".