

```

1 Using JDBC in JSP
2
3 1. DBConnection.java
4 package com.example.libs.db;
5 import oracle.jdbc.driver.OracleDriver;
6
7 public class DBConnection {
8     private static Connection instance;
9     public static Connection getInstance(String path){
10         if(instance == null || instance.isClose()) instance = create(path);
11         return instance;
12     }
13     private Connection getConnection(String path){
14         Properties props = new Properties();
15         Connection conn = null;
16         try {
17             File file = new File(path);
18             props.load(new FileInputStream(file));
19             DriverManager.registerDriver(new OracleDriver());
20             conn = DriverManager.getConnection(props.getProperty("DBURL"),
21                                             props.getProperty("DBUSER"),
22                                             props.getProperty("DBPWD"));
23         }catch (IOException e) {
24             System.out.println(e.toString());
25         }catch (SQLException e) {
26             System.out.println("Connection Failed");
27         }
28         return conn;
29     }
30     private static Connection create(String path){
31         return new DBConnection().getConnection(path);
32     }
33 }
34
35 2. DBClose.java
36 package com.example.libs.db;
37
38 public class DBClose {
39     public static void close(Connection conn){
40         try{
41             if(conn != null) conn.close();
42         }catch(SQLException ex){
43             System.out.println(ex);
44         }
45     }
46     public static void close(Connection conn, Statement stmt){
47         try{
48             if(stmt != null) stmt.close();
49             if(conn != null) conn.close();
50         }catch(SQLException ex){
51             System.out.println(ex);
52         }
53     }
54     public static void close(Connection conn, Statement stmt, ResultSet rs){
55         try{
56             if(rs != null) rs.close();
57             if(stmt != null) stmt.close();
58             if(conn != null) conn.close();
59         }catch(SQLException ex){
60             System.out.println(ex);
61         }
62     }
63 }
64
65 3. dbinfo.properties
66 DBDRIVER=oracle.jdbc.driver.OracleDriver
67 DBURL=jdbc:oracle:thin:@localhost:1521:XE

```

```
68 DBUSER=scott
69 DBPWD=tiger
70
71 4. dbdemo.jsp
72 <%@ page language="java" contentType="text/html; charset=utf-8" %>
73 <jsp:directive.page import="com.example.libs.db.DBConnection" />
74 <jsp:directive.page import="com.example.libs.db.DBClose"/>
75 <jsp:directive.page import="java.sql.Connection, java.sql.Statement" />
76 <jsp:directive.page import="java.sql.Date,java.sql.ResultSet" />
77
78 <!DOCTYPE html>
79 <html lang="ko">
80 <head>
81 <meta charset="utf-8">
82 <title>Insert title here</title>
83 </head>
84 <body>
85     <%
86         String path = application.getRealPath("/security/dbinfo.properties");
87         Connection conn = DBConnection.getInstance(path);
88         Statement stmt = conn.createStatement();
89         String sql = "SELECT ename, sal, hiredate, job FROM emp";
90         ResultSet rs = stmt.executeQuery(sql);
91         while(rs.next()){
92             String ename = rs.getString("ename");
93             double sal = rs.getDouble("sal");
94             Date hiredate = rs.getDate("hiredate");
95             String job = rs.getString("job");
96             String str = ename + ", " + sal + ", " + hiredate + ", " + job + "<br />";
97             out.println(str);
98         }
99         DBClose.close(conn, stmt, rs);
100     %>
101 </body>
102 </html>
```