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1  /**Servlet to Database Software Communication
2   Application Development of EmployeeSearchApp
3   (Develop by Vaibhav V Belkhude)
4  step 1:develop Daynamic Web project in eclipse ide
5  step 2:create package com.nt.servlet inside create class "EmployeeSearchApp"
6  step 3: then right click on dynamic web project select build path then
7           select configure build path(select -->servlet.api jar file)
8           and then again click on and
9           select properties--->Deployment Assembly---->webINF/Lib--->add(OJDBC 6.JAR)
10 Step 4:create html file Search.html
11 step 5:devlop web.xml file
12 *****
13 step 6: run on Tomcate 9 server
14         Enter Employee No:7902
15         then we get result
16 *****
17 Employee No::7902
18 Employee Name::FORD
19 Employee Desig::ANALYST
20 Employee Salary::3000.0
21 *****/
22 //step 1:EmployeeSearchApp.java
23
24 package com.nt.servlet;
25
26 import java.io.IOException;
27 import java.io.PrintWriter;
28 import java.sql.Connection;
29 import java.sql.DriverManager;
30 import java.sql.PreparedStatement;
31 import java.sql.ResultSet;
32 import java.sql.SQLException;
33
34 import javax.servlet.ServletConfig;
35 import javax.servlet.ServletException;
36 import javax.servlet.annotation.WebServlet;
37 import javax.servlet.http.HttpServlet;
38 import javax.servlet.http.HttpServletRequest;
39 import javax.servlet.http.HttpServletResponse;
40
41 /**
42  Author: (Develop by Vaibhav V Belkhude)
43  * Servlet implementation class EmployeeSearchApp
44  */
45 @WebServlet("/EmployeeSearchApp")
46 public class EmployeeSearchApp extends HttpServlet {
47     private static final String GET_EMP_DETAILS="SELECT EMPNO,ENAME,JOB,SAL FROM EMP WHERE EMPNO=?";
48     Connection con;
49     PreparedStatement ps;
50
51     public void init() {
52         System.out.println("--init param--");
53     try {
54         //Register jdbc driver
55         Class.forName("oracle.jdbc.driver.OracleDriver");
56         //Connection establish
57         con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:ORCL","scott","vaibhav92");
58         //Create prepare statement
59         ps=con.prepareStatement("SELECT EMPNO,ENAME,JOB,SAL FROM EMP WHERE EMPNO=?");
60     }try
61     catch(Exception e) {
62         e.printStackTrace();
63     }
64     }

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65     @Override
66     public void doGet(HttpServletRequest req, HttpServletResponse res) throws ServletException, IOException {
67         try {
68             //general setting
69             PrintWriter pw=res.getWriter();
70             //printWriter
71             //set response content type
72             res.setContentType("text/html");
73             //read data from input
74             int no=Integer.parseInt(req.getParameter("empno"));
75             //set value query param
76             ps.setInt(1,no);
77             //execute query
78             ResultSet rs=ps.executeQuery();
79
80             //process result set object
81
82             if(rs.next()) {
83                 pw.println("<h1 style='color:red;text-align:center'>Employee Details are:</h1>");
84                 pw.println("<b><br>Employee No: "+rs.getInt(1)+"</b>");
85                 pw.println("<b><br>Employee Name: "+rs.getString(2)+"</b>");
86                 pw.println("<b><br>Employee Desig: "+rs.getString(3)+"</b>");
87                 pw.println("<b><br>Employee Salary: "+rs.getFloat(4)+"</b>");
88             }
89             else {
90                 pw.println("<h1 style='color:red;text-align:center'>Employee Details are Not Found:</h1>");
91             }//else
92
93
94             pw.println("<br><br><a href='Search.html'>Home</a>");
95         }//try
96         catch(Exception e) {
97             e.printStackTrace();
98         }
99
100     }//Get(-)
101
102     @Override
103     public void doPost(HttpServletRequest req, HttpServletResponse res) throws ServletException, IOException
104     {
105         doGet(req, res);
106     }//post
107     //destroy() method
108     public void destroy() {
109         //close jdbc object
110
111         try {
112             if(ps!=null)
113                 ps.close();
114         }
115         catch(SQLException se) {
116             se.printStackTrace();
117         }
118         try {
119             if(con!=null)
120                 con.close();
121         }
122         catch(SQLException se) {
123             se.printStackTrace();
124         }
125         /* try {
126             if(pw!=null)
127                 pw.close();
128         }

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129         catch(Exception e) {
130             e.printStackTrace();
131         }*/
132     }//finally
133 }//class
134
135 =====
136 step:2 Develop Search.html file:
137 *****
138
139 <h1 style="color:red ;text-align:center">EmployeeSearchApp</h1>
140 <form action="employeeurl" method="POST">
141 <table boader="1" align="center" bgcolor="cyan" ">
142 <tr>
143 <td>Employee Details are:</td>
144
145 <td><input type="text" name="empno" placeholder="Search Employee" required></td><br><br>
146 </tr>
147 <tr>
148 <td><input type="submit" name="Get EmployeeDetails"></td>
149 </tr>
150 </table>
151 </form>
152 =====
153 step :3 Develop web.xml file:
154 *****
155 <?xml version="1.0" encoding="UTF-8"?>
156 <web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
157 xmlns="http://java.sun.com/xml/ns/javaee"
158 xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
159 http://java.sun.com/xml/ns/javaee/web-app_3_0.xsd" id="WebApp_ID" version="3.0">
160
161     <display-name>EmployeeSearch-App</display-name>
162     <servlet>
163     <servlet-name>emp</servlet-name>
164     <servlet-class>com.nt.servlet.EmployeeSearchApp</servlet-class>
165     <load-on-startup>1</load-on-startup>
166     </servlet>
167     <servlet-mapping>
168     <servlet-name>emp</servlet-name>
169     <url-pattern>/employeeurl</url-pattern>
170     </servlet-mapping>
171     <welcome-file-list>
172     <welcome-file>Search.html</welcome-file>
173     </welcome-file-list>
174 </web-app>
175 =====

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