

Lab 4: Write a servlet application for user authentication (use JDBC). Also display various contents using request object and response object.

Index.html

```
<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>Login</title>

</head>

<body>

    <form action="/Practical4/Servlet_1" method="post">

        <input type="text" placeholder="Enter Username" name="uid">

        <input type="text" placeholder="Enter Password" name="pwd">

        <input type="submit" value="Login">

    </form>

</body>

</html>
```

Servlet1

```
package edu.keval;

import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;

import javax.servlet.ServletException;
```

```

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@WebServlet("/Servlet_1")

public class Servlet_1 extends HttpServlet {

    private static final long serialVersionUID = 1L;


    public Servlet_1() {

        super();

    }


    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {

        // TODO Auto-generated method stub

        //response.getWriter().append("Served at: ").append(request.getContextPath());

        process(request, response);

    }


    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException,
IOException {

        // TODO Auto-generated method stub

        process(request, response);

    }

    void process (HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException
    {

        response.setContentType("text/html");

        String userName = request.getParameter("uid");

```

```
String passWord = request.getParameter("pwd");
```

```
PrintWriter out = response.getWriter();
```

```
try {
```

```
    DriverManager.registerDriver(new com.mysql.jdbc.Driver());
```

```
    Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/ajp","ajp","ajp");
```

```
    Statement stm = con.createStatement();
```

```
    String q = "Select * from credit";
```

```
    ResultSet rs = stm.executeQuery(q);
```

```
    while(rs.next())
```

```
    {
```

```
        if (rs.getInt("id")>0) {
```

```
            if (rs.getString("username").equals(userName) &&  
rs.getString("password").equals(passWord)) {
```

```
                out.println("Login Successfull!");
```

```
            }
```

```
            else
```

```
            {
```

```
                out.println("Username or Passwrod is Invalid");
```

```
            }
```

```
        }
```

```
    }
```

```
    rs.close();
```

```
    stm.close();
```

```
    con.close();
```

```
    } catch (Exception e) {
```

```
        out.println(e.getMessage());
```

```
    }
```

```
}
```

```
}
```

Lab. 5 : Write a servlet application for implementing student grading system. In this system on first page student will enter his data (name, id and department). By clicking on next button he will be redirected to another page. On the second page he will enter marks of all 6 subjects. By clicking on "Generate result" he will be redirected to next page. On this page all information of student will be displayed along with the result pass or fail in appropriate colour. Also display the name of student on each page he visits. (Use session management).

Index.html

```
<!DOCTYPE html>
```

```
<!--
```

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Click nbfs://nbhost/SystemFileSystem/Templates/JSP_Servlet/Html.html to edit this template

```
-->
```

```
<html>
```

```
  <head>
```

```
    <title>Lab-5</title>
```

```
    <meta charset="UTF-8">
```

```
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
  </head>
```

```
  <body>
```

```
    <form action="examInfo">
```

```
      <div>
```

```
        <input type="text" name="name" placeholder="Enter Name"><br>
```

```
        <input type="text" name="id" placeholder="Enter Id"><br>
```

```
        <input type="text" name="department" placeholder="Enter Department"><br>
```

```
        <input type="Submit" value="Next" name="btn_next">
```

```
      </div>
```

```
    </form>
```

```
  </body>
```

```
</html>
```

examInfo (Servlet)

```
/*  
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license  
 * Click nbfs://nbhost/SystemFileSystem/Templates/JSP_Servlet/Servlet.java to edit this template  
 */
```

```
import java.io.IOException;  
import java.io.PrintWriter;  
import javax.servlet.ServletException;  
import javax.servlet.annotation.WebServlet;  
import javax.servlet.http.Cookie;  
import javax.servlet.http.HttpServlet;  
import javax.servlet.http.HttpServletRequest;  
import javax.servlet.http.HttpServletResponse;
```

```
@WebServlet(urlPatterns = {"/examInfo"})
```

```
public class examInfo extends HttpServlet {
```

```
    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
```

```
        throws ServletException, IOException {
```

```
        response.setContentType("text/html;charset=UTF-8");
```

```
        String nm,id,department;
```

```
        try (PrintWriter out = response.getWriter()) {
```

```
            nm= request.getParameter("name");
```

```
            id= request.getParameter("id");
```

```
            department= request.getParameter("department");
```

```
            Cookie c1,c2,c3;
```

```
            c1 = new Cookie("nm",nm);
```

```
c2 = new Cookie("id",id);  
c3 = new Cookie("dept",department);
```

```
response.addCookie(c1);  
response.addCookie(c2);  
response.addCookie(c3);
```

```
out.println("<!DOCTYPE html>");  
out.println("<html>");  
out.println("<head>");  
out.println("<title>ExamInfo</title>");  
out.println("</head>");  
out.println("<body><form action=\"examResult\">");  
out.println("<h1>Student : " + nm + "</h1><br><hr>");  
out.println("<center><b>Enter ,marks for six subjects [out of 100]</b></center><br>");  
out.println("Enter marks for subject1 <input type=\"text\" name=\"subj1\"><br><br>");  
out.println("Enter marks for subject2 <input type=\"text\" name=\"subj2\"><br><br>");  
out.println("Enter marks for subject3 <input type=\"text\" name=\"subj3\" ><br><br>");  
out.println("Enter marks for subject4 <input type=\"text\" name=\"subj4\" ><br><br>");  
out.println("Enter marks for subject5 <input type=\"text\" name=\"subj5\" ><br><br>");  
out.println("Enter marks for subject6 <input type=\"text\" name=\"subj6\" ><br><br>");  
out.println("<input type=\"Submit\" value=\"Generate Result\">");  
out.println("</form></body>");  
out.println("</html>");  
  
}  
  
}
```

@Override

```
protected void doGet(HttpServletRequest request, HttpServletResponse response)  
    throws ServletException, IOException {
```

```
    processRequest(request, response);  
}
```

@Override

```
protected void doPost(HttpServletRequest request, HttpServletResponse response)  
    throws ServletException, IOException {  
    processRequest(request, response);  
}
```

@Override

```
public String getServletInfo() {  
    return "Short description";  
} // </editor-fold>
```

```
}
```

examResult (Servlet)

```
import java.io.IOException;  
import java.io.PrintWriter;  
import javax.servlet.ServletException;  
import javax.servlet.annotation.WebServlet;  
import javax.servlet.http.Cookie;  
import javax.servlet.http.HttpServlet;  
import javax.servlet.http.HttpServletRequest;  
import javax.servlet.http.HttpServletResponse;
```

```
@WebServlet(urlPatterns = {"/examResult"})  
public class examResult extends HttpServlet {
```

```
protected void processRequest(HttpServletRequest request, HttpServletResponse response)
```

```
    throws ServletException, IOException {
```

```
    response.setContentType("text/html;charset=UTF-8");
```

```
    try (PrintWriter out = response.getWriter()) {
```

```
        /* TODO output your page here. You may use following sample code. */
```

```
        int m1,m2,m3,m4,m5,m6;
```

```
        float avg;
```

```
        m1 = Integer.parseInt(request.getParameter("subj1"));
```

```
        m2 = Integer.parseInt(request.getParameter("subj2"));
```

```
        m3 = Integer.parseInt(request.getParameter("subj3"));
```

```
        m4 = Integer.parseInt(request.getParameter("subj4"));
```

```
        m5 = Integer.parseInt(request.getParameter("subj5"));
```

```
        m6 = Integer.parseInt(request.getParameter("subj6"));
```

```
        avg=(float) (m1+m2+m3+m4+m5+m6)/6;
```

```
        char grade;
```

```
        if(avg >= 90)
```

```
        {
```

```
            grade = 'A';
```

```
        }
```

```
        else if(avg >= 70)
```

```
        {
```

```
            grade='B';
```

```
        }
```

```
        else if (avg >= 60)
```

```
        {
```

```
            grade = 'C';
```

```
        }
```

```
        else
```

```
        {
```



```

        grade = 'F';
    }

    Cookie []c= request.getCookies();

    out.println("<br>Name :"+c[0].getValue());
    out.println("<br>Id :"+c[1].getValue());
    out.println("<br>Department :"+c[2].getValue());


    out.println("<!DOCTYPE html>");
    out.println("<html>");
    out.println("<head>");
    out.println("<title>ExamResult</title>");
    out.println("</head>");
    out.println("<body>");
    out.println("<h1>Exam Result :"+grade+"</h1>");
    out.println("</body>");
    out.println("</html>");
}
}

@Override
protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    processRequest(request, response);
}

@Override
protected void doPost(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    processRequest(request, response);
}

```

```
}  
  
@Override  
  
public String getServletInfo() {  
    return "Short description";  
}  
}  
// </editor-fold>
```

Lab. 6: Write an application for the following: User should be redirected to the URL entered in location text box.

Index.html

```
<!DOCTYPE html>  
  
<!--  
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Click nbfs://nbhost/SystemFileSystem/Templates/JSP_Servlet/Html.html to edit this template  
-->  
  
<html>  
  
    <head>  
  
        <title>TODO supply a title</title>  
  
        <meta charset="UTF-8">  
  
        <meta name="viewport" content="width=device-width, initial-scale=1.0">  
  
    </head>  
  
    <body>  
  
        <form action="aaa.jsp">  
  
            <div>  
  
                Enter URL <input type="text" name="uu">  
  
                <input type="submit" value="Visit">  
  
            </div>  
  
        </form>
```

```
</body>
</html>
```

aaa.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
    <title>JSP Page</title>
  </head>
  <body>
    <%
      String u=request.getParameter("uu");
      if(u.startsWith("http://") || u.startsWith("https://")){
        response.sendRedirect(u);
      }
      else
      {
        // session.setAttribute("error","Not a alid URL");
      }
    %>
  </body>
</html>
```

Lab. 7 : Develop a JSP application for user authentication (use JDBC).

Index.html

```
<!DOCTYPE html>
<!--
```

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-->

```
<html>

  <head>

    <title>TODO supply a title</title>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

  </head>

  <body>


    <form action="Servlet1">

      Username<input type="text" name="uname">

      Password<input type="password" name="pwd">

      <input type="submit" value="login">

    </form>

  </body>

</html>
```

Servlet1

```
import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import java.sql.*;

import javax.servlet.http.HttpSession;
```

```

@WebServlet(urlPatterns = {"/Servlet1"})

public class Servlet1 extends HttpServlet {

    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {

        response.setContentType("text/html;charset=UTF-8");

        String u,p;

        u=request.getParameter("uname").trim();
        p=request.getParameter("pwd").trim();

        Connection c;

        try {

            // PrintWriter out = response.getWriter();

            /* TODO output your page here. You may use following sample code. */

            Class.forName("com.mysql.cj.jdbc.Driver");

            c = DriverManager.getConnection(

                "jdbc:mysql://localhost:3306/mcadb",

                "root", "bhawsar");

            Statement s=c.createStatement();

            ResultSet rs=s.executeQuery(

                "select * from registration where name='"+u+"' AND pwd='"+p+"'");

            HttpSession session = request.getSession();

            System.out.println("Record fetched");

            if (rs.next()) {

                session.setAttribute("un", u);

                response.sendRedirect("/Lab7/home.jsp");

            }

            else{

                //session.setAttribute("flag", "Wrong Credentials");

                response.sendRedirect("/Lab7/index.html");

            }

        }
    }
}

```

```
}  
catch(Exception e)  
{  
    System.out.println(e);  
}  
}
```

@Override

```
protected void doGet(HttpServletRequest request, HttpServletResponse response)  
    throws ServletException, IOException {  
    processRequest(request, response);  
}
```

@Override

```
protected void doPost(HttpServletRequest request, HttpServletResponse response)  
    throws ServletException, IOException {  
    processRequest(request, response);  
}
```

@Override

```
public String getServletInfo() {  
    return "Short description";  
} // </editor-fold>
```

```
}
```

home.jsp

<%--

Document : home

Created on : Mar 10, 2024, 8:59:57 AM

Author : JIGAR

--%>

<%@page contentType="text/html" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

<title>JSP Page</title>

</head>

<body>

<%

String un = (String)session.getAttribute("un");

%>

<h2>Welcome <%= un %></h2>

</body>

</html>
