

Assignment No:5

Title: JSP, servlet and MySQL (Backend)

Objective

- ① Understand about basic concept of html, CSS
- ② Understand the basic functionalities of JSP
- ③ Having the knowledge of sql query to create the DB

problem statement

- ① Design and build student login page using JSP servlet and MySQL
- ② Design and build Employee login Page using JSP servlet and MySQL

outcomes

student will be able to

- ① Develop a dynamic webpage using JSP HTML and servlet
- ② Write a server side java application called servlet to catch the data sent from client process it and store it on DB (MySQL)

③ Write a server side java application called JSP to catch form data sent from client and store it on DB (MySQL)

- s/w needed

Any OS

JDK for JSP

Editor Netbeans / Eclipse

web browser.

Theory

- Java server page (JSP): It is a server side programming technology that is used to create dynamic web based application. JSP have right to use the complete Java APIs. A including JDBC API to access the DB.

JSP tags can be used for diff purpose such as retrieving info from a DB or registering user preference accessing Java Beans component, passing control between pages and sharing info between req, pages etc.

Why we need JSP.

JSP used for the design of dynamic web pages and servlet is used to code the logic that is present.

Architecture of JSP

- The request / response part of a JSP is defined in below architecture
- The client initiate req. for JSP file using browser.
- Now servlet class is loaded by the container and executes it.
- Engine sends the response back to the client

Servlet

A servlet is a server side program and written in Java. Servlet is a web component that is developed on the server for creating the dynamic web pages.

Technology / Tool

Netbeans: is an IDE used for

quickly and easily develop java desktop mobile and web application as well as HTML application with HTML javascript and css. Also provide a huge set of tools for PHP and c++ developer.

MySQL

MySQL is a freely available open source Relational DB Management system. It uses the structural query language - SQL is the most popular language for adding, accessing and managing data in DB.

Conclusion

Hence we have performed the dynamic web application using JSP servlet and MySQL.

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TE A

Assignment 5

Design and Build Student Login Page using JSP, Servlet and MySQL.

Login page (login.jsp)

```
<% @ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1" %>
```

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
```

```
<html>
```

```
<head>
```

```
    <meta http-equiv="Content-Type" content="text/html; charset=ISO-
8859-1">
```

```
    <title>Insert title here</title>
```

```
</head>
```

```
<body>
```

Simple login Example using servlet jsp and mysql(mariadb)database connectivity

 Create a test database, student table and insert some user information in it.

```
<br>
```

```
<br>
```

```
<form action="LoginController" method="post">
```

```
    Enter username :<input type="text" name="username"> <br>Enter password
```

```
    :<input type="password"
name="password"><br>
```

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

</form>

</body>

</html>

Login controller (LoginController.java)

```
package com.candid;
```

```
import
```

```
java.io.IOException;
```

```
import
```

```
java.sql.Connection;
```

```
import
```

```
java.sql.DriverManager;
```

```
import
```

```
java.sql.PreparedStatement;
```

```
import java.sql.ResultSet;
```

```
import java.sql.SQLException;
```

```
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("/LoginController")
```

```

public class LoginController extends HttpServlet {

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

        String un =
            request.getParameter("username");

        String pw =
            request.getParameter("password");

        // Connect to mysql(mariadb) and verify username password

        try {
            Class.forName("org.mariadb.jdbc.Driver");
        } catch (ClassNotFoundException e) {
            // loads driver
        }

        Connection c =
            DriverManager.getConnection("jdbc:mariadb://localhost:3306/test", "root", "root");
        // gets a new connection

        PreparedStatement ps = c.prepareStatement("select userName,pass from
student where userName=? and pass=?");

        ps.setString(1,
            un);

        ps.setString(2,
            pw);

        ResultSet rs = ps.executeQuery();

        while (rs.next()) {
            response.sendRedirect("success.ht
ml");return;
        }

        response.sendRedirect("error.ht
ml");return;
    }
}

```

```
        } catch (ClassNotFoundException |
            SQLException e) { e.printStackTrace();
        }
    }
}
```

success page (success.html)

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

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

```
<title>Insert title here</title>
```

```
</head>
```

```
<body>
```

Login

success

```
</body>
```

```
</html>
```

error page (error.html)

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

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

```
<title>Insert title here</title>
```

```
</head>
```

```
<body>
```

Invalid username or password, Please try again with valid

```
</body>
```


</html>



