Sakshi Anil Fokane (TE-A-42)

Assignment No: 5

— Title :- JSP, Servlet & MySQL (Backen

— Objectives :-

1) Understand about basic concept of HTML, css.

2) understand the basic functiona lities of JSP

3) Having the knowledge of SQL query to create the database

* Problem Statement:

1) Design & build student login page using JSP servlet & MySQL.

2) Design & build Employee login page using JSP Servlet & MySQL.

— Outcomes :-

Student will be able to

1) Develop a dynamic web page using JSP, HTML & Servlet.

2) write a server side java application called servlet to catch the data sent from client, process it & store it on db(MySQL)

3) write a server side java app called JSP to catch from data sen from client & store it on db(MySQL)

- Software needed :-
  1) Any operating system
  2) JDK for later
  3) Editors, Netbeans/Eclipse
  4) web browser

- Theory :-
  Java Server Page (JSP). It is a server side programing technology, that is used to create dynamic web based application. JSP haue right to use the complete java Applets A including the JDBC API to access the database.

  JSP tags can be used for different purpose such as retriving inform- atiom form a database or re- gistering user preference, access- ing Java Beans component, passing conrol between pages, and sharing information between request, pages, etc.

* why we need JSP?
  JSP used for the design of dynamic web pages & servlet is used to code the logic that is present.

* Architecture of JSP :-
  1) The request/response part of JSP

is defined below architecture
2) The client initiated request for JSP file using browser
3) Now servlet class is loaded by the container & execute it
4) Engine sends the response back to the client.

Servlet :-
A Servlet is a server side prog & written in java. Servlet is a web component that is developed on the server for creating the dynamic web pages.

Technology Tool :- 1) Netbeans : netbean is an IDE used for quickly & easily developing java desktop, mobile & web applications as well as HTML5 appln with HTML.
2) MySQL : MySQL is a freely available open source Relational Database Management System.
It uses the Structured query language.

3) SQL is the most popular language for adding, accessing & managing data in db.

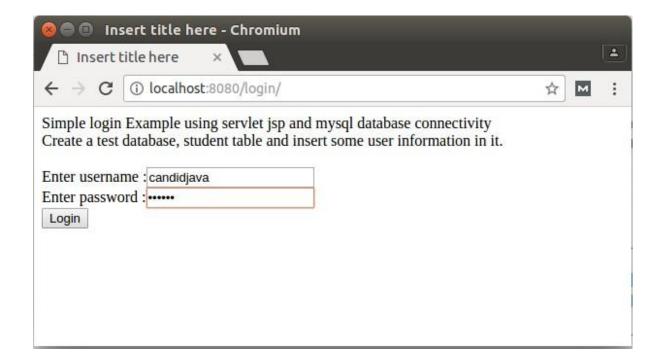* Conclusion :- Hence, we have performed the dynamic web application using JSP, Servlet & MySQL.

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Assignment 5

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

Login page (login.jsp)

```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
<br> 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">
```
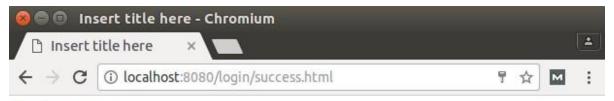
```html
</form>


</body>
</html>
```

Login controller (LoginController.java)

```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
```

```java
        try {

            Class.forName("org.mariadb.jdbc.Driver");
// 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.html");

                return;

            }

            response.sendRedirect("error.html");

            return;

        } catch (ClassNotFoundException | SQLException e) {

            e.printStackTrace();

        }

    }


}
```

success page (success.html)

```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)

```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>
```

Simple login Example using servlet jsp and mysql database connectivity
Create a test database, student table and insert some user information in it.

Enter username : candidjava
Enter password : ••••••
Login

Login success

Invalid username or password, Please try again with valid