**Java Servlet and JSP.**

**Subject Name:** Advanced Internet Programming

**Subject Code:** CAP716/20CAP726

**UID: 20MCA1232 Section/Group:2A**

**Semester: 1 Date of Performance: 15/11/2020**

**Experiment No. 2.3**

**Aim/Overview of the practical:**

Create Login and Logout functionality and maintain the user state with the help of Cookie. Also, make sure user is authenticated from users table in database.

1. **Algorithm/Flowchart :**

start

Check User cookie

true

Welcome.jsp

**v**

false

true

Sign Up

register

false

Index.jsp

Check exist

Check credentials

Data insertion

Database

1. **Dataset:** Name: XYZ | Username: xyz123 | password:123
2. **Code for experiment/practical:**

**Index.jsp**

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

<!DOCTYPE html>

<html>

<head>

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

<title>Home</title>

</head>

<body>

<%

Cookie ck[]=request.getCookies();

Cookie cookie=null;

String username=null;

String name=null;

for (int i = 0; i < ck.length; i++)

{

cookie = ck[i];

username=cookie.getValue();

name=cookie.getName();

}

System.out.println(username);

if(!username.equals("false") && name.equals("username"))

{

response.sendRedirect("welcome.jsp");

}

%>

<h3 align="center">Login</h3>

<form action="Auth" method="post" id="authentication"></form>

<table width="650" height="70" border="0" align="center">

<tr>

<td>

<label for="username" form="authentication">Username</label>

<input type="text" name="username" placeholder="enter username" form="authentication">

<label for="apssword" form="authentication">Password</label>

<input type="password" name="password" placeholder="enter password" form="authentication">

<button type="submit" name="submit" value="login" form="authentication" >login</button>

</td>

</tr>

<tr>

<td>

<label for="textDislay" form="authentication">Not Registered</label> <button type="submit"><a href="./signUp.html" style="text-decoration: none; color: black;" >sign up</a></button>

</td>

</tr>

</table>

<br>

</body>

</html>

**Auth.java(servlet)**

package com.xyz;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Statement;

import java.util.logging.Level;

import java.util.logging.Logger;

import javax.servlet.RequestDispatcher;

import javax.servlet.ServletException;

import javax.servlet.http.Cookie;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class Auth extends HttpServlet {

PrintWriter out=null;

Connection conn=null;

RequestDispatcher rd=null;

Cookie ck;

Cookie ckArray[]=null;

/\*\*

\* Processes requests for both HTTP <code>GET</code> and <code>POST</code>

\* methods.

\*

\* @param request servlet request

\* @param response servlet response

\* @throws ServletException if a servlet-specific error occurs

\* @throws IOException if an I/O error occurs

\*/

@Override

//@WebServlet("/welcome");

public void doPost(HttpServletRequest request,HttpServletResponse response) throws IOException

{

try{

out=response.getWriter();

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

conn=DriverManager.getConnection("jdbc:mysql://localhost:3306/servlet","root","");

String type=request.getParameter("submit"); //getting submit button value

if(type.equals("login")) //when submit button clicked in index.html

{

String username=request.getParameter("username"); //getting username from form data

String password=request.getParameter("password"); //getting password from form data

String query="select username,password from userData";

Statement stmt=conn.createStatement();

ResultSet rst=stmt.executeQuery(query);

int i=0;

while(rst.next()) // if true i will be equals to 1

{

if(rst.getString(1).equals(username)&&rst.getString(2).equals(password))

{

i=1;

}

}

if(i==1) // when succesfull login

{

ck=new Cookie("username",username);

response.addCookie(ck);

response.sendRedirect("welcome.jsp");

}

else // when unsuccesfull login

{

out.println("<script>alert('invalid username & password ')</script>");

request.getRequestDispatcher("./index.jsp").include(request, response);

}

}

if(type.equals("signUp")) // if submit button clicked on signUp.html

{

String name=request.getParameter("name");

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

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

String query = " insert into userData (name,username,password)"

+ " values (?, ?, ?)";

PreparedStatement preparedStmt = conn.prepareStatement(query);

preparedStmt.setString (1, name);

preparedStmt.setString (2, username);

preparedStmt.setString (3, password);

if(preparedStmt.executeUpdate()==1) //when data is succesfully inserted in database

{

out.println("<script>alert('succesfully registered "+username+"')</script>");

request.getRequestDispatcher("./signUp.html").include(request, response);

}

else //when data is unable to insert in database

{

out.println("<script>alert('error while registration "+username+"')</script>");

request.getRequestDispatcher("./signUp.html").include(request, response);

}

}

if(type.equals("logout"))

{

ck=new Cookie("username","false");

ck.setMaxAge(0);

response.addCookie(ck);

request.getRequestDispatcher("index.jsp").include(request, response);

}

}

catch(Exception e)

{

System.out.println(e.toString());

}

finally{

try {

conn.close();

out.close();

} catch (SQLException ex) {

Logger.getLogger(Auth.class.getName()).log(Level.SEVERE, null, ex);

}

}

}

}

**Welcome.jsp**

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

<!DOCTYPE html>

<html>

<head>

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

<title>Welcome User</title>

</head>

<body>

<%

Cookie ck[]=request.getCookies();

Cookie cookie=null;

String username=null;

String check=null;

System.out.println(ck.length);

for (int i = 0; i < ck.length; i++)

{

cookie = ck[i];

check=cookie.getName();

username=cookie.getValue();

}

%>

<br>

<h3 align="center">Welcome <%= username %></h3>

<center><p > This page is processed after successful login of user:<%=username%> & will be logged in till user logout</p>

<form method="post" action="Auth">

<input type="submit" value="logout" name="submit">

</form>

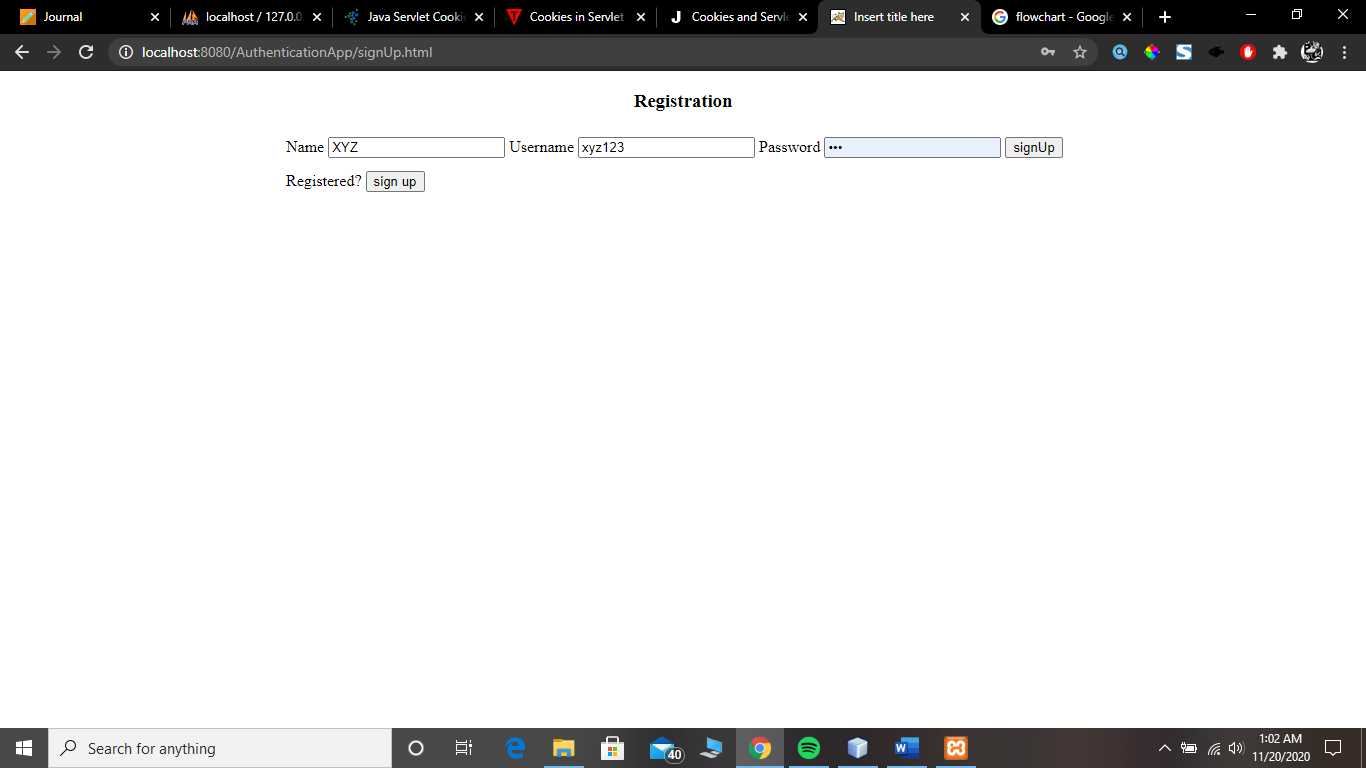
</center>

</body>

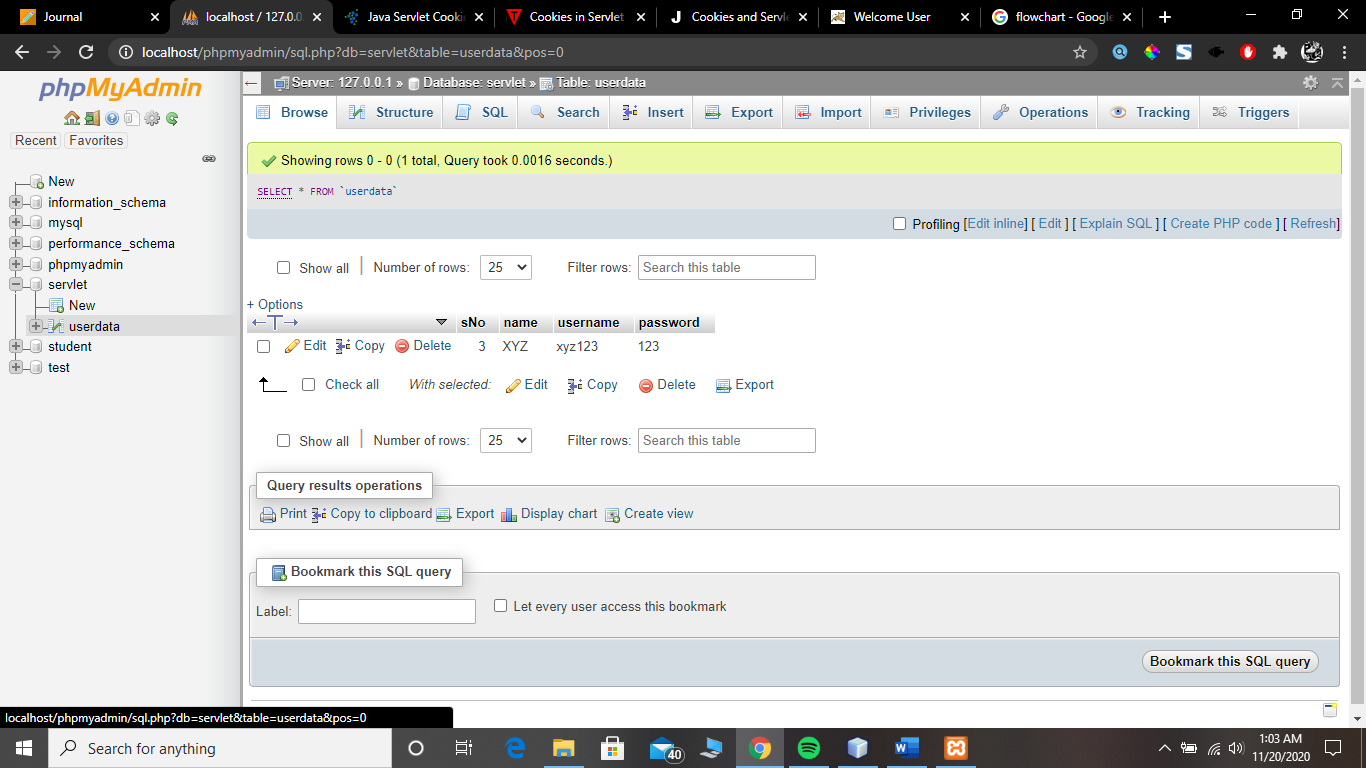
</html>

1. **Result/Output/Writing Summary:**

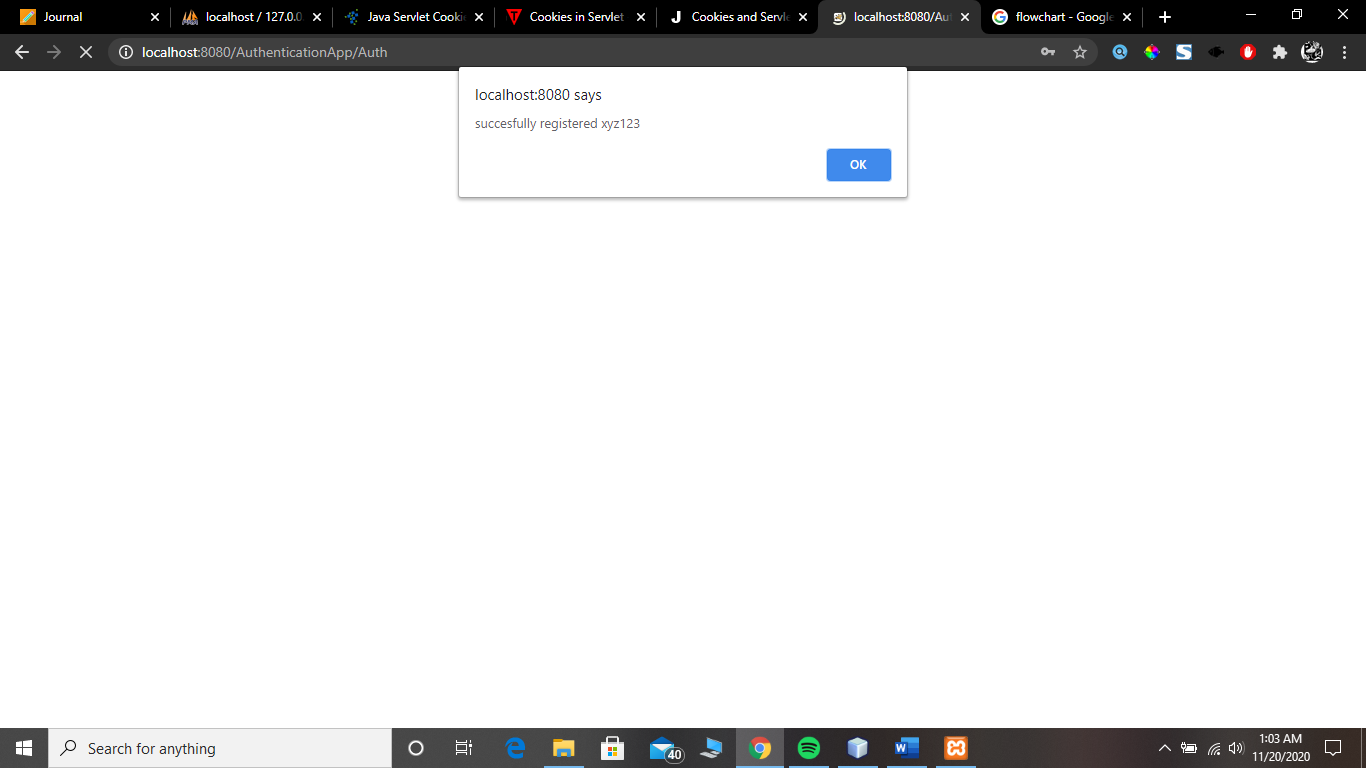
**SignUp.html**

****

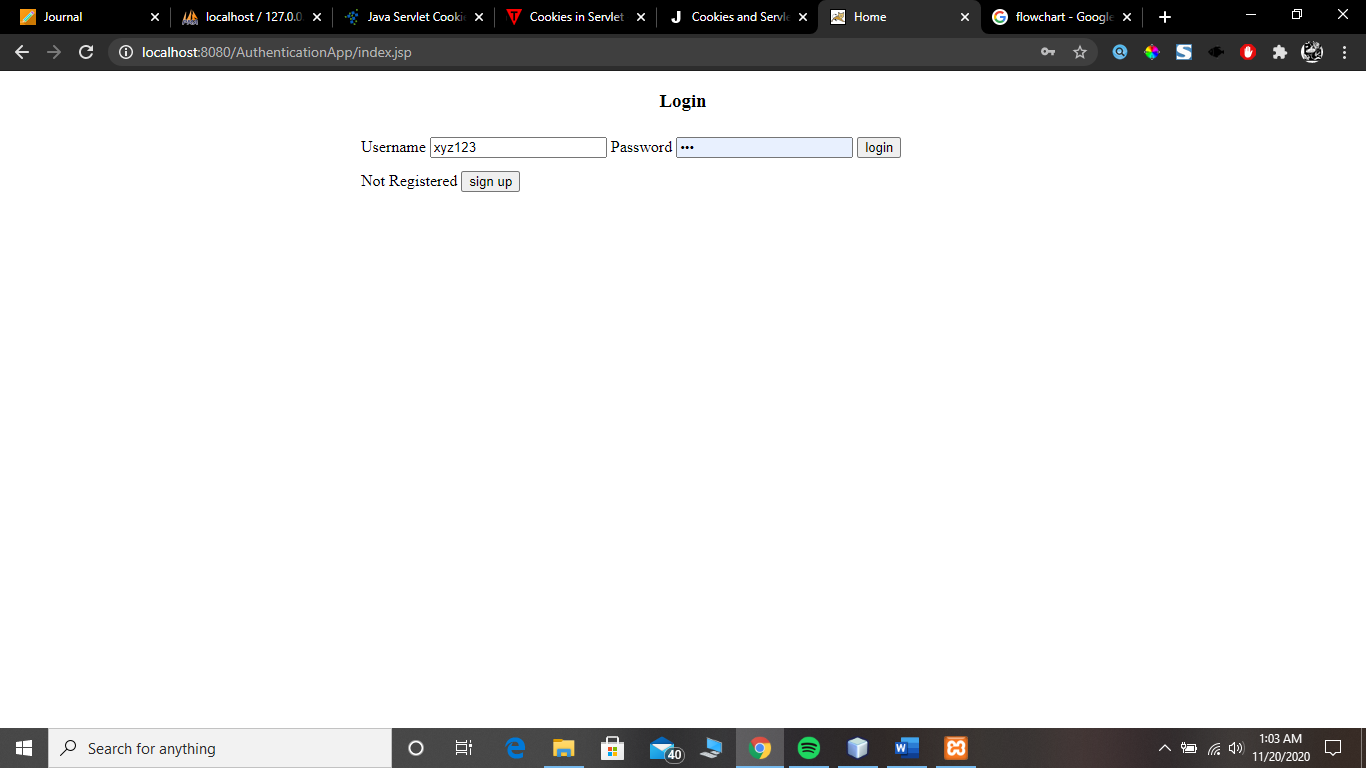
**MySQL Database**

****

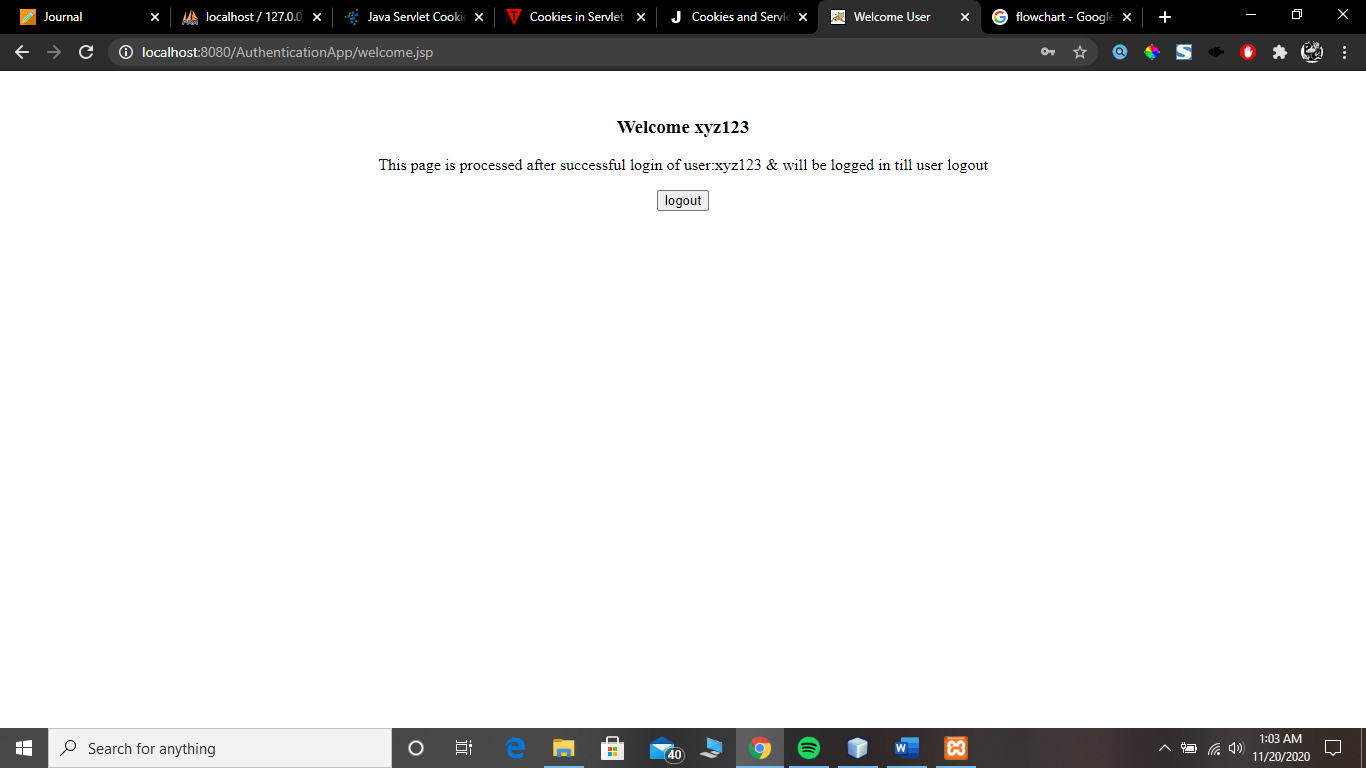
**Insertion Confirmation**

****

**Index.jsp**

****

**Welcome.jsp**

****

**Learning outcomes (What I have learnt):**

**1. Java servlet**

**2. Cookies handling**

**3. JSP**

**Evaluation Grid:**

|  |  |  |  |
| --- | --- | --- | --- |
| Sr. No. | Parameters | Marks Obtained | Maximum Marks |
| 1. | Demonstration and Performance (Pre Lab Quiz) |  | 5 |
| 2. | Worksheet |  | 10 |
| 3. | Post Lab Quiz |  | 5 |