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Java Servlet and JSP.

Subject Name: Advanced Internet Programming

Subject Code: CAP716/20CAP726

UID: 20MCA1232

Section/Group:2A

Semester: 1

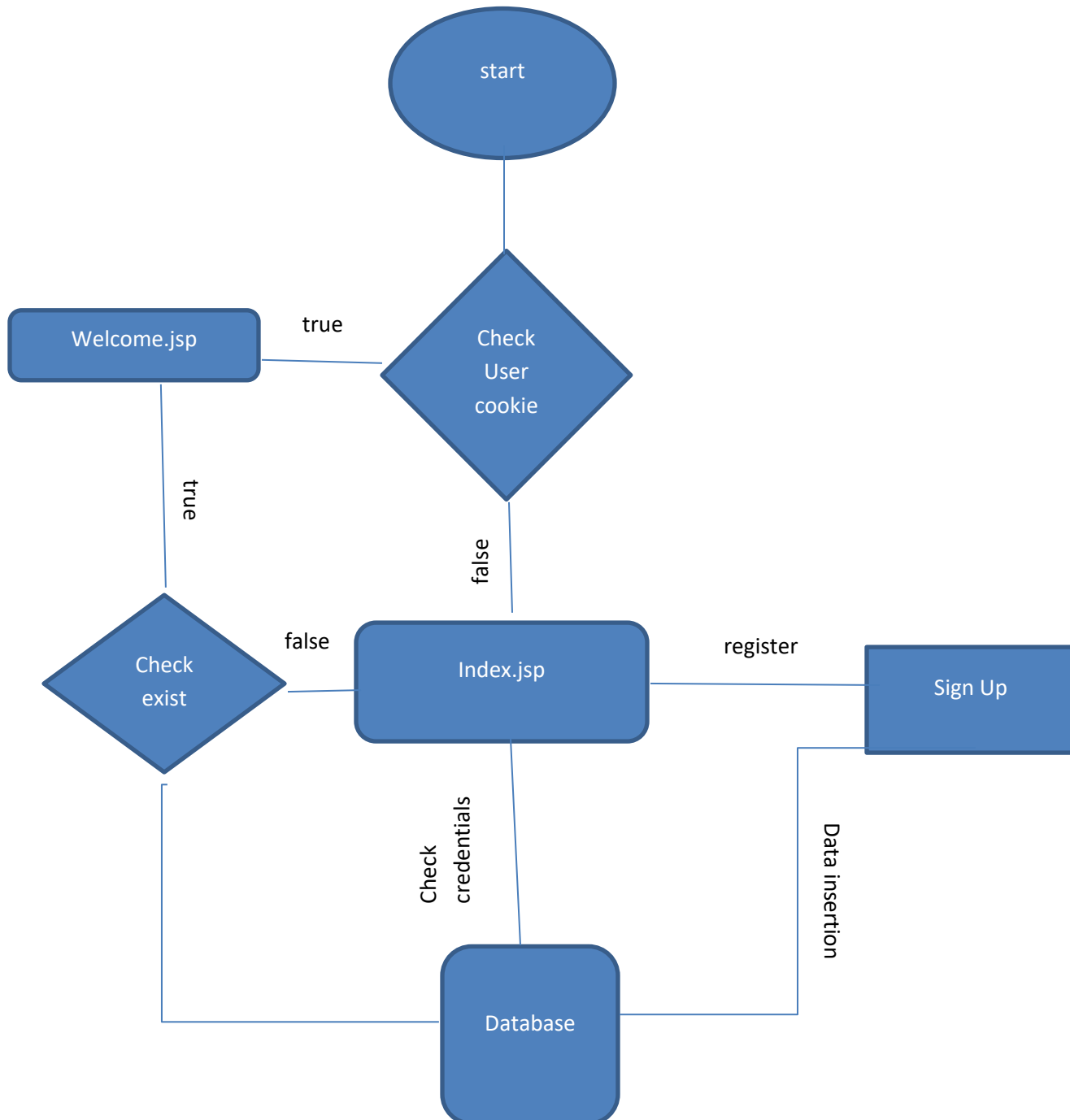
Date of Performance: 15/11/2020

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 :



2. Dataset: Name: XYZ | Username: xyz123 | password:123

3. 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"))

        {
```



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```
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="password" 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

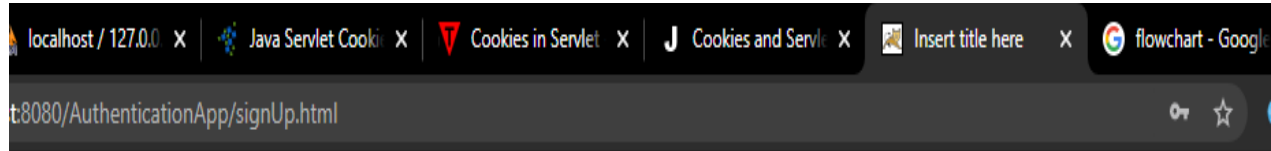
```
<% @page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>Welcome User</title>
    </head>
    <body>
        <%
            Cookie ck[]=request.getCookies();
            Cookie 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>
```

4. Result/Output/Writing Summary:

SignUp.html



Registration

Name Username Password

Registered?

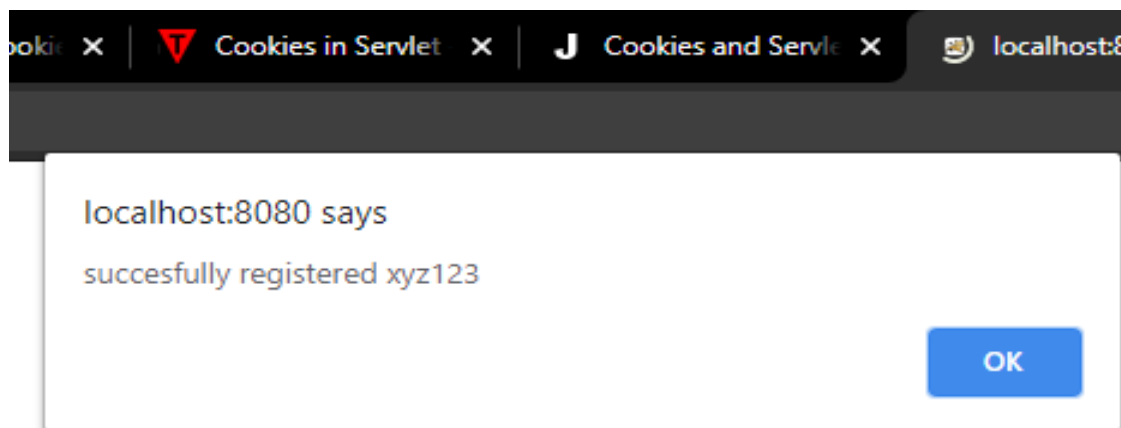
MySQL Database

+ Options

	sNo	name	username	password
<input type="checkbox"/> Edit Copy Delete	3	XYZ	xyz123	123

☐ Check all
 With selected:
 Edit
 Copy
 Delete
 Ex

Insertion Confirmation



Index.jsp



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p/index.jsp

Login

Username Password

Not Registered

Welcome.jsp

elcome.jsp

Welcome xyz123

This page is processed after successful login of user:xyz123 & will be logged in till user logout



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