**Project 5**

**Due Sunday 3/6/2016 by 11:59 PM**

**No delay is accepted**

**For each day late submission 2 points penalty is incurred.**

**Post your answer in the folder *Project 5 on the blackboard.***

**If you have any question please email me at mbadii@pace.edu**

***Do not delete anything from this file. Just write your answer under the word: Answer.***

We would like to program a servlet to track a user. That is:

1. A new user must register with a user name and password.

2. The old user must login.

Based on the following html document write a servlet using cookie:

<!--The name of the html document is: Cookie.html-->

<!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>Assignment 9</title>

</head>

<body>

<form action="http://localhost:8080/Project/Main">

<center>

<br><br>

User Name:

<input name="name" type="text" value="">

<br>

Password:&nbsp;&nbsp;

<input name="password" type="password" value="">

<br><br>

<input name="register" type="Submit" value="Register">

<input name="login" type="Submit" value=" Login ">

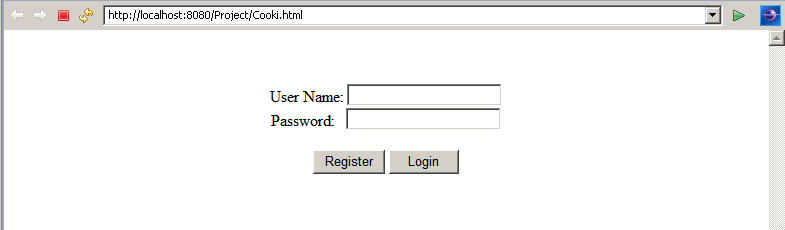
</center>

</form>

</body>

</html>

This html document displays the following page:



Note: The name of your servlet class must be: **Main**.

Note: Do not make a different html document. Do not change my html. Use it.

Hints:

1. Do not make an html string in the servlet program to display a page first. Just use System.println until your program logic is correct.

2. Now make small methods to display an html string for each of the cases.

3. Below is the skeleton program of my solution. You do not have to follow my footstep.

I have five methods in my class. These are:

A. The following method is complete. The variables name, password, register, and login are private instant variables of type String:

//name, password, register, and login are instance variables.

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

name = request.getParameter("name");

password = request.getParameter("password");

register = request.getParameter("register");

login = request.getParameter("login");

**if**(check(name, password)){

**if**(login != **null**)

processLogin(request, response);

**else**

processRegister(request, response);

}

}

B.

**private** **boolean** check(String name, String password){

//three cases that you return false:

// name and password are null.

// name is not null but it is an empty string.

// password is not null but it is an empty string.

return false; //Remove it when it is complete

}

C.

**private** **void** processRegister(HttpServletRequest request, HttpServletResponse response){

//there is no cookie. Make one.

// One of cookies’ name is the same as the user name Tell user

// you have already registered.

//None of the cookies’ name is the same as the user name. Make one

}

D.

**private** **void** makeCookie(HttpServletResponse response){

// Make a cookie with its name and value to be the user name and

// password respectively.

}

E.

**private** **void** processLogin(HttpServletRequest request, HttpServletResponse response){

// No cookie at all. Ask the user to register.

// No cookie’s name is the same as the user name. Ask the user

// to register.

// One cookie’s name is the same as the user name. Display

// a welcome back message.

}

**Answer**:

Please copy my entire method,as i have handled exceptions using throws .

**A:**

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

name = request.getParameter("name");

password = request.getParameter("password");

register = request.getParameter("register");

login = request.getParameter("login");

if(check(name, password)){

if(login != null)

processLogin(request, response);

else

processRegister(request, response);

}

else

{

response.setContentType("text/html");

PrintWriter out = response.getWriter();

out.println("<html>\n" +

"<head><title>Processing Cookies</title></head>\n" +

"<body bgcolor=\"#fdf5e6\">\n" +

"<h1 align=\"center\"> Please check the userid or password entered</h1>\n" +

"</body></html>");

}

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

}

**B:**

private boolean **check**(String name, String password){

if(name.isEmpty() || password.isEmpty())

{

return false;

}

else if(name.equalsIgnoreCase(null) || password.equalsIgnoreCase(null))

{

return false;

}

else if(name.equalsIgnoreCase("")||password.equalsIgnoreCase(""))

{

return false;

}

else

{

return true;

}

}

**C:**

private void **processRegister**(HttpServletRequest request, HttpServletResponse response) throws IOException{

Cookie[] cookies = request.getCookies();

String message ="";

Cookie c = null ;

boolean flag = false;

if (cookies !=null&&cookies.length > 0)

{

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

c = cookies[i];

if ((c.getName().equalsIgnoreCase(name)))

{

System.out.println("already");

message ="You have already registered.Please use a different name or go to login";

flag = true;

}

}

}

if(flag == false)

{

makeCookie(response);

message ="Thanks for registering";

}

response.setContentType("text/html");

PrintWriter out = response.getWriter();

out.println("<html>\n" +

"<head><title>Processing Cookies</title></head>\n" +

"<body bgcolor=\"#fdf5e6\">\n" +

"<h1 align=\"center\"> "+message+"</h1>\n" +

"</body></html>");

}

**D:**

private void **makeCookie**(HttpServletResponse response) throws IOException{

Cookie aCookie = new Cookie(name,password);

aCookie.setMaxAge(60\*60\*24\*365);

response.addCookie(aCookie);

}

**E:**

private void **processLogin**(HttpServletRequest request, HttpServletResponse response) throws IOException{

Cookie[] cookies = request.getCookies();

String message ="";

Cookie c = null ;

boolean flag = false;

if (cookies !=null&&cookies.length > 0)

{

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

c = cookies[i];

if ((c.getName().equalsIgnoreCase(name)) && c.getValue().equalsIgnoreCase(password))

{

message ="Welcome back "+name;

flag = true;

break;

}

else

{

message ="UserId Not found.Please check the userid id or password and login else register";

flag = true;

}

}

}

if(flag== false || cookies == null)

{

message ="Please register";

}

response.setContentType("text/html");

PrintWriter out = response.getWriter();

out.println("<html>\n" +

"<head><title>Processing Cookies</title></head>\n" +

"<body bgcolor=\"#fdf5e6\">\n" +

"<h1 align=\"center\"> "+message+"</h1>\n" +

"</body></html>");

}

**Below is the copy of the entire servlet file:You can use this whole file instead of above methods as well.**

**Main.java**

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;

/\*\*

\* Servlet implementation class Main

\*/

@WebServlet("/Main")

public class Main extends HttpServlet {

private static final long serialVersionUID = 1L;

private String name;

private String password;

private String register;

private String login;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public Main() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

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

name = request.getParameter("name");

password = request.getParameter("password");

register = request.getParameter("register");

login = request.getParameter("login");

if(check(name, password)){

if(login != null)

processLogin(request, response);

else

processRegister(request, response);

}

else

{

response.setContentType("text/html");

PrintWriter out = response.getWriter();

out.println("<html>\n" +

"<head><title>Processing Cookies</title></head>\n" +

"<body bgcolor=\"#fdf5e6\">\n" +

"<h1 align=\"center\"> Please check the userid or password entered</h1>\n" +

"</body></html>");

}

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

}

private boolean check(String name, String password){

if(name.isEmpty() || password.isEmpty())

{

return false;

}

else if(name.equalsIgnoreCase(null) || password.equalsIgnoreCase(null))

{

return false;

}

else if(name.equalsIgnoreCase("")||password.equalsIgnoreCase(""))

{

return false;

}

else

{

return true;

}

}

private void processRegister(HttpServletRequest request, HttpServletResponse response) throws IOException{

Cookie[] cookies = request.getCookies();

String message ="";

Cookie c = null ;

boolean flag = false;

if (cookies !=null&&cookies.length > 0)

{

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

c = cookies[i];

if ((c.getName().equalsIgnoreCase(name)))

{

System.out.println("already");

message ="You have already registered.Please use a different name or go to login";

flag = true;

}

}

}

if(flag == false)

{

makeCookie(response);

message ="Thanks for registering";

}

response.setContentType("text/html");

PrintWriter out = response.getWriter();

out.println("<html>\n" +

"<head><title>Processing Cookies</title></head>\n" +

"<body bgcolor=\"#fdf5e6\">\n" +

"<h1 align=\"center\"> "+message+"</h1>\n" +

"</body></html>");

}

private void makeCookie(HttpServletResponse response) throws IOException{

Cookie aCookie = new Cookie(name,password);

aCookie.setMaxAge(60\*60\*24\*365);

response.addCookie(aCookie);

}

private void processLogin(HttpServletRequest request, HttpServletResponse response) throws IOException{

Cookie[] cookies = request.getCookies();

String message ="";

Cookie c = null ;

boolean flag = false;

if (cookies !=null&&cookies.length > 0)

{

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

c = cookies[i];

if ((c.getName().equalsIgnoreCase(name)) && c.getValue().equalsIgnoreCase(password))

{

message ="Welcome back "+name;

flag = true;

break;

}

else

{

message ="UserId Not found.Please check the userid id or password and login else register";

flag = true;

}

}

}

if(flag== false || cookies == null)

{

message ="Please register";

}

response.setContentType("text/html");

PrintWriter out = response.getWriter();

out.println("<html>\n" +

"<head><title>Processing Cookies</title></head>\n" +

"<body bgcolor=\"#fdf5e6\">\n" +

"<h1 align=\"center\"> "+message+"</h1>\n" +

"</body></html>");

}

}