# CIST 2373 – Java III

# Lab #3 – 40 Points

# 

# [Simple Servlets]

*Part I* ***– Build a simple Servlet called MyServlet using NetBeans.*** Add this Servlet to you “ChattBank” Project. This *MyServlet* will display a message like “Go Braves” in a simple <h1> tag. Run this servlet from a Browser window by typing in the servlet name in the URL line.

(ie. <http://localhost:8080/ChattBank/MyServlet>). Make sure that your Server is up and running before you test this Servlet. The best way to do this is just Run your “ChattBank” Project once before you test the Servlet. Running the Project will start the Server.

/\*

Author : Fareeda Anderson

Programme : Java III

Document : MyServlet

Created on : 03-Sep-2022, 10:17:15

I Promise I wrote this code

\*/

import java.io.IOException;

import java.io.PrintWriter;

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(urlPatterns = {"/MyServlet"})

public class MyServlet extends HttpServlet {

protected void processRequest(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html;charset=UTF-8");

try (PrintWriter out = response.getWriter()) {

out.println("<!DOCTYPE html>");

out.println("<html>");

out.println("<head>");

out.println("<title>Servlet MyServlet</title>");

out.println("</head>");

out.println("<body>");

out.println("<h1>Go Braves</h1>");

out.println("</body>");

out.println("</html>");

}

}

// <editor-fold defaultstate="collapsed" desc="HttpServlet methods. Click on the + sign on the left to edit the code.">

/\*\*

\* Handles the HTTP <code>GET</code> method.

\*

\* @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

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

processRequest(request, response);

}

/\*\*

\* Handles the HTTP <code>POST</code> method.

\*

\* @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

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

processRequest(request, response);

}

/\*\*

\* Returns a short description of the servlet.

\*

\* @return a String containing servlet description

\*/

@Override

public String getServletInfo() {

return "Short description";

}// </editor-fold>

}

*Part II* – ***Next, build a simple Servlet called LoginServlet in your “ChattBank” Project.*** Now make it so that when the Customer logs in, the LoginServlet will get called and will validate the user id and password.

1. At first, just make sure that the Servlet gets called correctly. So just print a simple message like “LoginServlet Running…”.
2. Remember, to call the LoginServlet, you will need to modify the FORM tag in the “Login.html” file:

<form action=”<http://localhost:8080/ChattBank/LoginServlet>” method=”post”>

1. Test it out. When you click the Login Button on the LoginForm, you should see “LoginServlet Running….”

/\*

Author : Fareeda Anderson

Programme : Java III

Document : LoginServlet

Created on : 03-Sep-2022, 10:30:15

I Promise I wrote this code

\*/

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class LoginServlet extends HttpServlet {

protected void processRequest(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html;charset=UTF-8");

try (PrintWriter out = response.getWriter()) {

System.out.println("LoginServlet Running...");

out.println("<!DOCTYPE html>");

out.println("<html>");

out.println("<head>");

out.println("<title>Servlet LoginServlet</title>");

out.println("</head>");

out.println("<body>");

out.println("<h1>Servlet LoginServlet at " + request.getContextPath() + "</h1>");

out.println("</body>");

out.println("</html>");

}

}

// <editor-fold defaultstate="collapsed" desc="HttpServlet methods. Click on the + sign on the left to edit the code.">

/\*\*

\* Handles the HTTP <code>GET</code> method.

\*

\* @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

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

processRequest(request, response);

}

/\*\*

\* Handles the HTTP <code>POST</code> method.

\*

\* @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

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

processRequest(request, response);

}

/\*\*

\* Returns a short description of the servlet.

\*

\* @return a String containing servlet description

\*/

@Override

public String getServletInfo() {

return "Short description";

}// </editor-fold>

}

*Part III* – ***Now, modify the LoginServlet.***

1. Make it so that when the Servlet gets called, it reads the id and password from the Login Form.

Use : request.getParameter() to get these items. At first just read in these 2 strings and display them to the Server Log.

2.) If the id = “admin” and the Password = “123”, return an HTML page that says “Valid Login”.

3.) If not return an HTML page that says “InValid Login”. Use out.println() to send these HTML messages.

4.) Test out your WebApp.

**File Name: LoginServlet**

/\*

Author : Fareeda Anderson

Programme : Java III

Document : login

Created on : 03-Sep-2022, 10:50:05

I Promise I wrote this code

\*/

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

public class LoginServlet extends HttpServlet {

protected void processRequest(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html;charset=UTF-8");

try (PrintWriter out = response.getWriter()) {

System.out.println("LoginServlet Running...");

String customerId, password;

customerId = request.getParameter("customerId");

password = request.getParameter("password");

System.out.println("CustomerID: " + customerId);

System.out.println("Password: " + password);

// ternary operator to validate user

String validOrNot = (password.equals("123") && customerId.equals("admin") ) ? ("Valid Login") : ("Invalid Login");

out.println("<!DOCTYPE html>");

out.println("<html>");

out.println("<head>");

out.println("<title>Servlet LoginServlet</title>");

out.println("</head>");

out.println("<body>");

out.println("<h1>"+ validOrNot +"</h1>");

out.println("</body>");

out.println("</html>");

System.out.println("LoginServlet Done ...");

}

}

// <editor-fold defaultstate="collapsed" desc="HttpServlet methods. Click on the + sign on the left to edit the code.">

/\*\*

\* Handles the HTTP <code>GET</code> method.

\*

\* @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

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

processRequest(request, response);

}

/\*\*

\* Handles the HTTP <code>POST</code> method.

\*

\* @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

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

processRequest(request, response);

}

/\*\*

\* Returns a short description of the servlet.

\*

\* @return a String containing servlet description

\*/

@Override

public String getServletInfo() {

return "Short description";

}// </editor-fold>

}

*Part IV*– ***Lastly, create a new LoginServletDB.*** This time we are going to go to the database to verify the user login. First look at the ChattBank database. There is a Customers table. In this table there is a UserID and a Passwd.

1. Write the database code, in your LoginServlet to let anyone of these customers login, using their own ids and passwords.(Hint: You will need to add all 6 database steps[Load Driver, get connection….] to your LoginServletDB. Then get the password from the database abd compare it to the one you read from the HTML file.
2. Remember, to call the LoginServletDB, you will need to modify the FORM tag in the “Login.html” file:

<form action=”<http://localhost:8080/ChattBank/LoginServlet>DB”

/\*

Author : Fareeda Anderson

Programme : Java III

Document : LoginServletDB

Created on : 04-Sep-2022, 11:50:05

I Promise I wrote this code

\*/

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import java.sql.\*;

@WebServlet(urlPatterns = {"/LoginServletDB"})

public class LoginServletDB extends HttpServlet {

protected void processRequest(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html;charset=UTF-8");

try (PrintWriter out = response.getWriter()) {

/\* TODO output your page here. You may use following sample code. \*/

String connURL = "/Users/fareeda/Documents/fareeda/project\_configs/database/ChattBankMDB.mdb";

String validate="";

boolean userExist = false;

try {

Class.forName("net.ucanaccess.jdbc.UcanaccessDriver");

Connection conn = DriverManager.getConnection(connURL);

System.out.println("Connection is working");

String customerId, password;

customerId = request.getParameter("customerId");

password = request.getParameter("password");

PreparedStatement ps = conn.prepareStatement("SELECT \* FROM Customers WHERE CustID=? AND CustPassword=?");

ps.setString(1, customerId);

ps.setString(2, password);

ResultSet result = ps.executeQuery();

userExist=result.next();

validate = (userExist) ? ("Valid Login") : ("Invalid Login");

}

catch(ClassNotFoundException | SQLException sqlExcptn) {

System.out.println(sqlExcptn);

}

out.println("<!DOCTYPE html>");

out.println("<html>");

out.println("<head>");

out.println("<title>Servlet LoginServlet</title>");

out.println("</head>");

out.println("<body>");

out.println("<h1>"+ validate +"</h1>");

out.println("</body>");

out.println("</html>");

}

}

// <editor-fold defaultstate="collapsed" desc="HttpServlet methods. Click on the + sign on the left to edit the code.">

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\* @param request servlet request

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protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

processRequest(request, response);

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throws ServletException, IOException {

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\* @return a String containing servlet description

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@Override

public String getServletInfo() {

return "Short description";

}// </editor-fold>

}