

Web.xml

<?xml version="1.0" encoding="UTF-8"?>

<web-app version="3.1" xmlns="http://xmlns.jcp.org/xml/ns/javaee" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee http://xmlns.jcp.org/xml/ns/javaee/web-app\_3\_1.xsd">

<filter>

<filter-name>NewFilter</filter-name>

<filter-class>NewFilter</filter-class>

</filter>

<filter-mapping>

<filter-name>NewFilter</filter-name>

<servlet-name>ServletFilter</servlet-name>

</filter-mapping>

<servlet>

<servlet-name>ServletFilter</servlet-name>

<servlet-class>ServletFilter</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>ServletFilter</servlet-name>

<url-pattern>/ServletFilter</url-pattern>

</servlet-mapping>

<welcome-file-list>

<welcome-file>JSPFilter.jsp</welcome-file>

</welcome-file-list>

<session-config>

<session-timeout>

30

</session-timeout>

</session-config>

</web-app>

JSPFilter.jsp

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

<!DOCTYPE html>

<html>

<head>

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

<title>JSP Filter</title>

</head>

<body>

<h1>Login form!</h1>

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

Name:<input type="text" name="name"><br>

Password:<input type="password" name="password"><br>

<input type="submit" value="login">

</form>

</body>

</html>

NewFilter.jsp

import java.io.IOException;

import java.io.PrintStream;

import java.io.PrintWriter;

import java.io.StringWriter;

import javax.servlet.Filter;

import javax.servlet.FilterChain;

import javax.servlet.FilterConfig;

import javax.servlet.RequestDispatcher;

import javax.servlet.ServletException;

import javax.servlet.ServletRequest;

import javax.servlet.ServletResponse;

import javax.servlet.annotation.WebServlet;

//@WebServlet (name="ServletFilter",urlPatterns={"/ServletFilter"});

public class NewFilter implements Filter {

private static final boolean debug = true;

private FilterConfig filterConfig = null;

public NewFilter()

{

}

private void doBeforeProcessing(ServletRequest request, ServletResponse response)

throws IOException, ServletException {

if (debug) {

log("NewFilter:DoBeforeProcessing");

}

}

private void doAfterProcessing(ServletRequest request, ServletResponse response)

throws IOException, ServletException {

if (debug) {

log("NewFilter:DoAfterProcessing");

}

}

public void doFilter(ServletRequest request, ServletResponse response,

FilterChain chain)throws IOException, ServletException

{

PrintWriter out = response.getWriter();

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

if(pass != null &&pass.equals("1234"))

{

chain.doFilter(request, response);

}

else

{

out.println("You have enter a wrong password");

//RequestDispatcher rs = request.getRequestDispatcher("JSPFilter.jsp");

//rs.include(request, response);

}

}

public FilterConfig getFilterConfig() {

return (this.filterConfig);

}

public void setFilterConfig(FilterConfig filterConfig) {

this.filterConfig = filterConfig;

}

public void destroy() {

}

public void init(FilterConfig filterConfig) {

this.filterConfig = filterConfig;

if (filterConfig != null) {

if (debug) {

log("NewFilter:Initializing filter");

}

}

}

@Override

public String toString() {

if (filterConfig == null) {

return ("NewFilter()");

}

StringBuffer sb = new StringBuffer("NewFilter(");

sb.append(filterConfig);

sb.append(")");

return (sb.toString());

}

private void sendProcessingError(Throwable t, ServletResponse response) {

String stackTrace = getStackTrace(t);

if (stackTrace != null && !stackTrace.equals("")) {

try {

response.setContentType("text/html");

PrintStream ps = new PrintStream(response.getOutputStream());

PrintWriter pw = new PrintWriter(ps);

pw.print("<html>\n<head>\n<title>Error</title>\n</head>\n<body>\n"); //NOI18N

// PENDING! Localize this for next official release

pw.print("<h1>The resource did not process correctly</h1>\n<pre>\n");

pw.print(stackTrace);

pw.print("</pre></body>\n</html>"); //NOI18N

pw.close();

ps.close();

response.getOutputStream().close();

} catch (Exception ex) {

}

} else {

try {

PrintStream ps = new PrintStream(response.getOutputStream());

t.printStackTrace(ps);

ps.close();

response.getOutputStream().close();

} catch (Exception ex) {

}

}

}

public static String getStackTrace(Throwable t) {

String stackTrace = null;

try {

StringWriter sw = new StringWriter();

PrintWriter pw = new PrintWriter(sw);

t.printStackTrace(pw);

pw.close();

sw.close();

stackTrace = sw.getBuffer().toString();

} catch (Exception ex) {

}

return stackTrace;

}

public void log(String msg) {

filterConfig.getServletContext().log(msg);

}

}

ServletFilter.java

import java.io.IOException;

import java.io.PrintWriter;

import static java.lang.System.out;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

/\*\*

\*

\* @author qaisa

\*/

public class ServletFilter extends HttpServlet {

/\*\*

\* 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

\*/

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. \*/

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

out.println("<html>");

out.println("<head>");

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

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

out.println("<body>");

out.println("<h1>Servlet ServletFilter 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 {

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

PrintWriter out = response.getWriter();

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

out.println("Welcome " + user);

}

@Override

public String getServletInfo() {

return "Short description";

}// </editor-fold>

}

Second Example of servlet Filter

**Webpage1.jsp**

**<html>**

**<head>**

**<title>**Filters Demo**</title>**

**</head>**

**<body>**

**<b>** Please enter your details : **</b>**

**<br** **/>**

**<br** **/>**

**<br** **/>**

**<form** action="MyServ"**>**Name : **<input** type="text" name="username" **/>** Password :**<input** type="password" name="password" **/>** **<input** type="submit" name="submit" **/></form>**

**</body>**

**</html>**

**MyFilter1.java**

**import** *java.io.*\*;

**import** *javax.servlet.*\*;

**import** *java.util.*\*;

**public** **class** MyFilter1 **implements** Filter

**{**

FilterConfig config;

**public** **void** init **(**FilterConfig filterConfig**)**

**{**

config = filterConfig;

**}**

**public** **void** destroy **()**

**{**

**}**

//This method is called each time a client requests for a web resource i.e. preprocessing request

**public** **void** doFilter **(**ServletRequest request, ServletResponse response, FilterChain chain**)** **throws** ServletException, IOException

**{**

response.setContentType **(**"text/html"**)**;

PrintWriter out = response.getWriter **()**;

**if** **(**request.getParameter **(**"username"**)**.equals **(**config.getInitParameter **(**"username"**))** && request.getParameter **(**"password"**)**.equals**(**config. getInitParameter**(**"password"**)))**

**{**

out.println **(**"Login success!"**)**;

out.println **(**"<br/>"**)**;

out.println **(**"<br/>"**)**;

out.println **(**"<br/>"**)**;

//doFilter() calls the next filter in the chain or the requested web resource(if there is no more filter)

chain.doFilter **(**request, response**)**;

**}**

**else**

**{**

out.println **(**"Login failed!"**)**;

**}**

out.println **(**"<br/>"**)**;

out.println **(**"<br/>"**)**;

out.println **(**"<br/>"**)**;

//post-processing the request and after the requested web resource is called.

out.println **(**"<b><i>Message of the day - Never give up!</i></b>"**)**;

**}**

**}**

**MyServlet1.java**

**import** *java.io.*\*;

**import** *javax.servlet.*\*;

**public** **class** MyServlet1 **extends** GenericServlet

**{**

**public** **void** service **(**ServletRequest request, ServletResponse response**)** **throws** ServletException, IOException

**{**

response.setContentType **(**"text/html"**)**;

PrintWriter out = response.getWriter **()**;

out.println **(**"You are logged into your account."**)**;

**}**

**}**

**web.xml**

**<?xml version="1.0" encoding="UTF-8"?>**

**<web-app**

xmlns="http://xmlns.jcp.org/xml/ns/javaee"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee

http://xmlns.jcp.org/xml/ns/javaee/web-app\_4\_0.xsd"

version="4.0" metadata-complete="true"**>**

**<display-name>**Welcome tomcat**</display-name>**

**<description>**

Welcome tomcat

**</description>**

**<filter>**

**<filter-name>**Filter1**</filter-name>**

**<filter-class>**MyFilter1**</filter-class>**

**<init-param>**

**<param-name>**username**</param-name>**

**<param-value>**scott**</param-value>**

**</init-param>**

**<init-param>**

**<param-name>**password**</param-name>**

**<param-value>**tiger**</param-value>**

**</init-param>**

**</filter>**

**<filter-mapping>**

**<filter-name>**Filter1**</filter-name>**

**<url-pattern>**/MyServ**</url-pattern>**

**</filter-mapping>**

**<servlet>**

**<servlet-name>**Servlet**</servlet-name>**

**<servlet-class>**MyServlet1**</servlet-class>**

**</servlet>**

**<servlet-mapping>**

**<servlet-name>**Servlet**</servlet-name>**

**<url-pattern>**/MyServ**</url-pattern>**

**</servlet-mapping>**

**</web-app>**