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#jsp

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About

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Chapter 1: Getting started with jsp

Remarks

JSP is a **Java view technology** running on a server which allows you to write template text in client side languages like [HTML](#), [CSS](#), [JavaScript](#) and so on. JSP supports the so-called *taglibs* which are backed by pieces of Java code with which you can control the page flow and/or output dynamically (programmatically). A well known taglib is [JSTL](#). JSP also supports [Expression Language \(EL\)](#), with syntax like `#{}` which can be used to access backend data (actually, the attributes which are available in page, request, session and application scopes), mostly in combination with taglibs.

Examples

Hello World

Content has been moved back to good 'ol [JSP wiki page](#)

JavaScript

Content has been moved back to good 'ol [JSP wiki page](#)

Installing JSP

Content has been moved back to good 'ol [JSP wiki page](#)

Read [Getting started with jsp online](#): <https://riptutorial.com/jsp/topic/1017/getting-started-with-jsp>

Chapter 2: Comments in JSP

Introduction

There are multiple ways to add comment in JSP page, as it is java view technology which primarily focuses on view part of web application which includes html majorly and being java technology it can contain java code as well. So one needs to understand how to use proper comments in jsp.

There are 3 types of comments we can use in JSP page:

JSP comment

HTML comment

Java comment (which can used inside scriplets)

Remarks

To see the source code of java class translated by container of JSP page:

Eclipse:

WORKSPACE\.metadata\.plugins\org.eclipse.wst.server.core\tmp0\work\Catalina\localhost\PROJECT_NAME\org\

Netbeans: Right-click on page and select view servlet

Examples

JSP Comments Example

```
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html">
<title>JSP Comments</title>
</head>
<body>
    <%-- JSP comments --%> -- Ignored by container, you can't see this comment in source code
of JSP_java class translated by container, doesn't include in response

    <!-- HTML comments --> -- Ignored by browser, You can see this comment in source code of
html page but browser ignores it to print on page, included in response

    <% // java comments %> -- Ignored by JRE, This comment can be seen in JSP_java class
translated by container, doesn't include in response

    <!-- Today is <%= new java.util.Date() %> -->

</body>
</html>
```

When you run above code, output will be a blank page. To understand difference between these comments you need to see the source of web page and source code of JSP_Java class translated by container.

HTML comment in a JSP

You can include HTML comments in JSPs as well. You use the basic html comment syntax:

```
<!--Comment goes here-->
```

The difference between using JSP style comments and HTML style comments is the JSP ones will not be included when the HTML is generated and the HTML style comments will be. So it depends if you want them to be seen if someone views the source HTML.

Read Comments in JSP online: <https://riptutorial.com/jsp/topic/9040/comments-in-jsp>

Chapter 3: Creating custom tag libraries using JSP 2.0(Without java classes)

Introduction

In order to use custom tags in JSP, we used to have TLD files, along with a Java class to define the custom tags but post JSP 2.0 specs, the same can be achieved, without the need for any Source code files, making it easy to maintain and it can also be created by someone with basic knowledge of JSP tags without need for java code.

Remarks

Usually for adding static content to a HTML page, we use either

`link rel="import" tag (in HTML5) or jQuery .load("")`

to include any external content. In case of any dynamic content, using JSP, we use

`jsp:include`

to include such content. But for cases, when we want to add custom content, which can interact with the existing content, we use custom JSP tags. They allow us to generate custom content, based on params from the caller and also pass back values processed in the custom tag back to the caller.

References:

1. [Custom tags in JSP pages](#)
2. [Difference between JSP tags and includes](#)
3. [Tag variable scope](#)

Examples

A basic example of using a custom tag without any Java code

In order to create an use a custome tag, we need to follow couple of steps:

1. Create a tag file, defining the attributes used by it and any variables which will be used by the tag
 - a. The attributes need to have a name, their type and and required field with a boolean value
 - b. The variables will be defined with a name along with a certain scope-
NESTED(Available in tag body),

AT_BEGIN(Within tag till end of scope) and

AT_END(From end of tag till end of scope)

```
<%@ attribute name="name" required="true" type="java.lang.String" description="Name
of User" %>
<%@ attribute name="role" required="true" type="java.lang.String" description="Role
of User" %>
<%@ variable name-given="passBack" scope="AT_BEGIN"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>

<h1>${name}</h1>
<h2>${role}</h2>

<%String backToCaller="Back to caller";%>
<c:set var="passBack" value="Pass back successful"/>
```

2. Define the entry to import tag, where tagdir will be directory containing tag file with .tag extension

```
<%@ taglib prefix="tags" tagdir="/WEB-INF/tags" %>
```

3. Finally use the tag, passing the required attributes, as per tag definition. Here `customTag` is the name of the tag file, along with prefix as defined

```
<tags:customTag name="Hello Tag!!" role="I am the boss here"/>
```

4. The variable set from tag can be retrieved in the caller jsp using expression language

Hello \${passBack}

Read [Creating custom tag libraries using JSP 2.0\(Without java classes\)](https://riptutorial.com/jsp/topic/8764/creating-custom-tag-libraries-using-jsp-2-0-without-java-classes-) online:

<https://riptutorial.com/jsp/topic/8764/creating-custom-tag-libraries-using-jsp-2-0-without-java-classes->

Chapter 4: Directives

Syntax

- `<%@ directiveName attributeName="value"%>`

Examples

Simple example

Directives, as the name suggests, are direction or instructions for the container to follow when translating a JSP to a servlet. There are 3 directives namely `page`, `include` and `taglib` which you can use in your JSP.

Below is a simple example of using `page` directive:

```
<%@ page isErrorPage="true" %>
```

This would instruct the container that the JSP file containing this line is an error page.

Directives can be used be put anywhere in your JSP file, but the convention is to put at the top/beginning of the JSP file

Read Directives online: <https://riptutorial.com/jsp/topic/2756/directives>

Chapter 5: Implicit objects

Introduction

Java objects which are created by web container. There are 9 implicit objects | object | Type | | -----
----- | ----- | | out | JspWriter | | request | HttpServletRequest | | response |
HttpServletResponse | | config | ServletConfig | | application | ServletContext | | session |
HttpSession | | pageContext | PageContext | | page | Object | | exception | Throwable |

Examples

JSP out implicit object - simply displaying date and time.

```
<html>
<body>
<% out.print("Today is:"+java.util.Calendar.getInstance().getTime()); %>
</body>
</html>
```

request object in JSP

used to get request information such as parameter, header information, remote address, server name, server port, content type, character encoding.

Index.html

```
<form action="req.jsp">
  <input type="text" name="username">
  <input type="submit" value="go"><br/>
</form>
```

req.jsp

```
<%
String name=request.getParameter("username");
out.print("welcome "+name);
%>
```

Read Implicit objects online: <https://riptutorial.com/jsp/topic/8205/implicit-objects>

Credits

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