**Directive In JSP**

**Directive are the message that tell to web container How To convert JSP page Into Corresponding Servlet File.**

**There are 3 Directives**

* 1. **Page Directive**
  2. **Include Directive**
  3. **Taglib directive**

JSP page directive

The page directive defines attributes that apply to an entire JSP page.

Syntax of JSP page directive

1. <%@ page attribute="value" %>

Attributes of JSP page directive

* import
* contentType
* info
* buffer
* language
* isELIgnored
* isThreadSafe
* session
* pageEncoding
* errorPage
* isErrorPage

1)import

|  |
| --- |
| The import attribute is used to import class,interface or all the members of a package.It is similar to import keyword in java class or interface. |

Example of import attribute

<html>

<body>

<%@ page

**import**="java.util.Date" %>

Today is: <%= **new** Date() %>

</body>

</html>

contentType

The contentType attribute defines the MIME(Multipurpose Internet Mail Extension) type of the HTTP response.The default value is "text/html;charset=ISO-8859-1".

Example of contentType attribute

1. <html>
2. <body>
4. <%@ page contentType=application/msword %>
5. Today is: <%= **new** java.util.Date() %>
7. </body>
8. </html>

3)info

This attribute simply sets the information of the JSP page which is retrieved later by using getServletInfo() method of Servlet interface.

Example of info attribute

1. <html>
2. <body>
4. <%@ page info="composed by Rahul Dev" %>
5. <%=
6. String a =getServletInfo();
7. out.print(a);
8. %>
10. </body>
11. </html>

language:- To set Language of JSP Page, By default language is java

<%@page language=”java”%>

errorPage:- To set Error Page if Exception is occurred in JSP Page

isErrorPage:- To set Current page as a error Page.

P.jps

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<%@page errorPage="err.jsp"%>

<%

int a=10/0;

%>

err.jsp

-========

<%@page isErrorPage="true" %>

<%

out.print(exception);

%>

Note:-

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we can use exception implicit object only on those web page where isErrorPage is set to true.

isELIgnored

|  |
| --- |
| We can ignore the Expression Language (EL) in jsp by the isELIgnored attribute. By default its value is false i.e. Expression Language is enabled by default. We see Expression Language later. |

1. <%@ page isELIgnored="true"

8)isThreadSafe

|  |
| --- |
| Servlet and JSP both are multithreaded.If you want to control this behaviour of JSP page, you can use isThreadSafe attribute of page directive.The value of isThreadSafe value is true.If you make it false, the web container will serialize the multiple requests, i.e. it will wait until the JSP finishes responding to a request before passing another request to it.If you make the value of isThreadSafe attribute like: |

<%@ page isThreadSafe="false" %>

# **Jsp Include Directive**

The include directive is used to include the contents of any resource it may be jsp file, html file or text file. The include directive includes the original content of the included resource at page translation time (the jsp page is translated only once so it will be better to include static resource).

### Advantage of Include directive

Code Reusability

### Syntax of include directive

1. <%@ include file="resourceName" %>

### Example of include directive

In this example, we are including the content of the header.html file.

Header.html

<body>

<a href=”Home.jsp”>Home</a>

<a href=”About.jsp”>About</a>

</body>

<html>

Foot.html

<body>

<p align=”center” >CopyRight To @ abc.com</p>

</body>

Home.jsp

========

1. <body>
3. <%@
4. include file="head.html" %>
6. <%
7. Any Java Code Here
8. %>
9. <%@include file="Foot.html" %>
10. </body>
11. </html>

#### Note: The include directive includes the original content, so the actual page size grows at runtime.

# **JSP Taglib directive**

The JSP taglib directive is used to define a tag library that defines many tags. We use the TLD (Tag Library Descriptor) file to define the tags. In the custom tag section we will use this tag so it will be better to learn it in custom tag.

#### **Syntax JSP Taglib directive**

1. <%@taglib uri="uriofthetaglibrary" prefix="prefixoftaglibrary" %>

<[%@taglib uri=”http://java.sun.com/jsp/jstl/core” prefix=”c”/](mailto:%25@taglib%20uri=)>

<body>

<h1>Hello</h1>

<c:import url=<http://www.google.com>/>

</body>

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# **Exception Handling in JSP**

The exception is normally an object that is thrown at runtime. Exception Handling is the process to handle the runtime errors. There may occur exception any time in your web application. So handling exceptions is a safer side for the web developer. In JSP, there are two ways to perform exception handling:

1. By **errorPage** and **isErrorPage** attributes of page directive
2. By **<error-page>** element in web.xml file

#### **web.xml file if you want to handle any exception**

<web-app>

 <error-page>

  <exception-type>java.lang.ArithmeticException</exception-type>

  <location>/error.jsp</location>

  </error-page>

   <error-page>

  <exception-type>java.lang.SQLException</exception-type>

  <location>/err.jsp</location>

  </error-page>

</web-app>

To Define by error code

<web-app>

 <error-page>

  <error-code>404</error-code>

  <location>/err.jsp</location>

  </error-page>