

# JSP Directives

# JSP directives

The **jsp directives** are messages that tells the web container ***how to translate a JSP page into the corresponding servlet.***

There are three types of directives:

1. **page directive**
2. **include directive**
3. **taglib directive**

Syntax of JSP Directive:

**<%@ directive attribute="value" %>**

# JSP page directive

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

**Syntax:**

***<%@ page attribute="value" %>***

## Attributes of JSP page directive

- import
- contentType
- extends
- info
- buffer
- language
- isELIgnored
- isThreadSafe
- autoFlush
- session
- pageEncoding
- errorPage
- isErrorPage

## ***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.

## ***Ex:***

```
<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".

The following statement directs the browser to render the generated page as HTML –

```
<%@ page contentType = "text/html" %>
```

The following directive sets the content type as a Microsoft Word document –

```
<%@ page contentType = "application/msword" %>
```

## ***extends:***

The extends attribute defines the parent class that will be inherited by the generated servlet. It is rarely used.

## ***Info:***

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

Ex:

```
<html>
<body>

<%@ page info="composed by Sonoo Jaiswal" %>
Today is: <%= new java.util.Date() %>

</body>
</html>
```

The web container will create a method `getServletInfo()` in the resulting servlet.

```
public String getServletInfo() {
    return "composed by Sonoo Jaiswal";
}
```

## ***buffer:***

The buffer attribute sets the buffer size in kilobytes to handle output generated by the JSP page. The default size of the buffer is 8Kb.

### **ex:**

```
<%@ page buffer="16kb" %>  
Today is: <%= new java.util.Date() %>
```

## ***language:***

The language attribute specifies the scripting language used in the JSP page. The default value is "java".



## ***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.

***<%@ page isELIgnored="true" %>//Now EL will be ignored***

## ***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.

***<%@ page isThreadSafe="false" %>***

## ***errorPage:***

The `errorPage` attribute is used to define the error page, if exception occurs in the current page, it will be redirected to the error page.

```
//index.jsp
<html>
<body>

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

<%= 100/0 %>

</body>
</html>
```

## ***isErrorPage:***

The `isErrorPage` attribute is used to declare that the current page is the error page.

```
//myerrorpage.jsp
<html>
<body>

<%@ page isErrorPage="true" %>

    Sorry an exception occurred!<br/>
    The exception is: <%= exception %>

</body>
</html>
```

# 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 is Code Reusability.*

**Syntax:**

**`<%@ include file="resourceName" %>`**

## Example:

- In this example, we are including the content of the header.html file. To run this example you must create an header.html file.

```
<html>  
<body>  
  
<%@ include file="header.html" %>
```

```
Today is: <%= java.util.Calendar.getInstance().getTime() %>
```

```
</body>  
</html>
```

# 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.

Ex:

```
<html>
<body>

<%@ taglib uri="http://www.google.co.in" prefix="mytag" %>

<mytag:currentDate/>

</body>
</html>
```