

Java Server Pages

Presented by : Asfiya Khan
(Sr. Technical Trainer)

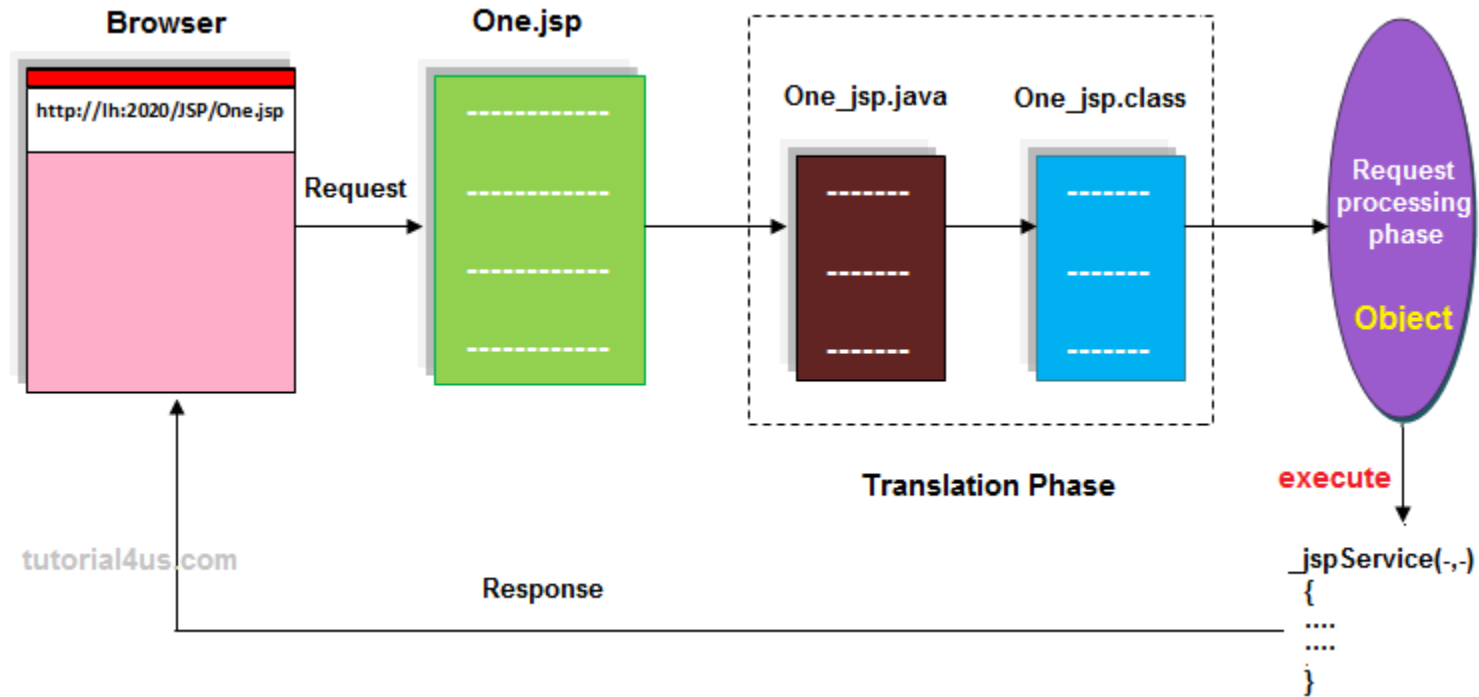
Agenda

- **Introduction to JSP Technology**
- **Lifecycle of JSP**
- **JSP Directives**
- **JSP Implicit Objects**
- **JSP Standard Actions**

Introduction to JSP

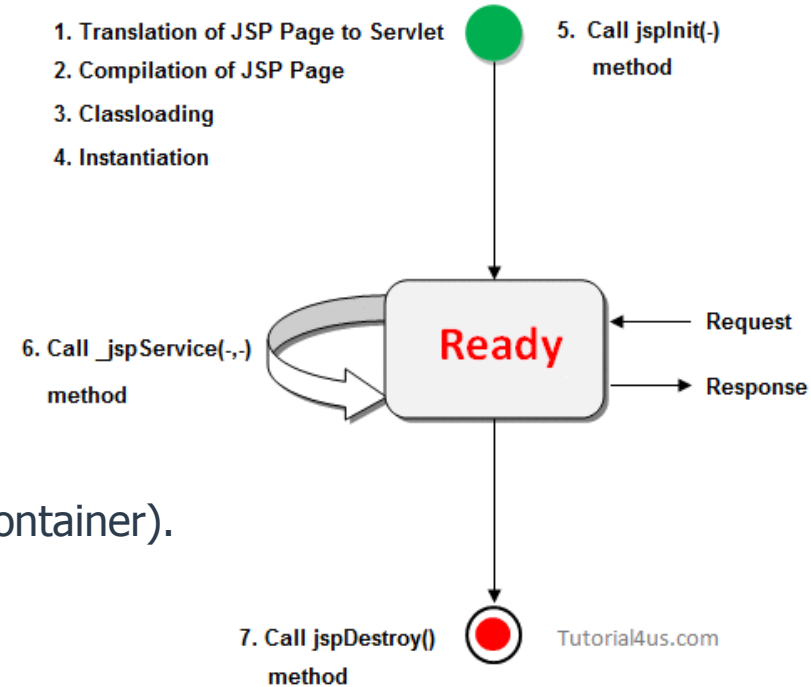
- Embedding java code into tags
- Separation of Presentation from Business logic
- Template based content generation

How JSP works?



Life Cycle of JSP

- Translation of JSP Page to Servlet
- Compilation of JSP Page
- Classloading (class file is loaded by the classloader)
- Instantiation (Object of the Generated Servlet is created).
- Initialization (`jspInit()` method is invoked by the container).
- Request processing (`_jspService()` method is invoked by the container).
- Destroy (`jspDestroy()` method is invoked by the container).



JSP Components

Three types of predefined tags:

- Scripting elements
- Implicit objects
- Directives
- Actions

JSP Scripting Elements

	Start tag	Purpose	End tag	Inside class scope	Inside JSP Scope	Session
JSP Declaration	<code><% !</code>	Declaration variable and method	<code>% ></code>	yes	no	yes
JSP Expression	<code>< % =</code>	Display response on browser	<code>%></code>	no	yes	no
JSP Scriptlet	<code>< %</code>	Defining java code	<code>%></code>	no	no	yes
JSP Comment	<code>< % - -</code>	Comment discription	<code>- - %></code>	yes	yes	not applicable

JSP Implicit Objects

Object	Description
Request	This is the HttpServletRequest object associated with the request.
Response	This is the HttpServletResponse object associated with the response to the client.
Out	This is the PrintWriter object used to send output to the client.
Session	This is the HttpSession object associated with the request.
Application	This is the ServletContext object associated with application context.
Config	This is the ServletConfig object associated with the page.
pageContext	This encapsulates use of server-specific features like higher performance JspWriters .
Page	This is simply a synonym for this , and is used to call the methods defined by the translated servlet class.
Exception	The Exception object allows the exception data to be accessed by designated JSP.

JSP Directives

- The directive elements are used to do page related operation during page translation time.
- There are three types of directives:
 1. Page directive
 2. Include directive
 3. Taglib directive

JSP Directives

The general syntax for JSP Directives

`<%@ directive [---] %>`

- `@page` : Controls JSP Page properties
- `@include` : Includes content of a file into JSP page at translation time
- `@taglib` : Makes a custom tag library available within JSP

Page Directive Attributes

- import
- language
- extends
- session
- buffer
- isThreadSafe
- info
- errorPage
- isErrorPage
- contentType
- autoflush

Include directive

Syntax:

```
<%@ include file= "file name" %>
```

Include directive

Syntax:

```
<%@ include file= "file name" %>
```

JSP Standard Actions

Action element	Description
<jsp:useBean>	Makes a JavaBeans component available in a page
<jsp:getProperty>	Gets a property value from a JavaBeans component and adds it to the response
<jsp:setProperty>	Sets a JavaBeans component property value

JSP Standard Actions

<jsp: include>

<jsp: forward>

<jsp: param>

<jsp: params>

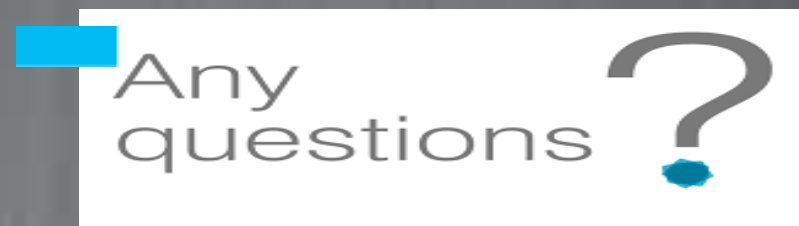
<jsp: plugin>

<jsp: useBean>

<jsp: setProperty>

<jsp: getProperty>

<jsp: fallback>



Thank You!