

(JSP Tutorial.1)

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(Web Engineering - JSP Lecture.1) [Introduction, JSP Life Cycle]

JSP (JavaServer Pages)

↳ Server-side programming technology that enables the creation of dynamic, platform-independent method for building web-based applications.

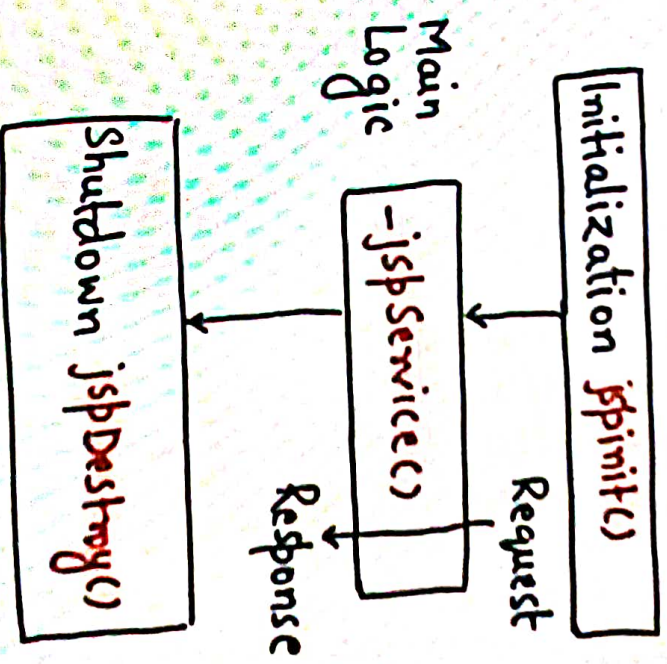
→ Helps in building web pages that supports dynamic content.

→ Inserts Java code in HTML Page.

JSP Life Cycle

Similar to the Servlet life cycle with an additional step.

↳ compilation of JSP Page into a Servlet Page.



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(Web Engineering - JSP Lecture.1)

JSP life cycle.

i) JSP Compilation

↳ i) Parsing the JSP

ii) Turning the JSP into the Servlet

iii) Compiling the Servlet

ii) JSP Initialization

↳ jspsinit() method, before any request is served.

iii) JSP Execution (Main logic)

jsp engine → -jspService() method

HttpServletRequest → HttpServletResponse

iv) JSP cleanup

jspDestroy() method.

↳ destroy method of Servlet.

[JSP Lecture.2]

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[Web Engineering - JSP Lecture.2] [JSP Programming Introduction]

i) Scriptlet: Can contain any no. of JAVA language statements, variable or method declarations, or expressions `<Html>`

Syntax:- `<% Code %>`
`</Html>`

ii) JSP Declarations: declares one or more Variables or methods.

`<%! Declaration!%>`

(iii) JSP Expression: contain scripting language expression that is evaluated, converted to a string.

`<% = expression!%>`

→ Value returning is converted to string.

(iv) JSP Comments:

`<%-- JSP Comment--!%>`

↪ (v) JSP Directives: Affect overall structure of Servlet class.

`<%@ directive attribute = 'Value'!%>`

(JSP Lecture.2)

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[Web Engineering - JSP Lecture.2]

Directive

Description

<%@page...%>

page-dependent attributes.
Scripting lang, Error page etc.

<jsp:action_name attribute = "Value">

JSP Actions:- Use Constructs in XML Syntax

to control the behavior → Servlet engine

<%@include...%>

Includes a file during translation phase

Syntax

Purpose

<%@taglib...%>

Declares a tag lib, containing custom action.

jsp:include

Includes a file at the time
is page is requested.

~~jsp~~

jsp:plugin,

jsp:body

jsp:useBean

Find and instantiate
JavaBean.

jsp:forward

Forwards the requests to a
new page.

jsp:text

write template text.

(JSP Lecture 3)

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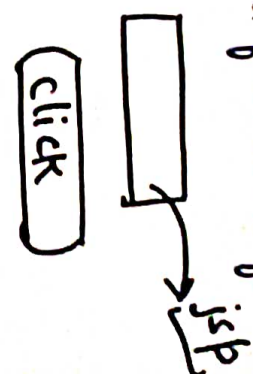
(Web Engineering - JSP Lecture 3) [First JSP Program]

Simple JSP Page

```
<html><head>
<title>Simple JSP
</title></head>
<body> (a.jsp)
<%
out.println("<h1>
JSP</h1>");
== insert java
code in
html
%>
</body>
</html>
```

index.html JSP Page that reads data from HTML form

```
<html>
<head><title>...</title></head>
```



```
<body>
<form method="post" action="form.jsp">
<input type="text" name="f-name">
<input type="Submit" value="Click" name="b1">
</form> </body> </html>
```

Same

```
// form.jsp
<body>
<% = request.getParameter("f-name") %>
</body>
```


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[Web Engineering- JSP Lecture.4] [Custom Tags in JSP]

Custom tags are user-defined tags.

- ↳ Eliminates the need of scriptlet tag.
- Separating business logic from jsp
- Re-usability.

Syntax:

<prefix:tagname attr1=Value1... attrn=Value n />

Create Tag Handler class (inherent TagSupport class and override doStartTag() method)

↳ Create TLD file → info of tag and tag handler class.

↳ using of custom tags in jsp file.

Thel.java → Business logic
mytag.Hd

↳ <tag>

```
<name>eec</name>
<tag-class>com.ec.Thel</tag-class>
```

</tag>

jsp page.

```
<%@taglib uri="WEB-INF/mytag.Hd"
prefix="a"%>
```

Hello: <a:eec>