

JSP – Java Server Pages

1. Understanding JSP lifecycle
2. JSP Actions
3. JSP Directives

1. Understanding JSP Lifecycle

[For interview purpose only]

- 1) Translating jsp to servlet (test.jsp → test_jsp.java).
- 2) Compiles the translated servlet (test_jsp.java → test_jsp.class)
- 3) Loads the translated servlet (test_jsp.class file).
- 4) Creates the instance of translated servlet.
- 5) Calls the lifecycle method **_jspInit ()**
- 6) When user sends the request then container calls the lifecycle method **_JspService ()**
- 7) At container shutdown time, container calls lifecycle method **_JspDestroy ()**

Translation phase is extra, once translation to servlet done then servlet lifecycle starts.

Difference between jsp and servlet? [common interview question]

Servlet	JSP
Servlet is a java code.	JSP is a html based code.
Modification in Servlet is a time consuming task because it includes reloading, recompiling and restarting the server	JSP modification is fast, just need to click the refresh button.
Writing code for servlet is harder than JSP as it is html in java.	JSP is easy to code as it is java in html.
Servlet plays a controller role in MVC approach.	JSP is the view in MVC approach for showing output.
Servlet is faster than JSP.	JSP is slower than Servlet because the first step in JSP lifecycle is the translation of JSP to java code and then compile.

Jsp Directives

Below are important directives in JSP.

- a) include directive.
- b) page directive

Include directive

Include directive is used to include one JSP or html in another JSP.

Syntax:

```
<% @ include file = "some jsp or html" %>
```

Ex.

```
<% @ include file = "x.jsp" %> or
```

```
<%@ include file = "x.html" %>
```

Include directive line will be replaced with context of jsp or html included at translation time.

Header.jsp:-

```
<html>
<body>
<div style="text-align: center;
height: 80px; border: 1px solid black; background-color: red;
">
<h1>Login</h1>
</div>
</body>
</html>
```

Footer.html

```
<html>
<body>
<div style=" height: 80px; border: 1px solid black;
position: relative; background-color: red; ">
<h1>all right reserved Java by Kiran 2011</h1>
</div>
</body>
</html>
```

Login.jsp

```
<%@ include file="Header.jsp" %>
<html>
  <body>
    <div style="height: 450px; margin: 10px ">
      Name:
      <input type="text" name="username" size="30">
      </br>
      Password:
      <input type="password" name="password"
size="30">
      </br>
    </div>
  </body>
```

```
</html>

<%@ include file="Footer.jsp" %>
```

Page directive

This is used for adding properties to jsp page.

All these things are not important as now a days we use angular for front end

Syntax:

```
<%@ page language = "java"
        extends = "some package. some class"
        isThreadSafe= " true/false "
        session = "true/false"
        isErrorPage= " true/false"
        errorPage= " errorpage name"
%>
```

Important jsp standard action (or) built-in actions in jsp

- 1) <jsp : include >
 - a. **Ex.:-**
 - b. <jsp: include page ="header.jsp"/>
 - c. <jsp: include page ="footer.html"/>
- 2) <jsp : forward>
 - a. <jsp: forward page ="hello.jsp"/>

Homework:

This tutorial can be used for only interview. These all things are not getting used in industry as we use angular at front end in new products but good to have knowledge.

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