

Answers for JSP Quiz

1. What is the main value of Java Server Pages?

Java Server Pages (JSP) simplifies HTML compared to how it was done with servlet and it also separates the view from the business logic

2. How are JSP pages related to servlets?

JSP pages are finally converted to Servlets so it is obvious that it is related to the servlet. When the JSP page is first requested, the JSP server compiles the class generated by the JSP engine to a servlet.

3. How are JSP pages related to HTML?

JSP pages are a combination of the HTML code and the Java code. JSP runs on the server whereas HTML runs on the browser.

4. Give an example of a JSP scriptlet and show how it will look in the JSP servlet .

Scriptlets are nothing but java code enclosed within `<%` and `%>` tags. JSP container moves the statements enclosed in it to `_jspService()` method while generating servlet from JSP.

The use of scriptlets in JSP is for Java statements:

`<% java statements %>`

e.g. `<% count++; %>`

5. Give an example of a JSP declaration and show how it will look in the JSP servlet.

JSP declaration are used to declare the instance variable and/or methods inside JSP.

The use of declaration in JSP

<%! java declaration statements %>
e.g. <%! int count = 0; %>

6. Give an example of a JSP comment and show how it will look in the JSP servlet.

JSP comments are used to are used to comments inside JSP.
The comments are commented as
<%-- jsp comments --%>

7. Give an example of a JSP expression and show how it will look in the JSP servlet.

JSP Expression are used to insert Java expression inside JSP. Expects a Java expression and put it inside out.println() in service method.
The use is as follows:
<%= java expression %>
e.g. <%= ++count %> which is equivalent to out.println(++count);

8. Give an example of a JSP directive and show how it will look in the JSP servlet

JSP directives control the processing of an entire JSP page. It gives directions to the server regarding processing of a page.
The use is as follows:
<%@ %>

9. Explain how an EL expression is evaluated.

An EL expression is a compact expression of systematic evaluation of the page, request, session and application scopes. Also if EL cannot find a value for the attribute it ignore it and results null i.e. EL is "null friendly".

10.Explain how servlet attributes are involved in EL expressions

The servlet attribute are involved in EL expression as follows:

EL uses by default `PageContext#findAttribute()` which scans in subsequently the page, request, session and application scopes for the firstnext non-null attribute value matching the given attribute name.:

We can explicitly specify the different scopes as `${pageScope}`, `${requestScope}`, `${sessionScope}` or `${applicationScope}`.

11.Explain how servlets and JSPs use request dispatch to interact.

A `RequestDispatcher` object can forward a client's request to a resource or include the resource itself in the response back to the client. A resource can be another servlet, or an HTML file, or a JSP file, etc. The other servlet or JSP is called as if an HTTP request was sent to it by a browser.