JSP Introduction Quiz

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

Ans-

JavaServer Pages (JSP) are a technology for developing web pages that support dynamic content, allowing developers to insert java code in HTML pages by making use of special JSP tags, most of which start with <% and end with %>.

1. How are JSP pages related to servlets?

Ans-

**SERVLETS AS:**

1. Servlet is a **java class**.
2. Servlet is a **single instance multiple thread web application**, In which HTML code can be included in java code.
3. In servlets the presentation **logic and the B.logic** is tightly coupled.
4. For every **modification done** in servlet program, we need to recompile and reload the application.
5. In servlets **implicit objects** are not available.
6. Servlets are supported to **HTTP, FTP, and SMTP protocols**.
7. Servlets are **need Deployment Descriptor file** (web.xml)

**JSP AS:**

1. Jsp is a **file**.
2. In jsp java code can be included in **HTML code by using special tags**.
3. In jsp's the presentation **logic and B.logic are separated by defining the java beans**.
4. If any modifications done in **jsp's without recompiling and reloading**, the modifications are reflected.
5. In jsp's implicit objects are available which is we can **implement directly** into jsp pages.
6. Jsp are supported to **HTTP protocol** only.
7. No need of **Deployment Descriptor file** (web.xml)
8. How are JSP pages related to HTML?

Ans-

insert java code in HTML pages by making use of special JSP tags, most of which start with <% and end with %>.

1. A JSP page consists of HTML tags and JSP tags while HTML can only have html tags.
2. A JSP page can generate & contain dynamic information while regular HTML cannot.
3. Give an example of a JSP scriptlet and show how it will look in the JSP servlet .

Ans-

<%

String author = request.getParameter("author");

if (author != null && !author.equals(""))) {

%>

<p>You have choose author <%= author %></p>

<%

}

%>

In the converted servlet, the above will be inserted into the service() method as follows:

String author = request.getParameter("author");

if (author != null && !author.equals(""))) {

out.write("<p>You have choose author ");

out.print( author );

out.write("</p>");

}

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

Ans-

<%! private int count; %>

<%! public int incrementCount() { ++count; } %>

will be translated to:

public final class first\_jsp extends org.apache.jasper.runtime.HttpJspBase

implements org.apache.jasper.runtime.JspSourceDependent {

**private int count;**

**public int incrementCount() { ++count; }**

public void **\_jspInit**() { ...... }

public void **\_jspDestroy**() { ...... }

public void **\_jspService**(HttpServletRequest **request**, HttpServletResponse **response**)

throws java.io.IOException, ServletException { ...... }

}

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

Ans-

<%-- JSP comments --%>

ignored by the JSP engine

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

Ans-

<%= Math.sqrt(5) %>

<%= item[10] %>

<p>The current data and time is: <%= new java.util.Date() %></p>

The above JSP expressions will be converted to:

out.print( Math.sqrt(5) );

out.print( item[10] );

out.write("<p>Current time is: ");

out.print( new java.util.Date() );

out.write("</p>");

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

Ans-

<%page import =”packageName.className”>

Translate in to Jsp servlet

Import packageName.className;

Placed at the top of the class servlet

1. Explain how an EL expression is evaluated.

Ans-

An EL expression is a compact expression of a systematic evaluation of the page, request, session and application scopes.

< %= ((Person) request.getAttribute(“person”)).getDog().getName() %>

EL simplifies JSP expression syntax

${person.dog.name}

1. Explain how servlet attributes are involved in EL expressions.

Ans-

EL simplifies JSP expression syntax

${person.dog.name}

Translate in servlet

Person per = (Person) request.getAttribute(“person”);

out.println(per.dog.name);

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

Ans-

<HTML>

<HEAD> <TITLE> JSP Calling Servlet Demo </TITLE> </HEAD>

<BODY>

<!-- Forward processing to a servlet -->

<% request.setAttribute("empid", "1234"); %>

<jsp:include page="/servlet/MyServlet?user=Smith" flush="true"/>

</BODY>

</HTML>

request.setAttribute("username", "Smith");

RequestDispatcher rd = sc.getRequestDispatcher("/jsp/mypage.jsp");