**JSP-Java Server Pages**

**Overview**

* DHTML in Server side with .jsp extension.
* It is embedded into entirely in an Html page.
* It separates its contents from its presentation.
* It mainly focuses on presentation(View).
* It is first time compiled into servlet.
* Next JSP engine(container) executes jsp program.

**JSP Elements: -**

They're like html elements to implement java code in a jsp file.

**syntax of JSP element: -**

<% %>

There are 5 types of JSP Elements: -

1) Directive Tag -> <%@ %>

2) Declaration Tag -> <%! %>

3) Scriptlet Tag -> <% %>

4) Expression Tag -> <%= %>

5) Comment Tag -> <%-- --%>

**I) Directive Tag**

They are jsp elements,they give global information about an entire jsp page.

**Syntax to declare a directive:-**

<%@dirname attributename="value" ... %>

Types

i) Page directive

-To include language ,set session state,set flush state, import package and so on.

<%@page language="java(or)xml" import="pkgs" session="true/false" contentType="" %>

Here,

language - Which language we are going to use.

import - To import java packages.

session - set session state. It must either be true or false, default is true. Whether session is available in our page.

contentType – which type pf content to response on client side.

ii) Include directive

-To include static resource or dynamic resource during the translation time.

<%@include file="URL path" %>

iii) Taglib directive.

- To use custom tags.

<%@taglib uri="URIname" prefix="" %>

**II) Declaration Tag**

<%! %> 🡪 To declare variables and methods during translation time.

**III) Scriptlet Tag**

<% %> 🡪 To embed valid java executable statements.

**IV) Expression Tag**

<%= %> 🡪 To insert a value during request time.

**V) Comment Tag**

<%-- --%> 🡪 Statements with in this tag will be ignored by Server.

**Life Cycle of JSP**

\_jspInit()

\_jspService()

\_jspDestroy()

**Implicit Objects**

1) response 🡪 It is an object of HttpServletResponse class and which encapsulates the information to response to client side.

2) request 🡪 It is an object of HttpServletRequest class and which encapsulates the information which are requested by client.

3) out 🡪 It is an object of javax.servlet.jsp.JspWriter and to write an message on client.

4) session 🡪 It is an object of HttpSession class and to handle session tracking in our jsp page.