

## Unit -IV

### Part – A

**1. What is Client Side Scripting?**

Client side scripts are executed by the browser. It is used for webpage validation and to provide interactive webpages.

**2. What is Server Side Scripting?**

Server side scripts are executed in web server. It is used to access database in server and create dynamic web pages.

**3. What is JSP?**

JSP is Java Server Pages. It is a server side scripting language used to create dynamic web applications.

**4. List any two JSP servers.**

Apache Tomcat server  
Glassfish server

**5. Write the syntax of JSP comments.**

HTML Comments

```
<!-- Comment Text --!>
```

JSP Comment

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

**6. What is page scope?**

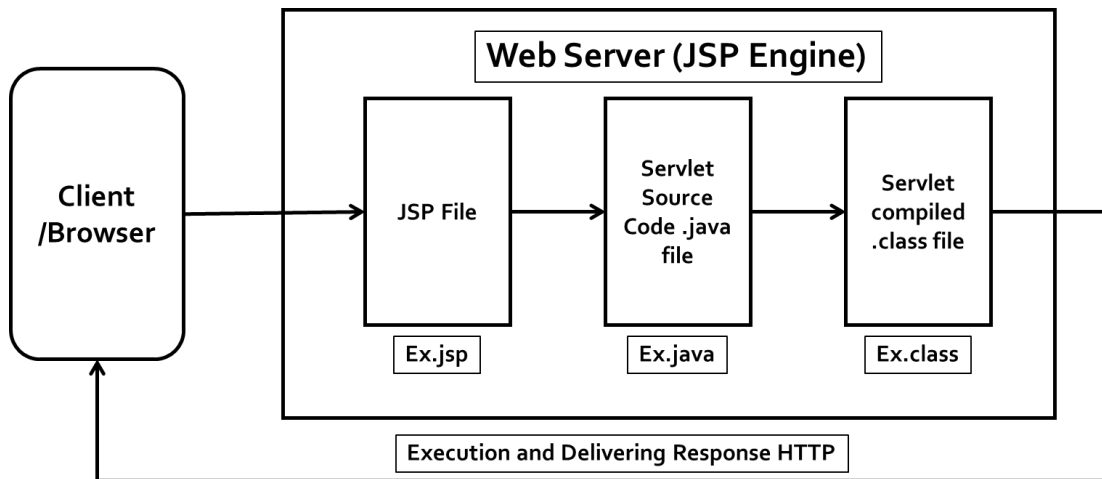
An object with page scope can be accessed only from within the same page. Objects with page scope are out, exception, response, config, page and pagecontext.

### Part – B

**1. Write the comparison between client side and server side scripting.**

<b>Client Side Scripting</b>	<b>Server Side Scripting</b>
Source code is visible	Source code is not visible
Browser executes the code	Not dependent on browser
Runs on users computer	Runs on web server
No Data security	Data security
Example: Javascript	Example: JSP, PHP

**2. Draw the diagram of JSP Architecture.**



JSP engine handles the request form the client and process the requested page. It converts and compiles the page and send the response to client

**3. Write the comparison between servlet and jsp.**

SERVLET	JSP
Servlet is a java code	JSP is a html based code
It is HTML in Java	It is Java in HTML
It is faster than JSP	JSP is slower than servlet
It accept all protocol request	Accept only http requests
Methods can be overridden	Methods cannot be overridden

**4. What is Taglib directive? Give its syntax.**

It is used to declare tag library, which contains custom tags. It is a set of user-defined tags which can be executed by the JSP engine.

Syntax

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

**5. Explain about include directive.**

This directive is used to include one file to another file. The included file can be HTML, JSP, text files, etc..

Syntax

<% @ include file="file\_name" %>

## 6. What is session object?

Session Object is an instance of HttpSession class. It is most frequently used implicit object. It is used for storing user's data to make it available on other JSP pages.

### Important methods

```
void setAttribute(String attName, Object Obj)
Object getAttribute(String attName)
```

## **Part – C**

### 1. Write the advantages and disadvantages of JSP.

#### Advantages

- JSP is easy to use and learn
- JSP supports JAVA API's which can be easily integrated with HTML code
- JSP page can be opened on any browser
- In JSP changes can be made at logic page rather than individual page

#### Disadvantages

- Database access is not easy
- Debugging JSP is hard
- Compilation time is high for the first time

### 2. Discuss the Life Cycle of JSP page.

A JSP page has six phases in its lifecycle. They are

1. Page Translation
2. Page Compilation
3. Load Class and Create Instance
4. JSP initialization (Call jspinit() )
5. JSP execution (Call \_jspService())
6. JSP clean up (Call jspDestroy() )

#### Page Translation

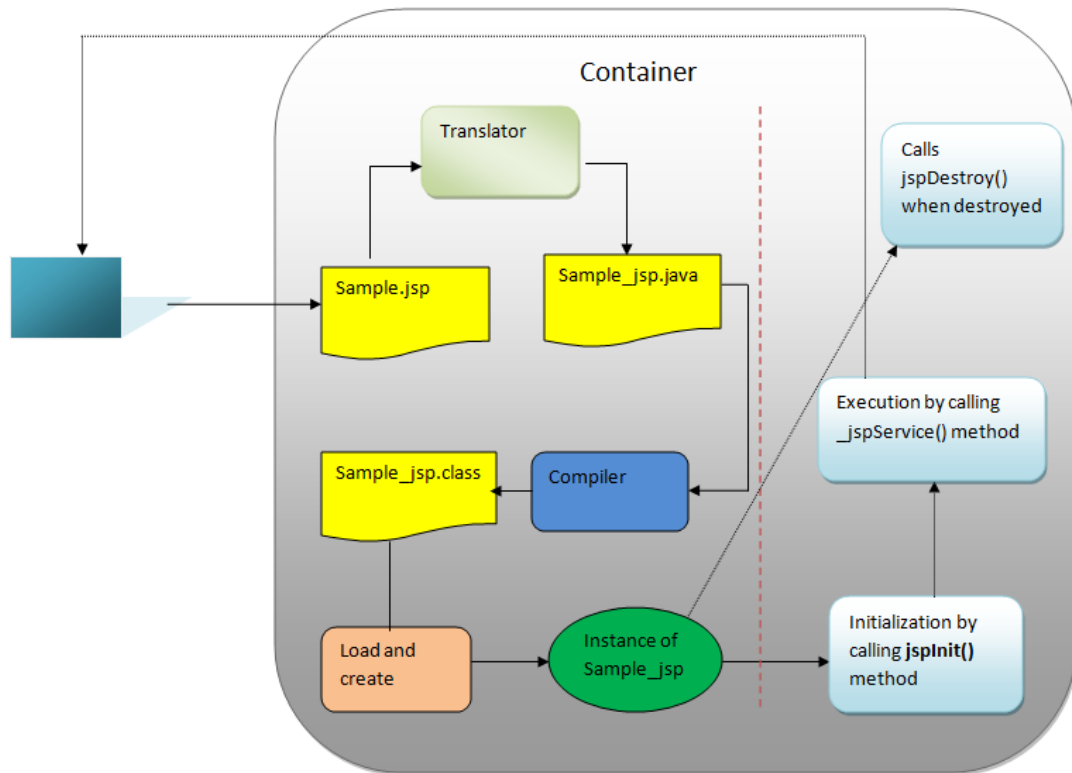
When there is a request for a jsp page. The JSP engine parse the jsp page and it is translated into native java servlet code.

#### Page Compilation

The servlet code (java file) is compiled into a class file.

#### Load Class and Create Instance

An instance of the class is created by loading the class from compiled file.



### JSP initialization

jspinit() method is called to initialize the servlet to process the request.

### JSP execution

For each client request of jsp page the \_jspService() method is called to initialize execution.

### JSP clean up

Once the request is processed the jspDestroy() method is called to perform clean up activity.

### **3. Write about request object in detail.**

The request object is used to get the data on a JSP page which has been entered by the user. It is an instance of HttpServletRequest Class. It is used to request the information like parameter, header information, server name, etc..

Methods of request object are

- Request.getParameter(): it is used to get the value of the request parameter.

#### Syntax

```
var = request.getParameter("Name");
```

- getRequestURL(): it is used to return full URL of the client
- getCharacterEncoding(): it is used to return the character set in which the page is encoded
- getServerName(): it is used to return the server name
- getServerPort(): it is used to return the port
- getRemoteHost(): it is used to return the name of the computer which request the server

- `getQueryString()`: it is used to return the query string
- `getMethod()`: it is used to return method used for request
- `getRemoteUser()`: it is used to return the name of the user

**4. Write a JSP page to display pass or fail for a given mark.**

```
<html>
<head>
  <title>JSP Example</title>
</head>
<body>
  <h1>Declaration and Scriplet</h1>
  <h3>Result:
  <% ! int mark; %>
  <%
    mark = 35;
    if(mark>=40)
      out.println("Pass");
    else
      out.println("Fail");
  %>
  </h3>
</body>
</html>
```

**5. Write a JSP page to explain Expression Tag.**

```
<html>
<head>
  <title>JSP Example</title>
</head>
<body>
  <h1>Expression Tag</h1>
  <%
    int i;
    for(i=1;i<=6;i++)
    {
  %>
    <h<%= i %>>
      Headings Example
    </h<%= i %>>
  <%
    }
  %>
</body>
</html>
```

**6. Write a JSP page to demonstrate the use of include directive.**

head.html

```
<h1>Include Directive</h1>
<p> This is an example of Include Directive</p>
```

eg.jsp

```
<html>
  <head>
    <title>Include Directive</title>
  </head>
  <body>
    <% @ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"% >
    <% @ include file ="head.html" % >
    <h4>Above Content is include from HTML file</h4>
  </body>
</html>
```