JSP (Java Server Page)

➔ It is improved version of servlet

➔ It is a combination of java and html

Servlet	JSP
HTML code / Java code	Java code / HTML code
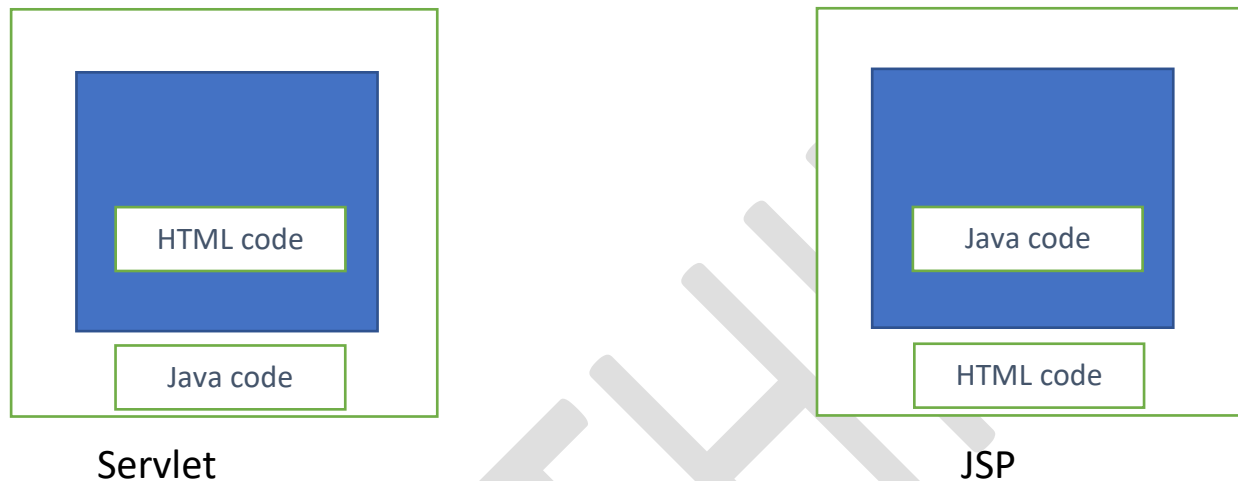
JSP Life Cycle:

➔Translation: -

      This translation phase deals with the syntactic correctness of JSP. Here JSP file is translated to java file

➔compilation: -

      Here the generated java file is compiled to a class file. Then class loader loads class file into memory . The loaded class can then be used to serve incoming requests for the JSP page.

➔Instantiation

      Here the container creates an instance for the class. The container manages one or more instances by providing responses to requests.

➔initialization

JspInit() method is called only once during the life cycle immediately after the generation of Servlet instance from JSP.

➔service

_JspService() method is used to serve the raised requests by JSP. It takes request and response objects as parameters. This method can not be over ridden.

➔destroy

Here JspDestroy() method is called only once during the life cycle. If you need to perform any cleanup task like closing open files, or releasing database connections jspDestroy() can be overridden.

In jsp we mainly make use of two packages:

Javax.servlet.jsp

Javax.servlet.jsp.tagext

These two packages are present in the servlet API

Here we write java codes in html page by using Tags

➔scriptlet tag

➔expression tag

➔declaration tag

Scriptlet tag: -

It is written as <% %>

Scriptlet tag content are written into service method

Expression tag: -

It is indicated as <%= %>

It is used to print the java content to the html page.

Declaration tag: -

It is used for declaring any method and static and non-static variable

Content of declaration tag is written outside the method.

Directive tags: -

Directives are written as <%@ %>

It is used for giving or adding more information to the JSP

There are 3 directives:

→page

→include

→taglib

1. Page directive: -

It is written as <%@page %>

→It is used for giving information to current JSP page.

Attributes of current JSP page: -

a. language: -

→This attribute tells about the language which is used and which is translated late.

→value of this attribute is always java.

language="java"

b. contentType: -

→this attribute decide what type of response need to be given.

contentType ="text/html"

c. pageEncoding: -

→this is about the character set included in the current page.

d. Import: -

→it is used to import library file.

e. errorPage: -

→This defines the destination page to which we need to redirect if any error occurs in the current page.

f. isErrorPage: -

→This is used to indicate the current page is handling the error.

isErrorPage ="true"

g. extend: -

→by this attribute we can extend any class.

extends = "com.example.xyz"

2.Include: -

It is used to include any jsp or html page to the current page

<%@ include=""%>

3.taglib: -

It is used for including 3rd party jsp tags (spring)

<%@taglib

prefix="form" url="http://www.springframework.org/tags/form"

%>

Implicit Objects: -

In JSP there are predefined words which represent the objects.

request → HttpServletRequest

response → HttpServletResponse

session → HttpSession

exception → Throwable

out → PrintWriter (JspWriter)

config → ServletConfig

application → ServletContext

page → Object

pageContext → PageContext