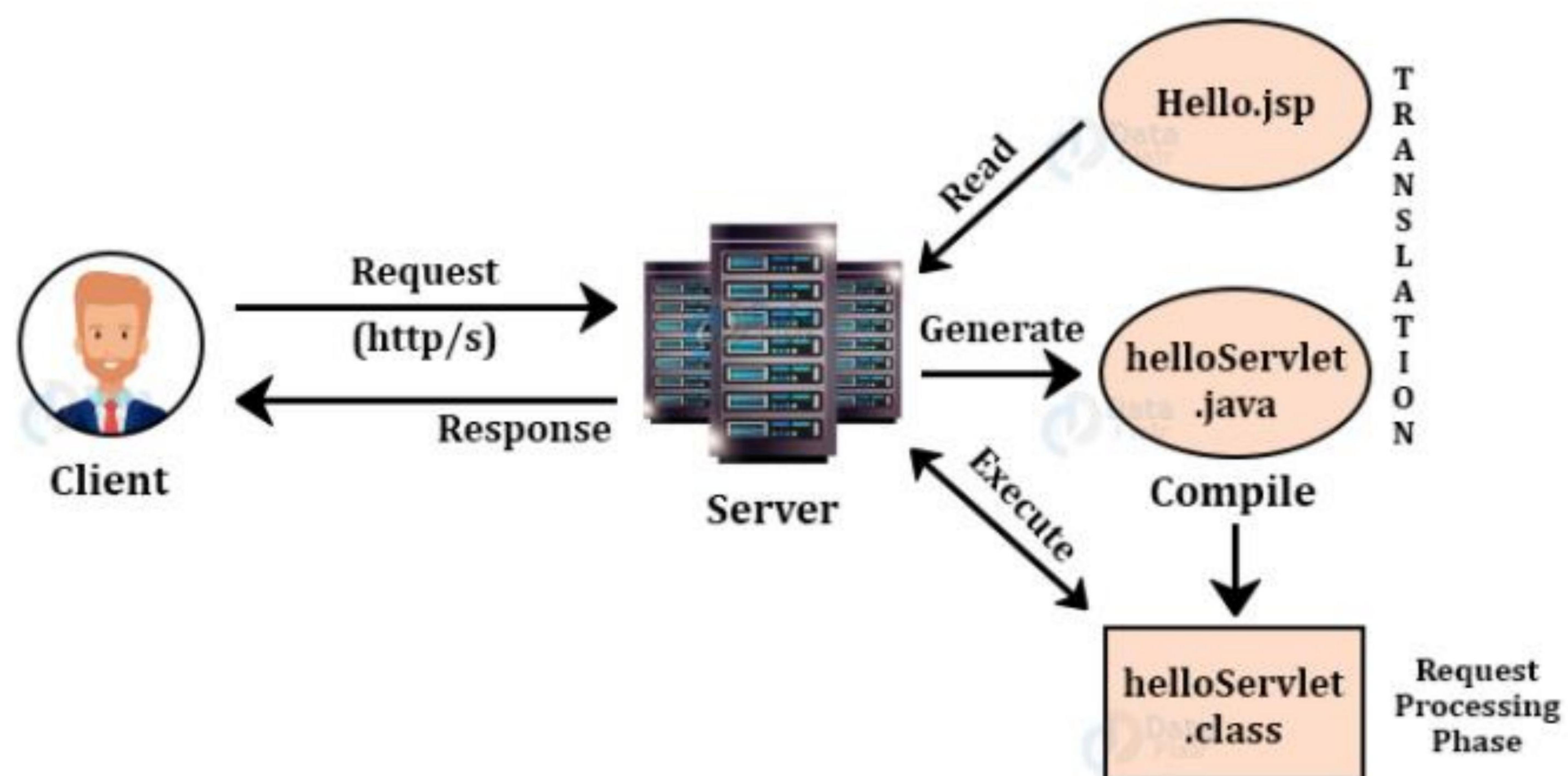


Chapter 16: Java Server Pages - JSP

JSP Introduction:

- JSP stands for Java Server Pages.
- JSP is an extension to Servlet technology but way effective and efficient.
- JSP is easy and fast to design and develop.
- JSP files have extension of .jsp.
- JSP file will have both HTML and Java Code.
- JSP can be used for both:
 - Front end
 - Writing Business Logic.



- 1) Client sends an http request for .jsp page to the server.
- 2) Webserver recognizes the request for jsp page and it forwards the jsp page to JSP engine.
- 3) JSP engine converts the JSP page(.jsp) into Servlet (.java).
- 4) .java is converted into .class file.
- 5) .class file is executed and output/response is produced in HTML format.
- 6) Web server forwards the response to the client's browser.

JSP Elements:

Scriptlet:

A scriptlet can contain any number of JAVA language statements, variable or method declarations, or expressions that are valid in the page scripting language.

Syntax: `<% code fragment %>`

Expression:

A JSP expression element contains a scripting language expression that is evaluated, converted to a String, and inserted where the expression appears in the JSP file.

Syntax: `<%= expression %>`

Declarations:

A declaration declares one or more variables or methods that you can use in Java code later in the JSP file. You must declare the variable or method before you use it in the JSP file.

Syntax: `<%! declaration; [declaration;]+ ... %>`

JSP Implicit Objects:

Web containers create implicit objects when they translate JSP pages into servlets.

out:

it is used to write data into buffer which would be sent to the client as the output.

out has methods: `print()`, `println()`, etc

request:

It is created each time request is generated.

request has methods: `getParameter()`, `getParameterNames()`, `getParameterValues()`, etc

response:

It is response given to the user.

request has methods: `sendRedirect()`, `setContentType()`, etc

session:

It is used to get session information.

session has methods: `setAttribute()`, `getAttribute()`, etc