

JSP Technology

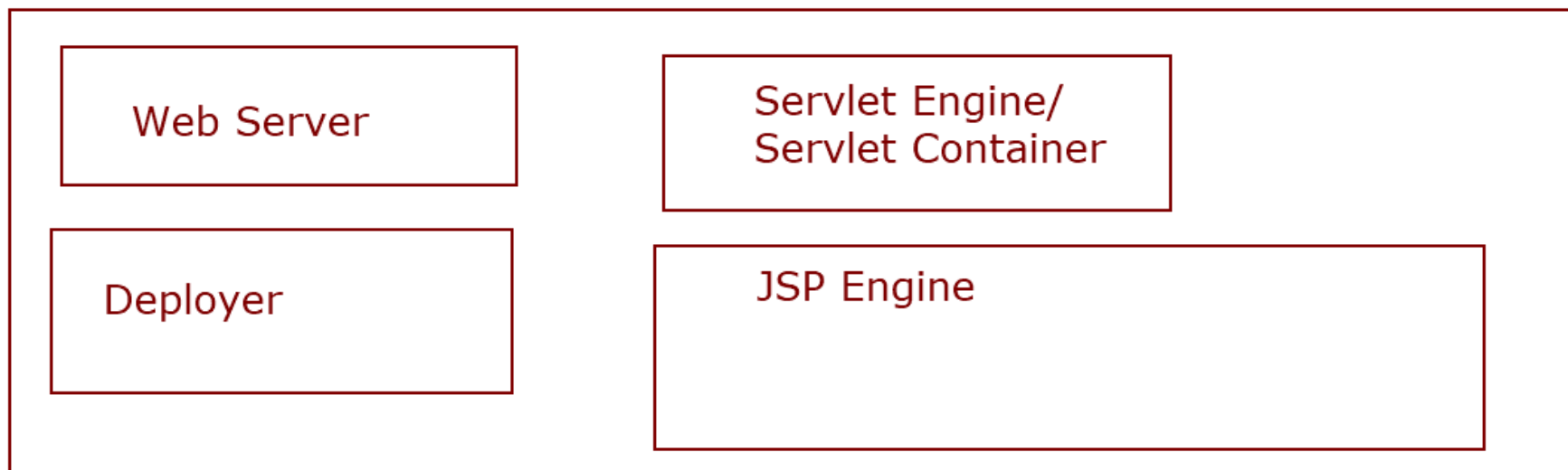
1. Syntax
2. Directive
3. Tag Libraries

All JSP Pages are parsed and compiled into Servlets with help of the JSP Engine that uses the JSP Parser.

Servlet => Servlet Container

JSP -> Servlet -> JSP Engine

Tomcat



1. JSP Syntax

- a. Directive `<%@ %>` - A directive is an instruction to you want give to the JSP Engine specifying how the JSP File will be processed.
 - i. page -> its the page level settings/properties that are being specified (9-10)
 - ii. include -> this tells the JSP Engine to include the contents of another file into the current jsp page.
 - iii. taglib -> tells the JSP Engine which all custom tags are being used in current jsp page.
- b. Declaration `<%! %>` - any functions/data-members including the init and destroy that I need to define for the current jsp page will be defined in the Declaration block.
- c. Scriptlet `<% %>` - Any java code that u wish to execute on the server side will be defined within a scriptlet, you can have as many scriptlets as u wish as long as they are not nested.
- d. Expression `<%= %>` - A java statement that generates an output that needs to be shown on the client browser will be defined in an Expression. Expressions contain only 1 statement and hence do not end with a semi-colon, they cannot be nested.

contd.....

e. Comment `<%-- --%>`

f. EL (Expression Language) `>=2.0` `${ }`

an EL is convenient way of outputting data or simple processing which can also be used by an Web Designer. It has its own set of pre-defined objects that 1 must use.

2. Implicit Objects - Are a set of pre-defined objects that are by default available in any Expression or Scriptlet

i. request - HttpServletRequest

ii. response - HttpServletResponse

iii. session - HttpSession

iv. config - ServletConfig

v. application - ServletContext

vi. page - Object (page refers to this only)

vii. exception - Throwable

viii. pageContext - PageContext (wrapper object that holds all the 8 implicit objects of JSP)

ix. out - JspWriter (JspWriter is a buffered version of the PrintWriter)

3. Tag Libraries -

- i. `<jsp:useBean>` = allows to instantiate and use any POJO class in Java.
- ii. `<jsp:setProperty>` = sets the value of the property of the bean
- iii. `<jsp:getProperty>` = retrieves the property value
- iii. `<jsp:forward>` = transfer the control to another jsp page or url
- iv. `<jsp:include>` =include the contents after processing of another jsp page or url
- v. `<jsp:plugin>` = to use other controls / apps in the jsp page.