

Rafizza Expertise, PT

# Overview

# Java

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# Java

## Java 2 Standard Edition Software Development Kit (J2SE SDK):

Software developers use three different versions of Java:

- Java 2 Micro Edition (J2ME)
- Java 2 Standard Edition (J2SE)
- Java 2 Enterprise Edition (J2EE)

# J2ME

J2ME is used for developing applications for small devices such as phones or personal digital assistants (PDAs). It's a stripped-down version that's highly optimized for these devices' limited capabilities.

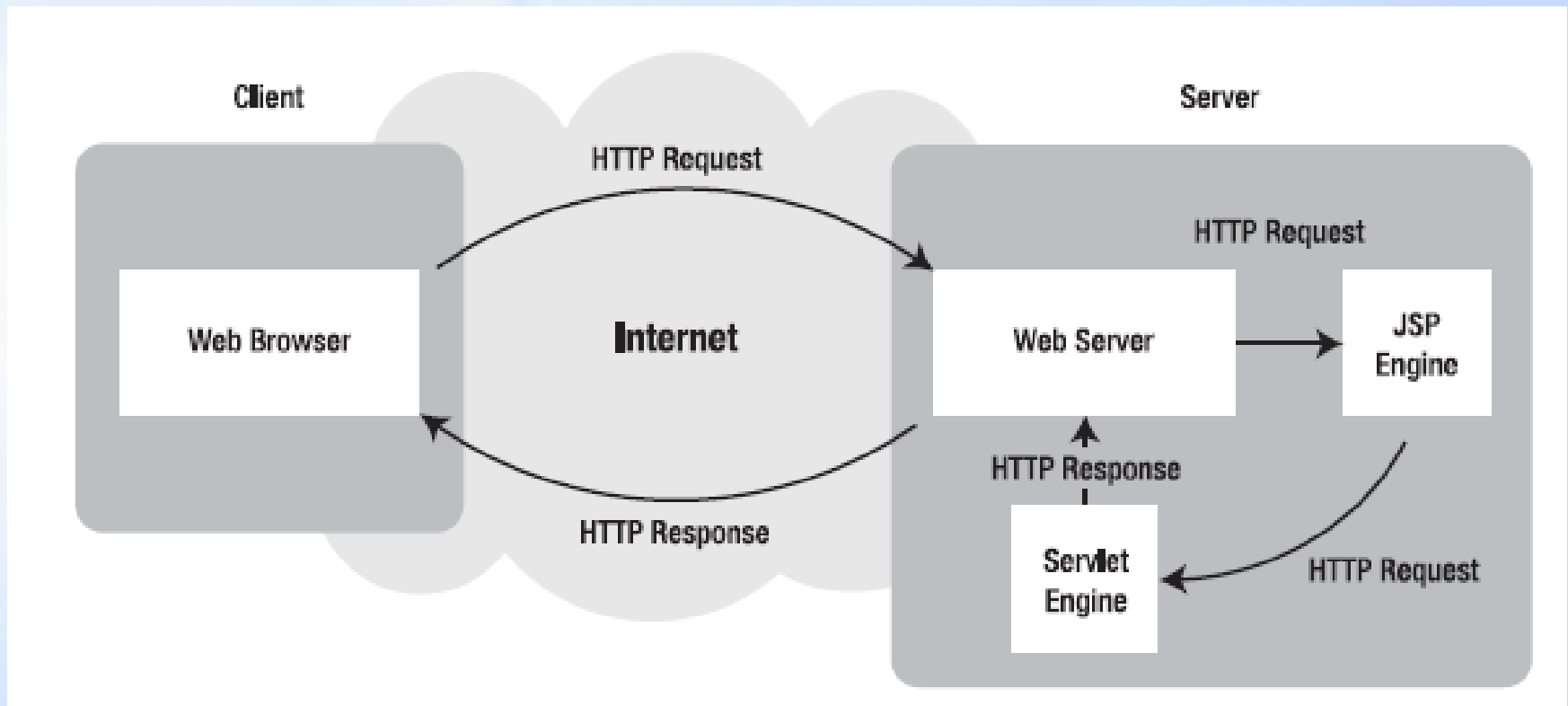
# J2EE & J2SE

J2SE is the standard version of Java for developing everything else from games to business applications. J2EE is built on top of J2SE, adding a plethora of features geared toward applications for large businesses (socalled enterprises). All the extras included with J2EE can be downloaded separately and used with J2SE.

# Apache Tomcat

Tomcat is what's known as a *servlet container*. In the Java world, a servlet container is responsible for receiving Web requests and passing them to Java Web applications.

# Java Server



# JSP Web Server

The following steps explain how the web server creates the web page:

1. As with a normal page, your browser sends an HTTP request to the web server. This doesn't change with JSP, although the URL probably ends in .jsp instead of .html.
2. The web server is not a normal server, but rather a Java server, with the extensions necessary to identify and handle Java servlets. The web server recognizes that the HTTP request is for a JSP page and forwards it to a JSP engine.

# JSP Web Server ... cont 2

3. The JSP engine loads the JSP page from disk and converts it into a Java servlet. From this point on, this servlet is indistinguishable from any other servlet developed directly in Java rather than JSP, although the automatically generated Java code of a JSP servlet is difficult to read, and you should never modify it by hand.



# JSP Web Server ... cont 3

4. The JSP engine compiles the servlet into an executable class and forwards the original request to a servlet engine. Note that the JSP engine only converts the JSP page to Java and recompiles the servlet if it finds that the JSP page has changed since the last request. This makes the process more efficient than with other scripting languages (such as PHP) and therefore faster.

# JSP Web Server ... cont 4

5. A part of the web server called the *servlet engine* loads the Servlet class and executes it. During execution, the servlet produces an output in HTML format, which the servlet engine passes to the web server inside an HTTP response.
6. The web server forwards the HTTP response to your browser.

# JSP Web Server ... cont 5

7. Your web browser handles the dynamically generated HTML page inside the HTTP response exactly as if it were a static page. In fact, static and dynamic web pages are in the same format.