



JSP and Servlets in Java

¹Piyush Joshi,²Nimish Nagar,³Krish Shah,⁴ Kuldeep Singh,⁵Gopla Gurjar

B. Tech Scholar

Department of Computer science engineering, Arya College of Engineering and I.T Kukas, Jaipur (302028)

¹piyush.limph@gmail.com,²nimishnagar5@gmail.com,³ks964982@gmail.com,⁴kuldeepsingh9982@gmail.com,⁵singhgurjar21@gmail.com

ABSTRACT:

This article presents a method for static reasoning about the behavior of applications that are built using Jsp and java servlets. Java server pages in java and Servlet usage in home Web applications. In this article we will cover a variety of topics includes:

- Jsp and servlet intro.
- The architecture of JSP and Servlet.
- Difference of both Servlet and JSP.

Introduction:

1. JSP-

Java server page that is also known as JSP. It is a server side programming technology that can create powerful platforms that are independent to build web based applications. Jsp can also access the entire java api family that includes Jdbc api for accessing enterprise databases.

JSP is a technology of the web that runs on the server computer and allows us to write the scripts i.e Html_Css_JS. JSP does support the tag libraries that are used by java code snippets and gives the freedom to control the page flow or the output.

Why JSP ?

JSP is designed to encapsulate domain logic in standard and custom markup and separate the domain layer from the presentation logic of the JSP element. Jsp is the api of java api family, that includes the JDBC Api database for business access.

Jsp is a Java servlet page, i.e. a deep servlet. It works the same way as the servlet in sending and receiving HTTP requests. The feature of jsp is that it can be written with

HTML code. The HTML code you wrote will appear on the page, but the Jsp code will not appear.

JSP pages are similar to HTML documents, but they contain Java and XML elements in addition to the regular HTML, JavaScript, and CSS elements.

JSP technology (long) is based on Servlet technology. Create a JSP Servlet and

HTML.

2. Servlets-

It's a Java program language that's used to extend the functions of the server. Although servlet can also respond to any type of requests, they are most often used to extend the request from the web servers, so they can also be considered as java api that run on server rather than on the browser.

Servlet is a java application programming interface (API) that runs on the server computer, intercepts requests from the client, and sends responses. A good example of this is HttpServlet, which provides a way to create Http requests using popular http methods such as Get and Post.

Why servlet ?

- Read user-submitted information. They usually come from text on web pages, applets, or an HTTP client service.
- Learn more about the request: browser analysis, usage type, cookie price, etc.
- Create results. This often includes access to business layer services.
- Format the output into a file. Usually the results are placed in HTML pages.
- Defines the parameters of the appropriate HTTP response. Return information must be sent to the browser, cookies must be set, and a session must be established.
- Send information back to the client. Format text (HTML), binary format (e.g. image), zip, etc. it could be.

Features-

1. Create Interactive website

This is one of the main uses of jsp is to create not only static but dynamic and alive webpages. Web pages that are easily available to interact with users in real time.

2. Easy to read data from user

Users can access some information by interacting with JSP controls such as text boxes, buttons, drop-down lists, and checkboxes. When JSP is used, it's easy to read the info entered by the user and send it to the server.

For eg. User enters a form and clicks submit.

The data entered in the form is done using Jsp is to read and send to the server for further processing.

3. Easy to display server response

After the data is read from the client. The input is sent to the server and response is sent back to the client and displayed.

4. Allows to add Java to website

Jsp stands for Java server pages and one of the major functions of jsp is to provide the power of Java to our web pages, allowing Java code to be inserted into HTML code to make them powerful and interactive. JSP pages are converted into bytecode java files so JSP can also use all Java features like security, flexibility, platform independence.

5. Easy to connect database.

The main function among the others of JSP is that it allows us to easily connect with our website to a database so we can send the data given by the user to the database and then read it back from the file when required.

6. User track

Jsp allows the user to keep track of the user when user makes interaction with the website by keeping the information in Interactive Objects, Objects or Cookies (which store user-specific information). When you need to track one or more users or the choices the user makes during the interaction with the current website.

7. Easier to code.

Jsp is about adding java to any webpages html and it's fairly easy to learn and apply. Anybody with a little knowledge of java and html can learn jsp in very less time.

JSP and SERVLET difference

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|--|---|
| JSP is a type of scripting language that has the ability to generate dynamic content. | Servlet is a type of program that's has the ability to compile and to create dynamic content. |
| JSP run slower as compared to servlet as it takes compilation time to convert into java servlet. | This one runs faster as compared to jsp. |

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| Easier to code in jsp than servlet. | It has code to write. |
| JSP is preferred when there isn't much processing required. | It's a little code to write here. |
| The functionality of JSP can be achieved on the client side by running JS on the client side. | There are no methods like this in the case of servlet. |

Conclusion

In this research paper we took all aspects of java server pages and servlets into consideration, discussing why jsp and servlets are required. Comparison between the jsp and servlet has also been made towards the end of this paper.

There is more thing to consider is that servlet takes less time to compile things as compared to the other one whereas jsp is a tool which simplifies the process and makes the process automated.

Reference

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