Web Development with Jakarta Server Pages and Servlets

Session: 10

JSP Implicit Objects and Standard Actions



Objectives

- Explain the concept of implicit objects in JSP
- List various types of implicit objects in JSP
- Explain how to use the request and response objects
- Identify use of the out object
- Describe how to use the session object
- Explain the application object
- Identify the use of pageContext object
- Explain how to use the page and config objects
- Outline the concept of standard actions in JSP
- Describe how to use the <jsp:include> and <jsp:forward> elements

Introduction

Input and Output Objects

• Controls page input and output.

Scope Communication and Control Objects

• Provides access to all the objects available in the given scope.

Servlet Objects

 Provide information about the page context.

Error Object

Handles error in a JSP page.

Input and Output Objects

request

Contains the information sent from the client browser.

Includes the source of the request.

response

Manages the response generated by JSP.

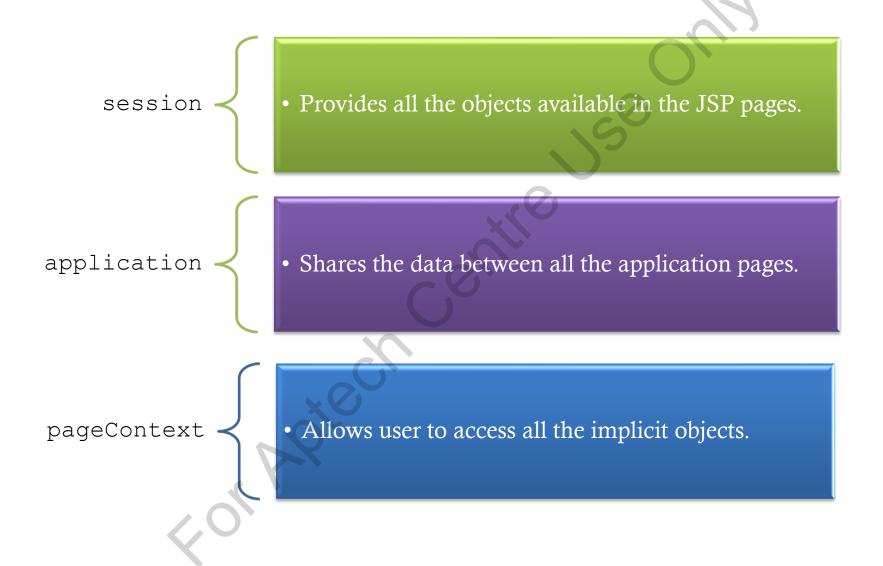
Sends response to client through HTTP.

out

Represents the output stream.

Sends output stream to the client as a request response.

Scope Communication Objects



Servlet Objects

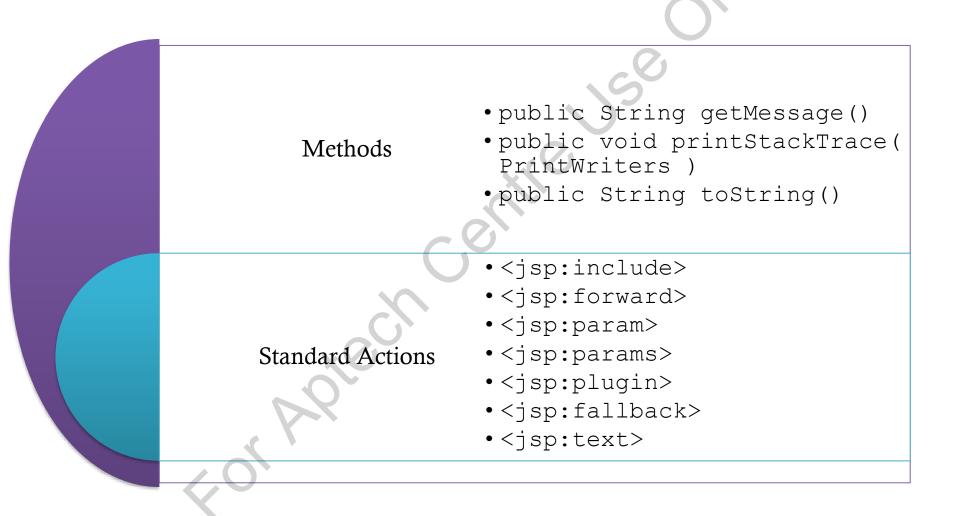


- Contains page scope.
- Is an instance of the java.lang.Object.

config

- Stores the information of the servlet.
- Is an instance of the jakarta.servlet.ServletConfig interface.

error Object



JSP Directives

page

• Specifies properties for a whole JSP page.

include

• Inserts content of another resource in a JSP page at run time.

taglib

• Specifies the tag library used for custom tags.

Summary

- Implicit objects are a set of Java objects that are available in every JSP page.
- Pre-defined variables are accessible within the scripting elements in the JSP pages.
- * The input object represents the data passed through an HTTP request and the output object represents what is sent back to the client in response.
- * During JSP translation phase. These directives inform the Web container on how to convert a Web page into a Servlet.
- * Servlet and JSP pages can process multiple threads simultaneously. The isThreadSafe option helps to identify whether a JSP page is thread-safe or not.
- * A text message that conveys the user that a plug-in could not start is known as fallback.
- * In the client Web browser, the <jsp:plugin> element displays an object, using a Java plugin that is available in the browser or downloaded from a specified URL.