

JSP Implicit Objects

JSP implicit objects are created by container while translating JSP page to Servlet source to help developers. We can use these objects directly in **scriptlets** that goes in service method, however we can't use them in JSP Declaration because that code will go at class level.

We have 9 implicit objects that we can directly use in JSP page. Seven of them are declared as local variable at the start of `_jspService()` method whereas two of them are part of `_jspService()` method argument that we can use.

1. **out Object**
JSP out implicit object is instance of `javax.servlet.jsp.JspWriter` implementation and it's used to output content to be sent in client response. This is one of the most used JSP implicit object and that's why we have JSP Expression to easily invoke `out.print()` method.
2. **request Object**
JSP request implicit object is instance of `javax.servlet.http.HttpServletRequest` implementation and it's one of the argument of JSP service method. We can use request object to get the request parameters, cookies, request attributes, session, header information and other details about client request.
3. **response Object**
JSP response implicit object is instance of `javax.servlet.http.HttpServletResponse` implementation and comes as argument of service method. We can use response object to set content type, character encoding, header information in response, adding cookies to response and redirecting the request to other resource.
4. **config Object**
JSP config implicit object is instance of `javax.servlet.ServletConfig` implementation and used to get the JSP init params configured in deployment descriptor.
5. **application Object**
JSP application implicit object is instance of `javax.servlet.ServletContext` implementation and it's used to get the context information and attributes in JSP. We can use it to get the `RequestDispatcher` object in JSP to forward the request to another resource or to include the response from another resource in the JSP.
6. **session Object**
JSP session implicit object is instance of `javax.servlet.http.HttpSession` implementation. Whenever we request a JSP page, container automatically creates a session for the JSP in the service method.
7. **pageContext Object**
JSP pageContext implicit object is instance of `javax.servlet.jsp.PageContext` abstract class implementation. We can use pageContext to get and set attributes with different scopes and to forward request to other resources. pageContext object also holds reference to other implicit objects.
8. **page Object**

JSP page implicit object is instance of `java.lang.Object` class and represents the current JSP page. `page` object provide reference to the generated servlet class.

9. exception Object

JSP exception implicit object is instance of `java.lang.Throwable` class and used to provide exception details in JSP error pages. We can't use this object in normal JSP pages and it's available only in JSP error pages.