

# EFREI – M1 - Java EE – Implicit Objects

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## 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. Since session management is heavy process, so if we don't want session to be created for JSP, we can use page directive to not create the session for JSP using `<%@ page session="false" %>`. This is very helpful when our login page or the index page is a JSP page and we don't need any user session there.

## 7. pageContext Object

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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 hold reference to other implicit object.

## 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. This object is very rarely used.

## 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.