JSP Implicit Objects-

There are 9 JSP implicit objects. These objects are created by the web container that is available to all the JSP pages.

1. out
2. request
3. response
4. config
5. application
6. session
7. pageContext
8. page
9. exception

1. out

For writing any data to the buffer, It is the object of JspWriter. In case of servlet you need to write as

Example-

PrintWriter out=response.getWriter();

But in JSP, you don't need to write this code.

Example-

```
<html>
<body>
<% out.print ("Today is:"+java.util.Calendar.getInstance().getTime()); %>
</body>
</html>
```

2. request

The JSP request is an implicit object of type HttpServletRequest i.e. created for each jsp request by the web container.

It can be used to get request information such as parameter, header information, remote address, server name, server port, content type, character encoding etc.

It can also be used to set, get and remove attributes from the jsp request scope.

Example-

Register.jsp

```
<html>
<head>
<meta charset="ISO-8859-1">
<title>Registration form</title>
</head>
<body>
<form action="success.jsp">
<input type="text" name="username">
<input type="submit" value="submit"><br/>
</form>
</body>
</html>
```

Success.jsp

```
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<%
String name=request.getParameter("username");
out.print("welcome "+name);
%>
</body>
</html>
```

3. response

In JSP, response is an implicit object of type HttpServletResponse. The instance of HttpServletResponse is created by the web container for each jsp request.

It can be used to add or manipulate response such as redirect response to another resource, send error etc.

Example-

Register.jsp

<html>

<head>

<meta charset="ISO-8859-1">

<title>Registration form</title>

</head>

<body>

<form action="success.jsp">

<input type="text" name="username">

<input type="submit" value="submit">

</form>

</body>

</html>

Success.jsp

<html>

<head>

<meta charset="ISO-8859-1">

<title>Insert title here</title>

</head>

<body>

<%

response.sendRedirect("http://www.google.com");

%>

</body>

</html>

4. config

In JSP, config is an implicit object of type ServletConfig. This object can be used to get initialization parameter for a particular JSP page.

The config object is created by the web container for each jsp page.

Example-

```
<%
String driver=config.getInitParameter("dname");
out.print("driver name is="+driver);
%>
```

5. application
This object can be used to get initialization parameter from configuaration file
(web.xml).
It can also be used to get, set or remove attribute from the application scope.

Example-

```
<%

out.print("Welcome "+request.getParameter("uname"));

String driver=application.getInitParameter("dname");
out.print("driver name is="+driver);
```

%>

6. Session

In JSP, session is an implicit object of type HttpSession.The Java developer can use this object to set,get or remove attribute or to get session information.

Index.html

```
<html>
<body>
<form action="welcome.jsp">
<input type="text" name="uname">
<input type="submit" value="submit"><br/>
</form>
</body>
</html>
```

Welcome.jsp

```
<html>
<body>
<%

String name=request.getParameter("uname");
out.print("Welcome "+name);

session.setAttribute("user",name);
%>
</body>
</html>
```

Second.jsp

```
<html>
<body>
<%
```

```
String name=(String)session.getAttribute("user");
out.print("Hello "+name);


%>
</body>
</html>
```

7. pageContext-

In JSP, pageContext is an implicit object of type PageContext class.The pageContext object can be used to set,get or remove attribute from one of the following scopes:

- o page
- o request
- o session
- o application

8. page

In JSP, page is an implicit object of type Object class.

This object is assigned to the reference of auto generated servlet class. It is written as:

Object page=this;

For using this object it must be cast to Servlet type.

Example:

```
<% (HttpServlet)page.log("message"); %>
```

Since, it is of type Object it is less used because you can use this object directly in jsp.

Example:

```
<% this.log("message"); %>
```