

Assignment-4

Q1. Compare the Jsp expressions, scripts and declaration with an appropriate example.

1. Jsp Declaration:-

A declaration tag is a piece of Java code for declaring variables, methods and classes.

If we declare a variable or method inside declaration tag it means that the declaration is made inside the servlet class but outside the service method.

* Syntax:-

```
<% ! Dec Variable %>
```

* Example:-

```
<body>
```

```
<% ! int count = 10; %>
```

```
<% out.println("The number is " +  
count); %>
```

```
</body>
```

2. Jsp Scripts:-

A scriptlet tag allow to write Java code into Jsp file. Jsp container moves statements in `jspervice()` method while generating servlet from Jsp.

For each request of the client, service method of the Jsp gets invoked hence the code inside the scriptlet executes for every request.

→ Syntax of scriptlets tag

```
<% java code. %>
```

* → Example :-

```
<body>
```

```
<% int num1 = 10;
```

```
int num2 = 40;
```

```
int num3 = num1 + num2;
```

```
out.println("Scriptlet number is "+  
num3); %>
```

```
</body>
```

3. Jsp expression :-

Expression tag evaluates the expression placed in it.

* Syntax :-

```
<% = expression %>
```

* → Example :-

```
<body>
```

```
<% out.println("The expression  
number is"); %>
```



```
<% int num1 = 10;
    int num2 = 20;
    int num3 = 30; %>
```

```
<% = num1 * num2 + num3 %>
</body>
```

Q2 what are implicit objects available to the Jsp page? explain any two.

Ans There are 9 Jsp implicit objects.

→ These objects are created by the web container that are available to all Jsp pages.

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

(i) Jsp out implicit object

Jsp out is used for writing any data to the buffer providing an implicit object name.

" - about of JSP writer.

In case of Servlets you need to write:

```
PrintWriter out = response.getWriter();
```

* Example of out implicit object

index.jsp

```
<html>
```

```
<body>
```

```
<% out.print("Today is " + java.util.  
Calendar.getInstance().getHr  
( )); %>
```

```
</body>
```

```
</html>
```

(ii) Jsp request implicit object

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

It requests information such as parameter, header information, remote address, Server name, Server port, Content type;

* Example of Jsp request implicit object

index.html


```

< form action = " welcome.jsp" >
< input type = " text" name = " ename" >
< input type = " Submit" value = " go" > < br >
< / form >

```

→ welcome.jsp.

```

< %

```

```

    String name = request.getParameter("ename");

```

```

    out.print (" welcome " + name);

```

```

    % >

```

Q3 Define Cookie; How to create and get the Cookie using JSP? Explain with an appropriate example.

⇒ cookies are the text files which are stored on the client machine.

→ They are used to track the information for various purpose.

Example :-

Action cookie.jsp

```

< body >

```

```
<form action = "action_cookie_main.jsp"
      method = "GET">
```

```
username: <input type = "text" name = "username"
```

```
<br />
```

```
Email: <input type = "text" value = "Email"
      <input type = "submit" value = "Submit" />
```

```
< /form>
```

```
< /body>
```

→ Action_cookie_main.jsp

```
< %
```

```
Cookie username = new Cookie("username",
    request.getParameter("username"));
```

```
Cookie email = new Cookie("email",
    request.getParameter("email"));
```

// Add both the cookies in the response header.

```
response.addCookie(username);
response.addCookie(email);
```

```
%>
```


<html>

<head>

<meta http-equiv="Content-type" content="text/html; charset=ISO-8859-1">

<title> Gnum Cookie Jsp </title>

</head>

<body>

 username :

<% = request.getParameter("username") %>

 Email :

<% = request.getParameter("email") %>

</body>

</html>

Q4 How to write method and control statement & loop in Jsp? Explain with an appropriate Example.

⇒ <body>
 <%!
 {
 return a+b;
 }
 %>

```
<% = (value returned by add: " +
    add(5,6)); %>
```

```
</body>
```

In Jsp methods can be either written in declarative tag or scriptlet tags in above example add() method written in declarative tags.

→ The control statements in Jsp can be written in following example.

```
<body>
```

```
<% if (count == 1)
```

```
{
```

```
%>
```

```
<h3> you are first user </h3>
```

```
<%
```

```
{
```

```
else
```

```
{
```

```
%>
```

```
<h3> welcome user </h3>
```

```
%>
```

```
</body>
```