

JSTL Core, Formatting, and Functions Tags - Notes

JSTL (JavaServer Pages Standard Tag Library) provides ready-made tags for common tasks like iteration, conditions, formatting, and string functions.

To use JSTL, add the following at the top of your JSP file:

```
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/fmt" prefix="fmt" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/functions" prefix="fn"
%>
```

1. JSTL Core Tags (c:)

Used for flow control, variables, and iteration.

a) c:out

Syntax:

```
<c:out value="${expression}" />
```

Example:

```
<c:set var="name" value="Sarath" />
```

```
<c:out value="${name}" />
```

Output → Sarath

b) c:set

Syntax:

```
<c:set var="varName" value="value" />
```

Example:

```
<c:set var="marks" value="80" />
```

```
Marks: <c:out value="${marks}" />
```

c) c:if

Syntax:

```
<c:if test="${condition}"> ... </c:if>
```

Example:

```
<c:if test="${marks} >= 50">
```

```
  <p>You Passed!</p>
```

```
</c:if>
```

d) c:forEach

Syntax:

```
<c:forEach var="item" items="${collection}"> ... </c:forEach>
```

Example:

```
<c:set var="fruits" value="$(['Apple','Banana','Mango'])" />
<ul>
  <c:forEach var="f" items="{fruits}">
    <li>${f}</li>
  </c:forEach>
</ul>
```

2. JSTL Formatting Tags (fmt:)

Used for number, date, and message formatting.

a) fmt:formatNumber

Syntax:

```
<fmt:formatNumber value="{num}" type="number|currency|percent" />
```

Example:

```
<c:set var="amount" value="12345.678" />
<p>Currency: <fmt:formatNumber value="{amount}" type="currency" /></p>
```

b) fmt:formatDate

Syntax:

```
<fmt:formatDate value="{date}" pattern="dd-MM-yyyy HH:mm:ss"/>
```

Example:

```
<c:set var="today" value="<%= new java.util.Date() %>" />
<p>Today: <fmt:formatDate value="{today}" pattern="dd/MM/yyyy" /></p>
```

3. JSTL Functions Tags (fn:)

Provide functions for strings and collections.

a) fn:length()

Syntax:

```
${fn:length(stringOrCollection)}
```

Example:

```
<c:set var="msg" value="Hello JSTL" />
Length: ${fn:length(msg)} → Output: 10
```

b) fn:toUpperCase()

Syntax:

```
${fn:toUpperCase(string)}
```

Example:

```
Uppercase: ${fn:toUpperCase(msg)} → Output: HELLO JSTL
```

c) fn:contains()

Syntax:

`${fn:contains(string, substring)}`

Example:

Contains JSTL? `${fn:contains(msg, "JSTL")}` → Output: true

Summary Table

Tag Library	Example
Core (c:)	<code><c:forEach var="i" items="\${list}">\${i}</c:forEach></code>
Format (fmt:)	<code><fmt:formatNumber value="1234.56" type="currency"/></code>
Functions (fn:)	<code>\${fn:toUpperCase('hello')}</code>