

CS320 Web and Internet Programming JSP Standard Tag Library (JSTL)

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Simple JSTL Example

```
<%@ page contentType="text/html" %>
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>

<html><head><title>JSTL Hello</title></head>
<body>

<c:out value="Hello World in JSTL." />

</body>
</html>
```

taglib Directive

◆ URI

- A unique identifier for the tag library
- NOT a real URL

◆ Prefix

- A short name for the tag library
- Could be an arbitrary name

JSP Standard Tag Library (JSTL)

Library	URI	Prefix
Core	http://java.sun.com/jsp/jstl/core	c
XML Processing	http://java.sun.com/jsp/jstl/xml	x
I18N Formatting	http://java.sun.com/jsp/jstl/fmt	fmt
Database Access	http://java.sun.com/jsp/jstl/sql	sql
Functions	http://java.sun.com/jsp/jstl/functions	fn

<http://java.sun.com/products/jsp/jstl/1.1/docs/tlddocs/index.html>

JSTL Core

◆ Flow control

- <c:if>
- <c:choose>
 - ◆ <c:when>
 - ◆ <c:otherwise>
- <c:forEach>
- <c:forToken>

◆ Variable support

- <c:set>
- <c:remove>

◆ URL

- ◆ <c:param>
- <c:redirect>
- <c:import>
- <c:url>

◆ Output

- <c:out>

◆ Exception handling

- <c:catch>

Branch Tags

```
<c:if test=${!cart.notEmpty}> The cart is empty.</c:if>
```

<c:choose>

```
<c:when test=${!cart.notEmpty}>
  The cart is empty.
</c:when>
<c:otherwise>
  <%-- do something --%>
</c:otherwise>
</c:choose>
```

Loop Tags

```
<%-- iterator style --%>
<c:forEach items="${cart.items}" var="i">
  ${i} <br>
</c:forEach>

<%-- for loop style --%>
<c:forEach begin="0" end="${cart.size}" step="1" var="i">
  ${cart.items[i]}
</c:forEach>
```

<forToken> → Exercise

Set and Remove Scope Variables

In Login.jsp

```
<c:set var="authorized" value="true" scope="session"/>
```

In CheckLogin.jsp

```
<c:if test="${empty sessionScope.authorized}">
  <c:redirect url="Login.jsp" />
</c:if>
```

URL Tags

```
<c:import url="/books.xml" var="something" />
<x:parse doc="${something}"
  var="booklist"
  scope="application" />

<c:url var="url" value="/catalog" >
  <c:param name="Add" value="${bookId}" />
</c:url>
<a href="${url}">Get book</a>
```

Output

```
<c:out value="100" />           ⇒  ${100}
<c:out value="${price}" />    ⇒  ${price}
```

- ◆ You want to use <c:out> if
 - *escapeXML*=true
 - *value* is a Java.io.Reader object

Character Conversion

- ◆ When *escapeXML*=true

<	<
>	>
&	&
'	'
"	"

Exception Handling

- ◆ <c:catch>
- ◆ see Error Page and Exception Handling

JSTL Functions

- ◆ `fn:length()`
- ◆ `fn:contains()`
- ◆ `fn:containsIgnoreCase()`
- ◆ `fn:startsWith()`
- ◆ `fn:endsWith()`
- ◆ `fn:indexOf()`
- ◆ `fn:replace()`
- ◆ `fn:trim()`
- ◆ `fn:toUpperCase()`
- ◆ `fn:toLowerCase()`
- ◆ `fn:substring()`
- ◆ `fn:substringAfter()`
- ◆ `fn:substringBefore()`
- ◆ `fn:split()`
- ◆ `fn:join()`
- ◆ `fn:escapeXML()`

Function Example

- ◆ Exercise