**Classification of the JSTL Tags**

The JSTL tags can be classified, according to their functions, into the following JSTL tag library groups that can be used when creating a JSP page −

* **Core Tags**
* **Formatting tags**
* **SQL tags**
* **XML tags**
* **JSTL Functions**

Core Tags

The core group of tags are the most commonly used JSTL tags. Following is the syntax to include the JSTL Core library in your JSP −

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

Following table lists out the core JSTL Tags −

|  |  |
| --- | --- |
| **S.No.** | **Tag & Description** |
| 1 | [**<c:out>**](https://www.tutorialspoint.com/jsp/jstl_core_out_tag.htm)  Like <%= ... >, but for expressions. |
| 2 | [**<c:set >**](https://www.tutorialspoint.com/jsp/jstl_core_set_tag.htm)  Sets the result of an expression evaluation in a **'scope'** |
| 3 | [**<c:remove >**](https://www.tutorialspoint.com/jsp/jstl_core_remove_tag.htm)  Removes a **scoped variable** (from a particular scope, if specified). |
| 4 | [**<c:catch>**](https://www.tutorialspoint.com/jsp/jstl_core_catch_tag.htm)  Catches any **Throwable** that occurs in its body and optionally exposes it. |
| 5 | [**<c:if>**](https://www.tutorialspoint.com/jsp/jstl_core_if_tag.htm)  Simple conditional tag which evalutes its body if the supplied condition is true. |

Formatting Tags

The JSTL formatting tags are used to format and display text, the date, the time, and numbers for internationalized Websites. Following is the syntax to include Formatting library in your JSP −

<%@ taglib prefix = "fmt" uri = "http://java.sun.com/jsp/jstl/fmt" %>

Following table lists out the Formatting JSTL Tags −

|  |  |
| --- | --- |
| **S.No.** | **Tag & Description** |
| 1 | [**<fmt:formatNumber>**](https://www.tutorialspoint.com/jsp/jstl_format_formatnumber_tag.htm)  To render numerical value with specific precision or format. |
| 2 | [**<fmt:parseNumber>**](https://www.tutorialspoint.com/jsp/jstl_format_parsenumber_tag.htm)  Parses the string representation of a number, currency, or percentage. |
| 3 | [**<fmt:formatDate>**](https://www.tutorialspoint.com/jsp/jstl_format_formatdate_tag.htm)  Formats a date and/or time using the supplied styles and pattern. |
| 4 | [**<fmt:parseDate>**](https://www.tutorialspoint.com/jsp/jstl_format_parsedate_tag.htm)  Parses the string representation of a date and/or time |
| 5 | [**<fmt:bundle>**](https://www.tutorialspoint.com/jsp/jstl_format_bundle_tag.htm)  Loads a resource bundle to be used by its tag body. |

SQL Tags

The JSTL SQL tag library provides tags for interacting with relational databases (RDBMSs) such as **Oracle, mySQL**, or **Microsoft SQL Server**.

Following is the syntax to include JSTL SQL library in your JSP −

<%@ taglib prefix = "sql" uri = "http://java.sun.com/jsp/jstl/sql" %>

Following table lists out the SQL JSTL Tags −

|  |  |
| --- | --- |
| **S.No.** | **Tag & Description** |
| 1 | [**<sql:setDataSource>**](https://www.tutorialspoint.com/jsp/jstl_sql_setdatasource_tag.htm)  Creates a simple DataSource suitable only for prototyping |
| 2 | [**<sql:query>**](https://www.tutorialspoint.com/jsp/jstl_sql_query_tag.htm)  Executes the SQL query defined in its body or through the sql attribute. |
| 3 | [**<sql:update>**](https://www.tutorialspoint.com/jsp/jstl_sql_update_tag.htm)  Executes the SQL update defined in its body or through the sql attribute. |
| 4 | [**<sql:param>**](https://www.tutorialspoint.com/jsp/jstl_sql_param_tag.htm)  Sets a parameter in an SQL statement to the specified value. |
| 5 | [**<sql:dateParam>**](https://www.tutorialspoint.com/jsp/jstl_sql_dateparam_tag.htm)  Sets a parameter in an SQL statement to the specified java.util.Date value. |
| 6 | [**<sql:transaction >**](https://www.tutorialspoint.com/jsp/jstl_sql_transaction_tag.htm)  Provides nested database action elements with a shared Connection, set up to execute all statements as one transaction. |

XML tags

The JSTL XML tags provide a JSP-centric way of creating and manipulating the XML documents. Following is the syntax to include the JSTL XML library in your JSP.

The JSTL XML tag library has custom tags for interacting with the XML data. This includes parsing the XML, transforming the XML data, and the flow control based on the XPath expressions.

<%@ taglib prefix = "x"

uri = "http://java.sun.com/jsp/jstl/xml" %>

Before you proceed with the examples, you will need to copy the following two XML and XPath related libraries into your **<Tomcat Installation Directory>\lib** −

* **XercesImpl.jar** − Download it from <https://www.apache.org/dist/xerces/j/>
* **xalan.jar** − Download it from <https://xml.apache.org/xalan-j/index.html>

Following is the list of XML JSTL Tags −

|  |  |
| --- | --- |
| **S.No.** | **Tag & Description** |
| 1 | [**<x:out>**](https://www.tutorialspoint.com/jsp/jstl_xml_out_tag.htm)  Like <%= ... >, but for XPath expressions. |
| 2 | [**<x:parse>**](https://www.tutorialspoint.com/jsp/jstl_xml_parse_tag.htm)  Used to parse the XML data specified either via an attribute or in the tag body. |
| 3 | [**<x:set >**](https://www.tutorialspoint.com/jsp/jstl_xml_set_tag.htm)  Sets a variable to the value of an XPath expression. |
| 4 | [**<x:if >**](https://www.tutorialspoint.com/jsp/jstl_xml_if_tag.htm)  Evaluates a test XPath expression and if it is true, it processes its body. If the test condition is false, the body is ignored. |
| 5 | [**<x:forEach>**](https://www.tutorialspoint.com/jsp/jstl_xml_foreach_tag.htm)  To loop over nodes in an XML document. |

**JSTL Functions**

JSTL includes a number of standard functions, most of which are common string manipulation functions. Following is the syntax to include JSTL Functions library in your JSP −

<%@ taglib prefix = "fn"

uri = "http://java.sun.com/jsp/jstl/functions" %>

Following table lists out the various JSTL Functions −

|  |  |
| --- | --- |
| **S.No.** | **Function & Description** |
| 1 | [**fn:contains()**](https://www.tutorialspoint.com/jsp/jstl_function_contains.htm)  Tests if an input string contains the specified substring. |
| 2 | [**fn:containsIgnoreCase()**](https://www.tutorialspoint.com/jsp/jstl_function_containsignorecase.htm)  Tests if an input string contains the specified substring in a case insensitive way. |
| 3 | [**fn:endsWith()**](https://www.tutorialspoint.com/jsp/jstl_function_endswith.htm)  Tests if an input string ends with the specified suffix. |
| 4 | [**fn:escapeXml()**](https://www.tutorialspoint.com/jsp/jstl_function_escapexml.htm)  Escapes characters that can be interpreted as XML markup. |
| 5 | [**fn:indexOf()**](https://www.tutorialspoint.com/jsp/jstl_function_indexof.htm)  Returns the index withing a string of the first occurrence of a specified substring. |

REFERENCE:

https://www.tutorialspoint.com/jsp/jsp\_standard\_tag\_library.htm