



# C0309 - Processing XML documents using Java XML Technologies

## 1.Objective

This tutorial will explain you how to use Java XML technologies (DOM,SAX,JDOM,JAXB,XStream,XMLBeans,XSLT,StAX,XPATH ) to parse XML and their features.To get the basic knowledge of XML refer the links mentioned below.

## 2. Introduction

## 2.1 What is XML?

XML stands for EXtensible Markup Language

XML is a markup language much like HTML

XML was designed to carry data, not to display data

XML tags are not predefined. You must define your own tags

XML is designed to be self-descriptive

XML is a W3C Recommendation

## 2.2 Why XML Parser?

Writing a parser for XML is a serious task, and there are several efforts going on to provide excellent XML parsers. We are not going to detail the process of actually writing an XML parser here; rather, we will discuss the applications that wrap this parsing behavior, focusing on using existing tools to manipulate XML data. This results in better and faster programs, as we do not seek to reinvent what is already available.

The Following is the list of parser available in java technologies

S.No	Parser
1	DOM
2	Sax
3	JDOM
4	JAXB
5	XStream
6	XMLBeans
7	StAX
8	XSLT
9	XPATH

### 3.Summary

## XML Parser API Feature Summary

Feature	StAX	SAX	DOM
API Type	Pull, streaming	Push, streaming	In memory tree
Ease of Use	High	Medium	High
XPath Capability	No	No	Yes

CPU and Memory Efficiency	Good	Good	Varies
Forward Only	Yes	Yes	No
Read XML	Yes	Yes	Yes
Write XML	Yes	No	Yes
Create, Read, Update, Delete	No	No	Yes

## 4.ScreenCasts

Links to start with XML

<http://www.ibm.com/developerworks/xml/tutorials/xmlintro/>

<http://www.w3schools.com/xml/default.asp>

<http://www.ibm.com/developerworks/library/xml-schema/>

## 5.Assesment

1. What is XML ?
2. What is DTD and Schema?
3. What is parser?
4. Which parser creates a tree structure in memory?
5. Which parser dont allow modify the document ?
6. In case of less memory and the input is large which is best parser to use?
7. Which handler is used to handle the events?
8. Does JDOM and DOM are Similar ?
9. Which parser doesn't need the knowledge of XML and XML processing to parse the document?
10. Which allows to access the document in non sequential order?
11. Which parser creates instance and shared accross multiple threads ?
12. Which parser process the complete XML and create a complete model in memory?
13. Which tool can be used generate classes for XSD?
14. Where an XML schema defines \_\_\_\_\_ for an XML document, an XML instance is an \_\_\_\_\_ that conforms to the schema.
15. Which API uses Pull Parsing technique to parse?
16. Can the CursorAPI point many info set at a time ?
17. Cursor API move backwards. 1.true 2.false
18. What is the primary interface for writing iterator events?
19. What are the two parts of XSL?
20. XPath uses \_\_\_\_\_ to navigate in XML documents.

## 6.Exercise

Name	Size	Creator	Creation Date	Comment
<a href="#">catalog.xsd</a>	0.7 kB	MULLAIKANI A.	Nov 10, 2011 12:21	XSD of Catalog XML

