

In this XML primer for Java programmers, expert instructor Neal Ford begins with XML basics and moves through critical topics including validation using Document Type Definitions (DTD) and XML Schemas, data manipulation using the Document Object Model (DOM) and Simple API for XML (SAX), and creating and using Web services with the Simple Object Access Protocol (SOAP). At the conclusion of this course you'll understand how to access, utilize and distribute XML data using the Java language.

Prerequisites: Previous Java programming recommended. Basic understanding of XML helpful.

CD Bonus: Electronic Study Guide Included

Session 1

Section A: XML Primer

- Need for XML
- XML Basics
- Elements
- Attributes

Section B: XML Validity

- DTDs
- Recurrence Modifiers
- DTD Elements/Attributes
- DTD Issues
- XML Schema
- XSD Types
- Obtaining a Parser
- Add Parser to ClassPath

Section C: SAX ContentHandler

- Major SAX APIs
- SAX Characteristics
- SAXReader
- ContentHandler
- Implementation
- Parse XML Document

Section D: ErrorHandler & DefaultHandler

- ErrorHandler
- ErrorHandler & Parser
- Parse Broken Document
- DefaultHandler
- Extend DefaultHandler
- DefaultHandler Flags
- Attributes
- Construct String

Section E: Advanced SAX

- Validation
- XMLFilter Basics
- Filter Options
- Implement SAXFilter
- Run SAXFilter
- Filter Chain Order
- LexicalHandler
- DeclHandler

Section F: Node Methods

- NodeType Constants
- getNodeValue Returns
- More Node Methods
- JAR Files
- Parsing a Document

- Console Output

Session 2

Section A: DOM Characteristics

- XMLSerializer
- Element Node
- FileOutputStream
- Process XML
- New DOM Elements
- Positioning Methods
- Search DOM Tree
- TreeViewer

Section B: DOM Configuration Example

- Configuration Document
- Private Constructor
- Build Default Config.
- Recurse DOM Tree

Section C: DOM Levels 2 & 3

- Namespaces
- Supporting Namespaces
- Modules
- Traverse & Filter
- Define a Filter
- Work with Ranges
- Level 3 Methods
- DOM Factory

Section D: JDOM Basics

- Characteristics
- Doc./Element Methods
- Attribute Methods
- SAXBuilder/DOMBuilder
- Output Classes
- Downloading JDOM
- Building JDOM
- Applying JDOM

Section E: Using JDOM

- Design Method
- Read/Write XML
- Dynamic Load Parser
- Using JDOM Class
- Config. from XML
- WAR File
- Servlet Element
- WarConfigReader

Section F: JDOM Applied

- Processing Properties
- Processing Entries
- Output.xml Document
- Wrappers
- Wrap JDOM Element
- Element Wrap Code

Session 3

Section A: JAXP

- What is JAXP?
- Specifications/RI
- Factory Classes
- Using a JAXP Factory
- Version Changes
- Methods/Factories

Section B: XSLT

- XML to HTML
- XML to WML
- EDI Technique

Section C: Xalan

- Characteristics
- ErrorListener
- URIResolver
- Transformer
- Installation
- Using Xalan1
- Using Xalan2

Section D: Cocoon

- Publishing Frameworks
- The Process
- Cocoon Using XSLT
- Browsers & Versions
- Version 1
- Installation
- Run Sample
- Version 2

Section E: XSP in Cocoon

- XSP Basics
- Page Element
- Tags
- More Elements
- Hello World
- Logicsheet
- Library Tags
- JavaScript

Section F: RPC with XML

- Distributed Computing
- XML-RPCs
- RPC Paradigm
- Marshalling Data
- Using RPC in Java
- Handler & Server Class
- Implement Client
- XML-RPC in Action

Section G: SOAP with Java

- SOAP Overview
- SOAP Basics
- Web Services
- AXIS
- AXIS Handlers
- Building Web Services
- Invoke Web Service
- AXIS & WSDL