



XML Fundamentals with Java

Duration: 3 Days

Course Description

In this course, Java programmers will learn the basics of XML form and syntax. They will use Java to implement XML-based web applications, as well as learn how to use XML to pass data between distributed application components. Emphasis is placed on writing well-formed and valid XML, parsing techniques and converting Legacy data with XML.

Audience

Anyone who needs to program XML in conjunction with Java, including application developers, web developers, XML document authors, and webmasters.

Prerequisites

Familiarity with Web and data processing concepts. Fundamentals of XML. Java programming experience is required.

Course Outline

XML and Java

- Java and XML
- XML Syntax
- Document Type Definition
- Parsers
- Building Your Own Parser
- SAX and DOM Parsers
- DOM Parsers
- JAXP
- Validating vs. Non-Validating

Parsing XML with SAX

- SAX Basics
- Parsing with SAX Using JAXP
- SAX Event Methods
- ContentHandler
- Parsing Elements, characters and Whitespace
- Error Handling

Java and XML Data Binding

- How JAXB Fits In
- How JAXB Works
- The JAXB Binding Schema
- Generating the Classes
- Marshalling and Unmarshalling
- Other Binding APIs

Basic SOAP

- SOAP Overview
- The SOAP Envelope
- SOAP Over HTTP
- A SOAP Server
- A SOAP Client
- Complex Data Types

Industrial-Strength SOAP

- SOAP Messaging
- The Messaging Server
- The Messaging Client



Sterlink Training

Application Development Curriculum

Parsing XML with DOM

- Document Object
- Parsing with DOM Using JAXP
- Key DOM Interfaces
- Nodes and Elements
- NodeList and NamedNodeMap
- Text Nodes

Building XML with DOM

- Creating an Empty DOM Object
- Building the Tree
- Cloning Nodes
- Writing DOM to XML

Validating XML

- Validation in XML
- Validation with DTDs
- Validation with XML Schemas
- Schema Data Types
- Validating with SAX
- Whitespace and Validation
- Validating with DOM
- Parser Errors
- JAXP and XML Schemas

- Web Services
- WSDL
- UDDI

XML Transformations with XSLT

- XML Transformations
- XSLT Stylesheets
- TrAX
- XSLT Processors
- XSLT in Servlets
- XSL Formatting Objects

Distributed Applications with XML

- Socket Programming with XML
- Servlets and JavaServer Pages
- Creating XML from Textual Data
- Creating XML from Relational Data
- XML and JDBC
- Inserting XML Into an RDBMS

JDOM

- JDOM Overview
- Getting Started with JDOM
- JDOM Parsing
- Elements and Attributes
- Outputting from JDOM
- Transforming JDOM using XSLT

For more information about this and other offerings

Please contact Sterlink Data Systems at (416) 859-6470 or email us at training@sterlink.ca

Sterlink Data Systems
985 Audley Road South
Ajax, Ontario L1Z 1N6
www.sterlink.ca

