

Chapter 1: Getting Started

You will learn:

- Differences between a markup language and a meta language.
- Who is developing the XML specification and where to find the documentation?
- SGML and SGML document components.
- What XML is.
- XML as compared to SGML and HTML.
- XML format.
- XML specifications.
- XML architecture.
- Components of XML.
- Data structure namespaces.
- Data delivery, manipulation.
- Parsing XML.
- Well formed and valid XML
- Manipulating and editing data using the Document Object Model.
- Displaying XML-based data in HTML
- XSL: Extensible Stylesheet Language.
- XML: Transforming and querying.

Chapter 2: XML Application

You will learn:

- How to create an XML document.
- The role of the document map, prolog, and XML declarations.
- Standalone declarations.
- Style sheet processing instructions.
- DOCTYPE declaration.
- Textual content.
- Elements.
- Assigning meaning to XML tags.
- Naming conventions.
- Document: XML declaration and root element.
- Organization of the XML data.
- Usage of tags in XML.
- Understand document architecture.
- Create and debug XML documents.
- Syntax of all the different XML statements.
- Organization of XML data.

Chapter 3: XML Syntax and Well-formedness
You will learn: <ul style="list-style-type: none">• How to code valid and well formed XML.• Utilization and purpose of CDATA.• Working with empty elements.• Create and use processing instructions.• Working with IE and XML.
Chapter 4: DTD and Validity
You will learn: <ul style="list-style-type: none">• How to perform validation.• How to use a validation parser.• The structure of DTD.• How to create children and hierarchy.
Chapter 5: Serial Access with the SAX
You will learn: <ul style="list-style-type: none">• Simple API for XML architecture.• Functions of the SAX Interfaces and classes.• How to create an XMLReaderFactory.• Processing DTDs in SAX.• Handling error exceptions.• Parsing XML.• Invoking SAX events.
Chapter 6: DOM - Document Object Model
You will learn: <ul style="list-style-type: none">• Background of DOM.• Understand the DOM modules and their functions.• Recognize the XML document as a tree.• Traverse the Document Node.• Access all the data in XML.
Chapter 7: Parsing with DOM
You will learn: <ul style="list-style-type: none">• How to code the DOM Parser for various versions.• Work with DocumentBuilderFactory to create documents.• Code and run JAXP programs.• Manipulate the XML document with JAXP.

Chapter 8: Node Interface
You will learn: <ul style="list-style-type: none">• How to coding the DOM standard interface.• How to work with Node properties.• Navigating the DOM tree.• How to code the XML DOM utilities in JAVA programs.• How to use JAXP serialization for I/O.
Chapter 9: Creating XML Documents with DOM
You will learn: <ul style="list-style-type: none">• How to locate a DOMImplementation.• How to program with the DOMImplementationRegistry class.• How to code an abstract factory that creates instances of other nodes.• Building an SVG Document in memory using DOM.• Code Getter and Setter methods.
Chapter 10: DOM Traversal Module
You will learn: <ul style="list-style-type: none">• How to code using the dom.traversal package.• Extracting a subset of the nodes in a DOM document.• How to constructing Nodelterators with DocumentTraversal.• Filtering by Node Type.• Traversing a subtree using TreeWalker.
Chapter 11: XPATH
You will learn: <ul style="list-style-type: none">• Coding programs to locate nodes in XML documents.• Using XPath as a query language.• Recognize the seven kinds of nodes in XPATH.• Be knowledgeable in the twelve axes in XPATH.• Use compound and absolute location paths.• How to combine location paths.