XML Tutorial

XML HOME
XML Introduction
XML How to use
XML Tree
XML Syntax
XML Elements
XML Attributes
XML Namespaces
XML Display
XML XSLT
XML XPath
XML XLink
XML Doctypes
XML Validator
XML DTD
XML Schema
XML Server
XML Applications
XML Examples
XML Quiz

Introduction to XML

« Previous Next Chapter »

XML is a software- and hardware-independent tool for storing and transporting data.

Why Study XML?

XML plays an important role in many IT systems.

For this reason, it is important for all software developers to have a good understanding of XML.

Before you continue, you should also have a basic understanding of:

- HTML
- JavaScript

XML Certificate

XML DOM

DOM Intro

DOM Nodes

DOM XMLHttpRequest

DOM Accessing

DOM Node Info

DOM Node List

DOM Traversing

DOM Navigating

DOM Get Values

DOM Change Nodes

DOM Remove Nodes

DOM Replace Nodes

DOM Create Nodes

DOM Add Nodes

DOM Clone Nodes

DOM Examples

DOM Reference

DOM Node Types

DOM Node

DOM NodeList

DOM NamedNodeMap

DOM Document

If you want to study these subjects first, find the tutorials on our Home page.

What is XML?

- XML stands for EXtensible Markup Language
- XML is a markup language much like HTML
- XML was designed to store and transport data
- XML was designed to be self-descriptive
- XML is a W3C Recommendation

XML Does Not DO Anything

Maybe it is a little hard to understand, but XML does not DO anything.

This note is a note to Tove, from Jani, stored as XML:

```
<note>
  <to>Tove</to>
  <from>Jani</from>
  <heading>Reminder</heading>
  <body>Don't forget me this weekend!</body>
</note>
```

The note is quite self-descriptive. It has sender and receiver information. It also has a heading and a message body.

DOM Element
DOM Attribute
DOM Text
DOM CDATA
DOM Comment
DOM XMLHttpRequest
DOM Parser

Web Services

XML Services
XML WSDL
XML SOAP
XML RDF
XML RSS

XML DTD

DTD Intro
DTD Building Blocks
DTD Elements
DTD Attributes
DTD Elements vs Attr
DTD Entities
DTD Examples

XSD Schema

But still, this XML document does not DO anything. XML is just information wrapped in tags. Someone must write a piece of software to send, receive, store, or display it:

Note

To: Tove

From: Jani

Reminder

Don't forget me this weekend!

The Difference Between XML and HTML

XML and HTML were designed with different goals:

- XML was designed to carry data - with focus on what data is
- HTML was designed to display data - with focus on how data looks
- XML tags are not predefined like HTML tags are

XML Does Not Use Predefined Tags

The XML language has no predefined tags.

The tags in the example above (like <to> and <from>) are not defined in any XML

XSD Intro
XSD Why Use
XSD How To
XSD <schema>

XSD Simple
XSD Elements
XSD Attributes
XSD Restrictions

XSD Complex
XSD Elements
XSD Empty
XSD Elements Only
XSD Text Only
XSD Mixed
XSD Indicators
XSD <any>
XSD <anyAttribute>
XSD Substitution
XSD Example

XSD Data
XSD String
XSD Date

standard. These tags are "invented" by the author of the XML document.

HTML works with predefined tags like <p>, <h1>, <table>, etc.

With XML, the author must define both the tags and the document structure.

XML is Extensible

Most XML applications will work as expected even if new data is added (or removed).

Imagine an application designed to display the original version of note.xml (<to> <from> <heading> <data>).

Then imagine a newer version of note.xml with added <date> and <hour> elements, and a removed <heading>.

The way XML is constructed, older version of the application can still work:

```
<note>
  <date>2015-09-01</date>
  <hour>08:30</hour>
  <to>Tove</to>
  <from>Jani</from>
  <body>Don't forget me this weekend!</body>
</note>
```

Note

XSD Numeric
XSD Misc

XSD References

XSD Reference

To: Tove

From: Jani

Head: Reminder

Don't forget me this weekend!

Note

To: Tove

From: Jani

Date: 2015-09-01 08:30

Head: (none)

Don't forget me this weekend!

XML Simplifies Things

- It simplifies data sharing
- It simplifies data transport
- It simplifies platform changes
- It simplifies data availability

Many computer systems contain data in incompatible formats. Exchanging data between

incompatible systems (or upgraded systems) is a time-consuming task for web developers. Large amounts of data must be converted, and incompatible data is often lost.

XML stores data in plain text format. This provides a software- and hardware-independent way of storing, transporting, and sharing data.

XML also makes it easier to expand or upgrade to new operating systems, new applications, or new browsers, without losing data.

With XML, data can be available to all kinds of "reading machines" like people, computers, voice machines, news feeds, etc.

XML is a W3C Recommendation

XML became a W3C Recommendation on February 10, 1998.

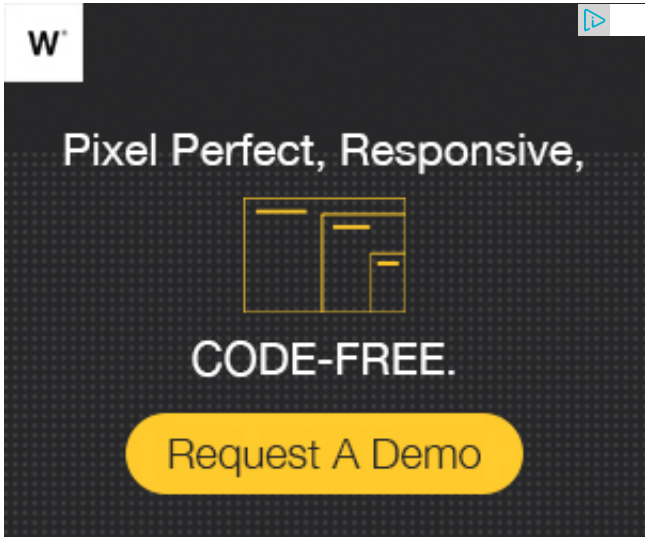
« Previous Next Chapter »

W3SCHOOLS EXAMS

HTML, CSS, JavaScript, PHP, jQuery, and XML Certifications

COLOR PICKER

SHARE THIS PAGE



File APIs for Programmers

DOC, XLS, PPT, PDF, MSG and more .NET, Java, SSRS & SharePoint

aspose.com

Top 10 Tutorials

HTML Tutorial
CSS Tutorial
JavaScript Tutorial
SQL Tutorial
PHP Tutorial
jQuery Tutorial
Bootstrap Tutorial
Angular Tutorial
ASP.NET Tutorial
XML Tutorial

Top 10 References

HTML Reference
CSS Reference
JavaScript Reference
Browser Statistics
HTML DOM
PHP Reference
jQuery Reference
HTML Colors
HTML Character Sets
XML Reference

Top 10 Examples

HTML Examples
CSS Examples
JavaScript Examples

HTML DOM Examples
PHP Examples
jQuery Examples
XML Examples
ASP Examples
SVG Examples

Web Certificates

HTML Certificate
HTML5 Certificate
CSS Certificate
JavaScript Certificate
jQuery Certificate
PHP Certificate
Bootstrap Certificate
XML Certificate

W3Schools is optimized for learning, testing, and training. Examples might be simplified to improve reading and basic understanding. Tutorials, references, and examples are constantly reviewed to avoid errors, but we cannot warrant full correctness of all content. While using this site, you agree to have read and accepted our terms of use, cookie and privacy policy. Copyright 1999-2015 by Refsnes Data. All Rights Reserved.