

**Price:** R6,900.00 excl. VAT  
**Duration:** 5 days  
**Code:** XMLDV

## XML Development

### Description

The XML Development course provides a foundation for using the eXtensible Markup Language. It covers the role of XML, well-formed XML markup, DTDs, XML namespaces, XML Schemas, and XSLT (eXtensible Style Language - Transformations). It also provides a brief introduction to XSL-FO and the document object model.

### Objectives

Delegates who complete the XML Development course will be able to:

- Understand the need for XML and the importance of standards as set by the W3C.
- Create well-formed XML documents.
- Create valid XML documents.
- Create a DTD (Document Type Definition) that can be used to validate an XML file.
- Create an XML Schema document that can be used to validate an XML file.
- Understand the concept of XML namespaces.
- Transform an XML document using XSLT.
- Understand the role of XSL-FO in the publication of XML-based information.

### Intended Audience

The XML Development is suitable for developers who need to work with XML, either for interfaces, services or documentation.

### Prerequisites

Previous programming experience or experience with SGML is an advantage.

Delegates should be familiar with the basics of HTML, or have attended our Web Development with HTML and CSS course.

### Course Contents

*The lecturer reserves the right to modify the contents of the course to suit the needs of the delegates.*

**XML Basics** • The W3C and the evolution of XML. • XML elements and attributes. • The XML Prolog. • Well-formed XML and valid XML. • Using CSS with XML.

**Document Type Definitions** • Using a DTD to validate XML. • The DOCTYPE declaration. • Element declarations. • Attribute declarations. • Internal and external DTDs. • Internal and external general and parameter entities.

**XML Namespaces** • The role of namespaces. • Declaring a namespace. • Using multiple namespaces. • The default namespace. • Attributes and namespaces.

**XML Schemas** • Schemas versus DTDs. • The XMLSchema-instance namespace. • The type hierarchy and built-in simple types. • Element type definitions • Custom simple types and the facets for restriction. • Custom complex types for element content, mixed content, text content and empty content. • Attribute type definitions. • Including schemas. • Schemas and namespaces.

**XSL Transformations** • The concept of transformation. • XSLT templates. • Generating elements and attributes. • XSLT conditional and iterative statements. • XSLT variables and parameters. • XPath expressions and functions.

**Other Topics** • Introduction to Formatting Objects (XSL-FO). • Basics of the Document Object Model. • Other XML technologies and examples of XML applications.