

From Zero to XML Processing

If you have to work with XML files in your job, you need to know the most efficient way to process them using C#. The .NET Framework has a few different methods of working with XML files. This course teaches you how to process XML in the most efficient manner.

Learning Objectives

Using LINQ to XML

Using XPath queries

Store and restore .NET objects as XML

Prerequisites

We assume you are familiar with C# and the .NET Framework and have access to a version of Visual Studio.

Course Length

1 day

Module 1: What Exactly Is XML Anyway?

XML Format

Structure names

Attributes

Schemas

Generating a schema

Validating XML against a schema

Module 2: LINQ to XML Makes Processing XML Documents Quick and Easy

- XDocument class
- XElement class
- Querying all nodes
- Where clause
- Sorting
- Joins
- Reading configuration files
- Loading classes
- Count and sum
- Minimum and maximum
- Averages

Module 3: Use XPath Queries to Process XML Documents

- XDocument class
- XElement class
- Querying all nodes
- Finding by element and attribute
- Aggregation
- Building XML document
- Parsing a string into XML

Module 4: Modify Nodes and Write XML Files

- Adding nodes
- Updating nodes
- Deleting nodes
- XDocument writing
- XmlWriter and Formatting
- DataSet writing

Module 5: Store and Restore .NET Objects as XML

- Serialize and deserialize objects as XML
- Using attributes
- Nested objects
- Extension methods
- Data contract serializer
- Binary formatter

Module 6: A Design Pattern for Caching Frequently Used Data in XML

- Get data from server and store as XML locally
- Read XML locally
- Detect changes in server