## Course duration

• 2 days

## **Course Benefits**

- Learn XML Syntax Basics.
- Learn to load XML data.
- Learn to create query objects from existing XML.
- Learn to read and write text files with <cffile>.
- · Learn to upload documents with <cffile>.
- Learn to use <cfdirectory>.
- Learn to use <cfhttp>.
- Learn to create ColdFusion Web Services.
- Learn to invoke external Web Services.
- Learn about the WDDX file format.

## **Course Outline**

- 1. Manipulate the File System with <cffile>
  - 1. Working with <cffile>
    - 1. Read and Write Text Files with <cffile>
    - 2. Built-in Function: ExpandPath()
    - 3. Reading Files with the <cffile> tag
    - 4. Built-in Function: FileExists()
  - 2. Upload Documents with <cffile>
    - 1. Using the <cffile> tag for an Upload
    - 2. After a <cffile> Upload: FILE Variables
    - 3. Deeper Examination: HTML and a File Upload
    - 4. Saving long variable values with <cfsavecontent>
    - 5. Using the <cffileupload> tag for Multiple Uploads in ColdFusion 9
    - 6. Using <cfcontent> to create an Excel Spreadsheet
- 2. Using XML with ColdFusion
  - 1. XML Syntax Basics
    - 1. XML Logical Structure
    - 2. Each XML document must begin with a language declaration
    - 3. Each XML document must have a single root element, which normally contains other child elements
    - 4. XML Physical Structure
    - 5. Case Sensitivity
    - 6. Required Closing Tags
    - 7. New Syntax for "empty elements"

- 8. Tags must be nested properly
- 9. Attribute Values must be enclosed properly in single or double quotes
- 10. XML Comments
- 11. XML Logic: Designing Datasheets
- 2. Parsing XML data with ColdFusion
  - Demo: Convert an XML datasheet into an XML Document Object with XMLParse()
  - 2. Case-sensitive Element Names with XMLParse()
  - 3. Method 1 Array notation with generic node names
  - 4. Method 2 Associative Array notation
  - 5. Method 3 Array notation with specific node names
  - 6. Methods 4(+) Mix and Match
  - 7. Deeper Examination: Counting Nodes
  - 8. Manipulating XML data with Built-in Functions
  - 9. List of Structure/Array Functions that may be used on an XML Document Object
  - 10. List of XML-specific Functions
- 3. Manipaulating the XML Document Object: Adding Elements
  - 1. Deeper Examination: Adding an XML Attribute
- 4. Create a Query Object from Existing XML (optional)
  - 1. Deeper Examination: Looping through the XML
  - 2. Deeper Examination: Creating the Query Object
  - 3. Deeper Examination: Query the query
- 5. Extensible Stylesheet Language (XSL) Basics
  - 1. XSL, XSLT, and XSLFO
  - 2. XSL Basics: Linking to an XSL Stylesheet
  - 3. Examining an XSL Stylesheet
  - 4. The xsl:stylesheet tag and the namespace declaration
  - 5. The <xsl:template> tag
  - 6. The <xsl:value-of> tag
  - 7. Referencing iterating nodes
- 6. Server-side XSL Transformation with ColdFusion
  - 1. Deeper Examination: XMLTransform()
  - 2. Idea! Transforming XML Data into XML Data
- 7. XPath Basics
  - 1. XPath: the XSL Node Matching Syntax
  - 2. Choosing Between Equivalent XPath Expressions
  - 3. An XPath testing tool
- 8. Using XPath with ColdFusion
  - 1. Deeper Examination: XPath expression
  - 2. Deeper Examination: XMLSearch()
  - 3. Idea! Convert an XML Document Object to a Query Object
- 3. Working with <cfhttp>
  - 1. Making http requests with <cfhttp>
    - 1. Attributes of <cfhttp>
    - 2. Deeper Examination: <cfhttp> tag
    - 3. Deeper Examination: <cfoutput> block

- 4. While looping though the records
- 5. Deeper Examination: QueryAddColumn() function
- 6. Idea! Dynamically Creating Static Pages
- 2. Passing Variables with <cfhttp> and <cfhttpparam>
  - 1. Creating an Intelligent Agent
  - 2. Deeper Examination: agent.cfm
  - 3. Deeper Examination: agent-page2.cfm
  - 4. Deeper Examination: <cfsetting>
- 4. ColdFusion and Web Services
  - 1. Working with Web Services
    - 1. Examples
    - 2. Producers vs. Consumers
    - 3. Definitions
    - 4. Creating WSDL Documents
    - 5. Step 1 Convert the existing CFC into a Web Service
    - 6. Step 2 Examine a local WSDL file from the demo
    - 7. Step 3 Invoking a ColdFusion Web Service
    - 8. Deeper Examination
    - 9. Deeper Examination: Passing an argument to a Web Service
    - 10. SOAP
    - 11. A note about security
  - 2. Invoking External Web Services
    - 1. Locating Web Services
    - 2. Invoking Web Services from .NET, Java and more
    - 3. Deeper Examination: <cfinvoke> and <cfinvokeargument>
- 5. Web Distributed Data Exchange (WDDX) (if time allows)
  - 1. WDDX
    - 1. Deeper Examination: <cfwddx> tag
    - 2. Deeper Examination
  - 2. Deserialize WDDX data in JavaScript
    - 1. Deeper Examination: Include JavaScript functions
    - 2. Deeper Examination: Deserialize in JavaScript
    - 3. Deeper Examination: Generated source code
    - 4. Deeper Examination

## **Class Materials**

Each student will receive a comprehensive set of materials, including course notes and all the class examples.

Class Prerequisites

Experience in the following is required for this ColdFusion class:

• Basic ColdFusion

Experience in the following would be useful for this ColdFusion class:

XML

**Prerequisite Courses** 

Courses that can help you meet these prerequisites:

- Introduction to ColdFusion Training
- Introduction to XML Training