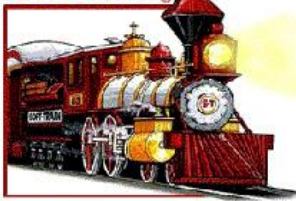


Soft-Train



*At Soft-Train
Technology Works*

Introduction to Web Technologies (4 Days) ST45009

COURSE GOAL: To provide a solid understanding of the Internet, and the various languages and technologies of the World Wide Web.

PREREQUISITES: Microsoft Windows knowledge required.

LEARNING OBJECTIVES:

Upon completion of this course the student will be able to:

- Use E-Mail
- Use File-Transfer Protocol
- Understand what Hypertext is
- Use the Internet
- Use Web Documents
- Search the World Wide Web
- Format XML
- Work with XML
- Validate XML Documents
- Work with XML Schemas
- Work with Java and JavaScript
- Work within the XHTML

KEY TOPICS:

I. Creating Well-Formed XML

- A. Mark Up Languages
- B. Formatting XML
- C. Extracting Data from XML
- D. XML Dialects
- E. Well Formed and Valid XML Documents
- F. CDATA Sections

II. Creating Valid XML

**Documents: Document Type
Definitions**

- A. Validating XML Documents
- B. Creating a DTD
- C. Declaring Elements in DTDs
- D. Choices in DTDs
- E. Handling Attributes in DTDs
- F. External DTDs
- G. Divide and Conquer: Namespaces

III. Creating Valid XML

Documents: XML Schemas

- A. Creating an XML Schema
- B. Declaring Elements
- C. Specifying the Minimum and Maximum Number
- D. Declaring Anonymous Types Declaring Element by Reference

**IV. XML Schemas: Creating Your
Own Types**

- A. Declaring Attributes
- B. Specifying Attributes Use
- C. Restricting Simple Types
- D. Making Selections with XML Schema Choices

- E. Creating Empty Elements
- F. Creating Element Groups

V. Formatting XML with Cascading Style Sheets

- A. Using *The Jungle Book*
- B. Introduction to CSS
- C. Connecting a Style Sheet to an XML Document
- D. Understanding Style Sheets
- E. Creating Style Sheet Selector

VI. Finding Your Way with XSLT and XPath

- A. Creating a Sample XML Document
- B. First Formatting of the Sample XML Document
- C. Creating Out First XSLT Style Sheet: Replacing the Entire Document
- D. Applying XSLT Templates
- E. Applying New Templates

VII. Formatting XML with XSL Transformations

- A. Working with the Match Attribute
- B. Matching the Root Node
- C. Using XPath
- D. Some XPath Examples

VIII. Extending XML with XHTML

- A. Getting Started with XHTML
- B. Validating XHTML
- C. Understanding XHTML
- D. The Differences Between HTML and XHTML

IX. XML and Data Binding

- A. Getting Started with DSOs
- B. Storing Data in HTML Format

- C. Binding Data in HTML Format
- D. Navigating from Record to Record
- E. Binding XML Data

X. XML and JavaScript

- A. Reading XML and Extracting Data From it
- B. Creating DOMDocument Object
- C. Getting a Document's Document Element
- D. Searching for XML Elements by Name

XI. XML and Java

- A. Working with Java and XML
- B. Creating a Document Builder Factory
- C. Creating a Document Build
- D. Parsing and XML Document

XII. AJAX and XQuery

- A. Getting Started with Ajax
- B. Understanding ajax.html
- C. Creating and XMLHttpRequest Object
- D. Connecting to the Server
- E. Displaying the Download
- F. Making the Download Happen
- G. Downloading Some XML