



AJAX Training Overview

SUMMARY: Ajax - Asynchronous JavaScript and XML is a synergy of multiple technologies and communication with the server without a page refresh, enabling a rich and responsive web-based client, a 2.0 web application.

This course covers Ajax related technologies including JavaScript, DOM, CSS, XML etc., focusing on Object Oriented JavaScript and the main Ajax object: XMLHttpRequest.

AUDIENCE(Prerequisites):- Web developers or desktop application developers with significant experience in web technologies, who wish to develop the skills needed to apply AJAX technologies to existing web applications, or to architect and implement new applications that can benefit from the AJAX approach

PREREQUISITES : Delegate must be technical staff with solid experience using HTML, CSS, and JavaScript in conventional web pages including web-based forms, as well as familiarity with XML. Basic understanding of server-side web application technologies such as CGI, ASP, JSP, Servlets, Web Services, etc. is essential, but direct server-side experience is not required.

Ajax - Asynchronous JavaScript and XML - overview

- Web Applications - Pre and Post Ajax
- Ajax in the Real World

XML In A Nutshell

- Syntax
- Rules

JavaScript In A Nutshell

- Primitive Data Types and Reference Types
- Variables
- Loops
- Function Definition and Function Call



- Objects
- Expressions, Operators and Escape Sequences

Document Object Model (DOM)

- Window Object
- HTML & XML DOM
- Node
- Element
- Accessing Element Nodes
- innerHTML
- Properties of Element and Text Nodes
- Node Attributes
- Node Name & Node Value
- Event Handling
- Key Word - this
- Whitespace Interpretation - Browser Differences
- Removing Nodes
- Creating New Nodes
- Node Methods

XMLHttpRequest Object

- XMLHttpRequest Instantiation
- XMLHttpRequest open() Method
- Asynchronous vs Synchronous Requests
- Callback Function
- readyState

CSS In A Nutshell

- Syntax
- Units
- Selectors
- Positioning properties



- float Property
- Types of Positioning

XML and Ajax

- Creating a DOM Document with JavaScript
- load XML
- Receiving XML Responses from the Server
- Different Server Side Technologies - an overview

Frameworks and Toolkits - an overview

- Some Popular FrameWorks - in brief

Object-Oriented JavaScript

- Multiple Simultaneous Asynchronous Requests
- Prototype
- Extending BuiltIn Objects
- Object-Oriented XMLHttpRequest
- Refactoring the Creation and Handling of XMLHttpRequest

Model-View-Control (MVC)

- Design Patterns
- MVC Examples
- Ajax Web Application

JavaScript Object Notation (JSON)

- JavaScript Object and Array Creation Using Literals
- JavaScript Objects in Arrays & Arrays in Objects



- JSON Syntax
- JSON Parsers
- JSON Data Transfer Between Client and Server
- Autosuggest example

XSLT

- Overview
- XSLT in the Browsers
- Advantages and Disadvantages

XPath

- Overview

Drag and Drop

- Overview
- Scriptaculous
- Draggable Options
- Droppables
- Drag and Drop, Ajax and Scriptaculous