

## AJAX Training

### Objective

On completion of this AJAX Training course, delegates will:

- Understand the relationship between the different protocols that comprise AJAX
- Learn best practices in cross browser coding
- Use AJAX to develop web applications for a dynamic user experience

### Details

**Duration:** 3 Days

### Course PreRequities

Delegates should have attended our [HTML & CSS Training](#) and [JavaScript Training](#) courses, or have equivalent experience.

## Course Content

### Essentials of AJAX

- The key elements of AJAX
- Orchestrating the user experience with JavaScript
- Defining look and feel using CSS
- Organising the view using the DOM
- Loading data asynchronously using XML technologies
- What sets AJAX apart

### The HTML Document Object Model (DOM)

- Accessing Nodes
  - Accessing Element Nodes
  - Accessing Attribute Nodes
  - getAttribute
  - Accessing Nodes by Type, Name or Value
  - Accessing Nodes by Class Name
- Removing Nodes from the DOM
  - Dom Differences: The Whitespace Problem
- Creating New Nodes
- Using iFrames to perform data trafficking
- Updating HTML documents using hidden frames
- Implementing common AJAX patterns

### Introducing order to AJAX

- Examples of re-factoring
- Model-View-Controller
- Third-party libraries and frameworks

## The Page as an Application

- The View in an AJAX application
- The Controller in an AJAX application
- Models in an AJAX application
- Generating the View from the Model

## The user experience

- XML and AJAX
  - Creating a DOM Document with JavaScript
  - Accessing, Creating and Modifying XML Nodes
  - Receiving XML Responses
  - Passing XML to the Server
  - Conclusion
- OO JavaScript and Re-factoring AJAX
  - Illustrating the Problem
  - Object-Oriented JavaScript
  - JavaScript Classes
  - Prototypes
  - Extending Built-in Objects
  - Refactoring the AJAX Request Code
- JavaScript Object Notation (JSON)
  - Arrays
  - Objects
  - Arrays in Objects
  - Objects in Arrays
  - JSON Syntax
  - JSON Parsers
- AJAX Examples
  - Form Validation
  - Navigating Through Records