

Hands-on course , 3
day(s)
Ref : PAJ

Participants

This practical course is aimed at Webmasters, Web developers and IT staff.

Pre-requisites

Good Knowledge in JavaScript and Web client technologies.

Next sessions

Ajax, Client Programming

OBJECTIVES

Ajax has become an indispensable language for developing Web 2.0 rich applications. In this course, you will learn to manipulate its components, CSS, DOM, and also to establish client-server exchanges.

[1\) Ajax](#)

[2\) XML review](#)

[3\) JavaScript review](#)

[4\) JavaScript Object Notation \(JSON\)](#)

[5\) DOM programming](#)

[6\) XML processing in JavaScript](#)

[7\) XMLHttpRequest](#)

[8\) Ajax patterns](#)

[9\) Ajax Framework](#)

1) Ajax

- Ajax's objectives.
- Ajax and accessibility.
- The force of the technological mix Ajax/REST/Web 2.0.
- Operating principles.
- Overview of Ajax (Gmail, GMaps, Google Suggest...).
- Choosing between Ajax and Flash, Applet, Html. Application.

2) XML review

- The XML structure.
- Well-structured and validated XML.
- Using namespaces.
- XML validation methods: DTD and XSD.

Workshop

Creating a well-structured and validated XML structure.

3) JavaScript review

- Object programming.
- Variable type.
- Tables.
- XML parser.

Workshop

Validating XML files. Creating and manipulating classes and objects.

4) JavaScript Object Notation (JSON)

- Advantages and disadvantages in exchanges.
- Objects, Arrays.
- JSON syntax and parser.
- JSON Advantages and Disadvantages.

Workshop

Implementation.

5) DOM programming

- The importance of the XHTML language.
- Dynamic HTML's components.
- DOM's role in XML programming.
- Dynamic CSS management.
- Accessing, modifying, adding elements and attributes (AddChild, getAttributes...).

Workshop

Dynamically modifying the DOM from an HTML page. Dynamically modifying the style of elements of the DOM.

6) XML processing in JavaScript

- XSLT overview.
- The Xpath language.
- RSS format.

Workshop

XSLT processing to modify XML structures. Loading a class from an RSS flow.

7) XMLHttpRequest

- The XMLHttpRequest class.
- Creating an XMLHttpRequest object.
- Using an XMLHttpRequest object.
- Handling responses (handle).
- How to communicate in synchronous and asynchronous mode with the server and JavaScript.

Workshop

Creating a login form. Dynamically loading a pull-down menu. Processing RSS, REST etc data from an Ajax flow.

8) Ajax patterns

- Threads.
- Asynchronous processing.

Workshop

Implementing multi-thread and asynchronous requests.

9) Ajax Framework

- Why use Frameworks?
- Specialised Frameworks.
- Server-side and hybrid Frameworks.
- PHP Frameworks.
- Java Frameworks.
- .NET Frameworks.
- ColdFusion Frameworks.
- Ajax and XUL.
- Dojo Toolkit, Rico, Rialto, Atlas, JPSan, DWR, and Ajax.net frameworks.