

# Ajax, Client Programming

Hands-on course of 3 days - 21h

Ref.: PAJ - Price 2024: CHF2 070 (excl. taxes)

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.

## THE PROGRAMME

last updated: 01/2018

### 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.

*Hands-on work* : Creating a well-structured and validated XML structure.

### 3) JavaScript review

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

*Hands-on work* : 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.

*Hands-on work* : 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...).

*Hands-on work* : Dynamically modifying the DOM from an HTML page. Dynamically modifying the style of elements of the DOM.

#### PARTICIPANTS

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

#### PREREQUISITES

Good Knowledge in JavaScript and Web client technologies.

#### TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

#### ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more. Participants also complete a placement test before and after the course to measure the skills they've developed.

#### TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

#### TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

#### ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@ORSYS.fr to review your request and its feasibility.

## 6) XML processing in JavaScript

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

*Hands-on work* : 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.

*Hands-on work* : 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.

*Hands-on work* : 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.

# DATES

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Contact us