

Hands-on course , 4  
day(s)  
Ref : JPG

### Participants

This practical training course concerns all website designers and IT technicians willing to use Javascript and dynamic HTML technologies for their projects

### Pre-requisites

A good knowledge of Javascript and HTML. Basic understanding of XML.

### Next sessions

# Javascript, major improvement for the Web 2.0

## OBJECTIVES

*The Javascript language has become essential in developing rich client applications. This course will offer you the technological know-how to set up genuine Web 2.0 applications from advanced Javascript concepts.*

### [1\) XML parser](#)

### [2\) DOM 2 – DOM 3 events](#)

### [3\) Object orientated programming & Regular expressions](#)

### [4\) Data exchange, interactions](#)

### [5\) Debugging environment](#)

### [6\) Javascript programming under HTML5](#)

### [7\) Google API : Maps, Search and Charts](#)

### [8\) JQuery Framework](#)

## 1) XML parser

- DOM methods. XML structure.
- Elements such as Text, Node, Attribute.
- Dynamic creation of HTML objects
- DTD and XSD reminders

### Exercise

*Run through a XML structure from an Ajax feed*

## 2) DOM 2 – DOM 3 events

- Event manager
- Capture, capturing, bubble event phases
- Description of Event type objects
- Mouse and Keyboard events
- Dynamic management of events
- Event creating and dissemination
- Impact of prevent Default and stop Propagation on the personalization of your IHM
- Differences between browsers

### Exercise

*Keyboard management, create your own event manager*

## 3) Object orientated programming & Regular expressions

- Reminder on the object. Properties. Methods. Heritage.
- Scope of private and public data. Mapping and serialization
- Mechanisms of Regular expressions
- Beginning and end (^ \$) Occurrences (? + \* {} ). Common Characters ( . \d \D \w \W \s \S ). Groups ([ ]). Negation (^). Patterns ([ ]). Alternatives ( | ). Escape Character ( \ ).

### Exercise

*Create a mini-framework. Date control, email.*

## 4) Data exchange, interactions

- Cookies
- Embedded data in the Sqlite navigator
- Remote data via Ajax and HttpRequest
- Interfacing with a Flash application.
- NodeJS Javascript server. Set up.

### Exercise

*Communication with a Web application. Call Web services. Create a Cookie. Use of embedded database , exchange with remote data.*

## 5) Debugging environment

- Introduction, solutions designed for browsers .
- Error messages. Performance test. Stop points. Multi browser testing .
- Test bench storage

### Exercise

*Create debugging tools*

## 6) Javascript programming under HTML5

- New events.
- Client/server communication modes.
- Multimedia management.

### Exercise

*Create Ajax under HTML5. Video management. Persistent data management*

## 7) Google API : Maps, Search and Charts

- Creating a Map. Coordinate systems. Geocode for the address search.
- Creating markers. Event Management GEvent.
- GRoute to identify paths.
- KML card registration.
- Integrating Google Search in pages.
- Generation of graphics with Google Charts.

### **Exercise**

*Put in place main Google Map API functions. Create statistical graphs*

## 8) JQuery Framework

- How JQuery works. Event management.
- Install jQuery for Ajax exchanges.