

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

Participants

This hands-on course is aimed at IT staff who wish to design a client Internet application.

Pre-requisites

A base knowledge in Technical architecture.

Next sessions

Web Development, Fundamentals

OBJECTIVES

This highly practical course will introduce you to all the necessary Web technologies. It shows the essential in order to develop a web site, how to work efficiently with the main technical languages (HTML, XML...), how to handle the graphic elements, access to databases and administrative tasks.

1) Web site technologies

2) Making access to the Web pages secure

3) Creating Web pages: HTML, XML, XHTML

4) Forms

5) Graphic and multi-media design

6) Accessibility and ADAE

7) Ergonomics of a Web application

8) Dynamic pages: CGI

9) Database interface

10) The Javascript language and DHTML

11) Additional client-side technologies

Workshop

During each step of the course, the learners will perform practical exercises allowing them to construct a Web client.

1) Web site technologies

- Web servers (Apache, IIS). Protocols: TCP/IP, PPP, HTTP. FTP. URLs. Additional network services (DNS, DHCP, etc).
- Domain name management. Choosing the Internet hoster. Technical architecture. Organisation. Web services.

2) Making access to the Web pages secure

- HTTPS, SSL protocols.
- Certificates, the firewall, the proxy.
- Secured payment.

3) Creating Web pages: HTML, XML, XHTML

- Presentation of HTML, XHTML languages.
- Structure, links, hypertext.
- Images, frames, style sheets. Vector formats.
- Techniques for successful listing on the search engines. Metatags.

Workshop

Producing complex HTML pages with Frontpage or Dreamweaver. Creating style sheets, preparing the page for listing.

4) Forms

- Constraints and advantages. Syntax, structure, entry fields, buttons, check boxes, lists, text areas, file selections.

Workshop

Producing a form sending data to the message service and a database.

5) Graphic and multi-media design

- Utilising graphics tools (Fireworks) to design an enhanced interface. Developing animated images with Flash.
- Graphics resources: GIF, JPEG, PNG, shockwave.

Workshop

Developing a model HTML page with Fireworks, Flash components. Integrating multi-media plug-ins to display Flash, shockwave components.

6) Accessibility and ADAE

- Standard. Impact on development. Making the site comply with accessibility standards. Test tools. Accessiweb labels.

Workshop

Utilising test and audit tools.

7) Ergonomics of a Web application

- Graphics chart. Usability rules. Graphics pitfalls to avoid in order to have an effective site (navigation, layout, technical constraints). Models of pages.

Workshop

Defining the specifications for the graphics chart.

8) Dynamic pages: CGIs

- Method of operation, security. GET and POST methods. Server variables.
- The configuration of the server.
- Server-side scripts: ASP, JSP, PHP.
- Implementing VBSCRIPT.
- Calling Web services.

Workshop

Developing dynamic pages in ASP, interrogating a database, Web services.

9) Database interface

- Technologies for access from ASP, ODBC scripts. SQL, the request language.
- Integrating SQL requests in the page for adding, deleting and modifying database data.

Workshop

Managing a database through ASP pages.

10) The Javascript language and DHTML

- Syntax of the language. Data entry controls for a form. Rollover effects on the images. Managing cookies. Utilising DHTML. Special effects in DHTML
- DOM and Ajax. Towards Web 2.0.
- Retrieving and integrating a script in a page.

Workshop

Using JavaScript to add DHTML effects and controls to the form, managing events in JavaScript, integrating existing scripts. Managing cookies.

11) Additional client-side technologies

Java components

- Presentation of Java technology. Integrating Java applets. Interrogating a database through an Applet-JDBC.

ActiveX components, Flash plug-ins

- Presentation of ActiveX technology. Developing a Flash component.

Administering the Web site

- Utilising all the administration operations performed by the Webmaster (domain name, ftp transfer, security, creating customised error messages, managing log files).