

## Building Advanced Web Applications using xPages

**Course duration:** 4 days

**Languages:** English, Italian or French

**Type:** Inter or intra enterprise

**Target audience:** Domino Developers, Web developers

**Skills required:** XHTML, XML, CSS, JS, Domino Object Model (+ Java or LS)

**Course syllabus:** *(subject to change)*

- **Theory and demonstration** in the morning
- **Practical sessions** in the afternoon: building a HelpDesk web application with xpages from existing Notes databases and developing a company theme using a css framework.

### Presentation of the architecture of xPages

- Java Server Faces (JSF) framework – purpose, principle, implementation in Domino, rendering engines with http servers
- MVC Model: how does it translate in Domino
- Elements of 8.5 architecture
- XSP rendering engine, XML
- Java API and compilation
- Dojo implementation
- Domino HTTP server
- xpages - Putting it all together : http server, JSF framework with controls & custom controls, XSP engine and XML source, CSS layout and themes, Dojo JS libraries, Ajax implementation, JS as scripting language (server or client side) and the Domino Object Model for backend classes, Java API for translating JSF framework and advanced functions
- The skills to master (DOM, XHTML, XML, CSS, JS) + Eclipse, optionally Java

### Advantages of xpages technology

Separation of data and presentation, coherent interface, advanced UI feature, speed of development, web standards

### What was missing before 8.5.1 for web design

The problems that xPages have solved, what couldn't be done

## Presentation of Eclipse

- Why use Eclipse as a design framework ? (open source, modern interface, cross platform, used across all IBM products)
- Presentation of Eclipse components
- Features
- Summary of Designer 8.5.1 features

## Constructing a Web 2.0 application with xpages, what approach ?

- Planning the data structure (forms, views, data sources)
- Designing the layout (introducing css frameworks, Blueprint/960)
- Defining the interface functionalities, navigation and logic
- Creating a css layout or using a css framework and building a theme
- Creating individual re-usable controls for layout and for content
- Building xpages from custom controls
- Refining the theme with custom classes
- Build the logic

## Controls

- Core controls (view, edit/input, selection, actions, display)
- Container controls
- Custom controls

## Working with Data

- Working with forms, views, documents
- Multiple data sources, data binding

## Styling – working with themes

- Introducing IBM OneUI – pros and cons
- Using a css framework: Blueprint case study
- Conception, implementation
- Several ways to apply style to an xpage: which to choose ?
- Customizing the look of controls

## Multilingual applications

- How to implement multilingual features in xpages
- Property files

### Programming with xpages

- The Domino Object Model: access with Javascript Server Side scripting
- Client side scripting
- Use of @formulas, simple actions, script editor
- The flexibility of computed properties
- Programming with Lotus Script and Java
- Working with Events and talking with controls in JS
- Use of Global Objects and Global Functions
- Scoped variables to store data
- Use of JS libraries and Dojo Framework
- Use of Ajax for type ahead and partial refresh

### The pitfalls to avoid when designing with 8.5

- The issue of existing Notes applications to webify...

### A proposed architecture for web 2.0 developments with xpages

- The value of centralized xpages applications
- Working with existing Notes applications
- Using resources on the server or in a db container
- Using a modular approach with custom controls
- Performance issues to take into account