Course : ASP.NET level 2, Web development

Practical course - 5d - 35h00 - Ref. NEA
Price : 3070 CHF E.T.

This course will introduce participants to the advanced aspects of Web development with ASP.NET, including the use of the IIS and ASP.NET cache, security and user profiles, Ajax functionalities and data sources of various types (Entity Framework, business objects, etc.).

Teaching objectives

At the end of the training, the participant will be able to:

- Managing object data in the Entity Framework relational framework
- Creating user and interactive controls with JavaScript
- Master authentication and security for web applications
- Writing secure, asynchronous Web services with SOAP
- Consuming JSON Web services with MS Ajax or Angular $http

Intended audience

ASP.NET developers.

Prerequisites

Good knowledge of Web programming in .NET or knowledge equivalent to that provided by the course "ASP.NET, level 1" (ref. AST). Experience required.

Practical details

Hands-on work

Exercises are carried out in C# or VB.NET, depending on the participants' choice.

Course schedule

1   ASP.NET application architecture

- Architecture, components and lifecycle of ASP.NET WebForms pages.
- ASP.Net and IIS cache management.

PARTICIPANTS
ASP.NET developers.

PREREQUISITES
Good knowledge of Web programming in .NET or knowledge equivalent to that provided by the course "ASP.NET, level 1" (ref. AST). Experience required.

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.

2 · Advanced data access

- Object DataSource as a proprietary DAL access adapter.
- Entity Framework 6. TableAdapters and typed datasets.
- Template-based controls.

Hands-on work
Creation of the data access layer and optimizations.

3 · Customized controls

- Dynamic control generation.
- ASCX-type user controls.
- Distributable and composite user controls.
- Designer integration.

Hands-on work
3 types of user controls and interaction with JavaScript.

4 · Security and authentication

- Authentication, authorization and personification. Types of attacks and defenses.
- System identity and customer identity theft.
- Membership providers or personalized application identification.
- Roles and profiles management.

Hands-on work
Create a secure Web application managing roles and profiles.

5 · Web Services

- Architecture, security, customized SOAP header.
- Proxies, synchronous and asynchronous invocations.
- Asynchronous communication in the ASP.Net page lifecycle.

Hands-on work
Write and use asynchronous, secure services.

6 · Ajax

- Microsoft Ajax Library, MSAjax templates with DataView JavaScript class.
- PageMethods, Web services and WCF.
- Updatepanels.
- AngularJS architecture.
- JSON Web services consumption with MS Ajax or Angular $http.

Hands-on work
Use of JSON services. UpdatePanels to optimize an online discussion service.

7 Supplements

- Internationalization. Globalization API and resource utilization.
- Non-HTML rendering with HTTP handlers.
- Use the Reflection API.
- ASP.Net Dynamic Data.
- Bundling and minification, unobtrusive validation, typed linked data, validation by decoration.