Ambient IT
128 Boulevard Macdonald
75019 Paris

Mail : formation@ambient-it.net
Tél : +33 (0)1 40 34 11 53

AMBIENT·IT

Training ASP.NET Core 3.1

MVC Core with C# 8

4 days (28 hours)

Presentation

Avec .With .NET Core 3.1 : Train yourself on the very last cross-platform Microsoft web technology !

Released on September 23rd 2019, ASP.NET Core 3.0 and MVC Core 3.0 (ex MVC6) are the last open-source and cross-platform technologies open-source and cross-platform technologies offered by Microsoft and supported by an important community. It was recently announced in the .NET Conf 2019 with a lot of new features and plugs in charge of supporting the latest technologies.

Donet Core is modular, cross-platform and future-proof; this technology will allow you the implementation of robust, maintainable and innovative solutions. Modern, this new
framework with incredible performance, will allow you to understand Docker and WebAssembly. (Find our other dedicated training courses on the subject!)

This training course aims to allow you to understand the concepts of website development and application development cross-platform using NET Core 3 and to present all its new features. We will be discussing those new elements, the fundamental and advanced principles of this new framework as well as the good development practices, but also the management of migration from older versions to newer ones.
this new version.
At the end of this training, through our practice in Visual Studio 2019 (16.3) and language
C# version 8.0, you will be able to be autonomous in order to start development serenely.
of a new ASP.NET MVC Core application or be able to migrate an application existing to ASP.NET MVC Core.
In this training, as in all our trainings that we offer you, we will use the latest stable version (ASP.NET Core 3.1 and ASP.NET Core 2.2.7 with the new C# 8 language at
the date of this article).

Objectives

- Master the functioning of .NET Core
- Discover the features of the ASP.NET Core framework and MVC Core 3
- Knowing how to develop a new resilient web application
- Knowing how to design an ASP.NET application using good development practices
- Get to know the advanced mechanisms of the framework and learn about Entity Framework Core (EF Core)
- Be able to migrate an old ASP.NET MVC project to the new ASP.NET MVC Core

Target audience

Web and Application Developer, Architect

Prerequisite

Knowledge of object-oriented programming, ideally in a .NET environment

To go further

- We also offer security training with OWASP Security .Net.
- Integrate your own WebAssembly
- Deploy your containers with our training on Docker

Our NET Core and MVC Core 3 Training Program

Jour 1 : Kick-off ASP.NET Core 3

Introduction

- Background, context and objectives
- Current problems with the .NET Framework
- What is ASP.NET Core?
- Advantages and disadvantages of ASP.NET Core
- Constraints, when to choose ASP.NET CORE 3 vs ASP.NET Framework
- Quick overview of what's new in C# 8 and operating environments
- What's new in version 2.1 & 2.2 & 3.0 & 3.1
- How to develop in cross-platform mode?

Setting up a development environment

Practical work: First project

- Package recovery
- Order line creation
- Editing and debugging under VS
- Code Visual Studio project

Components of a project

A look back at some important conceptual bricks :

- MVC (Model-view-controller)
- NuGet Packages
- Addiction Injection

Practical work: Implementation of the concepts of the day

Day 2: Deepening

- Global vision of the development cycle of a new ASP.NET Core project
- Visual Studio gas pedals (Scaffolding, etc.)
- Non regression testing, debugging and performance
- View, Model, Pages, Razor & Tags helpers
- Practical work
- Routes & Controllers
  - How to declare your routes
    - Routing templates: syntax and usage
    - New notion of area
    - Attributes
    - Query filters
    - Url rewriter
- Practical work
- Back to dependency injection and management of Initialization Options
  - Statement
  - Validation
- Practical work

Day 3: Advanced Notions

- Entity Framework (EF Core)
- Practical work
- Web API
- Authentication/Authorization/Identity Management
- CORS Security (Cross Origin Resource Sharing)
- Recent problems due to Google's "breaking ecolutions".
  - Enhanced security
  - Samesite cookie
- Practical work
- Caching
- Localization
- Middleware
- Background tasks
- Practical work

Day 4: Synthesis of the notions acquired

- Use in a cloud environment
  - Azure
  - AWS
- Presentation of different systems based on ASP.NET Core
  - Blazor
  - Orchard Core
- Integration with other Open Source projects
  - Example of Swagger
- Review of the migration from Asp.Net 4 to Asp.Net Core (tools, tips & tricks)
- Practical work: Synthesis of the elements learned in the form of a realistic project

Companies concerned

This training is intended for companies, small or large, wishing to train their teams to a new advanced computer technology.

Teaching methods

Practical Training: 60% Practical, 40% Theory. Training support distributed in digital format to all participants.

Organization

The course alternates the trainer's theoretical inputs supported by examples and sessions of reflections, and group work.

Validation

At the end of the session, a multiple-choice questionnaire is used to check the correct acquisition of the skills.

Sanction

A certificate will be given to each trainee who has completed the entire training.