

Build distributed apps with .NET Aspire (AZ-2009)

Description

Create modern, distributed, and production-ready applications

Mastering distributed application development is now essential. With the course “Create Distributed Applications with .NET Aspire (AZ-2009)”, you will learn how to build high-performance, scalable, and maintainable applications using the latest technologies from the Microsoft ecosystem.

This AZ-2009 training guides you step by step in creating production-ready projects. Thanks to .NET Aspire, you'll speed up the development of cloud-native applications while simplifying their orchestration and management. You'll also discover how to leverage ASP.NET Core, Visual Studio, and Visual Studio Code to work efficiently in modern development environments.

A comprehensive and technical course focused on the .NET ecosystem

You'll learn how to connect your application to both SQL and NoSQL databases, integrate telemetry using OpenTelemetry, utilize tools like Redis for caching, and implement RabbitMQ for smooth communication between microservices. Each module reinforces your skills through concrete examples, hands-on exercises, and directly applicable demonstrations.

Niveau

Intermédiaire

Course Content

Module 1 : Introduction to .NET Aspire

- What is .NET Aspire?
- Learn about .NET Aspire integrations
- Learn about .NET Aspire tools

Module 2 : Create a .NET Aspire project

- Learn how to create a new .NET Aspire project
- How to add orchestration to an existing .NET app
- Integrate an existing ASP.NET Core web app

Module 3 : Use telemetry in a .NET Aspire project

- Telemetry APIs in .NET
- Using OpenTelemetry in .NET Aspire
- Using the .NET Aspire dashboard
- Using a logger to add custom log messages

Module 4 : Use databases in a .NET Aspire project

- Store data in SQL-compliant databases
- Store data in NoSQL databases
- Create tests with .NET Aspire

Module 5 : Improve performance with a cache in a .NET Aspire project

- Caches and Redis
- Using a Redis distributed cache
- Using a Redis output cache
- Customize connection strings by using .NET Aspire manifests

Module 6 : Send messages with RabbitMQ in a .NET Aspire project

- What is RabbitMQ?
- Sending messages with RabbitMQ
- Send messages between microservices through RabbitMQ

Lab / Exercises

- This course provides you with exclusive access to the official Microsoft lab, enabling you to practice your skills in a professional environment.

Documentation

- Access to Microsoft Learn, Microsoft's online learning platform, offering interactive resources and educational content to deepen your knowledge and develop your technical skills.

Participant profiles

- .NET Developer
- Software Architect
- Cloud Engineer
- Lead Developer
- Microsoft DevOps Specialist

Prerequisites

- Have experience in web development with .NET and C#
- Understand the principles of cloud-native applications
- Know how to use Visual Studio or Visual Studio Code

Objectives

- Understand the components of the .NET Aspire stack
- Create a cloud-native application project with .NET Aspire
- Add orchestration to an existing application
- Implement telemetry using OpenTelemetry
- Integrate relational and NoSQL databases
- Optimize performance with a Redis cache
- Manage communication between microservices with RabbitMQ

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Classroom Registration Price (CHF)

900

Virtual Classroom Registration Price (CHF)

850

Duration (in Days)

1

Reference

AZ-2009