

# gRPC Microservices in .NET environment

Course code: GOC3410

The course is designed for developers on the Microsoft .Net platform who want to learn how to develop distributed applications using gRPC and Microsoft Visual Studio.

## Who the course is for:

- The course is designed for developers on the .Net platform.

## Required skills:

- Experience with .NET Framework or .Net Core.
- Experience with development using Visual Studio 2017 and higher.
- Experience with object-oriented programming in C #.

## Teaching methods:

- Professional explanation with practical samples and examples.

## Teaching materials:

- Powerpoint handouts and module printouts.

## Course syllabus:

### Getting started with gRPC

- From binary data through CSV, XML and JSON back to binary data
- The basics of using Protocol Buffers
- HTTP / 2
- GRPC Stream
- Implement simple gRPC services using Visual Studio 2019
- Create a Windows client for a simple gRPC service by using Visual Studio 2019

### Protocol Buffers

- Protocol Buffers
- Definition of data structure
- Generate classes from proto files

### GRPC Stream

- Server-side stream
- Client-side stream
- Two-way stream

### Advanced gRPC

- GRPC Interceptors
- Error handling
- Timeout
- Cancel

### Security

- Http / 2 security
- Simple token authentication

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