

# **.NET Overview**

### Audience Course .NET Overview

This course is designed for people who want to get an overview of the features and functions of the .NET framework.

#### **Prerequisites Course .NET Overview**

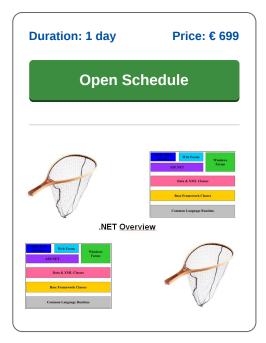
Knowledge of software development and some programming knowledge is required to participate in this course.

#### **Realization Training .NET Overview**

The concepts are discussed on the basis of presentation slides. The concepts discussed are demonstrated with demos in Visual Studio.NET.

#### **Certification Course .NET Overview**

After successful completion of the course participants receive an official certificate .NET Overview.



# **Content Course .NET Overview**

In the course .NET Overview you will get an overview of the operation and capabilities of the .NET framework. In .NET applications in different languages such as C#, VB.NET and F# can work together seamlessly and use a common class library. The .NET Framework was developed by Microsoft and initially only worked on Windows. With the arrival of the .NET Core version, applications are cross platform and can also run on other operating systems.

#### .NET Intro

The course starts with paying attention to the architecture of .NET and the advantages that .NET offers for the scalability and flexibility of applications. .NET Core is also discussed.

#### **Managed Execution**

Next the operation of Common Language Runtime and loading and compilation of Intermediate Language by a JIT Compiler are discussed. Garbage collection, namespaces and assemblies are also covered.

## ASP.NET

The different types of applications in .NET are covered such as Windows Forms applications, Web applications with ASP.NET and Web Services. With regard to Web Services both SOAP services with Window Communication Foundation (WCF) and REST services with the Web API are discussed.

# **Database Access**

Next attention is paid to database access with ADO.NET and the Data Adapter Object Model. And also the principles of the Entity Framework and Language Integrated Query (LinQ) are treated.

## NuGet

Finally it is explained how the package management system NuGet can be used for dependency management and the hosting of packages in repositories.

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# **Modules Course .NET Overview**

Module 1 : .NET Intro	Module 2 : Managed Execution	Module 3 : ASP.NET
.NET Architecture	Using Namespaces	What is ASP.NET?
Common Language Runtime	Entry Points	ASP.NET Web Application
Managed Code	Scope and Declarations	Web Forms
CLR Components	Compiling and Running	Web Server Controls
.NET Framework Class Library	Managed Execution	View State
.NET Core	MSIL and Metadata	Event Procedures
Application Types	Assemblies	Code Behind Pages
Application Domains	Garbage Collection	Page Event Life Cycle
Partial Classes	Generics	Master Pages
Module 4 : Web Services	Module 5 : ADO.NET	Module 6 : NuGet
What is a XML Web Service?	What is ADO.NET?	Package Management
What is a XML Web Service? SOAP versus REST Services	What is ADO.NET? ADO.NET Object Model	Package Management Dependency Management
		0 0
SOAP versus REST Services	ADO.NET Object Model	Dependency Management
SOAP versus REST Services Web API versus WCF Services	ADO.NET Object Model DataSets	Dependency Management Transitive Dependencies
SOAP versus REST Services Web API versus WCF Services Content Negotiation	ADO.NET Object Model DataSets Accessing Data with ADO.NET	Dependency Management Transitive Dependencies NuGet Dependencies
SOAP versus REST Services Web API versus WCF Services Content Negotiation Finding Web Services	ADO.NET Object Model DataSets Accessing Data with ADO.NET DataAdapter Object Model	Dependency Management Transitive Dependencies NuGet Dependencies Semantic Versioning
SOAP versus REST Services Web API versus WCF Services Content Negotiation Finding Web Services Creating Web Services	ADO.NET Object Model DataSets Accessing Data with ADO.NET DataAdapter Object Model Generating a Dataset	Dependency Management Transitive Dependencies NuGet Dependencies Semantic Versioning Creating Packages

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