Sela.

DN7

.NET Design Patterns and Advanced Techniques

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.NET Design Patterns and Advanced Techniques

DN7 - Version: 2.1

4 days Course

Description:

In this course, programmers will be introduced to ideas and techniques commonly referred to as .NET patterns in C# and VB.NET. Patterns are reusable solutions to recurring problems arising during software development. This course will introduce the programmer to common patterns and their implementation in the .NET programming languages. Patterns will be associated with their uses within the .NET base class library, followed by design and implementation exercises to correlate several design patterns. The course gives deep explanation of the most important mechanism of the .NET CLR, such as the Garbage Collector, the Jitter and the Execution Engine.

Intended audience:

The course is intended for experienced .NET programmers

Prerequisites:

Good working knowledge of the C#/VB.NET programming languages
Good working knowledge of the .NET framework

Objectives:

Design Patterns Utilization

Enabling association of ideas with a real-life usage of Design Patterns
Enabling application of Design Patterns in .NET projects
Get to know how the .NET core works
Avoid common design and implementation mistakes and pitfalls

Topics:

Introduction to Design Patterns

- Object Oriented Design overview
- What are design patterns?
- The History of design patterns

Using UML to Describe Design Patterns

- Correlation between UML and design patterns
- Class diagram
- other UML diagram - overview

Fundamental Design Patterns (Idioms)

- The Singleton
- Delegation
- Interface
- Immutable
- Listener

Creational Patterns

- Factory
- Factory Method
- Abstract Factory
- Builder
- Prototype

Structural Patterns

- Adapter
- Bridge
- Composite
- Fa?ade
- Decorator
- Proxy
- Flyweight

Behavioral Patterns

- Command
- Chain of Resp.
- Null Object
- Template
- Memento
- Interpreter
- Iterator
- State
- Strategy
- Observer
- Mediator
- Visitor

- Cache Management

Concurrency Patterns

- Idisposable
- Balking
- Scheduler
- Read/Write Lock

Declarative Programming

- Thinking attribute
- Reflection Mechanism
- Declarative Programming DP