

# .NET Training: Inheritance, Polymorphism & Design Patterns (NFADVNET, 4 jours)

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## Description

The course Inheritance, Polymorphism & Design Patterns (.NET Training) begins with a thorough overview of UML design principles and of their use to implement enterprise grade .NET applications. Strong emphasis is placed on the concepts of inheritance, polymorphism and interfaces for proper application design. The training includes a detailed exploration of Business Entity Frameworks (ASP .NET MVC, MVVM, CSLA .NET, Prism, etc.), and advanced validation & configuration techniques.

## Tarifs

- Tarification: \$3,750/person
- Rabais de 10% lorsque vous inscrivez 3 personnes.

## Plan de cours

### Building Good Software

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Overview

Characteristics of a Good Software Solution

How Good Software Is Built

Iterative Development

Requirements Management

Use of Component-Based Architectures

Ongoing Verification of Software Quality

Control of Software Changes

### UML Primer

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Going From Analysis to Design

UML Class Notation

Generalization

Aggregations

Collection Classes

Sequence Diagrams

Statechart Diagrams

Activity Diagrams

Interfaces, Templates and Patterns

### Inheritance and Polymorphism

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Inheritance

Inheritance and Constructors

Polymorphism

Abstract Functions and Classes

Using Interfaces in Everyday Programming

### .Net Programming

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Working with Reference Types

Exception Handling Overview

Exception Handling

Events

Using Generics

Creating Generics

Operator Overloading

## Design Patterns

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Overview of Target Class Structure

About Object Creation

About Object Structure

Refactoring Considerations

Abstract Factory

Singleton

Client Code Review

Bridge

Builder

Façade

Prototype

Adapter

Composite

Other Patterns

Refactoring Considerations

## Advanced Development Technologies

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About Enterprise Frameworks

Business Entity Frameworks

Validation Frameworks

Application Development In An Enterprise Framework

Making an Object Bindable

## Microsoft Enterprise Library (Mel)

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Using Microsoft Enterprise Library

Using Microsoft Application Blocks

Data Access Application Block

Exception Handling Block

Logging Application Block

Logging Exceptions

Validation Block

## Nhibernate Basics

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Overview

The Problem With Hand-Coded Sql

About O/Rm With Nhibernate

Nhibernate Namespaces

Nhibernate Interfaces

The Isessionfactory

The Session Instances

Identity

Nhibernate Application Configuration

## Object Mapping

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Overview

The Domain Model

Mapping Basics

Mapping Objects

Dealing With Identity

Mapping Types

Mapping: Value Types and Entity Types

Mapping Class Hierarchies

Mapping Associations

Mapping Collections

Mapping and Polymorphism

Building a Struts Framework For .Net

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Model 1 and Model 2 Architecture

Mvc For .Net

The Configuration File

Implementing the View

The Action