



**Aspect Training**

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YOUR COURSE, YOUR WAY - MORE EFFECTIVE IT TRAINING

# Object-Oriented Programming with .NET

**Duration: 3 days**

## Overview:

Embark upon object-oriented programming in the .NET era with Aspect Training's Object-Oriented Programming with .NET. We will take you from the basics through advanced OOP concepts with the help of clear instructions, candid reference notes and design tips, and engaging programming examples.

Learn how to take full advantage of the objects provided by .NET or how to create and implement your own objects. In less time than you thought possible, you'll absorb object-oriented design concepts and terminology and understand how to construct elegant object-oriented programs with .NET.

## Prerequisites:

Previous Knowledge and experience of developing applications with .NET.

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## Topics:

### 1 - Writing Your First Object-Oriented

Your First Object-Oriented program

Using the Class View

### 2 - Creating Class Instances with Constructors

Constructors

Reference and Value Types

Understanding Array Declarations

### 3 - Creating Fields and Properties

Design Considerations for Properties

Using Indexers and Default Properties

### 4 - Working with Methods

Public Methods

Protected Methods

Private Methods

Abstract Methods

Overriding Methods

## **5 - Using Inheritance to Create Specialized Classes**

Inheritance: An Overview

A Simple Example

Inherit from a base class

## **6 - Designing Base Classes as Abstract Classes**

Abstract Classes

A Typed Collection

## **7 - Responding to Changes with Events and Exceptions**

An Event-Driven Application

Setting Up Event Methods without Using the Designer

Exceptions

## **8 - Putting It All Together with Components**

Class Library

Namespaces

## **9 - Providing Services Using Interfaces**

What is an Interface

.NET Framework Interfaces

Uses of Interfaces

## **10 - Using Classes Interchangeably Through Polymorphism**

The Base Classes

The Derived Classes

The User Interface

## **11 - Using Shared and Static Members**

Shared and Static Members

Design Considerations

## **12 - Overloading Operators with .NET**

A Short Lesson on Vectors

## **13 - Saving Instance Data**

Serialization

