

## Course description

This introductory course is intended for beginners to programming who intend to develop desktop or web applications for the .NET framework. The first day covers the fundamentals of object-oriented programming in .NET. During the second day, the data layer for an application is built, involving collections classes and connecting to a database. On the final day, the data layer is connected to web and desktop presentation layers.

## Venue and fee

This three-day course can be provided as individual tuition for £1950+VAT on dates that are convenient for you. We can deliver the training either at your offices or alternatively at our offices in Reading.

## What you will learn

- .NET Architecture and Visual Studio
- Core Language Features
- Classes and Objects
- Inheritance
- Arrays and Collections
- LINQ
- Handling exceptions
- Reading and writing to a database
- Building a MVC Web Application
- Deploying a REST service
- Building a WPF Desktop application

## Prerequisites

No existing programming experience is assumed. The pace and content can be adjusted to suit your requirements.

## Related courses

Our Advanced .NET course is intended for developers who are already familiar with object-oriented programming, either in .NET or a similar language.

## Course instructor



Originally a Civil Engineer with a BSc from London University the course instructor, Simon Dineen, has 15 years' experience in .NET training and development.

## Contact

To discuss this course further, please telephone 0118 966 4994 or email [mailbox@javaconsult.co.uk](mailto:mailbox@javaconsult.co.uk)

## Venue

The course can be delivered either at your offices or alternatively in Reading at Thames Valley Park, Reading RG6 1PT

## Course outline

1. .NET Architecture and Visual Studio
  - The Common Language Runtime
  - Understanding assemblies and namespaces
  - The Common Type System and the Common Language Specification
  - Compiling, running and debugging programs
2. Core Language Features
  - Data types, conversions and casting
  - Operators, precedence and associativity
  - Decision structures
  - Repetition
3. Objects and Types
  - Static methods
  - UML class diagrams and object diagrams
  - Fields, methods and properties
  - Instantiating a class
  - Auto-implemented properties
  - Constructors and overloading
4. Inheritance
  - Inheriting a base class
  - Overriding methods in derived classes
  - Constructors in a hierarchy
  - Defining scope and visibility
5. Arrays, Collections and LINQ
  - Building arrays and using polymorphism
  - Collections classes and interfaces
  - using LINQ to interrogate data from a variety of sources
6. Databases
  - SQL expressions for creating, updating and retrieving data
  - Unmanaged resources and using blocks
  - Handling exceptions

## 7. MVC Web Applications

- Controllers, Models and Views
- Connecting to the data layer built previously
- Displaying a list
- Writing to the data layer from an HTML form

## 8. Web API

- REST Services and HTTP methods
- Deploying and testing a web service

## 9. WPF Desktop applications

- Overview of Windows Presentation Foundation
- Building a window with XAML
- Handling events and binding to data