.Net 4.5 Programming for Existing .Net Developers

Category: Software Development & Programming | **Vendor:** Various

Duration: 32.00 hours (4 days) **26.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

The .NET Framework 4 and 4.5 provided updates and enhancements to all the major portions of .NET — making development easier, and programs more robust and maintainable. In this advanced training course, you will gain the skills needed to enhance applications with new .NET 4/4.5 features, including ASP.NET 4, parallel and asynchronous programming, Entity Framework, and jQuery.

About This Course

The .NET Framework 4 and 4.5 provided updates and enhancements to all the major portions of .NET — making development easier, and programs more robust and maintainable. In this advanced training course, you will gain the skills needed to enhance applications with new .NET 4/4.5 features, including ASP.NET 4, parallel and asynchronous programming, Entity Framework, and jQuery.

Who Should Attend

This course uses Visual Studio 2012, but most of it is useful to those using Visual Studio 2010

Prerequisites & Entry Requirements

General Prerequisites:

- Knowledge of ASP.NET 2 development

- Have an understanding of the ASP.NET fundamentals

You should know how to:

- Create ASP.NET websites with Visual Studio

- Control layouts and styles with master pages and themes

- Process ASP.NET web forms

- Manage state using sessions, view state, and caching

Learning Outcomes

Upon successful completion of this course, participants will be able to:

- Enhance .NET applications with .NET 4/4.5 and Visual Studio

- Leverage parallel and asynchronous computing features

- Automate access to data with the EF ORM and LINQ to Entities

- Optimise ASP.NET and WCF features, including Web API, jQuery, JSON, and REST

Detailed Course Outline

Introducing .NET 4/4.5

.NET 4/4.5 architectural overview

- Tiers and technologies

- Considering application architecture from data to the user interface

Exploring .NET new features

- LINQ

- Entity Framework

- WCF

- Ajax

- jQuery

- Enhancing productivity with VS 2012 IDE features

- Leveraging WinRT and Windows 8 store apps

Programming with C# and VB Features

Applying C# and VB extensions

- Inferred types

- Anonymous functions

- Lambda expressions

- Object initialisers

- Extension and partial methods

- Optional arguments

Extracting and manipulating data with LINQ

- Selecting data with LINQ expressions

- Aggregating data within collections

- Building LINQ queries using lambda expressions

- Employing the new language features with LINQ

Exploiting parallel and asynchronous programming

- Running background threads with the Task class

- Executing code in parallel on multiple CPUs with PLINQ

- Adding dynamic features to applications with DLR

- Writing more responsive applications

Accessing Data with Entity Framework (EF)

Mapping objects to relational data

- Accessing data with ORM tools and technologies

- Mapping tables to objects with the EF Designer

- Automatically generating entity classes

Replacing ADO.NET code with LINQ to Entities

- Querying relational databases

- Inserting, updating and deleting data using the DbContext class

- Reading and writing XML easily using LINQ to XML

Manipulating different programming models

- Database–first

- Model–first

- Code–first

- Leveraging POCOs for integration in applications

Creating REST Data Services with WCF

Working with WCF new features

- Integrating EF entities within a distributed application

- Optimising data transfer with JSON

- Creating WCF data services without configuration

Accessing REST–based services via HTTP and Web API

- Writing HTTP services that reach browsers and mobile devices with Web API

- Calling services asynchronously

- Deserialising JSON data at the client

Enhancing Web User Experiences with ASP.NET New Features

Making web applications more responsive

- Creating highly responsive user interfaces with jQuery

- Incorporating jQuery code into web pages

- Constructing appealing pages with jQuery animation

- Optimising URLs with routing

Automating data access and deployment

- Calling WCF services with jQuery, Ajax and JSON

- Integrating Dynamic Data controls with ASP.NET pages

- Employing WebSockets for full duplex communication

Creating Windows 8 Store Apps

Evaluating Windows 8 Store app types

- Leveraging web development experience with HTML5, CSS3 and JavaScript

- Employing XAML with C# or VB

- Taking advantage of the Windows Runtime APIs

Developing and deploying apps

- Publishing apps to the Windows Store

- Deploying apps in the enterprise

Skills You Will Learn:

- Enhance .NET applications with .NET 4/4.5 and Visual Studio

- Leverage parallel and asynchronous computing features

- Automate access to data with the EF ORM and LINQ to Entities

- Optimise ASP.NET and WCF features, including Web API, jQuery, JSON, and REST

Frequently Asked Questions

Q: What delivery options are available for .Net 4.5 Programming for Existing .Net Developers?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 4-day .Net 4.5 Programming for Existing .Net Developers course provides up to 26.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the .Net 4.5 Programming for Existing .Net Developers training?

The training takes place over 4 day(s), with each day lasting approximately 32.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for .Net 4.5 Programming for Existing .Net Developers?

Yes, we provide corporate training, dedicated training, and closed classes for .Net 4.5 Programming for Existing .Net Developers. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: .Net 4.5 Programming for Existing .Net Developers, .NET Development, PEND

Q: Why choose Nexus Human for .Net 4.5 Programming for Existing .Net Developers?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your .Net 4.5 Programming for Existing .Net Developers training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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