

Course Outline



Tel: +44 (0) 118 979 4000

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Email: training@ptr.co.uk

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Developing Applications Using C#.Net

Course Description:

Synonymous with writing code in Visual Studio 2010, C# is an incredibly popular programming language. Its similarity to C++ and Java make it an excellent choice for existing programmers. This course provides you with a solid foundation, unlocking the power and possibilities of C# 2010 and giving detailed steps for quickly and easily writing useful programs.

Developing Applications Using C# 2010:

- Details the process for creating Windows Forms applications, WPF Windows applications,
- Discusses application debugging, error handling, and dealing with unexpected events
- Addresses object-oriented programming and how to use it in your applications
- Data Binding
- Explains deploying applications using ClickOnce technology
- Covers Access®, SQL Server®, and ADO.NET

Pre-requisites:

Knowledge equivalent to that gained by attending the Learning to Program using C# course.

Course Content:

- **The Microsoft .Net Framework**
- Microsoft's Reliance on Windows
- MSN 1.0
- The .NET Vision
- This Sounds Like Java
- Where Now?

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- **Writing Software for Windows**
 - The .NET Framework Classes
 - Executing Code
 - Common Language Runtime
 - Code Loading and Execution
 - Application Isolation
 - Security
 - Interoperability
 - Exception Handling
 - The Common Type System and Common Language Specification
- **Extensible Application Mark Up Language (XAML)**
 - What Is XAML?
 - XAML Syntax
 - Windows Presentation Foundation
 - Creating a Rich WPF User Interface
 - Using WPF Common Controls
 - Wiring Up Events

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- **Building Windows Applications**
 - Responding to Events
 - Setting Up a Button Event
 - Building a Simple Application
 - Building the Form
 - Counting Characters
 - Counting Words
 - Creating More Complex Applications
 - The Text Editor Projects
 - Creating the Toolbar
 - Creating the Status Bar
 - Creating an Edit Box
 - Clearing the Edit Box
 - Responding to Toolbar Buttons
 - Using Multiple Forms
 - The About Dialog Box
- **Displaying Dialog Boxes**
 - The MessageBox
 - Available Icons for MessageBox
 - Available Buttons for MessageBox
 - Setting the Default Button
 - Miscellaneous Options
 - The Show Method Syntax
 - Example Message Boxes
 - The OpenFileDialog Control
 - The OpenFileDialog Control
 - The Properties of OpenFileDialog
 - OpenFileDialog Methods
 - Using the OpenFileDialog Control
 - The SaveDialog Control
 - The Properties of SaveFileDialog
 - SaveFileDialog Methods

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- **Displaying Dialog Boxes**
 - Using the SaveFileDialog Control
 - The FontDialog Control
 - The Properties of FontDialog
 - The Methods of FontDialog
 - Using the FontDialog Control
 - The ColorDialog Control
 - The Properties of ColorDialog
 - Using the ColorDialog Control
 - The PrintDialog Control
 - The Properties of PrintDialog
 - Using the PrintDialog Control
 - The PrintDocument Class
 - The Properties of the PrintDocument Class
 - Printing a Document
 - The FolderBrowserDialog Control
 - The Properties of FolderBrowserDialog
 - Using the FolderBrowserDialog Control

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- **Creating Menus**
 - Understanding Menu Features
 - Images
 - Access Keys
 - Shortcut Keys
 - Check Marks
 - The Properties Window
 - Creating Menus
 - Designing the Menus
 - Adding Toolbars and Controls
 - Coding Menus
 - Coding the View Menu and Toolbars
 - Testing Your Code
 - Context Menus
 - Creating Context Menus
 - Enabling and Disabling Menu Items and Toolbar Buttons
- **De-bugging and Error Handling**
 - Major Error Types
 - Syntax Errors
 - Execution Errors
 - Logic Errors
 - Debugging
 - Creating a Sample Project
 - Setting Breakpoints
 - Debugging Using the Watch Window and QuickWatch Dialog Box
 - Debugging with the Autos Window
 - Debugging with the Locals Window
 - Error Handling
 - Using Structured Error Handling

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- **Creating Windows Forms user controls**
 - Windows Forms Controls
 - Creating and Testing a User Control
 - Exposing Properties from User Controls
 - Adding Properties
 - Exposing Methods from User Controls
 - Exposing Events from User Controls
 - Design Time or Runtime
 - Creating a Command Link Control
 - Building the Command Link Control
 - Using the Command Link Control
- **Accessing Databases**
 - What Is a Database?
 - Microsoft Access Objects
 - Tables
 - Queries
 - The SQL SELECT Statement
 - Queries in Access
 - Data Access Components and Controls
 - DataSet
 - DataGridView
 - BindingSource
 - BindingNavigator
 - TableAdapter
 - Data Binding

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- **Database Programming with SQL Server and ADO.Net**
 - ADO.NET
 - ADO.NET Data Namespaces
 - The SqlConnection Class
 - Working with the Connection String Parameters
 - Opening and Closing the Connection
 - The SqlCommand Class
 - The Connection Property
 - The CommandText Property
 - The Parameters Collection
 - The ExecuteNonQuery Method
 - The SqlDataAdapter Class
 - The SelectCommand Property
 - Using Command Builders to Create the Other Commands
 - The Fill Method
 - The DataSet Class
 - DataView
 - The Sort Property
 - The RowFilter Property
 - The Find Method
 - The ADO.NET Classes in Action
 - Examining a DataSet Example
 - Data Binding
 - BindingContext and CurrencyManager
 - Binding Controls
 - Binding Example

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- **Deploying your Application**
 - What Is Deployment?
 - ClickOnce Deployment
 - XCOPY Deployment
 - Creating a Visual Studio 2010 Setup Application
 - User Interface Editor
 - Deploying Different Solutions
 - Private Assemblies
 - Shared Assemblies
 - Deploying Desktop Applications
 - Deploying Web Applications
 - Deploying XML Web Services
 - Useful Tools

Course Duration:

5 Days

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