55339 Programming in C#

Introduction:

This five- day training course teaches developers the programming skills that are required to create applications using the C# language. During their five days in the classroom, students review the basics of C# program structure, language syntax, and implementation details, and then consolidate their knowledge throughout the week as they build an application that incorporates several features of .NET. The course aims to follow the spirit of the Microsoft Official Curriculum course 20483, while bringing it completely up-to-date with the latest features of C#, .NET 6.0 and Visual Studio 2022.

Objectives:

Explain how to use Visual Studio to create and run an application.

Describe the features and syntax of the C# programming language.

Define the monitoring needs of large-scale applications

Create and call methods, capture and manage exceptions.

Understand the .NET development platform and libraries.

Understand the .NET framework classes.

Create well-structured and easily-maintainable C# code.

Define and implement interfaces.

Create a class hierarchy using inheritance.

Understand object-oriented programming concepts.

Implement the fundamental architecture and core components of a desktop application.

Acquire a working knowledge of how to build a graphical UI using XAML.

Use file I/O and streams, and serialize/deserialize data in various formats.

Understand web communications and protocols.

Create an entity data model for database access.

Use Language-Integrated Query (LINQ).

Use asynchronous operations to create performant applications.

Add dynamic components and unmanaged libraries to a C# program.

Understand the use of generics and generic collections.

Retrieve metadata from types using .NET reflection.

Course Outline:

1 – C# Syntax Writing Applications in C# and .NET Types of Data and Expressions C# Language Constructs 2 – C# Language Concepts Methods Method Overloading Exception Handling Monitoring 3 – C# Structures, Collections and Events Structs Enums Built-in Collections Events 4 – C# Classes Creating Classes Interfaces Understanding Generics in C# 5 – C# Inheritance Hierarchies of Classes Polymorphism Extending Classes 6 – Input and Output File I/O Serialization and Deserialization Streams 7 – Database Access Entity Framework LINQ 8 – Using the Network Web Services REST and OData ASP.NET Core MVC 9 – Graphical User Interfaces Using UI Frameworks Data binding Styling the UI 10 – Application Performance Multitasking Asynchronous Calls Dealing with Conflicts 11 – C# Interop Dynamic Objects Managing Resources 12 – Designing for Reuse Metadata Attributes Generating Code Assemblies

Enroll in this course

£2,975.00

Select a start date for your 5 Days course

- 2023-02-13 09:00:00_2023-02-17 17:00:00

- 2023-04-10 09:00:00_2023-04-14 17:00:00

- 2023-06-12 09:00:00_2023-06-16 17:00:00