C# Fundamentals

Overview

C# is the most popularly used programming language for developing different types of .net applications. As per todays trend, C# has more demand. C# is an Object Oriented Programming language, It is introduced specifically for .NET and thus has no backward compatibility issues.

C# is a modern object-oriented, general-purpose programming language, created and developed by Microsoft together with the .NET platform. There is highly diverse software developed with C# and on the .NET platform: office applications, web applications, websites, desktop applications, mobile applications, games and many others.

Course Goals

- To use VS.NET IDE and all its features.
- To learn major features of .NET Framework and their involvement in .NET platform.
- To learn major concepts behind CLR (Common Language Runtime)
- To gain very deep understanding of C# language features.
- To understand and implement practically concepts of Object Orientation which is most important for all types of application development.
- To create and manage Collections and Generics.
- To build reusable .net components.
- To build a standard GUI for Windows Based Applications using WinForms.

Audience

- This course has been prepared for the beginners to help them understand basic C# programming.
- The course is suitable for beginners and intermediate programmers too.

Class Prerequisites

- Basic Knowledge of Programming will be helpful to understand the concepts
- C# programming is very much based on C and C++ programming languages, so if you have a basic understanding of C or C++ programming, then it will be fun to learn C#

Course Content

- Getting Started with C#
- Expressions, Types, and Variables
- Conditional Logic
- Control Statements – Loops
- Creating Your First C# Program
- Add Menus to your Forms
- Debugging your Applications
- Methods
- Properties
- Namespaces
- Understanding Arrays
- String Manipulation
- Introduction to Events
- Introduction to Classes and Objects
- Working with Collections
- Manipulating Files
- Multiple Forms
- Dates and Times
- Introduction to Exception Handling
- Introduction to Generic Collections
- Filtering and Managing Data Collections Using LINQ
- Sample Programming Exam