

C# Programming

Duration: 35-40 Hours

Prerequisites

- Knowledge of C or any programming Language.

Course Contents

1. Introduction to .NET Framework

- What is .NET Framework?
- What are components of .NET Framework?
- IDE for .NET

2. Writing C# classes

- Class Basics, Constructors, Destructors
- Using Methods in Classes
- Properties
- Indexers

3. Language Fundamentals & Constructs

- Comments, Variables, Constants
- Controlled Structure
- Looping Structures

4. Inheritance and Polymorphism

- Extending Classes
- Constructors in Inheritance
- Polymorphism
 - Function Overloading, Operator Overloading
 - Dynamic Polymorphism

5. Exception Handling

- Try, Catch, Throw
- System Defined Exceptions
- User Defined Exceptions

6. Attributes & Reflection

- User Defined Attributes
- Predefined Attributes
- Reflection
 - Introspection of Classes, Methods, Parameters, Properties

7. Events & Delegates

- Event Handling in C#
- Delegates
 - Delegates
 - Multicasting Delegates
 - Delegate Chaining

8. Collection Framework

- Arraylist, List, Stack, Queue
- IEnumerable, IEnumerator, IComparer interfaces

9. Generics & Anonymous Methods

- Generics in C#
- Generics for User Defined Functions and Classes
- Anonymous Methods

10. Multithreading

- Thread Class
- Common Methods of Thread Class
- Creating, Managing and Destroying Threads

11. File I/O and Serialization

- File Handling
 - Creating, Deleting files
- Serialization

12. XML using .NET

- Creating XML file with .NET
- Reading XML Document with .NET

13. Windows Application

- Introduction to Windows Forms
- Basic Controls of Windows Form
- MDI Container Form
- Adding Menu Bar, ToolBar and Status Bar to Form
- Event Handling with Forms

14. Deployment

- XCOPY
 - CAB projects
 - Merge module
 - ClickOnce
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