C# Beginner to Advanced

Introduction to C#: Getting Started
- Introduction to C#
- History of C# Version
- C# Code Execution
- Installing and Configuring Visual Studio
- Variable
- Data Type
- Safe Type Casting with IS and AS Operator

C# Conditional Statements and Loops
- Operators
- Operators precedence
- Conditional Statements: if, if..else if, switch
- Loops: do..while, while, for, foreach
- Jump Statements

C# Arrays and Strings
- Arrays
- Types of Arrays
- Strings
- String Methods

Object-Oriented Programming in C#
- Object-Oriented Programming Concepts
- Access Modifiers
- Constructor
- Inheritance
- Methods
- Structure

C#: Abstract Class, Interface and Partial Class
- Abstract Class
- Interface
- Interface vs. Abstract Class
- Static Class
- Extension Methods
- Partial Class
- Partial Methods

C#: Property, Indexer, Attributes and Exception Handling
- Property
- Indexer
- Exceptional Handling
- Enum
- Attributes

C#: Anonymous Type, Delegates, Events and Lambda

- Extension Methods
- Anonymous Type
- Var and Dynamic
- Delegates
- Events
- Anonymous Methods
- Lambda Expression
- Expression Tree

C# Asynchronous Programming – Async and Await

- What is Synchronous and Asynchronous?
- Asynchronous Programming Patterns in .NET
- Asynchronous Programming Model (APM)
- Event-based Asynchronous Pattern (EPM)
- Task-based Asynchronous Pattern (TAP)
- Async and Await in Task-based Asynchronous Pattern TAP
- Asynchronous vs. Multithreading