**[C# Day 1 : Introduction to C# & .NET Framework](https://www.abhishekluv.in/online-one-on-one-csharp-training-and-coaching" \l "collapseTwo1)**

* Student & Faculty Introduction
* Instructions about Zoom and DropBox access
* Getting started with .NET Framework and C#
* Understanding Computer Basics: Input -> Compiler -> Output
* Understanding the process of compiling C# source code
* CLR: Converts IL code to native machine code
* CTS: Types defined in .NET framework used to create data in applications
* CLS: .NET Framework rules that need to be followed by programming languages
* Base class libraries: Set of class libraries with built-in and ready-made functionalities
* Understanding C# and .NET framework version numbers
* Visual Studio 2019 Community Edition Basics
* Understanding the role of Main method

##### [Day #2 : C# Basics #1](https://www.abhishekluv.in/online-one-on-one-csharp-training-and-coaching" \l "collapseTwo21)

* CTS: Looking at the built-in data types
* Variable declaration
* Manipulating textual data using String and StringBuilder class
* Using implicitly-typed local variables
* Decision making in C#
* Looping and Iteration in C#

##### [Day #3 : C# Basics #2](https://www.abhishekluv.in/online-one-on-one-csharp-training-and-coaching" \l "collapseThree31)

* Arrays in C#
* Learning how to create methods in C#
* Creating methods with/without return types
* Understanding value and reference types
* Understanding enum and nullable types
* Understanding method parameters: out, ref, params
* Understanding breakpoints and debugging feature of Visual Studio

##### [Day #4 : C# Object-Oriented Programming #1](https://www.abhishekluv.in/online-one-on-one-csharp-training-and-coaching" \l "day4)

* Creating Classes and Objects
* Understanding Encapsulation
* Constructors, Properties, Static Classes and Members
* Constants, read-only fields, object initialization syntax

##### [Day #5 : C# Object-Oriented Programming #2](https://www.abhishekluv.in/online-one-on-one-csharp-training-and-coaching" \l "day5)

* Understanding Inheritance and Polymorphism
* Overloading and Overloading and Overriding of methods
* Understanding Abstract classes and Abstract methods
* Understanding Access Modifiers: public,private,protected,internal
* Understanding the use of Interfaces

##### [Day #6 : C# Advanced Programming #0 - Collection & Generics](https://www.abhishekluv.in/online-one-on-one-csharp-training-and-coaching" \l "day6)

* Non-Generic Collection
* Problems with Non-Generic Collection
* Saying Hello to Generic Collections

##### [Day #7 : C# Advanced Programming #1 - Exception Handling & LINQ](https://www.abhishekluv.in/online-one-on-one-csharp-training-and-coaching" \l "day7)

* Understanding Exception Handling
* Using try..catch, throw, when, finally
* Understanding LINQ query and extension method syntax

##### [Day #8 : C# Advanced Programming #2 - Delegates, Anonymous Methods & Lambda Expressions](https://www.abhishekluv.in/online-one-on-one-csharp-training-and-coaching" \l "day8)

* Understanding Delegates: System.MultiCastDelegate and System.Delegate base classes
* Understanding Generic Delegates: Action and Func
* Understanding Anonymous methods
* Understanding Lambda expresions
* Understanding Extension methods

##### [Day #9 : C# Advanced Programming #3 - Understanding CLR & Garbage Collection](https://www.abhishekluv.in/online-one-on-one-csharp-training-and-coaching" \l "day9)

* Understanding how CLR manages memory using Garbage Collection
* Using IDisposable interface and Dispose method
* Understanding object generation and System.GC type

##### [Day #10: C# Advanced Programming #4 - Understanding Shared & Private Assemblies, GAC](https://www.abhishekluv.in/online-one-on-one-csharp-training-and-coaching" \l "day10)

* Understanding Namespace and Creating custom namespace
* .NET assemblies: .DLL or .EXE
* Consuming custom class library in Console Application
* Understanding private and shared assemblies
* Understanding GAC global assembly cache

##### [Day #11: C# Advanced Programming #5 - Understanding MultiThreading and Async Programming](https://www.abhishekluv.in/online-one-on-one-csharp-training-and-coaching" \l "day11)

* Using ThreadStart delegate and Thread class
* Using Task of T
* Using async and await keywords for Async programming

##### [Day #12: C# Advanced Programming #6 - File IO and Object Serialization](https://www.abhishekluv.in/online-one-on-one-csharp-training-and-coaching" \l "day12)

* Creating/Deleting directory programmatically
* Using File, String and Memory streams for Data
* Serializing .NET objects to Bin, JSON, Txt

##### [Day #13: C# Advanced Programming #7 - Data Access using ADO.NET](https://www.abhishekluv.in/online-one-on-one-csharp-training-and-coaching" \l "day13)

* ADO.NET Basics
* Understanding .NET Data Providers
* Understanding Connected and Disconnected architecture
* Writing Data Access code using ADO.NET
* Writing Data Access code using Interfaces and DbProviderFactory

##### [Day #14: C# 7.x and 8.x New Features](https://www.abhishekluv.in/online-one-on-one-csharp-training-and-coaching" \l "day14)

* using static (C# 6.x)
* String Interpolation (C# 6.x)
* Getter only auto property (C# 6.x)
* Property Initializer (C# 6.x)
* Expression bodied property syntax (C# 6.x)
* Expression bodied method syntax (C# 6.x)
* nameof operator (C# 6.x)
* Local functions (C# 7.x)