# Programming with C#

**Modality: On Demand**

**Duration: 50 Hours**

## About this course:

To make sure that your experience of learning is fine, please be informed that this course isn't for novices or those new to programming. You should have earlier experience of programming with an object-oriented language of programming as there are ideas that are referenced in the course that are thought to be earlier information and are not clarified in detail.

Learning C# gives a strong basis in object-oriented information of programming, prepares for learning other languages of programming, and positions the individuals who complete this course for a wide assortment of popular employments of computer programming. The programming language of C# was made to be an object-oriented language of programming that offers familiarity to C/C++, ease of use, and Java developers, alongside resource management and upgraded memory. C# is dominant on the platform of Microsoft but on the other hand, is being utilized to develop software that drives on Android, Linux, and iOS gadgets. This course expects to show the nuts and bolts of C# entirely through the propelled features of the language. This course isn't an initial level course on C#, in spite of the fact that novices can also learn so much from this material. It is proposed to give a prologue to the C# language and the universe of .NET programming for existing engineers who want or need to get familiar with managed code development and C#.

The normal compensation for C# Developer is **$79,954** every year.

## Course Objective:

- C# Syntax
- Introducing C#
- Data Types, Variables, Operators, and Expressions
- C# Language Fundamentals
- Performing Iterations and Making Decisions
- C# Decision Statements
- OOP in C#
- Working with Methods and Handling Exceptions
- .NET Framework concepts

## Audience:

This course is planned for:

The Programmers

## Prerequisites:

Involvement in another language of programming or comprehension of programming builds, for example,

1. Looping
2. Database Concepts
3. Program Flow

While starting programmers can gain from this course but the fundamental ideas are not totally clarified in this course.

## Suggested prerequisites courses:

Programming for Absolute Beginners

## Course Outline:

### Module One

- Introducing C#
- The Tools
- Data Types, Variables, Operators, and Expressions
- Hands-On Practice
- Module One Assignment
- Peer Review
- Study Resources
- Module One Discussion Forum

### Module Two

- Making Decisions and Performing Iterations
- C# Decision Statements
- Repetition in C#
- Hands-On Practice
- Module Two Assignment
- Peer Review
- Study Resources
- Module Two Discussion Forum

### Module Three

- Working with Methods and Handling Exceptions
- Methods
- Exception Handling
- Hands-On Practice
- Module Three Assignment
- Peer Review
- Study Resources
- Module Three Discussion Forum

## Module Four

- Introducing Complex Data Structures
- Working with Arrays
- Working with Enumerations (enum)
- Working with Structures (struct)
- Hands-On Practice
- Module Four Assignment
- Peer Review
- Study Resources
- Module Four Discussion Forum

## Module Five

- Introducing Object-Oriented Programming in C#
- Classes in C#
- Encapsulation
- Static Methods and Static Classes
- Anonymous Classes
- Hands-On Practice
- Module Five Assignment
- Peer Review
- Study Resources
- Module Five Discussion Forum

## Module Six

- More OOP
- Resource Management (Garbage Collection)
- Hands-On Practice
- Module Six Assignment
- Peer Review
- Study Resources
- Module Six Discussion Forum

## Module Seven

- C# Collections
- Working with Collections
- Hands-On Practice
- Module Seven Assignment
- Peer Review
- Study Resources
- Module Seven Discussion Forum

## Module Eight

- Introducing Generics

- Working with Generics
- Hands-On Practice
- Module Eight Assignment
- Peer Review
- Study Resources
- Module Eight Discussion Forum

## Module Nine

- Events and Delegates
- Using Events and Delegates
- Hands-On Practice
- Module Nine Assignment
- Peer Review
- Study Resources
- Module Nine Discussion Forum

## Module Ten

- Introducing LINQ
- Using LINQ
- Hands-On Practice
- Module Ten Assignment
- Peer Review
- Study Resources
- Module Ten Discussion Forum

## Module Eleven

- Improving Application Performance
- Multitasking and Parallel Programming
- More on Tasks
- Hands-On Practice
- Module Eleven Assignment
- Peer Review
- Study Resources
- Module Eleven Discussion Forum

## Module Twelve

- Asynchronous Programming
- Asynchronous Programming in C#
- Hands-On Practice
- Module Twelve Assignment
- Peer Review
- Study Resources
- Module Twelve Discussion Forum

# End of Course Evaluation

- Course Evaluation