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Learning Style: On Demand

Technology:

Difficulty: Beginner

Course Duration: 7 Hours

## Programming C#: Fundamental



### About this course:

The Programming C# 6: Fundamentals course covers everything to enable the students to get started with C# and Visual Studio. The course begins with basic compiling of a console application and moves on to the fundamentals of working with strings and numeric values. The course gives the students basic understanding

to execute functionality provided in 3rd party libraries as well as to create their own methods. Classes, including class methods and properties are also introduced in this course. The course also provides an opportunity to learn about handling the exceptions and class libraries.

This course teaches the students to develop the essential programming skills that are required for developers to create Windows applications using the C# language. During this course, the students learn the basics of C# program structure, language syntax, and implementation details, and then consolidate their knowledge as they build a real-world application.

### **Course Objective:**

- Compile their first program using C#
- Learn the format strings for output
- Correctly display numeric values
- Call code in other assemblies
- Write and call methods
- Organize the code in classes
- Handle exceptions
- Create a class library

### **Audience:**

- Aspiring or beginner software developers looking to enhance their knowledge of C# and Microsoft Visual Studio.

### **Prerequisite:**

- This beginner level course requires the students to have a basic understanding of computer language along with the ability to install files and software on a computer.
- The course contents are designed in such a way to be comprehensible to the students with little to no experience of computer programming.

### **Course Outline:**

#### **Chapter 01 - Getting Started with .NET**

- **Topic A: Getting Started with .NET - Part 1**
- Getting Started with .NET - Part 2
- Getting Started with .NET - Part 3
- **Topic B: .NET Architecture - Part 1**
- .NET Architecture - Part 2
- .NET Architecture - Part 3
- **Topic C: Building a .NET Application - Part 1**
- Building a .NET Application - Part 2
- Building a .NET Application - Part 3
- **Topic D: Intermediate Language - Part 1**

- Intermediate Language - Part 2
- Intermediate Language - Part 3
- **Topic E: C# Language - Part 1**
- C# Language - Part 2
- C# Language - Part 3

## Chapter 02 - Your First App

- **Topic A: Using Visual Studio - Part 1**
- Using Visual Studio - Part 2
- Using Visual Studio - Part 3
- **Topic B: Building Console App - Part 1**
- Building Console App - Part 2
- Building Console App - Part 3
- **Topic C: Solution Explorer - Part 1**
- Solution Explorer - Part 2
- Solution Explorer - Part 3
- **Topic D: Comments and Intellisense - Part 1**
- Comments and Intellisense - Part 2
- Comments and Intellisense - Part 3
- **Topic E: Building Projects - Part 1**
- Building Projects - Part 2
- Building Projects - Part 3

## Chapter 03 - Debugging and Errors

- **Topic A: Debugging Code - Part 1**
- Debugging Code - Part 2
- Debugging Code - Part 3
- **Topic B: Breakpoints - Part 1**
- Breakpoints - Part 2
- Breakpoints - Part 3
- **Topic C: Runtime and Logic Errors - Part 1**
- Runtime and Logic Errors - Part 2
- Runtime and Logic Errors - Part 3

## Chapter 04 - Projects and Syntax

- **Topic A: Anatomy of a C# Program - Part 1**
- Anatomy of a C# Program - Part 2
- Anatomy of a C# Program - Part 3
- **Topic B: Project Folders and Files - Part 1**
- Project Folders and Files - Part 2
- Project Folders and Files - Part 3
- **Topic C: Statements and Expressions - Part 1**
- Statements and Expressions - Part 2
- Statements and Expressions - Part 3
- **Topic D: Language Syntax - Part 1**
- Language Syntax - Part 2
- Language Syntax - Part 3

- **Topic E: Preprocessing Directives - Part 1**
- Preprocessing Directives - Part 2
- Preprocessing Directives - Part 3

## **Chapter 05 - Variables and Data Types**

- **Topic A: Variables - Part 1**
- Variables - Part 2
- Variables - Part 3
- **Topic B: Data Types - Part 1**
- Data Types - Part 2
- Data Types - Part 3

## **Chapter 06 - A Closer Look at Data Types**

- **Topic A: Floating Point Data - Part 1**
- Floating Point Data - Part 2
- Floating Point Data - Part 3
- **Topic B: Characters - Part 1**
- Characters - Part 2
- Characters - Part 3
- **Topic C: Constants and Enums - Part 1**
- Constants and Enums - Part 2
- Constants and Enums - Part 3