PROGRAMMING WITH C# USING MICROSOFT VISUAL STUDIO 2010 (M10266)

Course Code: 6282

Gain the knowledge and skills to develop C# applications for the .NET Framework 4.0

Learn about the C# program structure, language syntax, and implementation details with .NET Framework 4.0 in this five-day course. You will discover the new enhancements in the C# 4.0 language by using Visual Studio 2010.

After an introduction to C# and the .Net framework, you’ll learn how to use C# programming constructs, how to read and write files, how to encapsulate data, and how to use LINQ to query data. Fourteen Global Knowledge exclusive hands-on labs help you put theory into practice and better prepare you for when you return to your job.

What You’ll Learn

- Developing C# applications for the Microsoft .NET Framework 4.0
- Structure of C# 4.0 programs, language syntax, and implementation details
- Using C# programming constructs
- Declaring and calling methods
- Handling exceptions
- Reading and writing files
- Creating new types
- Encapsulating data
- Inheriting from classes and implementing interfaces
- Managing the lifetime of objects and controlling resources
- Defining overload operators
- Decoupling methods
- Using collections and building generic types
- Using LINQ to query data
- Integrating Visual C# Code with Dynamic Languages and COM Components

Who Needs to Attend

Experienced developers who have programming experience in C, C++, Visual Basic, or Java and understand the concepts of object-oriented programming
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Classroom Live Outline

1. C# and the .NET Framework
   - Introduction to the .NET Framework
   - Creating Projects within Visual Studio 2010
   - Writing a C# Application
   - Building a Graphical Application
   - Documenting an Application
   - Running and Debugging Applications by Using Visual Studio 2010

2. Using C# Programming Constructs
   - Declaring Variables and Assigning Values
   - Using Expressions and Operators
   - Creating and Using Arrays
   - Using Decision Statements
   - Using Iteration Statements

3. Declaring and Calling Methods
   - Defining and Invoking Methods
   - Specifying Optional Parameters and Output Parameters

4. Exceptions
   - Handling Exceptions
   - Raising Exceptions

5. Reading and Writing Files
   - Accessing the File System
   - Reading and Writing Files by Using Streams

6. Creating New Types
• Creating and Using Enumerations
• Creating and Using Classes
• Creating and Using Structs
• Comparing References to Values

7. Encapsulating Data and Methods
• Controlling Visibility of Type Members
• Sharing Methods and Data

8. Inheriting from Classes and Implementing Interfaces
• Using Inheritance to Define New Reference Types
• Defining and Implementing Interfaces
• Defining Abstract Classes

9. Managing the Lifetime of Objects and Controlling Resources
• Introduction to Garbage Collection
• Managing Resources

10. Encapsulating Data and Defining Overloaded Operators
• Creating and Using Properties
• Creating and Using Indexers
• Overloading Operators

11. Decoupling Methods and Handling Events
• Declaring and Using Delegates
• Using Lambda Expressions
• Handling Events

12. Using Collections and Building Generic Types
• Using Collections
• Creating and Using Generic Types
• Defining Generic Interfaces and Understanding Variance
• Using Generic Methods and Delegates

13. Building and Enumerating Custom Collection Classes
• Implementing a Custom Collection Class
• Adding an Enumerator to a Custom Collection Class

14. Using LINQ to Query Data
• Using the LINQ Extension Methods and Query Operators
• Building Dynamic LINQ Queries and Expressions

15. Integrating Visual C# Code with Dynamic Languages and COM Components
• Integrating C# Code with Ruby and Python
• Accessing COM Components from C#

Classroom Live Labs
Lab 1: Exclusive - Introducing C# and the .NET Framework
Lab 2: Exclusive - Using Language Programming Constructs
Lab 3: Exclusive - Declaring and Calling Methods
Lab 4: Exclusive - Handling Exceptions
Lab 5: Exclusive - Reading and Writing Files
Lab 6: Exclusive - Creating New Types
Lab 7: Exclusive - Encapsulating Data and Methods
Lab 8: Exclusive - Inheriting from Classes and Implementing Interfaces
Lab 9: Exclusive - Managing the Lifetime of Objects and Controlling Resources
Lab 10: Exclusive - Encapsulating Data and Overloading Operators
Lab 11: Exclusive - Decoupling Methods and Handling Events
Lab 12: Exclusive - Using Collections and Building Generic Types
Lab 13: Exclusive - Building and Enumerating Custom Collection Classes
Lab 14: Exclusive - Querying Data with LINQ
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VIRTUAL CLASSROOM LIVE  $3,095 USD  5 days

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Mar 16 - 20, 2020 | 9:30 AM - 5:30 PM EST
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PRIVATE GROUP TRAINING 5 days

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