

IT LEARNING SOLUTIONS

20483: Programming in C#

Prepares you for exam 70-483 | Instructor-led classroom training or on-demand training

AUDIENCE(S): Developers
TECHNOLOGY: Visual Studio
LEVEL: 200
LANGUAGE(S): English

Compare Learning Environments	On-demand Training	Classroom Training
Anytime access	✓	
Anywhere access to recorded instructor	✓	
Microsoft Official Content	✓	✓
In-Depth Training	✓	✓
Hands-on Labs	✓	✓
SATV Redemption	✓	✓
Ask Instructor questions in person		✓
Attend live class in person		✓
Time commitment	Self-paced (3 Month Access)	5 Days

About This Course:

This training course teaches developers the programming skills that are required for developers to create Windows applications using the C# language. During their five days in the classroom students review the basics of C# program structure, language syntax, and implementation details, and then consolidate their knowledge throughout the week as they build an application that incorporates several features of the .NET Framework 4.5.

The course introduces many of the techniques and technologies employed by modern desktop and enterprise applications, including:

- Building new data types.
- Handling events.
- Programming the user interface.
- Accessing a database.
- Using remote data.
- Performing operations asynchronously.
- Integrating with unmanaged code.
- Creating custom attributes.
- Encrypting and decrypting data.

At the end of the course, students should leave the class with a solid knowledge of C# and how to use it to develop .NET Framework 4.5 applications.

This course uses Visual Studio 2012, running on Windows 8.

At Course Completion:

- Describe the core syntax and features of C#.
- Create and call methods, catch and handle exceptions, and describe the monitoring requirements of large-scale applications.
- Implement the basic structure and essential elements of a typical desktop application.
- Create classes, define and implement interfaces, and create and use generic collections.
- Use inheritance to create a class hierarchy, extend a .NET Framework class, and create generic classes and methods.

- Read and write data by using file input/output and streams, and serialize and deserialize data in different formats.
- Create and use an entity data model for accessing a database and use LINQ to query and update data.
- Use the types in the System.Net namespace and WCF Data Services to access and query remote data.
- Build a graphical user interface by using XAML.
- Improve the throughput and response time of applications by using tasks and asynchronous operations.
- Integrate unmanaged libraries and dynamic components into a C# application.
- Examine the metadata of types by using reflection, create and use custom attributes, generate code at runtime, and manage assembly versions.
- Encrypt and decrypt data by using symmetric and asymmetric encryption.

Prerequisites:

Developers attending this course should already have gained some limited experience using C# to complete basic programming tasks. More specifically, students should have hands-on experience using C# that demonstrates their understanding of the following:

- How to name, declare, initialize and assign values to variables within an application.
- How to use:
 - arithmetic operators to perform arithmetic calculations involving one or more variables;
 - relational operators to test the relationship between two variables or expressions;
 - logical operators to combine expressions that contain relational operators.
- How to create the code syntax for simple programming statements using C# language keywords and recognize syntax errors using the Visual Studio IDE.
- How to create a simple branching structure using an IF statement.
- How to create a simple looping structure using a For statement to iterate through a data array.
- How to use the Visual Studio IDE to locate simple logic errors.
- How to create a Function that accepts arguments (parameters and returns a value of a specified type).
- How to design and build a simple user interface using standard controls from the Visual Studio toolbox.
- How to connect to a SQL Server database and the basics of how to retrieve and store data.
- How to sort data in a loop.
- How to recognize the classes and methods used in a program.

The Content of this document as well as the programme subject matter is subject to change without notice.

I
 (student / legal guardian), acknowledge that I understand the information stated in this document.

Date:

Signature:

This information sheet forms part of your enrolment contract

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