

Learning to Program in Visual Basic 2005

with Ken Getz and Robert Green

Three days; Instructor-Led

Introduction:

In this course, you'll learn to use Visual Studio 2005 to explore the Visual Basic 2005 language. The course starts with a quick overview of the .NET platform, examining assemblies, Microsoft Intermediate Language, Visual Studio profiles, XML comments, IntelliSense, and debugging. From there, you'll learn all the language features that you must internalize in order to create full-featured Web or Windows applications that make best use of the .NET platform. You'll learn about data types, variables, and operators, along with all the important flow control structures. You'll work through several examples demonstrating the power of the .NET Framework, and dig into creating and consuming your own classes and objects. The course moves on to working with data structures, such as arrays and collection classes, before finishing up with discussions of generics, handling exceptions and working with delegates and events. By the end of this course, you will understand the important basic concepts that will allow you to start creating the applications you need.

At course completion, students will be able to:

- Build and debug applications using Visual Studio 2005.
- Create and use variables, operators, and data types.
- Find and use the classes you need within the .NET Framework.
- Manage flow control within your code, branching and looping as needed.
- Create and consume classes and objects.
- Add and consume properties and methods in your classes.
- Make use of .NET's object-oriented features, such as overloading, inheritance and interfaces.
- Store, retrieve, and manipulate multiple values using arrays.
- Work with .NET 2.0's generics.
- Make best use of the .NET Framework's support for collection classes.
- Handle exceptions in your code.
- Create and use delegates, and understand how they relate to events.

Course Outline:

Getting Started with .NET

- Thinking about .NET
- Using Visual Studio 2005
- Debugging Your and Handling Exceptions

Data Types and Variables

- Introducing Variables and Data Types
- Working with Variables and Data Types

Using the .NET Framework

- Using .NET Framework Classes
- Working with Strings
- Working with Dates and Times
- The My Namespace

Branching and Flow Control

- Conditional Branching
- Repeating Code Blocks
- Unconditional Branching

Classes and Objects

- Introducing Objects and Classes
- Creating Your Own Classes
- Working with Classes

Properties and Methods

- Working with Properties
- Working with Methods

Object-Oriented Techniques

- Inheritance
- Interfaces
- Organizing Classes

Working with Arrays

- Introducing Arrays
- Manipulating Arrays

Delegates and Events

- Motivating Delegates
- Introducing Delegates
- Working with Events

Generics

- Introducing Generics
- Generics and Arrays
- Generic Interfaces
- Generic Constraints
- Generics and Lists

Handling Exceptions

- Perspectives on Exception Handling
- Getting Started with Exception Handling
- Catching Specific Exceptions
- Raising Errors
- Running Code Unconditionally
- Creating Exception Classes

Collection Classes

- Generics, Collections, and Interfaces
- The Generic List
- Working with Dictionaries, Stacks, and Queues
- Creating Your Own Generic Collection Classes