

# VB.NET Fundamentals

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WHAT CAN I BUILD WITH VISUAL BASIC .NET?



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# Course Goals



**Learn the syntax of Visual Basic .NET**

**OOP in Visual Basic**

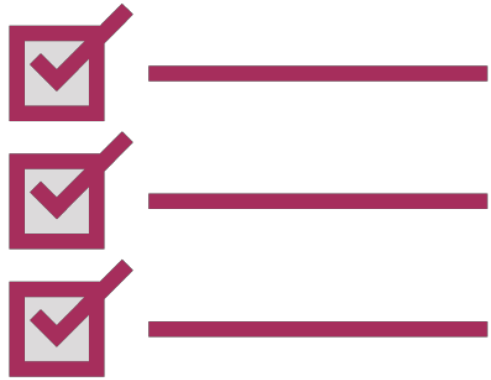
**Create reusable DLLs**

**Use .NET collections**

**Build a WPF application**

**Build an MVC application**





## I assume you...

- Are a programmer in some language
- Have little or no experience with VB

## You want to...

- Become proficient in Visual Basic
- Learn about .NET
- See how to write .NET applications in Visual Basic

# Related Pluralsight Course

**Visual Studio 2017  
Essentials and  
Beyond**  
by Kate Gregory

**LINQ  
Fundamentals**  
by Scott Allen

**XML  
Fundamentals in  
C#**  
by Paul D. Sheriff



# Modules in This Course

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# Modules in this Course

## What Can I Build with Visual Basic .NET?

- A VB overview
- See the samples you build in this course

## Using Variables, Operators and Constants

- Data types, scoping and constants
- Math, relational and comparison operators

## Object-Oriented Programming in Visual Basic

- Classes, properties and methods
- Inheritance, overrides, constructors



# Modules in this Course

## Create Your Own Reusable Visual Basic DLLs

- Separate classes into DLLs
- Build a WPF application

## Utilizing Visual Basic Collections

- Learn to use collections of classes
- Display product and customer collections in a WPF application



# Modules in this Course

## **If Statements and Looping in Visual Basic**

- Do and For loops
- If, Else and Case statements

## **Create an MVC Application using Visual Basic**

- Create MVC web application
- Reuse DLLs from previous module





# .NET Overview

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# What is .NET?

**Free, open source, cross-  
platform developer  
environment**

**Common runtime with  
extensive class libraries**

**Develop in multiple languages**

**Build web, mobile, desktop,  
games, IoT, etc.**



# The .NET Framework

Common Language  
Infrastructure

C#

VB

F#

.NET Framework Class Library

Entity  
Framework

LINQ

File I/O

Threading

Collections

Security

Regular  
Expressions

Win  
Forms

UWP

WPF

Web  
Forms

MVC

Web  
API

Windows  
Services

Common Language Runtime

Memory  
Management

Thread  
Management

Other low-  
level services



# Visual Basic .NET Overview

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# What is VB.NET?

**BASIC language  
targeting the .NET  
Framework**

**Fully integrated  
into Visual Studio**

**Supported and  
updated by  
Microsoft**



# Why VB.NET?

**Quick and easy to build .NET applications**

**Type-safe, object-oriented**

**Can build any type of modern application**

**Full access to security and language interoperability in .NET**



# What You Can Build with VB.NET

**Windows Presentation  
Foundation Applications**

**Windows Forms Applications**

**MVC Web Applications**

**Web Forms Applications**



# What You Can Build with VB.NET

**Web API  
Applications**

**Azure (Cloud)  
Applications**

**Windows Service  
Applications**

**Windows 10  
Applications**

**Reusable Class  
Libraries**





# Demo



## WPF application



# Demo



## MVC application



# Summary



The .NET Framework provides a great starting point

Visual Basic is a first-class citizen of .NET

VB makes it easy to develop robust, reusable applications





Coming up in the next module...

Variables

Math, relational and comparison  
operators

