
C # ile Programlamaya Giriş Eğitimi

Eğitim Hakkında

C # Programlama eğitimi, katılımcılara C # dilini kullanarak Windows uygulamaları oluşturmak için ihtiyaç duydukları nesneye yönelik programlama becerilerini ve .NET çerçevesi temellerini ilke edinir.

Neler Öğreneceksiniz

- Acquire a working knowledge of C# programming
- Learn how to implement programs using C# and classes from the .NET Framework
- Gain an understanding of the object-oriented programming paradigm
- Learn how to implement simple GUI programs using Windows Forms
- Gain a working knowledge of important newer features in C#

Eğitim İçeriği

Introduction to .NET

- What is .NET?
- .NET Framework, .NET Core, and .NET 5.0
- Application Models
- Managed Code
- Visual Studio 2019
- C# Console and GUI Programs

First C# Programs

- Hello, World
- Namespaces
- Variables and Expressions
- Using C# as a Calculator
- Input/Output in C#
- .NET Framework Class Library

Data Types in C#



- Data Types
- Integer Types
- Floating Point Types
- Decimal Type
- Characters and Strings
- Boolean Type
- Conversions
- Nullable Types

Operators and Expressions

- Operator Cardinality
- Arithmetic Operators
- Relational Operators
- Logical Operators
- Bitwise Operators
- Assignment Operators
- Expressions
- Checked and Unchecked

Control Structures

- If Tests
- Loops
- Arrays
- Foreach
- More about Control Flow
- Switch

Object-Oriented Programming

- Objects
- Classes
- Inheritance
- Polymorphism
- Object-Oriented Languages
- Components

Classes



- Classes as Structured Data
- Methods
- Constructors and Initialization
- Static Fields and Methods
- Constant and Readonly

More about Types

- Overview of Types in C#
- Value Types
- Boxing and Unboxing
- Reference Types
- Implicitly Typed Variables

Methods, Properties, and Operators

- Methods
- Parameter Passing
- Method Overloading
- Variable-Length Parameter Lists
- Properties
- Auto-Implemented Properties
- Operator Overloading

Characters and Strings

- Characters
- Strings
- String Input
- String Methods
- StringBuilder Class
- Programming with Strings

Arrays and Indexers

- Arrays
- System.Array
- Random Number Generation

- Jagged Arrays
- Rectangular Arrays
- Arrays as Collections
- Bank Case Study—Step 1
- Indexers

Inheritance

- Single Inheritance
- Access Control
- Method Hiding
- Initialization
- Bank Case Study—Step 2

Virtual Methods and Polymorphism

- Virtual Methods and Dynamic Binding
- Method Overriding
- Fragile Base Class Problem
- Polymorphism
- Abstract Classes
- Sealed Classes
- Heterogeneous Collections
- Bank Case Study—Step 3

Formatting and Conversion

- ToString
- Format Strings
- String Formatting Methods
- Bank Case Study—Step 4
- Type Conversions

Exceptions

- Exception Fundamentals
- Structured Exception Handling
- User-Defined Exception Classes
- Inner Exceptions

- Bank Case Study—Step 5
- 16. Interfaces
- Interface Fundamentals
- Programming with Interfaces
- Using Interfaces at Runtime
- Bank Case Study—Step 6
- Resolving Ambiguities

.NET Interfaces and Collections

- Collections
- Bank Case Study—Step 7
- IEnumerable and IEnumerator
- Copy Semantics and ICloneable
- Comparing Objects
- Generic Types
- Type-Safe Collections
- Object Initializers
- Collection Initializers
- Anonymous Types
- Bank Case Study—Step 8

Delegates and Events

- Delegates
- Anonymous Methods
- Lambda Expressions
- Events

Introduction to Windows Forms

- Creating Windows Applications Using Visual Studio 2019
- Partial Classes
- Buttons, Labels and Textboxes
- Handling Events
- Listbox Controls

Newer Features in C#

- Dynamic Data Type

- Named and Optional Arguments
- Variance in Generic Interfaces
- Asynchronous Programming Keywords
- New Features in C# 6.0 and C# 7.0
- Nullable Reference Types in C# 8.0
- Immutable Record Types in C# 9.0