

# Programming C# 6, Part 09 of 12: Objects and Types

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**Meet the expert:** Don Kiely is a featured instructor on many of our SQL Server and Visual Studio courses. He is a nationally recognized author, instructor, and consultant specializing in Microsoft technologies. Don has many years of teaching experience, is the author or co-author of several programming books, and has spoken at many industry conferences and user groups. In addition, Don is a consultant for a variety of companies that develop distributed applications for public and private organizations.

**Prerequisites:** This course builds upon: Programming C# 6: Getting started Programming C# 6: Your First App Programming C# 6: Projects and Syntax Programming C# 6: Variables and Data Types Programming C# 6: Adv Data Types and Operators Programming C# 6: Strings, File I/O and Date Types Programming C# 6: Conditions and Looping Programming C# 6: Objects and Classes It is considered a more Intermediate to advanced topic after you have gone through these other courses.

**Runtime:** 01:20:19

**Course description:** This class teaches you the nuances of objects, which are the building blocks of complex applications. Noted instructor and consultant Don Kiely will teach you what you need to know about value and reference types as well as how to take control of the garbage collection process included in .NET in order to dispose of objects and manage their memory footprint.

## Course outline:

### Value and Reference Types

- Introduction
- Value and Reference Types
- Uninitialized Reference Types
- Demo: Test Null Reference
- Disposing of Variables
- Demo: Garbage Collection
- Demo: Destructor
- Demo: Manual Garbage Collection
- Summary
- Demo: System.Object Class
- Demo: Overriding ToString()
- Manipulating Object References
- Demo: Reference Types
- Summary

### Deterministic Object Lifetimes

- Introduction
- Deterministic Finalization
- Demo: DisposeDemo
- Demo: Dispose Method
- Summary

### Instance and Static Members

- Introduction
- Demo: Instance Members
- Demo: Static Properties
- More About Static Members
- Key Concept
- Using Static Directives
- Demo: Using Static
- Demo: Ambiguity
- Demo: Static Stuff
- Summary

### Working with Objects

- Introduction
- Overriding the Object Class