

# Programming C# 6, Part 12 of 12: Arrays and Sorting

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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:** 01:49:00

**Course description:** According to programming expert Don Kiely, it's hard to imagine a C# application that doesn't make use of the language element known as arrays. In this course Kiely examines what arrays are and how to create and initialize them with data. He will also explore the support that the .NET framework offers arrays as well as how to use advanced sorting techniques.

**Course outline:**

## Arrays

- Introduction
- Introducing Arrays
- Demo: Creating an Array
- Array Dimensions
- Demo: Resizing Arrays
- Demo: Cloning an Array
- Summary

## Initialize Array, Retrieve Data

- Introduction
- Demo: Initializing Arrays

- Demo: Retrieving Data
- Demo: Print Elements
- Summary

## Arrays as Method Parameters

- Introduction
- Demo: Params
- Demo: Using Params
- Summary

## Arrays in the .NET Framework

- Introduction
- Demo: ArraysInTheFramework
- Demo: Processes

- Summary

## Manipulating Arrays

- Introduction
- System.Array Instance Members
- Demo: Sorting an Array
- Sorting an Array of Objects
- Demo: Invalid Sort
- Summary

## Allowing Flexible Sorting

- Introduction
- Demo: Overloaded Sorting
- Demo: Sorting Files

- Demo: IComparer
- Summary

## Advanced Sorting

- Introduction
- Advanced Sorting
- Demo: Advanced Sorting
- Summarizing the Sort Options
- Summary

## Searching Arrays

- Introduction
- Demo: IndexOf
- Demo: Binary Search

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- Advanced Searching Techniques
- Demo: Advanced Searching
- Summary

## **Creating Indexers**

- Introduction
- Demo: Resize Array
- Demo: Indexers
- Demo: Iterate Through Arrays
- Summary