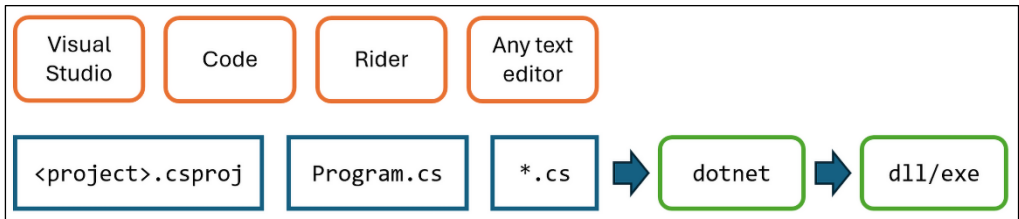
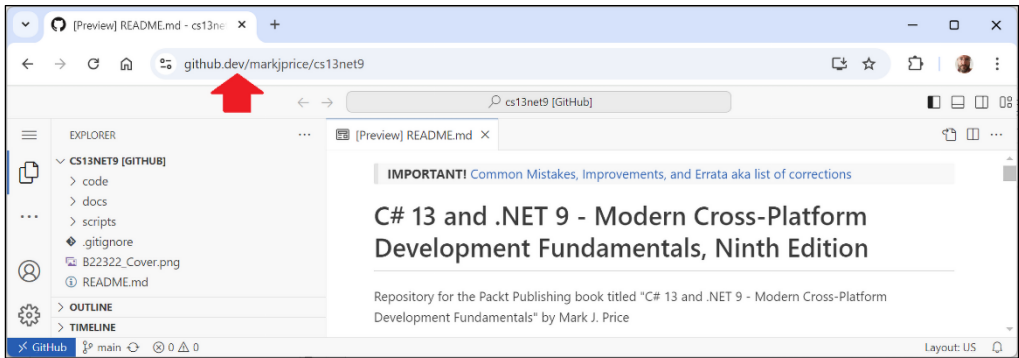
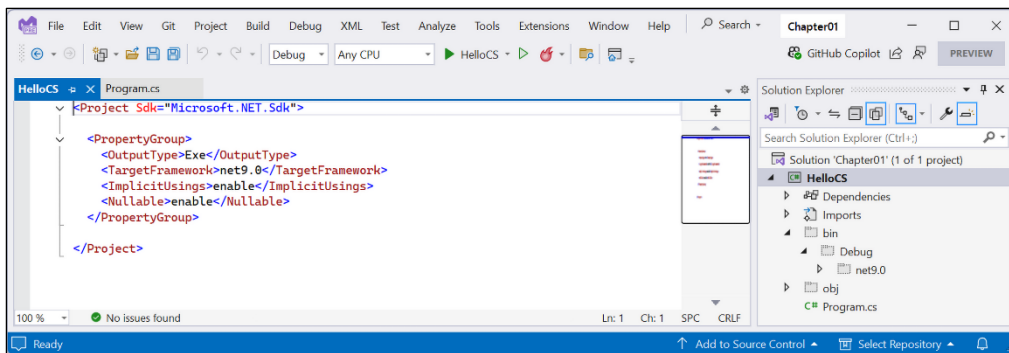
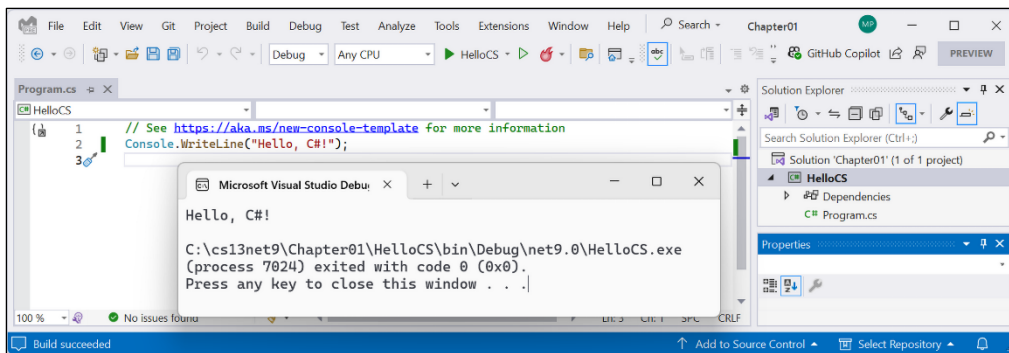
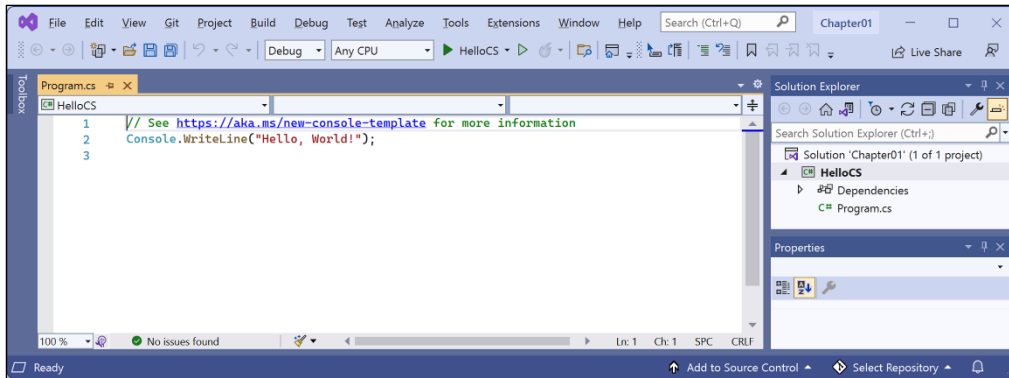


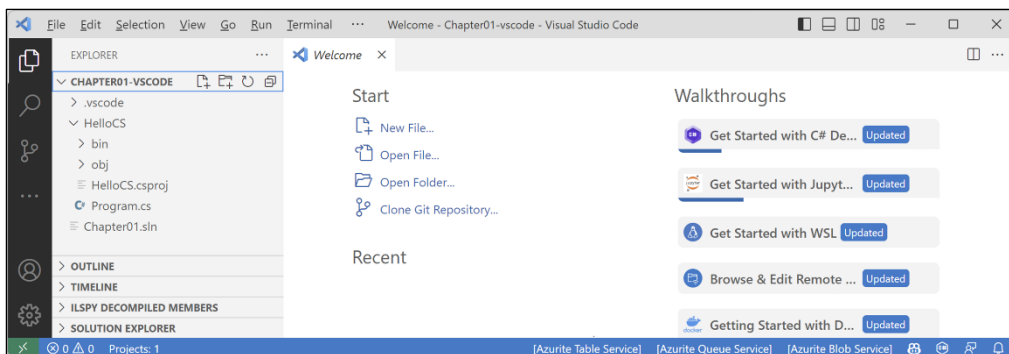
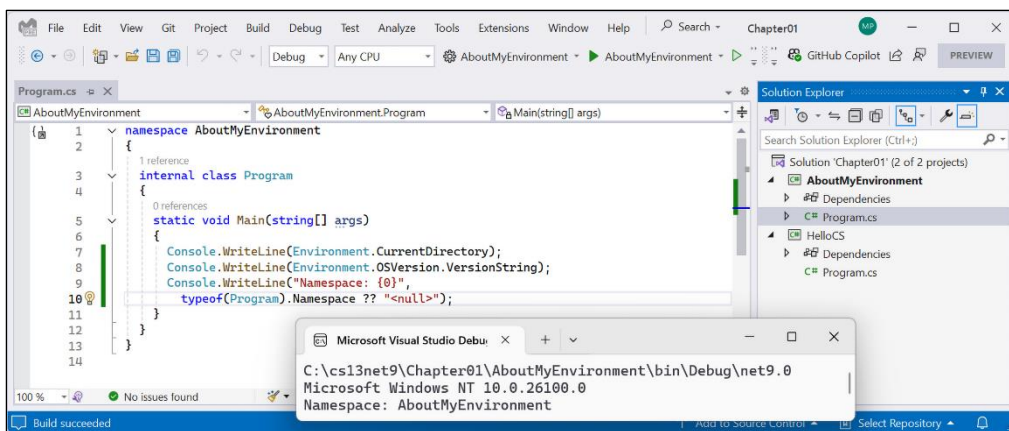
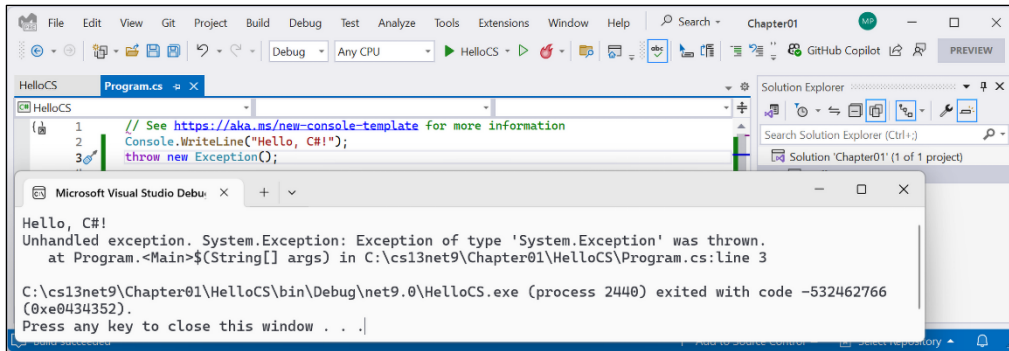
Chapter 1: Hello, C#! Welcome, .NET!

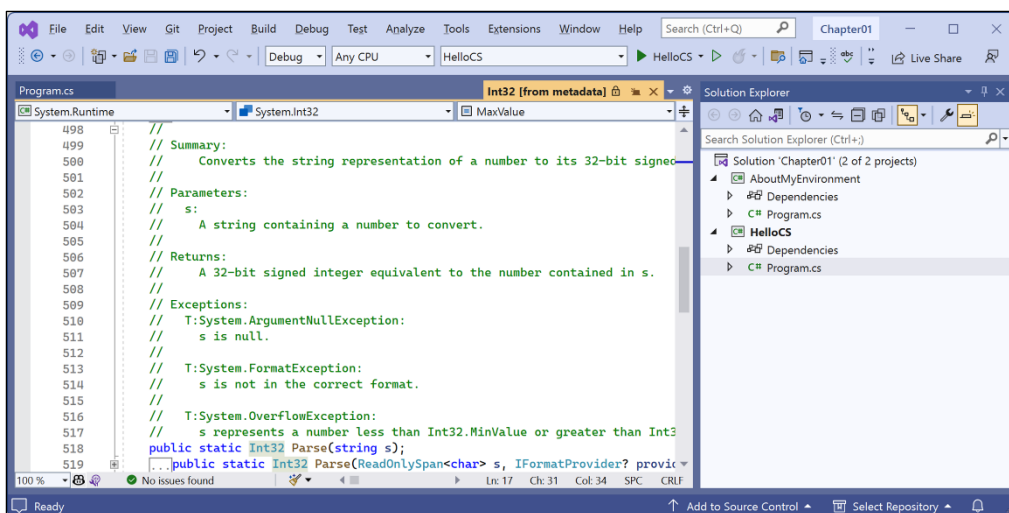
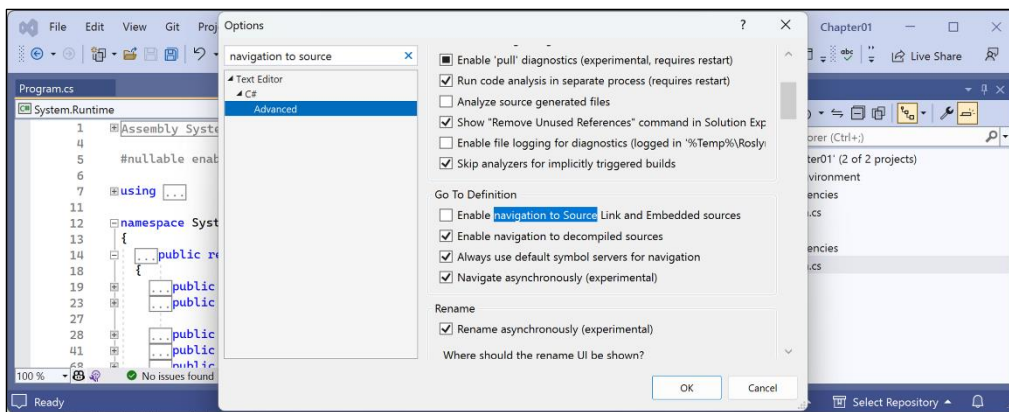
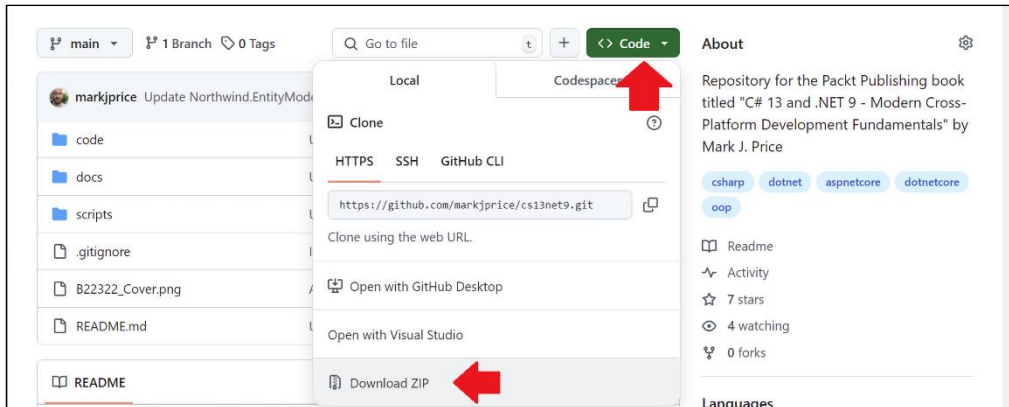


Version	Support	2023	2024	2025	2026	2027	2028
.NET 6	LTS						
.NET 7	STS						
.NET 8	LTS						
.NET 9	STS						
.NET 10	LTS						
.NET 11	STS						

.NET 9 released in November 2024







Visual Studio

Inline Hints

☒ Display all hints while pressing Alt+F1

☒ Color hints

☒ Display inline parameter name hints

```
Console.WriteLine(format: "Value is {0}.", arg0: 19.8);
```

VS Code

Dotnet > Inlay Hints: Enable Inlay Hints For Parameters

☒ Display inline parameter name hints

Code search results

github.com/search?q=email+repo%3Adotnet%2Fruntime+language%3AC%23&type=code&ref=advsearch

email repo:dotnet/runtime language:C#

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Discussions 0

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Wikis 0

Paths

99 files (140 ms) in dotnet/runtime

Save

...

...tations/src/System/ComponentModel/DataAnnotations/EmailAddressAttribute.cs

C# · main

```
5 {
6     [AttributeUsage(AttributeTargets.Property | AttributeTargets.Field |
7         AttributeTargets.Parameter,
8         AllowMultiple = false)]
9     public sealed class EmailAddressAttribute : DataTypeAttribute
10    {
11        public EmailAddressAttribute()
12            : base(DataType.EmailAddress)
13    }
14 }
```

Show 1 more match

Learn / .NET / API browser / System /

C#

String Class

Reference

Definition

Namespace: System

Assembly: System.Runtime.dll

Source: String.cs

Represents text as a sequence of UTF-16 code units.

C#

```
public sealed class String : ICloneable, IComparable<String>, IConvertible, IEquatable<String>, IParsable<String>, IParsable<String>, System.Collections.Generic.IEnumerable<char>
```

runtime / src / libraries / System.Private.CoreLib / src / System / String.cs

MichalStrehovsky Ifdef out DynamicDependencies that are not necessary (#87209)

Code Blame 888 lines (668 loc) · 28.8 KB

```
1 // Licensed to the .NET Foundation under one or more agreements.
2 // The .NET Foundation licenses this file to you under the MIT license.
```

IndexOf(String, Int32, StringComparison)

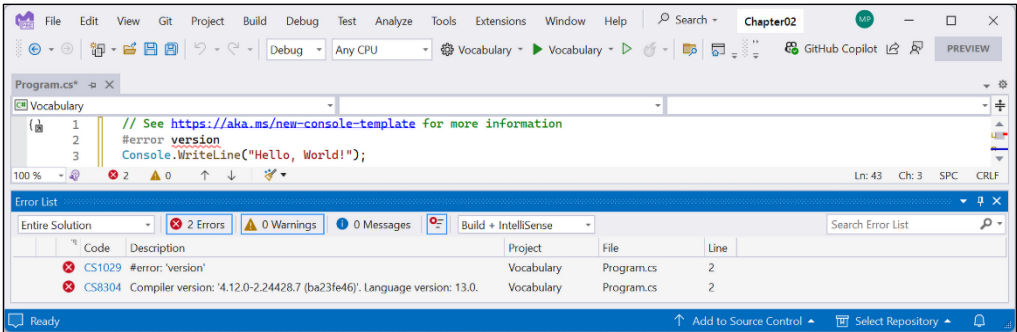
Source: String.Searching.cs

Reports the zero-based index of the first occurrence of the specified string in the current String object. Parameters specify the starting search position in the current string and the type of search to use for the specified string.

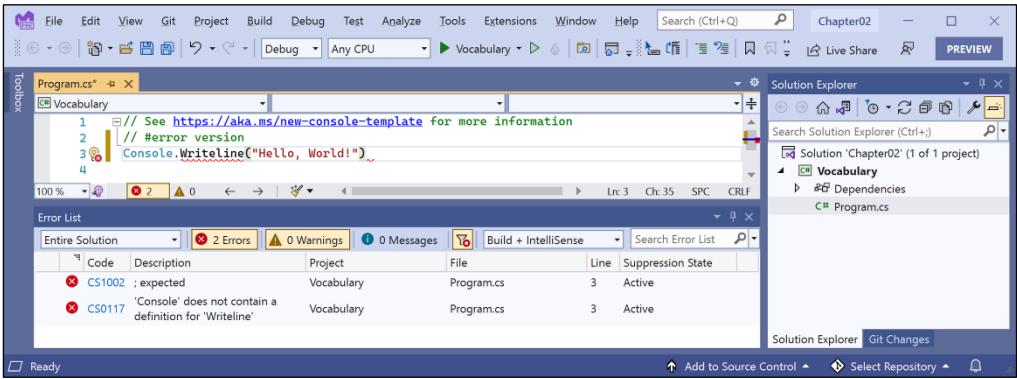
C# Copy

```
public int IndexOf (string value, int startIndex, StringComparison comparisonType);
```


Chapter 2: Speaking C#,

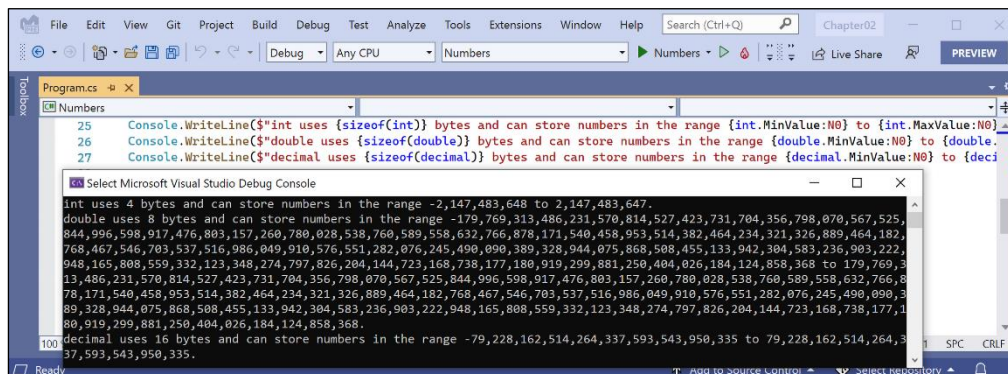


Visual Studio	VS Code
<pre>// Loop through all the types in the assembly. foreach (TypeInfo t in a.DefinedTypes) { // Add up the counts of all the methods. methodCount += t.GetMethods().Length; }</pre>	<pre>// Loop through all the types in the assembly. foreach (TypeInfo t in a.DefinedTypes) { // Add up the counts of all the methods. methodCount += t.GetMethods().Length; }</pre>
<pre>// Loop through all the types in the assembly. foreach (TypeInfo t in a.DefinedTypes)...</pre>	<pre>// Loop through all the types in the assembly. foreach (TypeInfo t in a.DefinedTypes)...</pre>

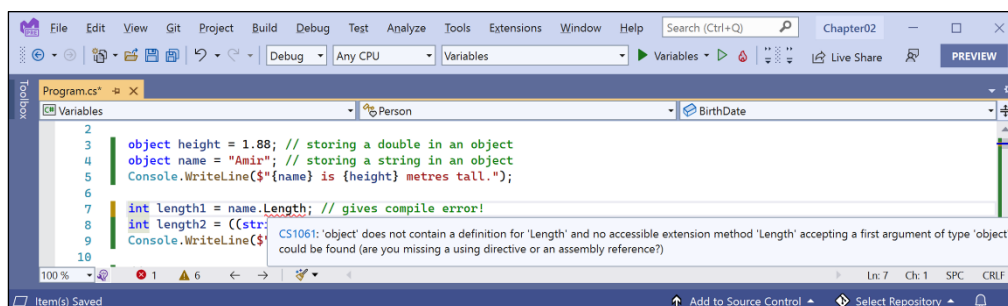


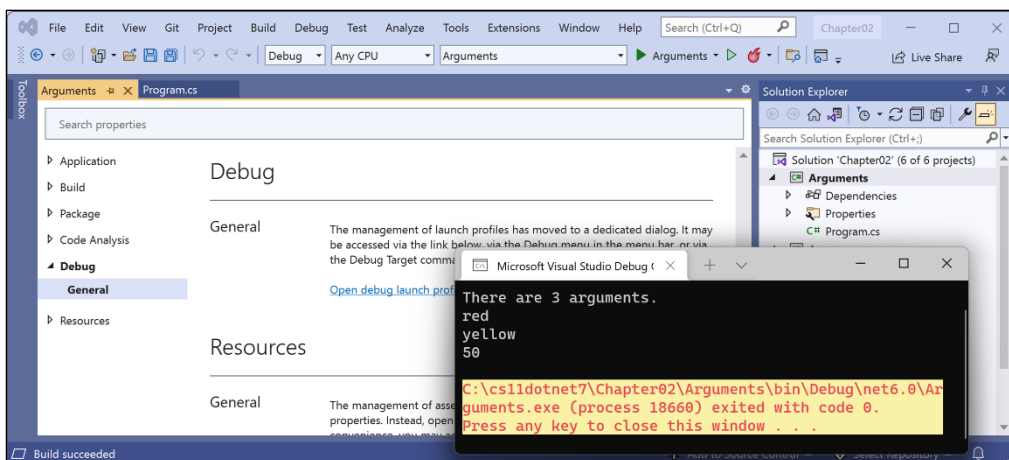
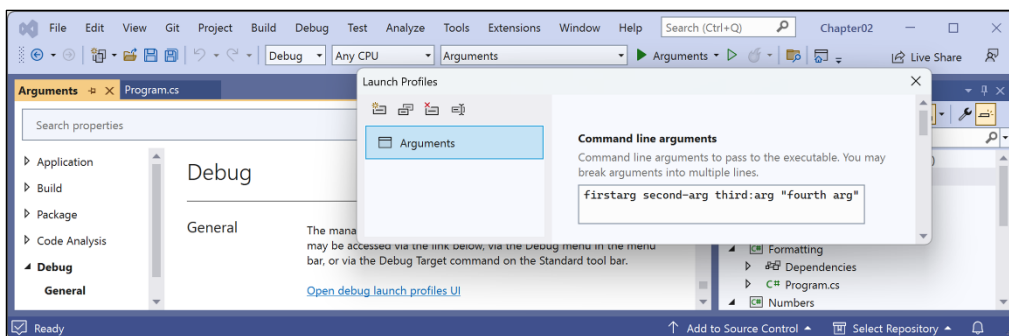
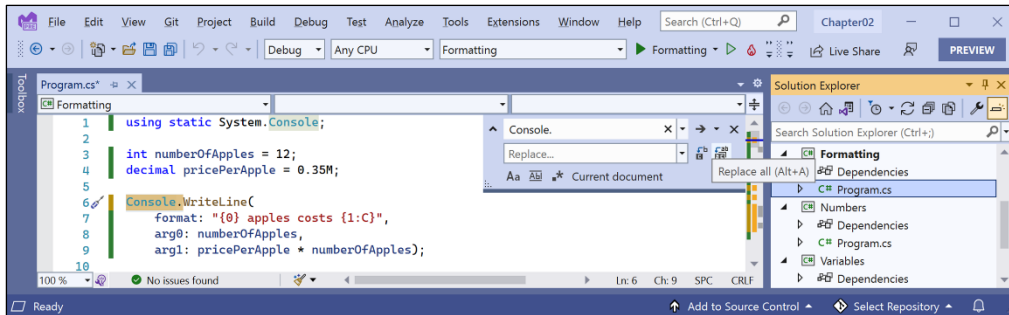
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0	0	0	0	1	0	1	0

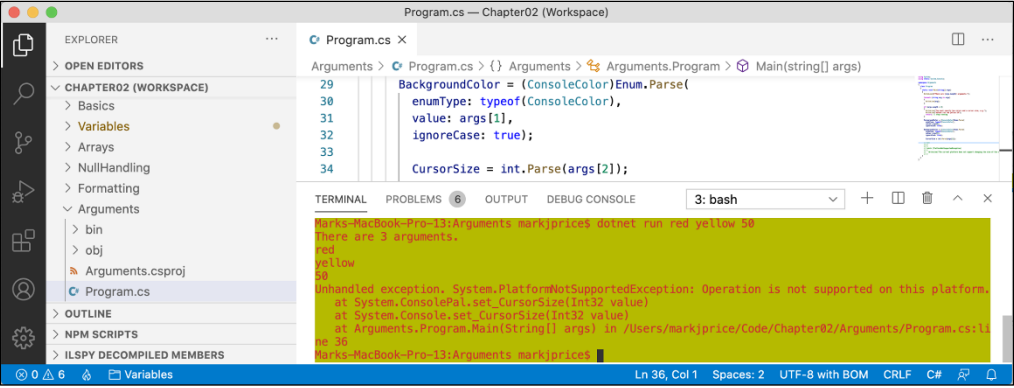
128	64	32	16	8	4	2	1		$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{16}$
0	0	0	0	1	1	0	0	.	1	1	0	0



4	2	1		$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{32}$	$\frac{1}{64}$	$\frac{1}{128}$	$\frac{1}{256}$	$\frac{1}{512}$	$\frac{1}{1024}$	$\frac{1}{2048}$
0	0	0	.	0	0	0	1	1	0	0	1	1	0	0

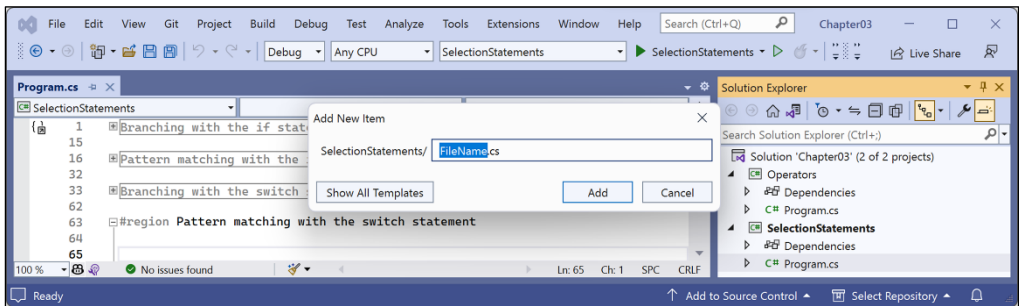
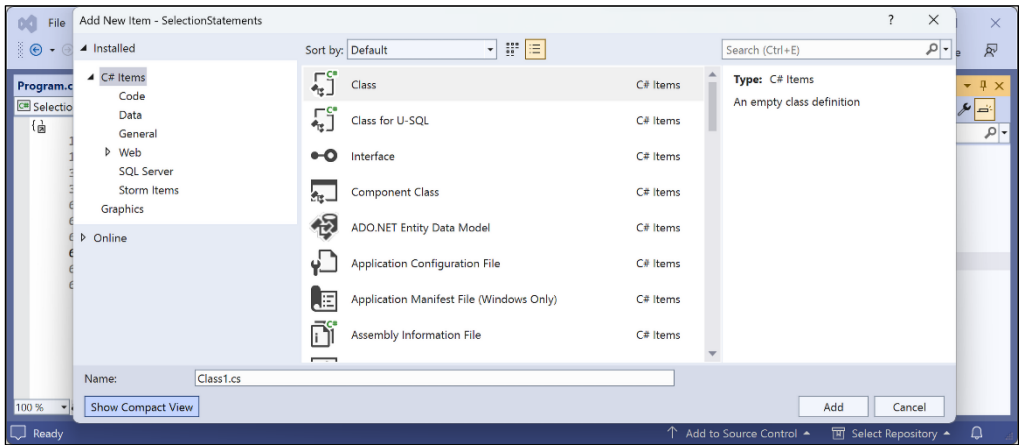




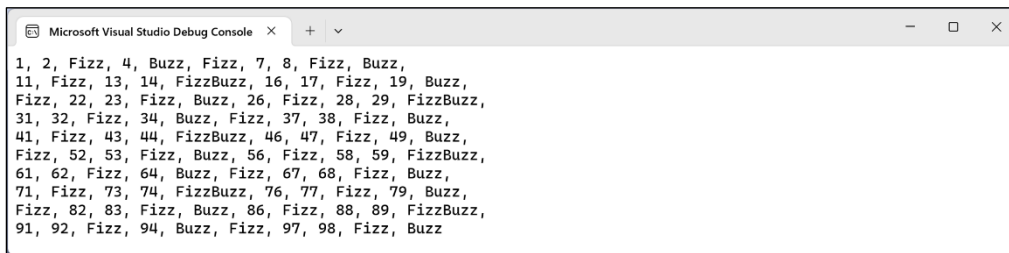
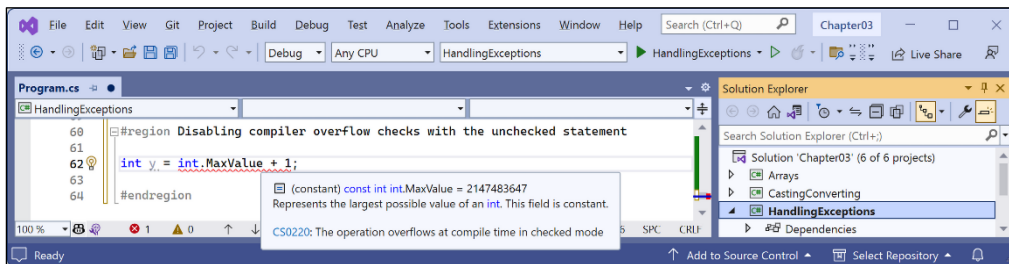


Type	Byte(s) of memory	Min	Max
sbyte	1	-128	127
byte	1	0	255
short	2	-32768	32767
ushort	2	0	65535
int	4	-2147483648	2147483647
uint	4	0	4294967295
long	8	-9223372036854775808	9223372036854775807
ulong	8	0	18446744073709551615
Int128	16	-170141183460469231731687303715884105728	170141183460469231731687303715884105727
UInt128	16	0	340282366920938463463374607431768211455
Half	2	-65500	65500
float	4	-3.4028235E+38	3.4028235E+38
double	8	-1.7976931348623157E+308	1.7976931348623157E+308
decimal	16	-79228162514264337593543950335	79228162514264337593543950335

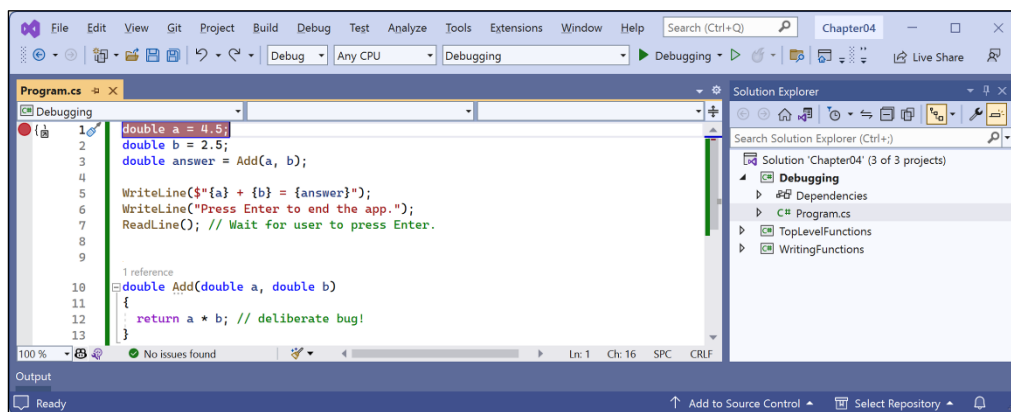
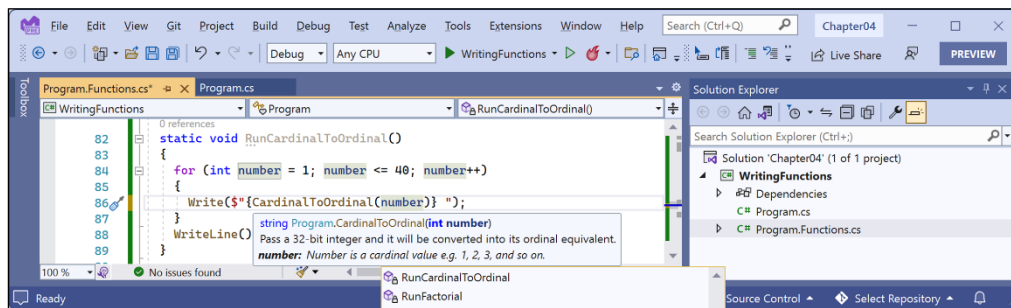
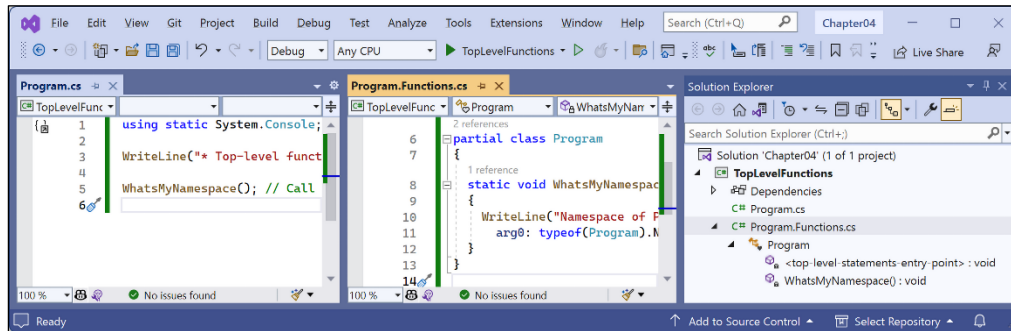
Chapter 3: Controlling Flow, Converting Types, and Handling Exceptions

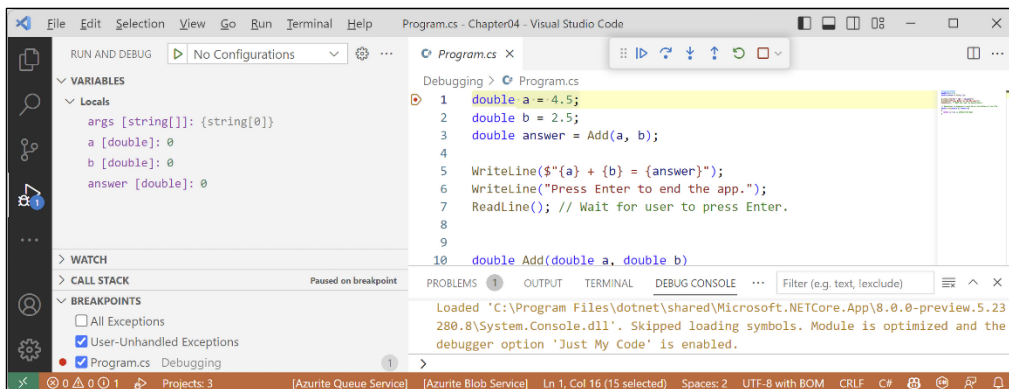
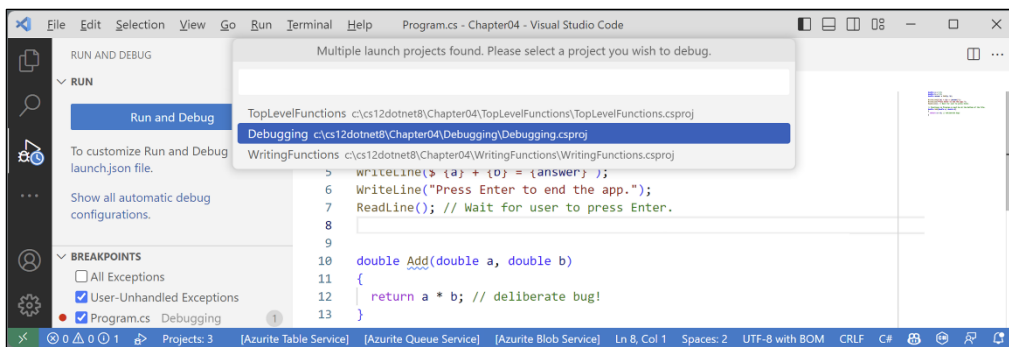
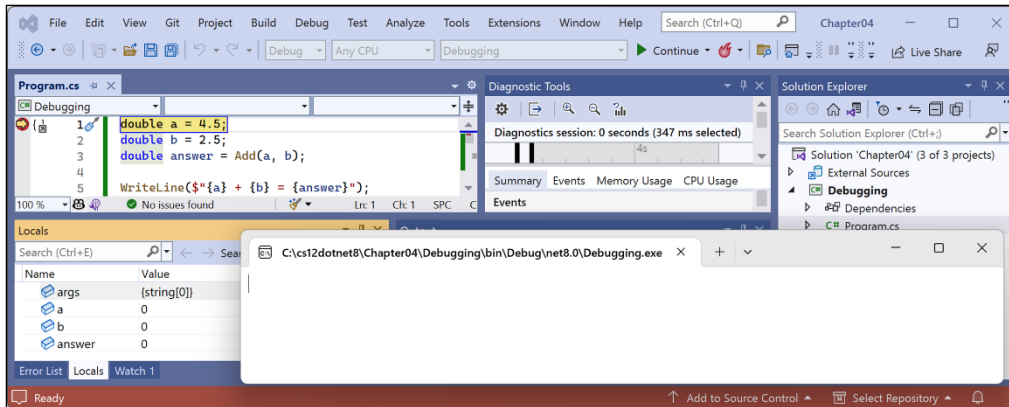


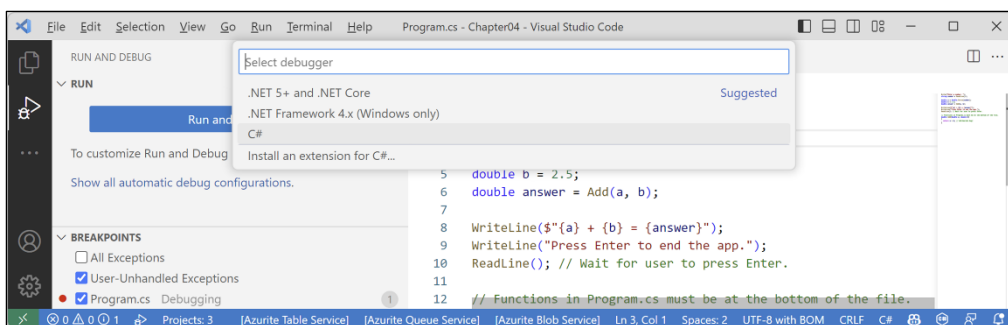
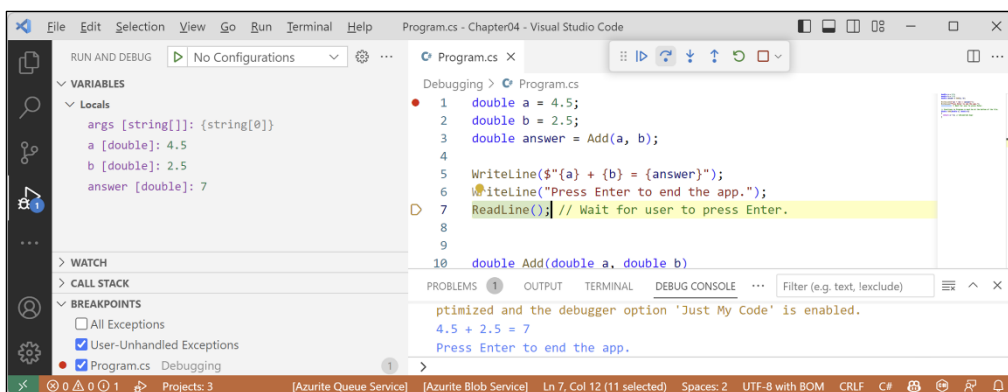
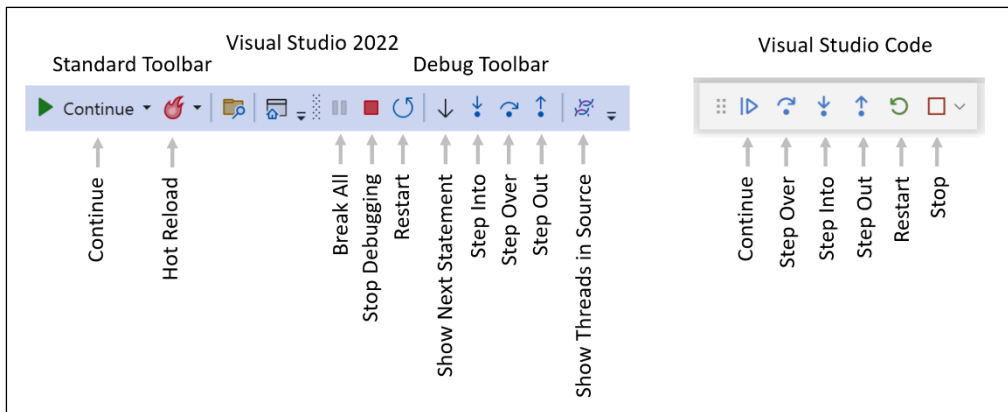
0	0	1	2	
	Alpha	Beta	Gamma	
1	0	1	2	3
	Anne	Ben	Charlie	Doug
2	0	1		
	Aardvark	Bear		

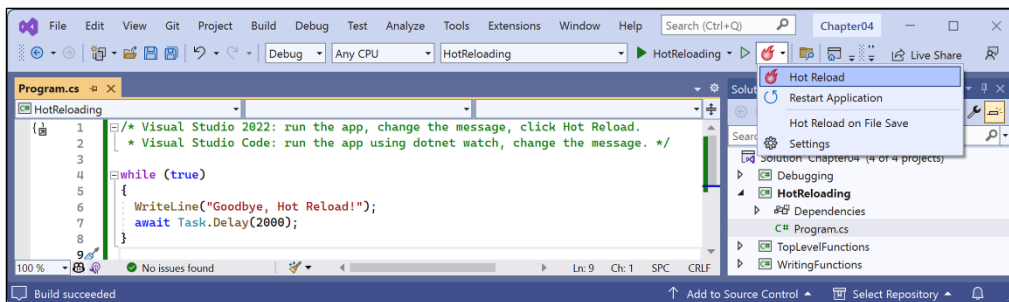
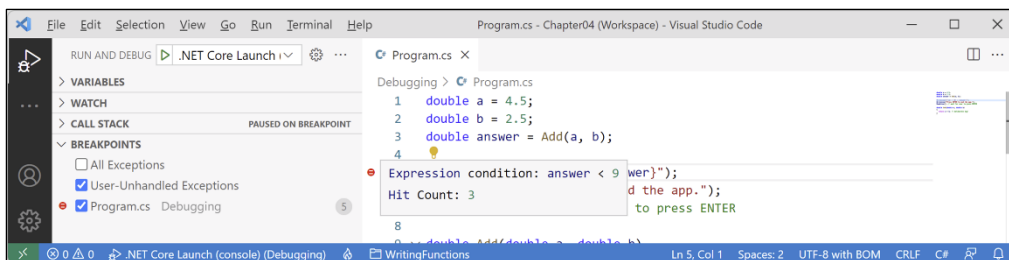
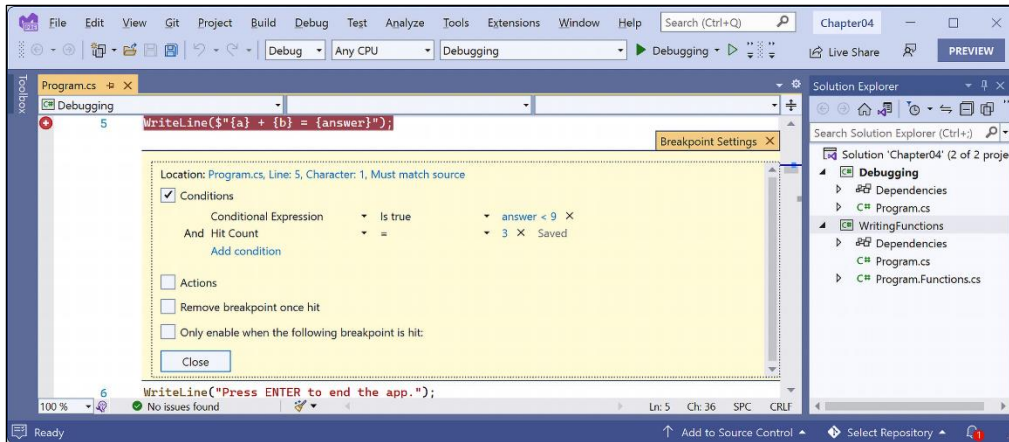


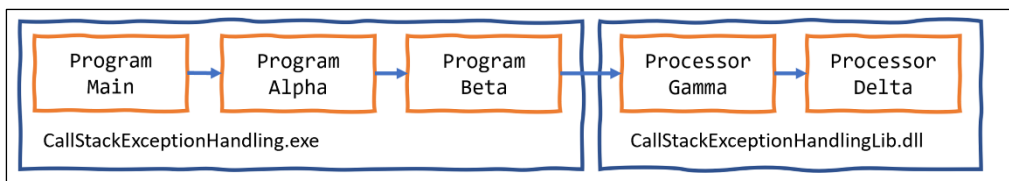
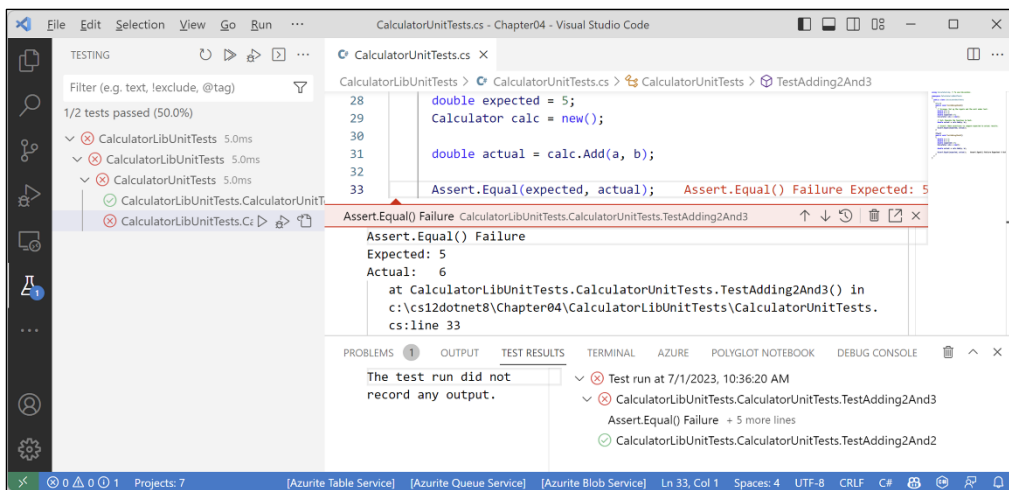
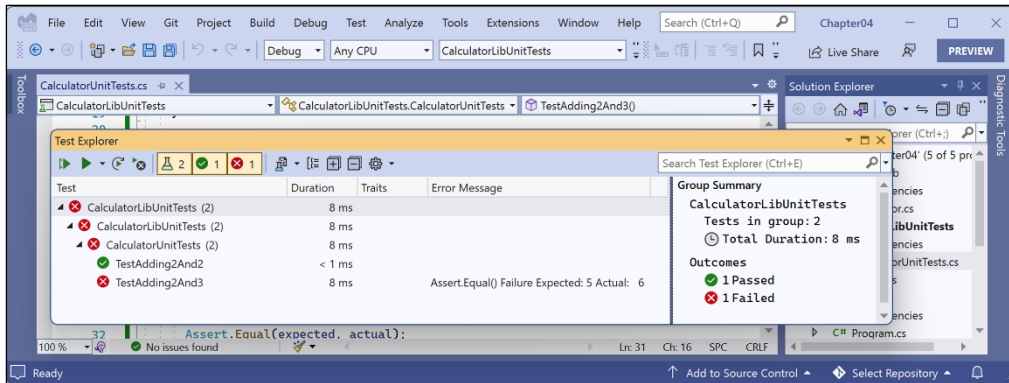
Chapter 4: Writing, Debugging, and Testing Functions



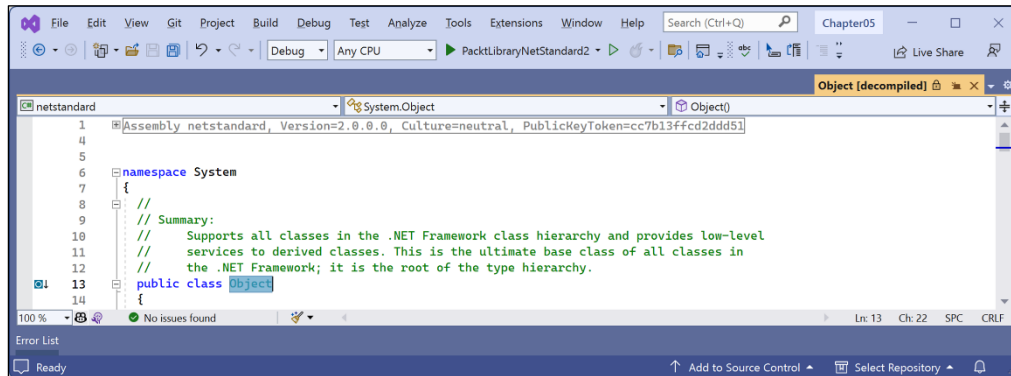






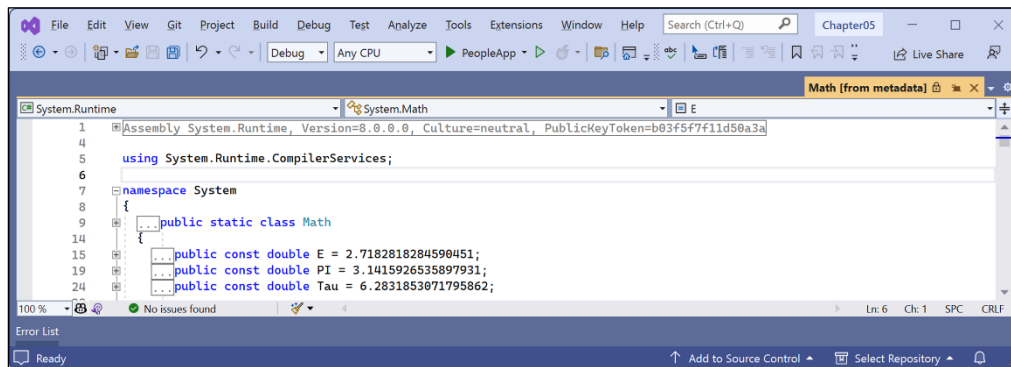


Chapter 5: Building Your Own Types with Object-Oriented Programming



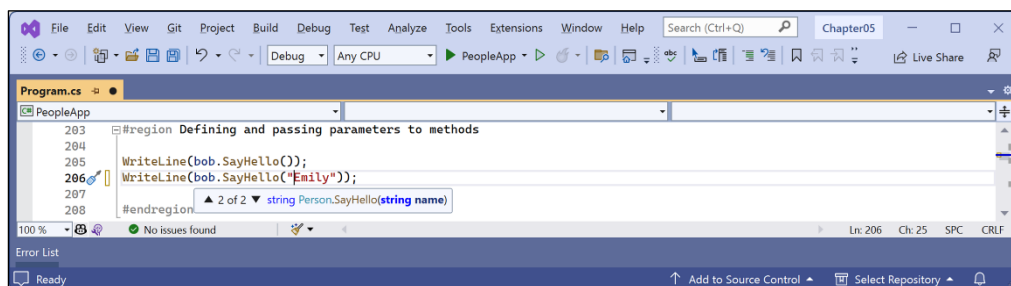
This screenshot shows the Visual Studio IDE with the 'Object [decompiled]' window open. The code is for the `System.Object` class in the `System` namespace. It includes a summary comment and the definition of the `Object` class.

```
1 #Assembly netstandard, Version=2.0.0.0, Culture=neutral, PublicKeyToken=cc7b13ffcd2dd51
4
5
6 namespace System
7 {
8     //
9     // Summary:
10     // Supports all classes in the .NET Framework class hierarchy and provides low-level
11     // services to derived classes. This is the ultimate base class of all classes in
12     // the .NET Framework; it is the root of the type hierarchy.
13     public class Object
14     {
15     }
```



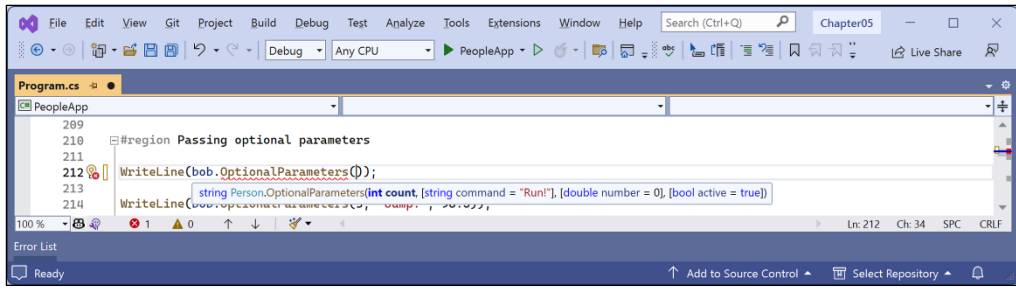
This screenshot shows the Visual Studio IDE with the 'Math [from metadata]' window open. The code is for the `System.Math` class in the `System` namespace. It includes a summary comment and the definition of the `Math` class with static fields for `E`, `PI`, and `Tau`.

```
1 #Assembly System.Runtime, Version=8.0.0.0, Culture=neutral, PublicKeyToken=b03f5f7f11d50a3a
4
5 using System.Runtime.CompilerServices;
6
7 namespace System
8 {
9     //
10     // Summary:
11     // Provides a set of static methods and constants for performing mathematical operations.
12     //
13     public static class Math
14     {
15         //
16         // Summary:
17         // The mathematical constant e, also known as Euler's number, is the base of the natural logarithm.
18         //
19         public const double E = 2.7182818284590451;
20         //
21         // Summary:
22         // The mathematical constant pi, also known as Archimedes' constant, is the ratio of the circumference of a circle to its diameter.
23         //
24         public const double PI = 3.1415926535897931;
25         //
26         // Summary:
27         // The mathematical constant tau, also known as the golden ratio, is the ratio of the circumference of a circle to its radius.
28         //
29         public const double Tau = 6.2831853071795862;
30     }
```

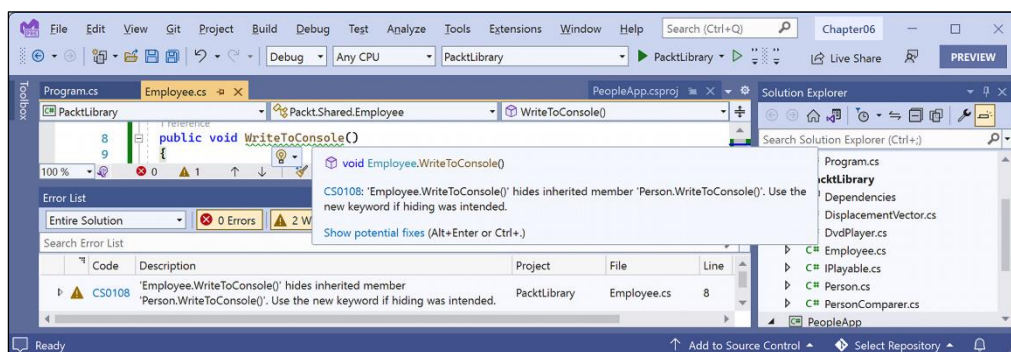
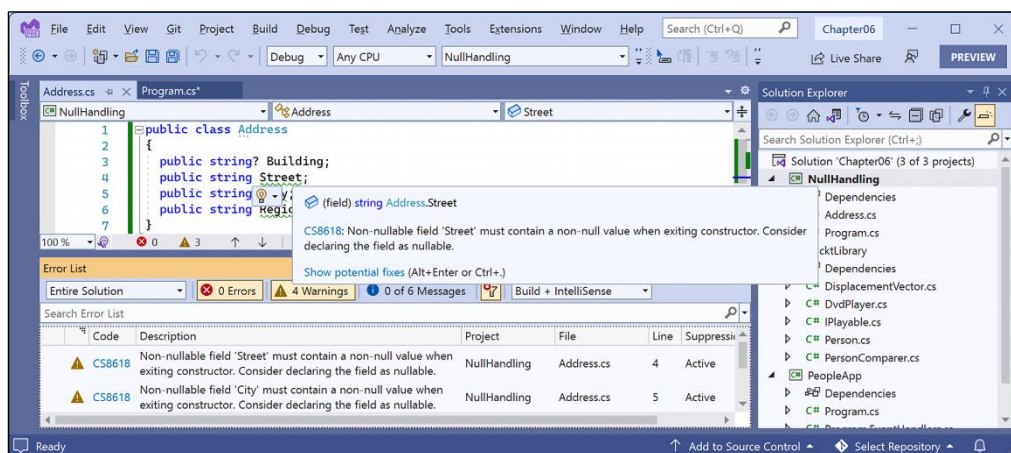
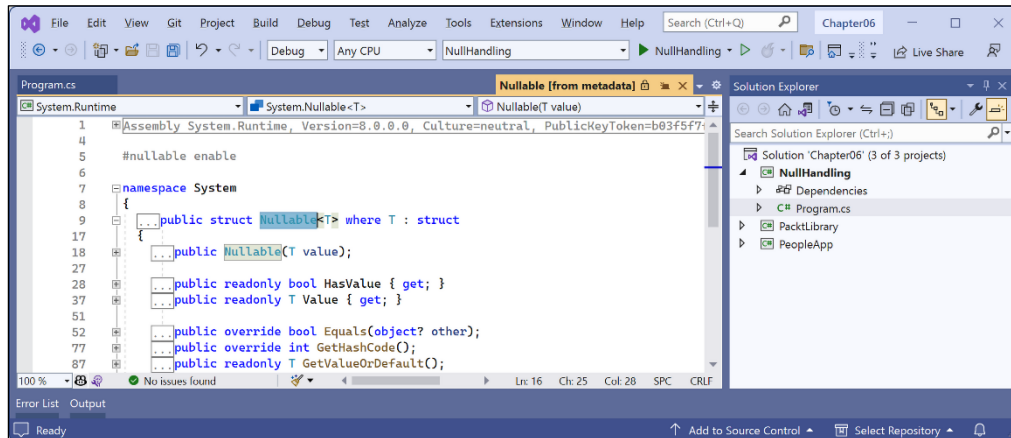


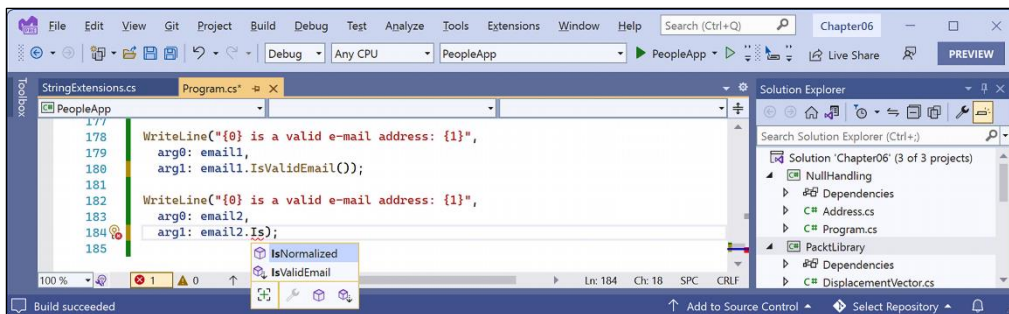
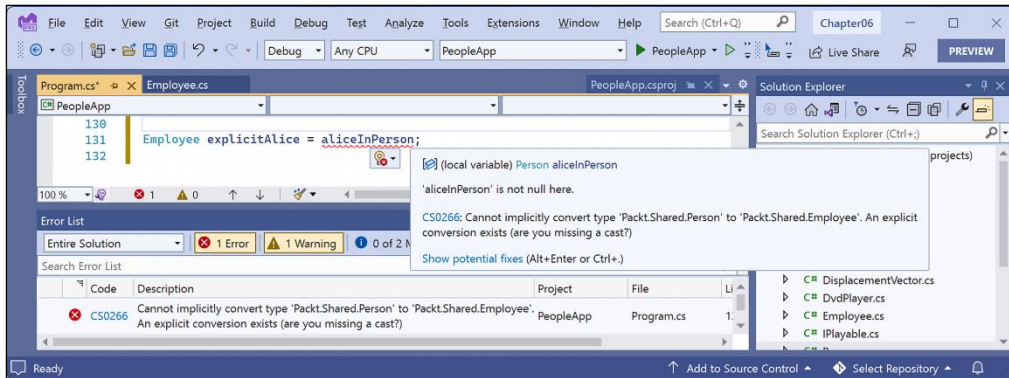
This screenshot shows the Visual Studio IDE with the 'Program.cs' file open in the 'PeopleApp' project. The code is for the `Program` class in the `PeopleApp` namespace. It includes a summary comment and the definition of the `Program` class with a `Main` method.

```
203 #region Defining and passing parameters to methods
204 WriteLine(bob.SayHello());
205 WriteLine(bob.SayHello("Emily"));
206 #endregion
207 // 2 of 2 string Person.SayHello(string name)
208
```

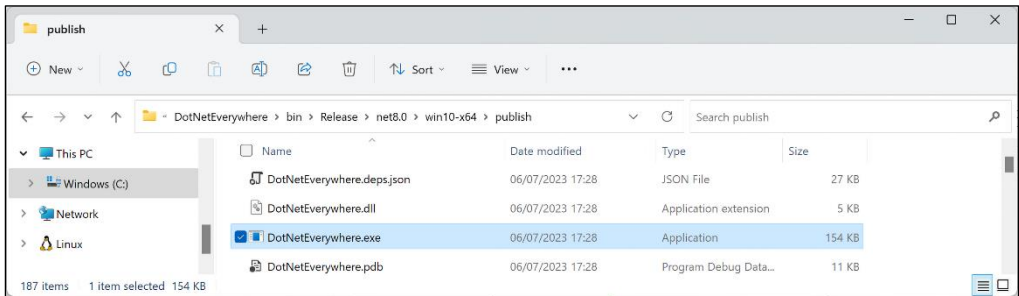
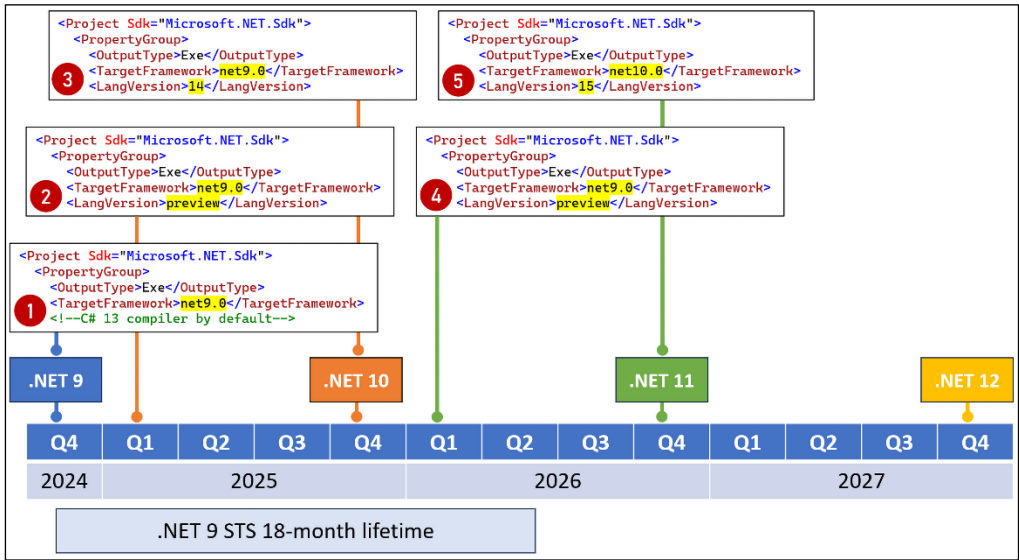
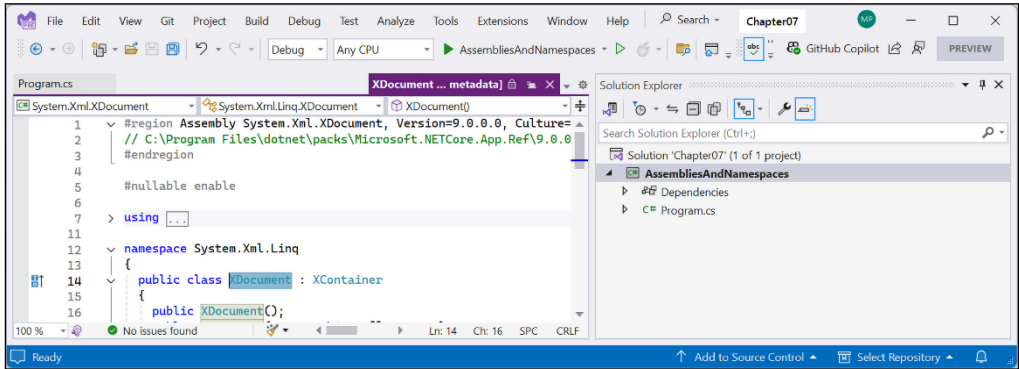


Chapter 6: Implementing Interfaces and Inheriting Classes





Chapter 7: Implementing Interfaces and Inheriting Classes



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Product	Versions
.NET	<div>net5.0 net5.0-windows net6.0 net6.0-android net6.0-ios net6.0-maccatalyst net6.0-macos net6.0-tvos net6.0-windows net7.0 net7.0-android net7.0-ios net7.0-maccatalyst net7.0-macos net7.0-tvos net7.0-windows net8.0 net8.0-android net8.0-browser net8.0-ios net8.0-maccatalyst net8.0-macos net8.0-tvos net8.0-windows</div>
.NET Core	<div>netcoreapp2.0 netcoreapp2.1 netcoreapp2.2 netcoreapp3.0 netcoreapp3.1</div>
.NET Standard	<div>netstandard2.0 netstandard2.1</div>
.NET Framework	<div>net461 net462 net463 net47 net471 net472 net48 net481</div>

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packt csharp dotnet

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Packt.CSdotnet.SharedLibrary 9.0.0

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https://nuget.info/packages/Packt.CSdotnet.SharedLibrary/9.0.0

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Metadata

🔗

Dependencies

🔗

Id: Packt.CSdotnet.SharedLibrary

Version: 9.0.0

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Repository: NuGet.org Repository by Microsoft

@ Thursday, 15 August 2024 12:41:20

by DigiCert Timestamp 2023

Owners: markjprice

Service Index: <https://api.nuget.org/v3/index.json>

Health

⌆


Source Link: Missing Symbols 🔴

Deterministic (dll/exe): Non deterministic 🔴

Compiler Flags: Missing 🔴

Note: Dependencies are not checked by this tool

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Contents

lib

netstandard2.0

SharedLibrary.dll

packt-csdotnet-sharedlibrary.png

readme.md

SharedLibrary.dll

×

Size: 5.5 KB

Assembly Attributes

PDB Info

PDB Metadata

References

PDB Sources

Full Name: SharedLibrary, Version=1.0.0.0, Culture=neutral, PublicKeyToken=null

Strong Name: No

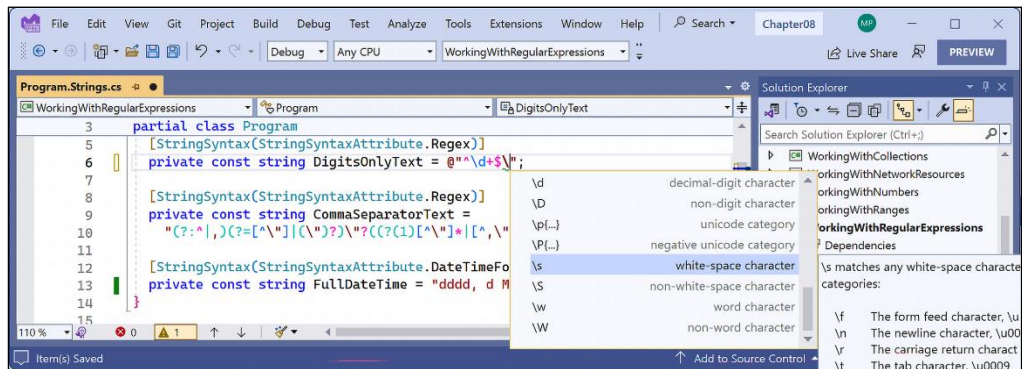
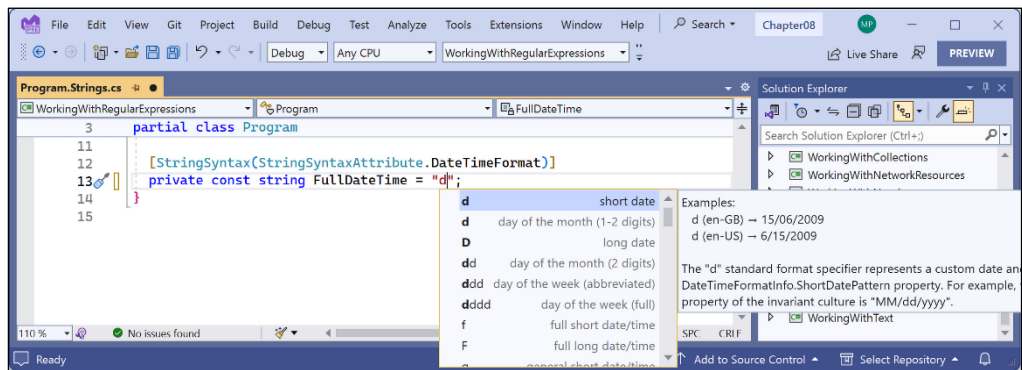
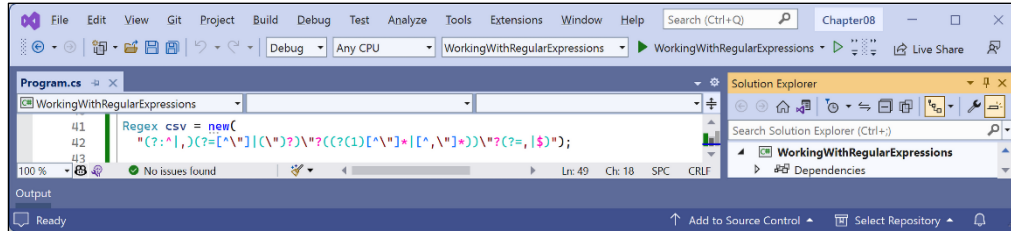
AssemblyCompany: Mark J Price

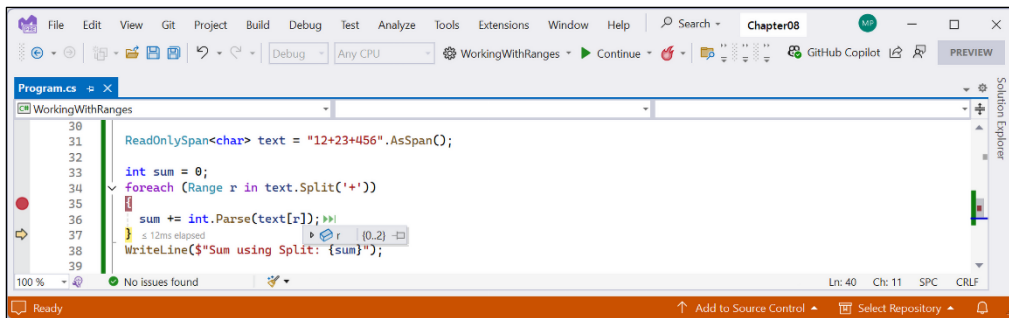
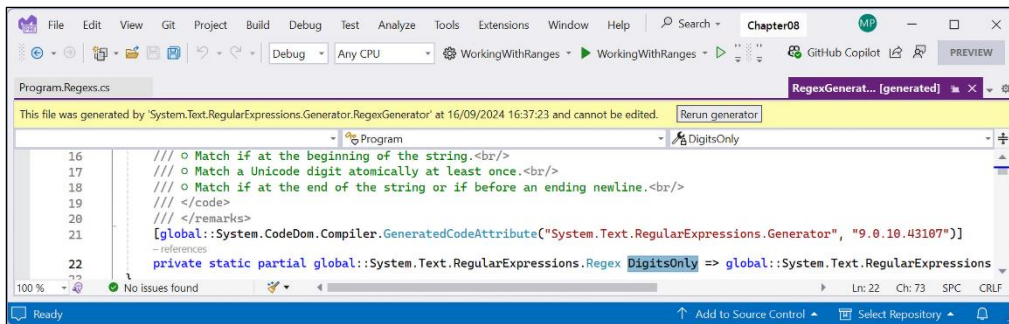
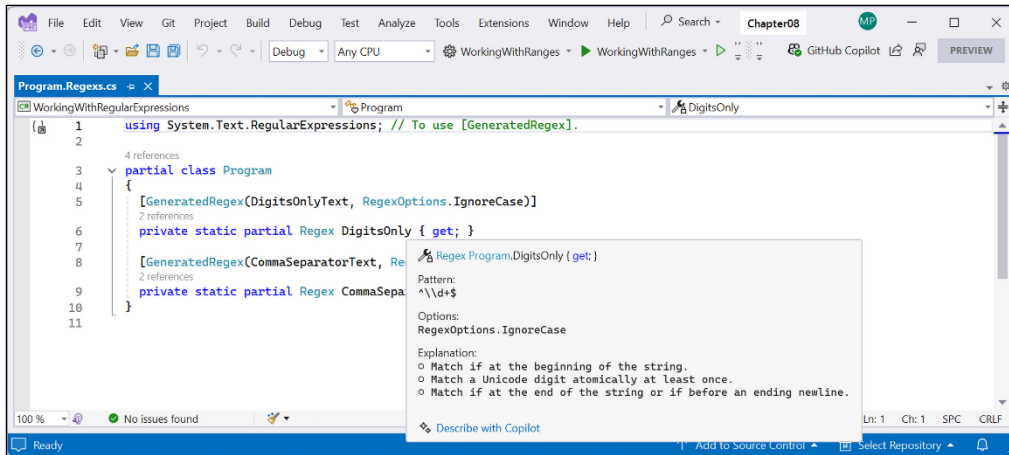
AssemblyConfiguration: Release

AssemblyCopyright: Copyright © 2016-2024 Packt Publishing Limited

AssemblyDescription: Three extension methods to validate a string value.

Chapter 8: Working with Common .NET Types





Chapter 9: Working with Files, Streams, and Serialization

C:\cs13net9-old\Chapter09\W

*** Handling cross-platform environments and filesystems ***

MEMBER	VALUE
Path.PathSeparator	;
Path.DirectorySeparatorChar	\
Directory.GetCurrentDirectory()	C:\cs13net9-old\Chapter09\WorkingWithFileSystems\bin\Debug\net9.0
Environment.CurrentDirectory	C:\cs13net9-old\Chapter09\WorkingWithFileSystems\bin\Debug\net9.0
Environment.SystemDirectory	C:\Windows\system32
Path.GetTempPath()	C:\Users\markj\AppData\Local\Temp\
GetFolderPath(SpecialFolder	
.System)	C:\Windows\system32
.ApplicationData)	C:\Users\markj\AppData\Roaming
.MyDocuments)	C:\Users\markj\OneDrive\Documents
.Personal)	C:\Users\markj\OneDrive\Documents

Terminal Shell Edit View Window Help

WorkingWithFileSystems — -zsh — 109x20

markjprice@Marks-Mac-mini WorkingWithFileSystems % dotnet run

*** Handling cross-platform environments and filesystems ***

MEMBER	VALUE
Path.PathSeparator	:
Path.DirectorySeparatorChar	/
Directory.GetCurrentDirectory()	/Users/markjprice/cs12dotnet8/Chapter09/WorkingWithFileSystems
Environment.CurrentDirectory	/Users/markjprice/cs12dotnet8/Chapter09/WorkingWithFileSystems
Environment.SystemDirectory	/System
Path.GetTempPath()	/var/folders/6b/grhsfcsx75qb8sf9hf3r1qgm0000gn/T/
GetFolderPath(SpecialFolder	
.System)	/System
.ApplicationData)	/Users/markjprice/Library/Application Support
.MyDocuments)	/Users/markjprice/Documents
.Personal)	/Users/markjprice/Documents

markjprice@Marks-Mac-mini WorkingWithFileSystems %

Microsoft Visual Studio Debug Console

*** Managing drives ***

NAME	TYPE	FORMAT	SIZE (BYTES)	FREE SPACE
C:\	Fixed	NTFS	510,759,268,352	148,998,021,120

WorkingWithFileSystems -- zsh -- 101x16

*** Managing drives ***

NAME	TYPE	FORMAT	SIZE (BYTES)	FREE SPACE
/	Fixed	apfs	494,384,795,648	226,914,848,768
/dev	Ram	devfs	206,848	0
/System/Volumes/VM	Fixed	apfs	494,384,795,648	226,914,848,768
/System/Volumes/Preboot	Fixed	apfs	494,384,795,648	226,914,848,768
/System/Volumes/Update	Fixed	apfs	494,384,795,648	226,914,848,768
/System/Volumes/xarts	Fixed	apfs	524,288,000	506,101,760
/System/Volumes/iSCPreboot	Fixed	apfs	524,288,000	506,101,760
/System/Volumes/Hardware	Fixed	apfs	524,288,000	506,101,760
/System/Volumes/Data	Fixed	apfs	494,384,795,648	226,914,848,768
/System/Volumes/Data/home	Network	autofs	0	0
/Volumes/LaCie	Fixed	hfs	4,000,443,056,128	875,921,227,776

WriteLine("hello");

StreamWriter

GZipStream

CryptoStream

FileStream

"G7x"

Home

Explore

Notifications

Messages

Bookmarks

← Thread

James Newton-King @JamesNK

Negative 2 billion downloads in NuGet Package Explorer 😊

cc @NuGetPE

Select Package

Search (Ctrl+F)

Show pre-release packages

Package source: https://api.nuget.org/v3/index.json

Newtonsoft.Json

by James Newton-King

2.1G downloads

v13.0.2-beta1

cancel download show all versions

Microsoft.Extensions.DependencyInjection

by Microsoft

1.4G downloads

v7.0.0-preview.7.22375.6

cancel download show all versions

Description

Json.NET is a popular high-performance JSON framework for .NET

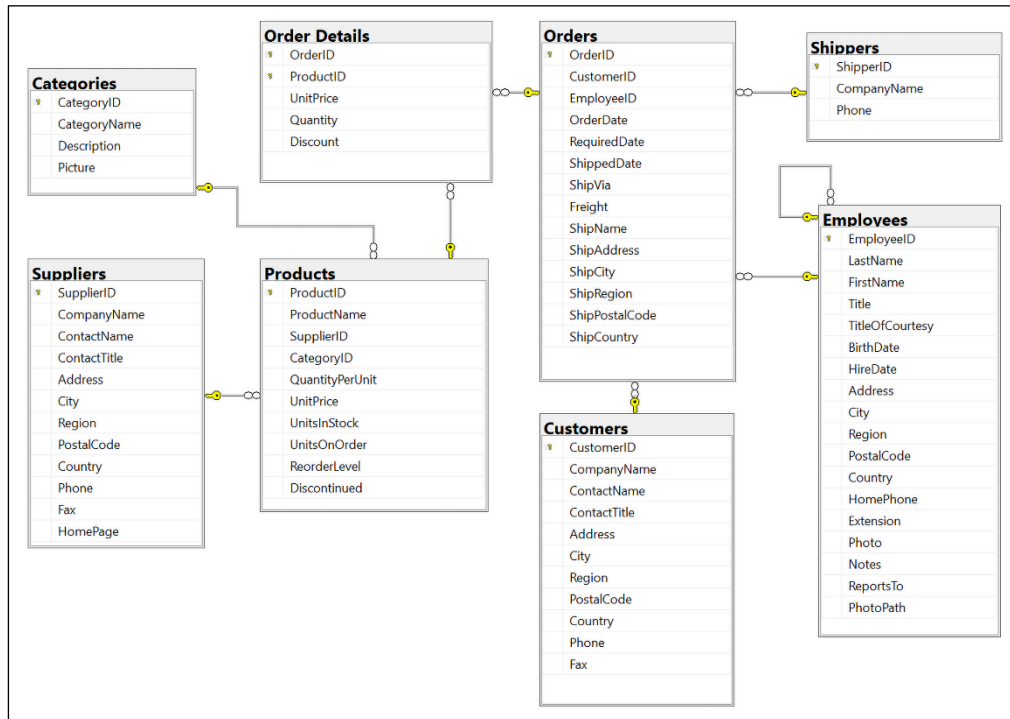
JamesNK commented on 29 Oct 2018

Member

@Thorium Json.NET isn't going away. You aren't losing anything. This is another option for simple and high performance scenarios.

👍 19

Chapter 10: Working with Data Using Entity Framework Core

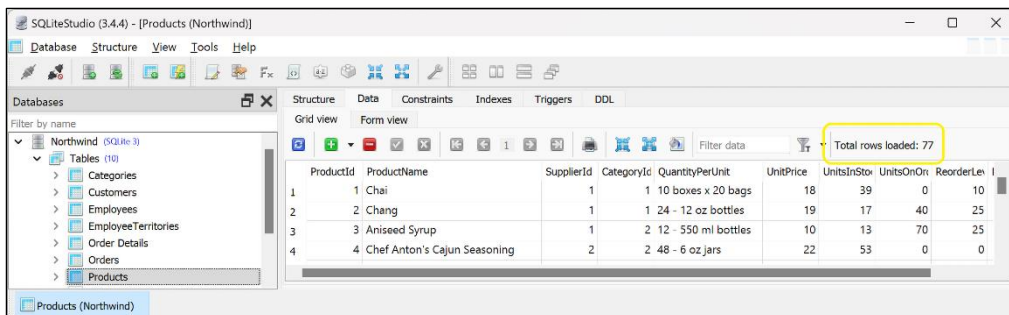
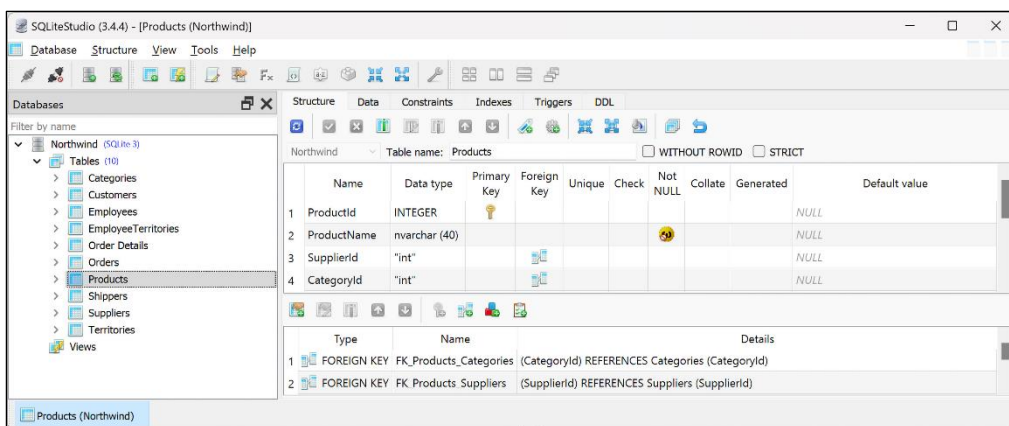
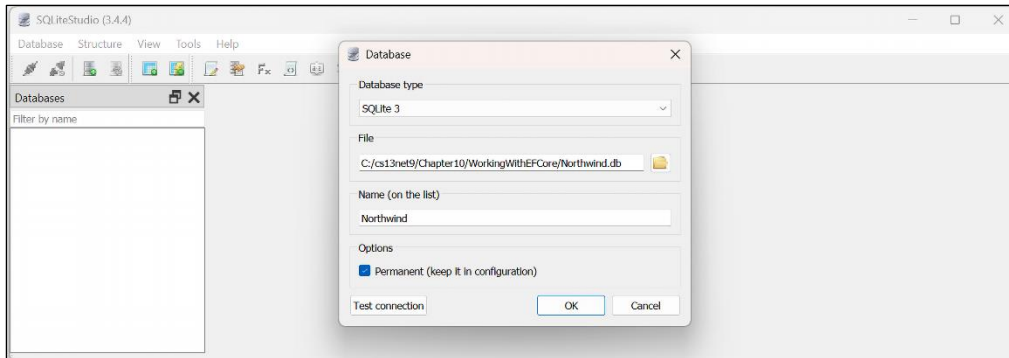


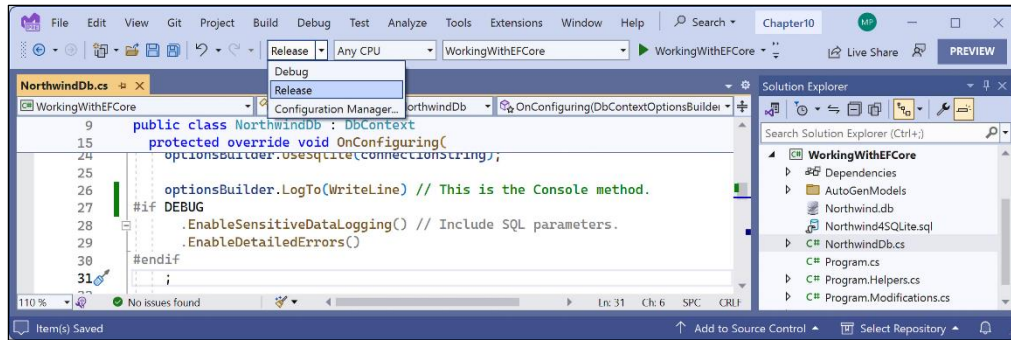
SQLite Download Page

sqlite.org/download.html

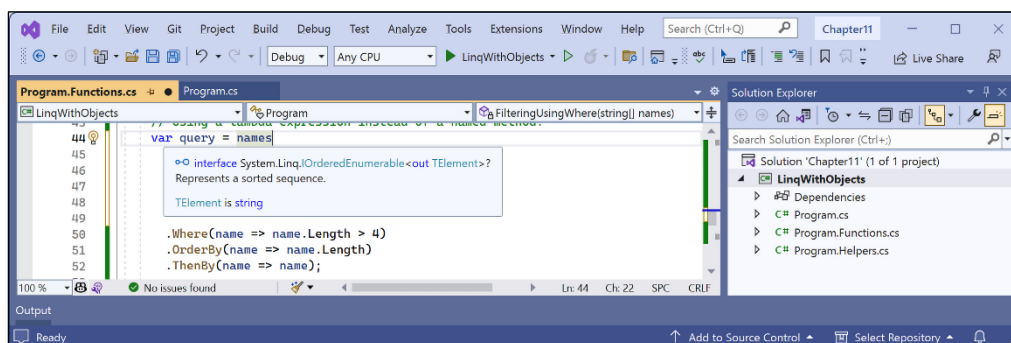
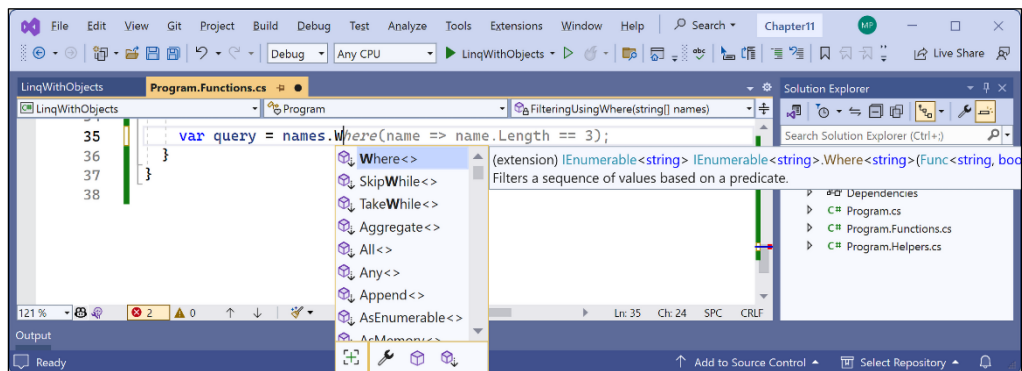
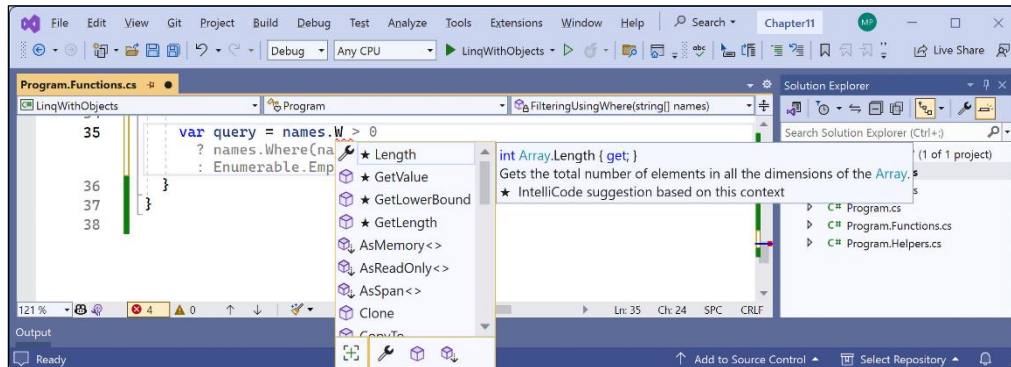
Precompiled Binaries for Windows

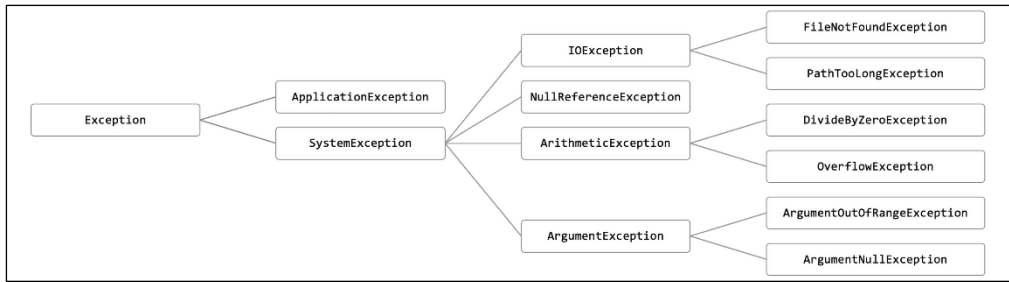
sqlite-dll-win-x86-3460100.zip (1.01 MiB)	32-bit DLL (x86) for SQLite version 3.46.1. (SHA3-256: 3bfa096b3e630d2f8f6c45bfae2c305fbf4c1e31702b176c5b5b31330a74b916)
sqlite-dll-win-x64-3460100.zip (1.26 MiB)	64-bit DLL (x64) for SQLite version 3.46.1. (SHA3-256: fa1d891b5f371f2f5260f14bfb43fa129aa368ab33850e41bbf5d353f9436a2)
sqlite-tools-win-x64-3460100.zip (4.80 MiB)	A bundle of command-line tools for managing SQLite database files, including the command-line shell program, the sqldiff.exe program, and the sqlite3_analyzer.exe program. 64-bit. (SHA3-256: 3ad254b72b1f1fab3f24df5c3183b5ad484e2c299dd72c10a2582fa3b727d075)





Chapter 11: Querying and Manipulating Data Using LINQ

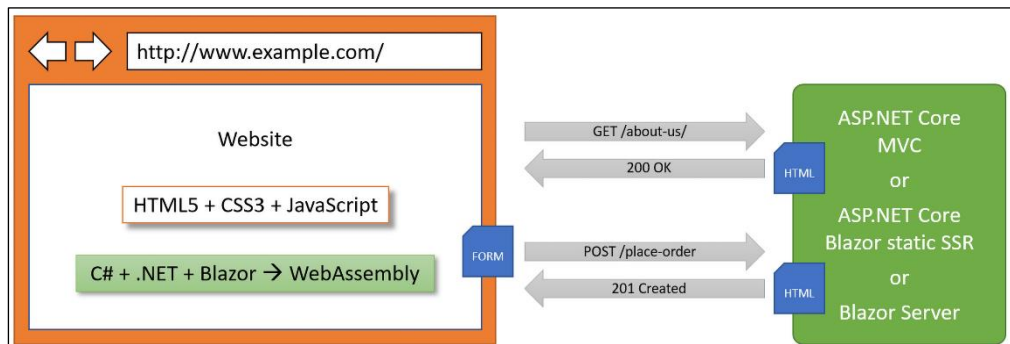
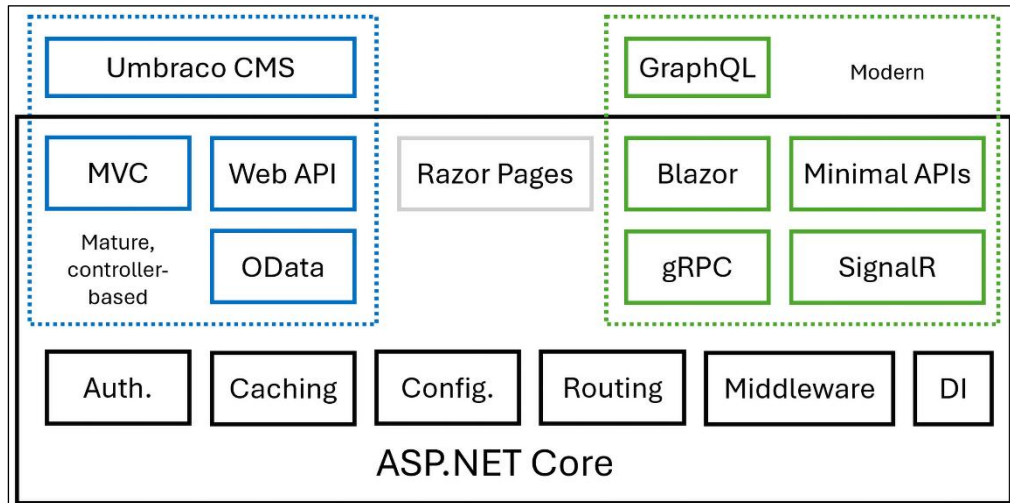


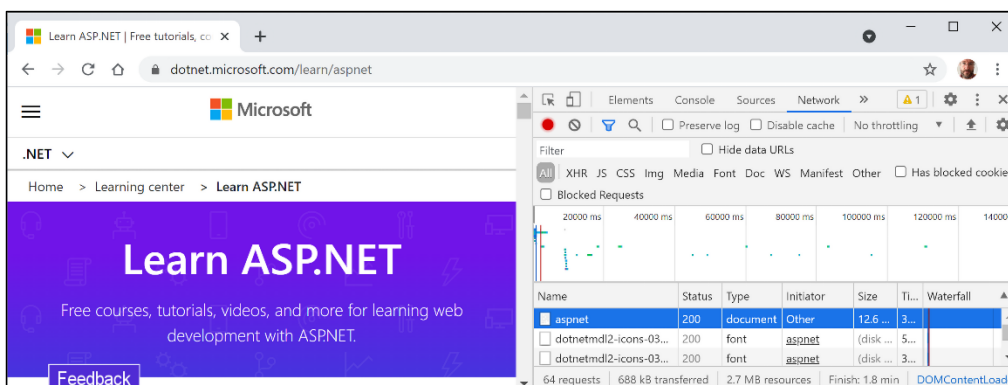
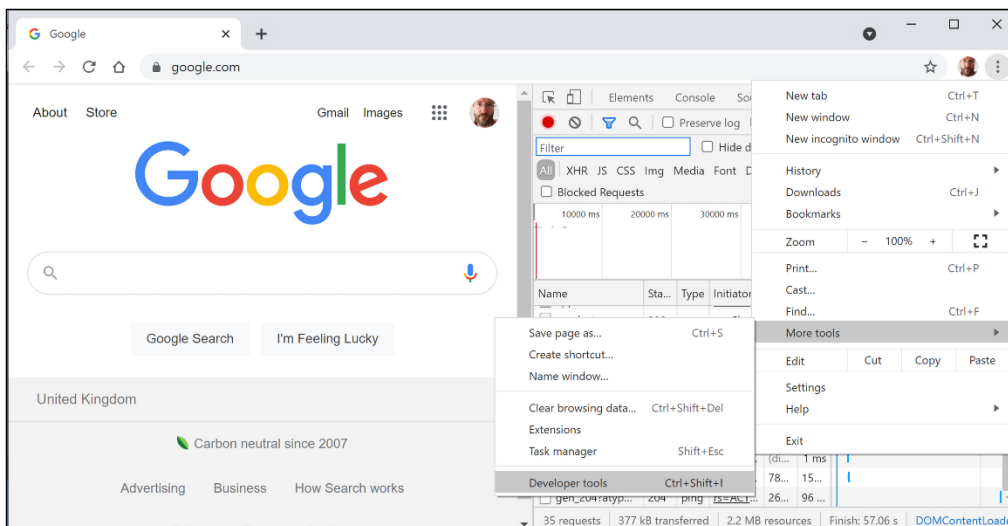
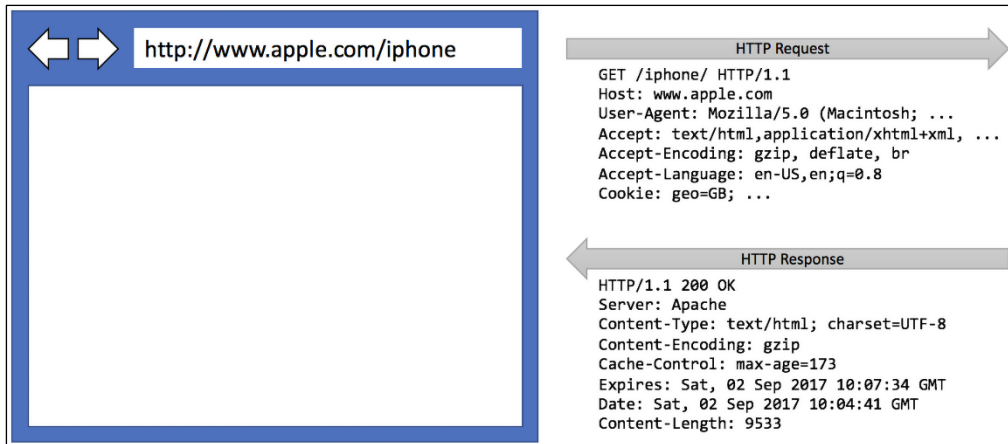


```
27 IOrderedQueryable<Product> sortedAndFilteredProducts =
28     filteredProducts.OrderByDescending(product => product.UnitPrice);
29
30 var projectedProducts = sortedAndFilteredProducts
31     .Select(product => new // anonymous type
32     {
33         product.ProductId,
34         product.ProductName,
35         product.UnitPrice
36     });
```

AnonymousType 'a'
Anonymous Types:
'a is new (int ProductId, string ProductName, decimal? UnitPrice)

Chapter 12: Introducing Modern Web Development Using .NET





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Microsoft

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aspnet

dotnetmdl2-icons-032021-2.v

dotnetmdl2-icons-032021-2.t

2c-511e5e7ver=2.0&cf=2021

override.css?c=7

bootstrap-custom.min.css?v=

cookie-consent.min.js?v=1VL

general.min.js?v=7G9KU8Kor

google-analytics.min.js?v=IGil

wcp-consent.js

17-f90ef17ver=2.0&cf=2021

listen-post-message-iframe.m

RE1Mu3b7ver=5c31

main.min.js?v=OOcqOBoXUU

aspnet?domain=https://dotne

analytics.js

home-hero-bg.svg

mwfm2-v3.54.woff

js?id=GTM-KPDDMV7&cid=2

collect?v=1&_v=j90&a=1122

85 requests

692 kB transferred

Network

Filter

Has blocked cookies

Blocked Requests

50000 ms

100000 ms

150000 ms

200000 ms

250000 ms

Name

aspnet

dotnetmdl2-icons-032021-2.v

dotnetmdl2-icons-032021-2.t

2c-511e5e7ver=2.0&cf=2021

override.css?c=7

bootstrap-custom.min.css?v=

cookie-consent.min.js?v=1VL

general.min.js?v=7G9KU8Kor

google-analytics.min.js?v=IGil

wcp-consent.js

17-f90ef17ver=2.0&cf=2021

listen-post-message-iframe.m

RE1Mu3b7ver=5c31

main.min.js?v=OOcqOBoXUU

aspnet?domain=https://dotne

analytics.js

home-hero-bg.svg

mwfm2-v3.54.woff

js?id=GTM-KPDDMV7&cid=2

collect?v=1&_v=j90&a=1122

General

Request URL: https://dotnet.microsoft.com/learn/aspnet

Request Method: GET

Status Code: 200

Remote Address: [2620:1ec:bdf::64]:443

Referrer Policy: strict-origin-when-cross-origin

Response Headers (11)

Request Headers

:authority: dotnet.microsoft.com

:method: GET

:path: /learn/aspnet

:scheme: https

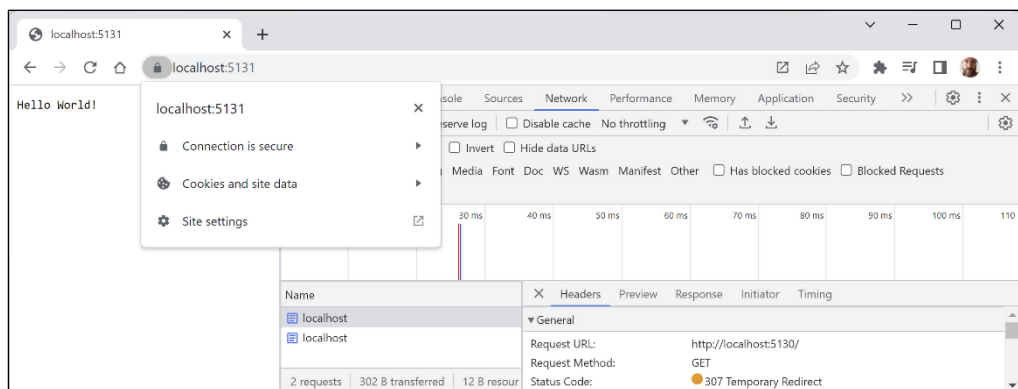
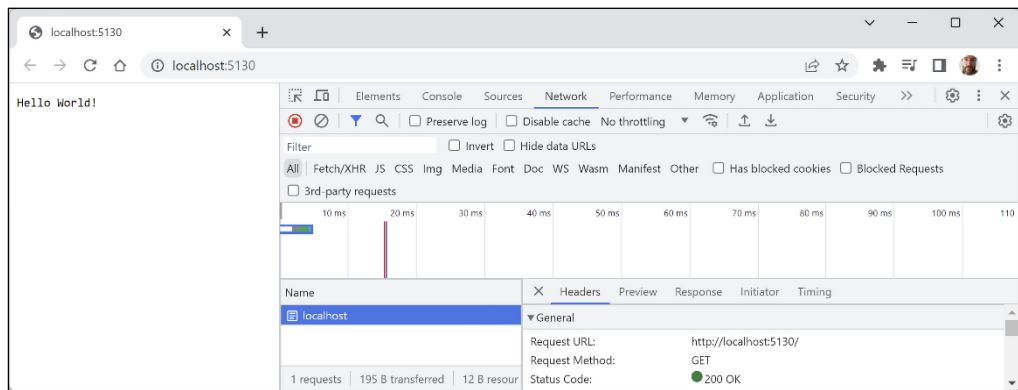
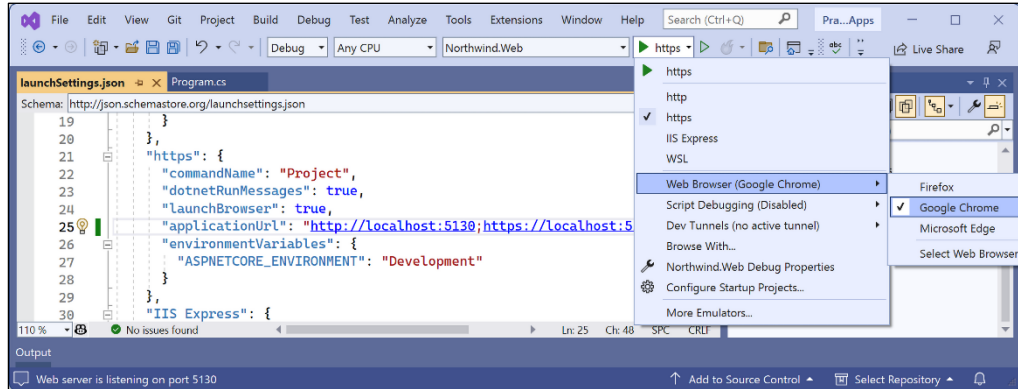
accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9

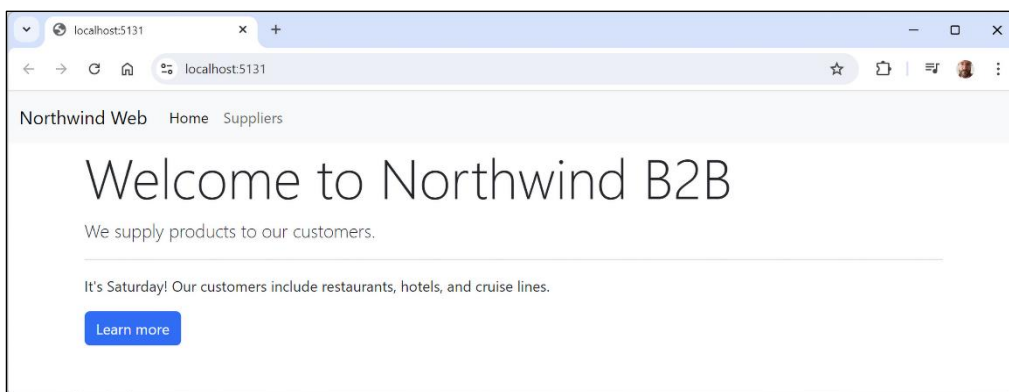
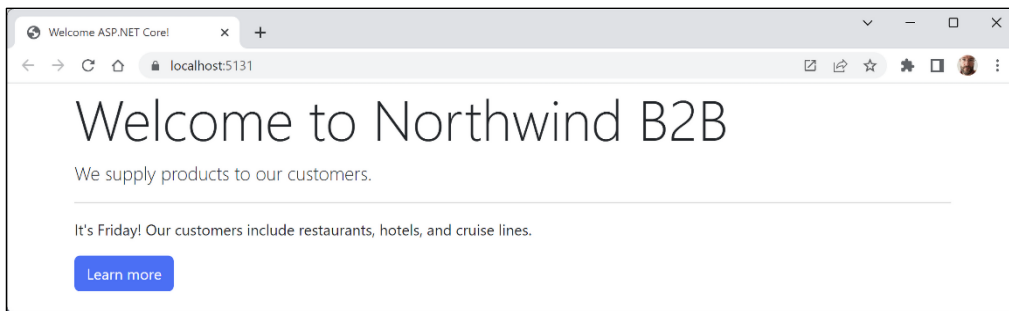
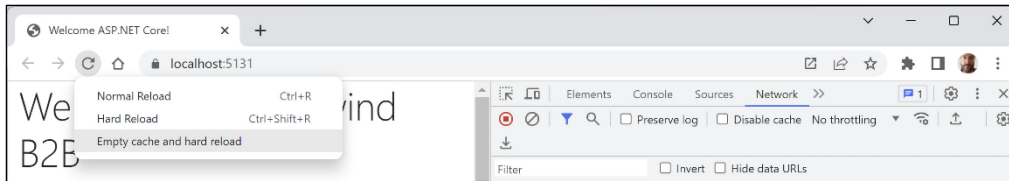
accept-encoding: gzip, deflate, br

accept-language: en-US,en;q=0.9,sv;q=0.8

cookie: MC1=GUID=54a83491596e42eb9d82baf90b40cd4&HASH=54a8&LV=202104&V=4&LU=1617522068644; mbox=session#8a46d478da9c43a5845df1d0e4fe86a7#1619507375|PC#8a46d478da9c43a5845df1d0e4fe86a7_37_0W1653692607; _i_user=V

Chapter 13: Building Websites Using ASP.NET Core





localhost:5131/suppliers

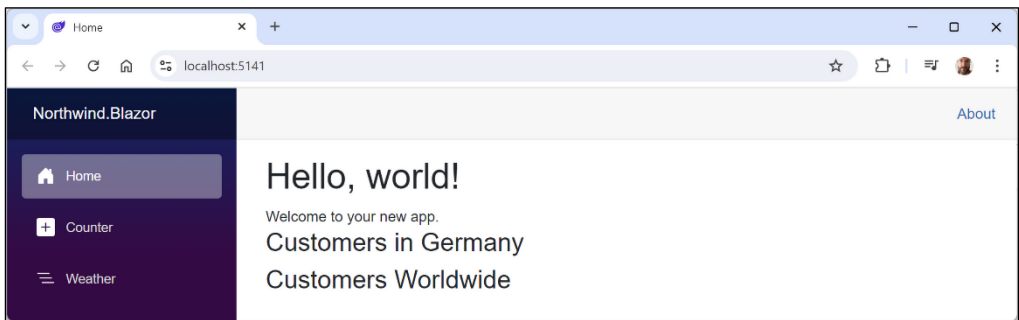
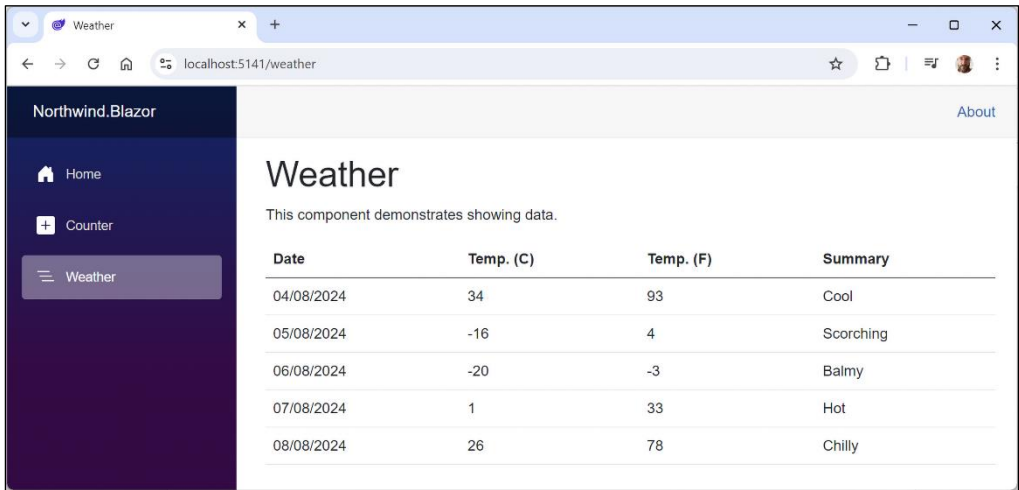
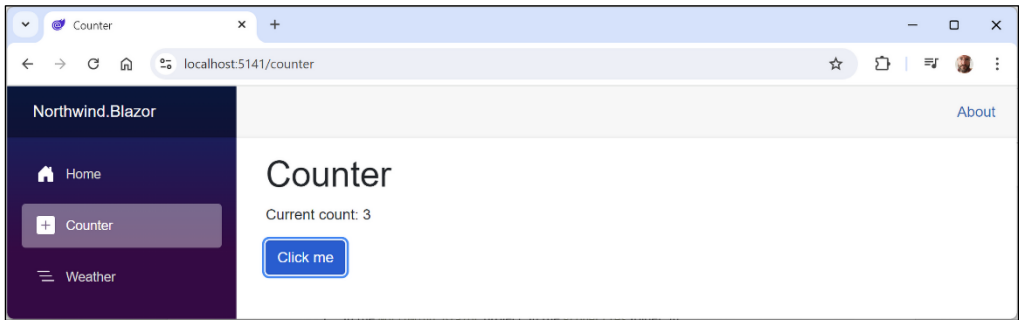
Northwind Web Home Suppliers

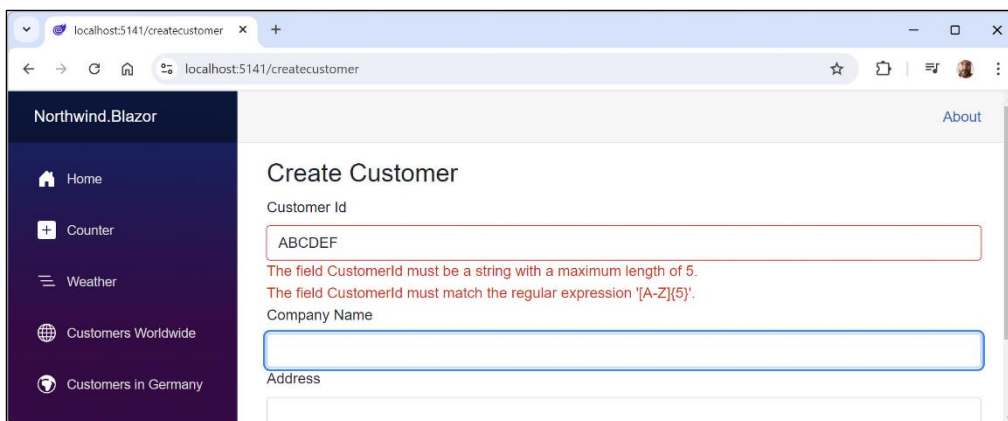
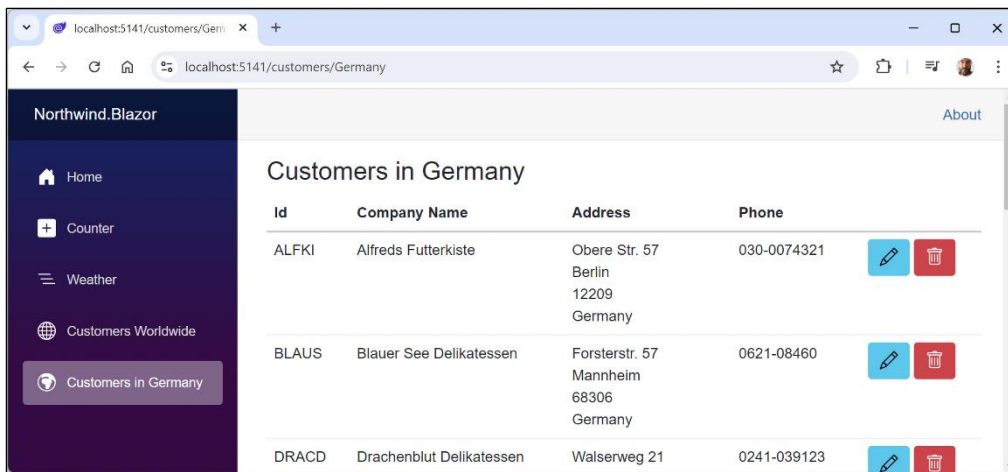
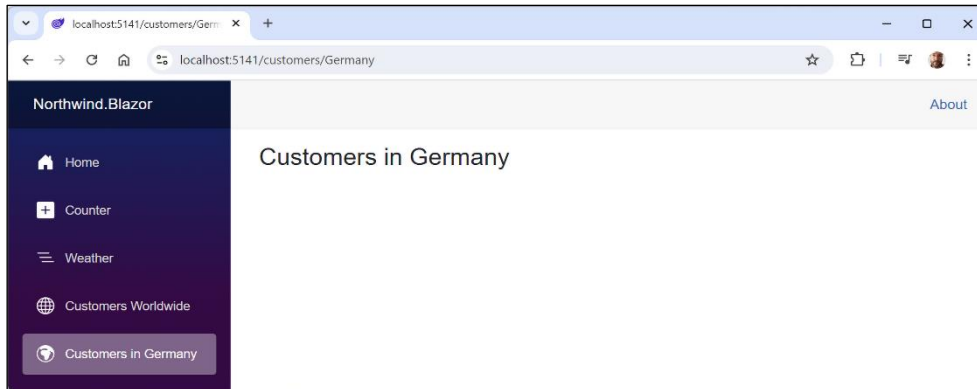
Suppliers

Company Name	Country	Phone
G'day, Mate	Australia	(02) 555-5914
Pavlova, Ltd.	Australia	(03) 444-2343
Refrescos Americanas LTDA	Brazil	(11) 555 4640

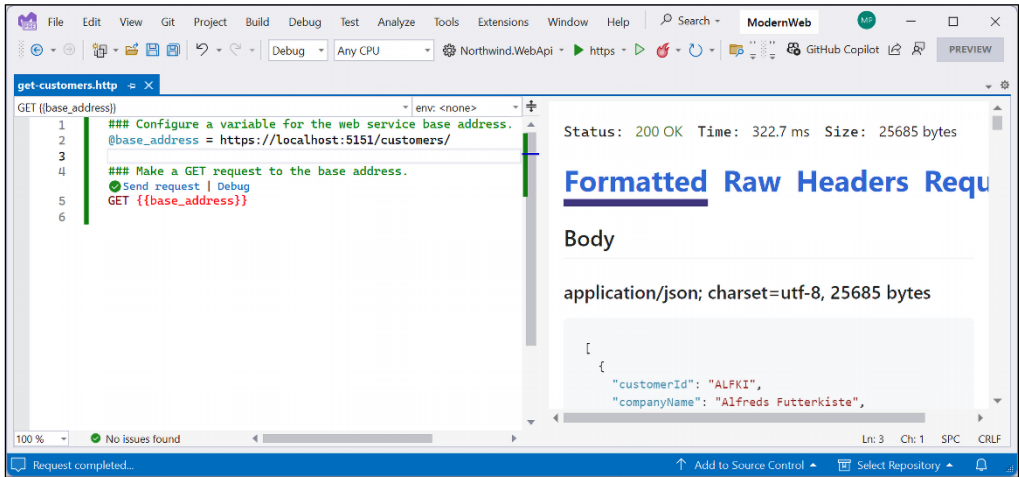
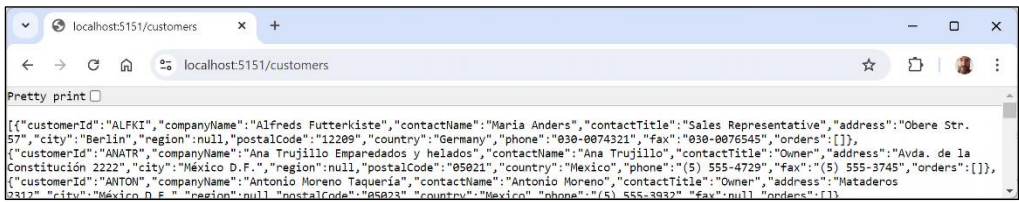
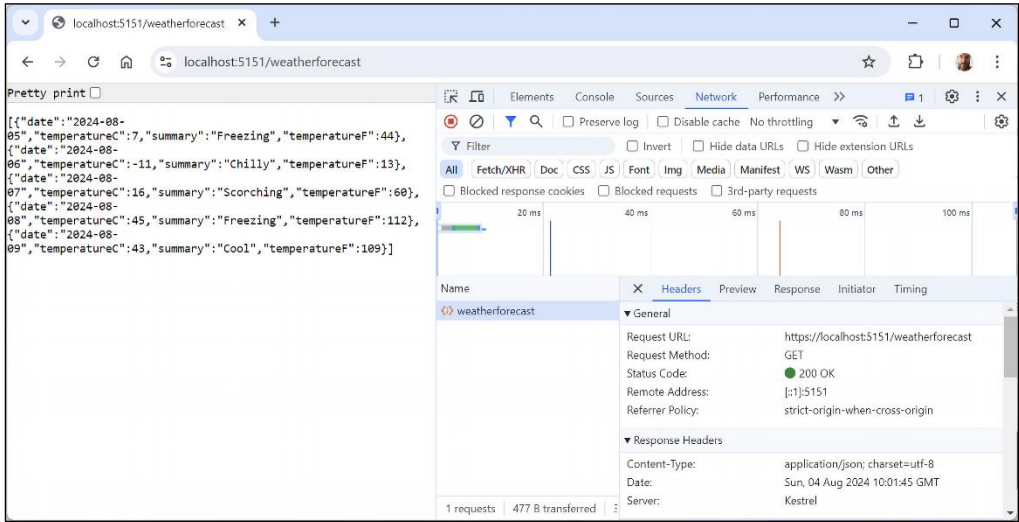


Chapter 14: Building Interactive Web Components Using Blazor





Chapter 15: Building Interactive Web Components Using Blazor



Visual Studio Code interface showing a REST client request and response.

Request:

```
POST ([base_address])
1  ### Configure a variable for the web service base address.
2  @base_address = https://localhost:5151/customers/
3
4  ### Make a POST request to the base address.
5  Send request | Debug
6  POST ([base_address])
7  Content-Type: application/json
8
9  {
10   "customerID": "ABCXY",
11   "companyName": "ABC Corp",
12   "contactName": "John Smith",
13   "contactTitle": "Sir",
14   "address": "Main Street",
15   "city": "New York",
16   "region": "NY",
17   "postalCode": "90210",
18   "country": "USA",
19   "phone": "(123) 555-1234"
20 }
```

Response:

Status: 201 Created Time: 73.81 ms Size: 236 bytes

Formatted Raw Headers Requ

Response

HTTP/1.1 201 Created (73.81 ms)

Headers

Name	Value
Date	Mon, 05 Aug 2024 11:11:11
Server	Kestrel
Location	/customers/ABCXY

Web browser window showing the OpenAPI specification for the Northwind.WebApi v2.

URL: localhost:5151/openapi/v2.json

Pretty print

```
{
  "openapi": "3.0.1",
  "info": {
    "title": "Northwind.WebApi | v2",
    "version": "1.0.0",
    "paths": {
      "/weather-forecast/days": {
        "get": {
          "tags": [
            "Northwind.WebApi"
          ],
          "operationId": "GetWeatherForecast",
          "parameters": [
            {
              "name": "days",
              "in": "path",
              "required": true,
              "schema": {
                "type": "integer",
                "format": "int32",
                "default": 5
              }
            }
          ],
          "responses": {
            "200": {
              "description": "OK",
              "content": {
                "application/json": {
                  "schema": {
                    "type": "array",
                    "items": {
                      "required": [
                        "date",
                        "temperatureC",
                        "summary"
                      ],
                      "type": "object",
                      "properties": {
                        "date": {
                          "type": "string",
                          "format": "date",
                          "temperatureC": {
                            "type": "integer",
                            "format": "int32",
                            "summary": {
                              "type": "string",
                              "nullable": true,
                              "temperatureF": {
                                "type": "integer",
                                "format": "int32"
                              }
                            }
                          }
                        }
                      }
                    }
                  }
                }
              }
            }
          ],
          "hello": {
            "get": {
              "tags": [
                "Northwind.WebApi"
              ],
              "responses": {
                "200": {
                  "description": "OK",
                  "content": {
                    "text/plain": {
                      "schema": {
                        "$ref": "#/components/schemas/string"
                      }
                    }
                  }
                }
              }
            }
          },
          "user": {
            "get": {
              "tags": [
                "Northwind.WebApi"
              ],
              "responses": {
                "200": {
                  "description": "OK",
                  "content": {
                    "application/json": {
                      "schema": {
                        "required": [
                          "firstName",
                          "age"
                        ],
                        "type": "object",
                        "properties": {
                          "firstName": {
                            "$ref": "#/components/schemas/string"
                          },
                          "age": {
                            "type": "integer",
                            "format": "int32"
                          }
                        }
                      }
                    }
                  }
                }
              }
            }
          },
          "customers": {
            "get": {
              "tags": [
                "Northwind.WebApi"
              ],
              "responses": {
                "200": {
                  "description": "OK",
                  "content": {
                    "application/json": {
                      "schema": {
                        "$ref": "#/components/schemas/ArrayOfCustomer"
                      }
                    }
                  }
                }
              }
            }
          },
          "post": {
            "tags": [
              "Northwind.WebApi"
            ],
            "requestBody": {
              "content": {
                "application/json": {
                  "schema": {
                    "required": [
                      "companyName"
                    ],
                    "type": "object",
                    "properties": {
                      "customerID": {

```

