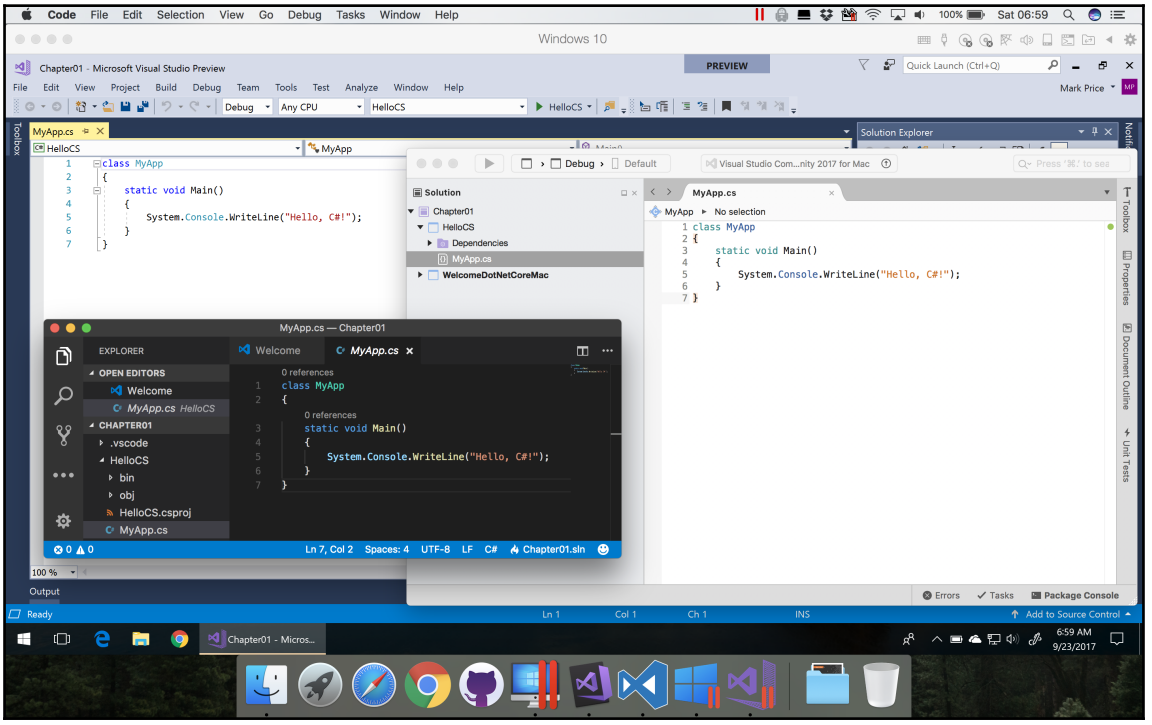
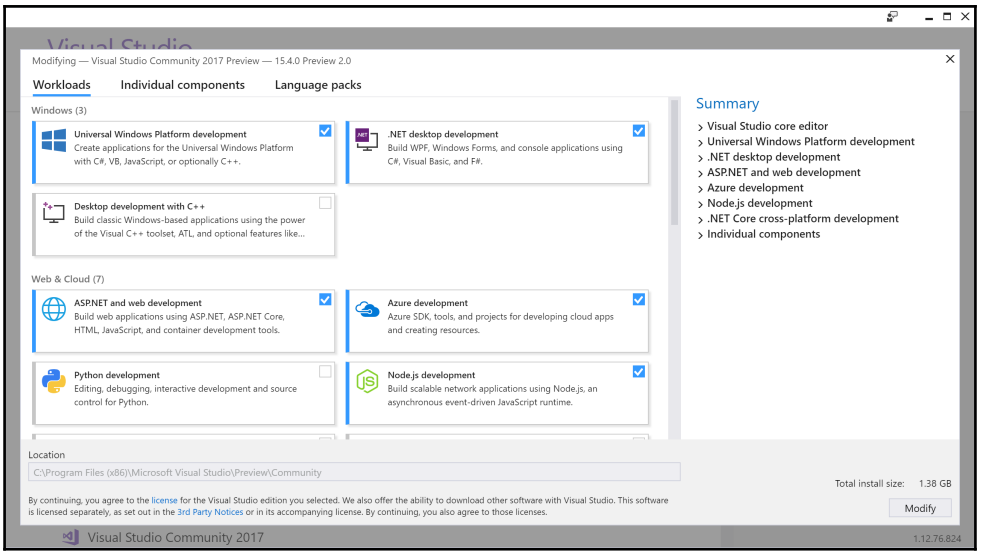
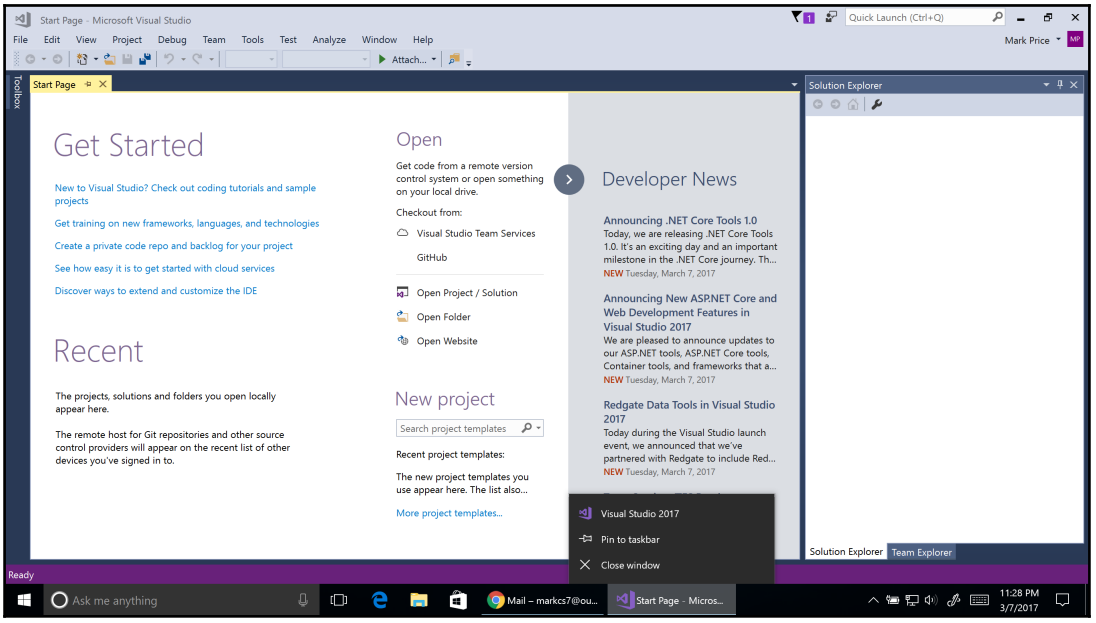
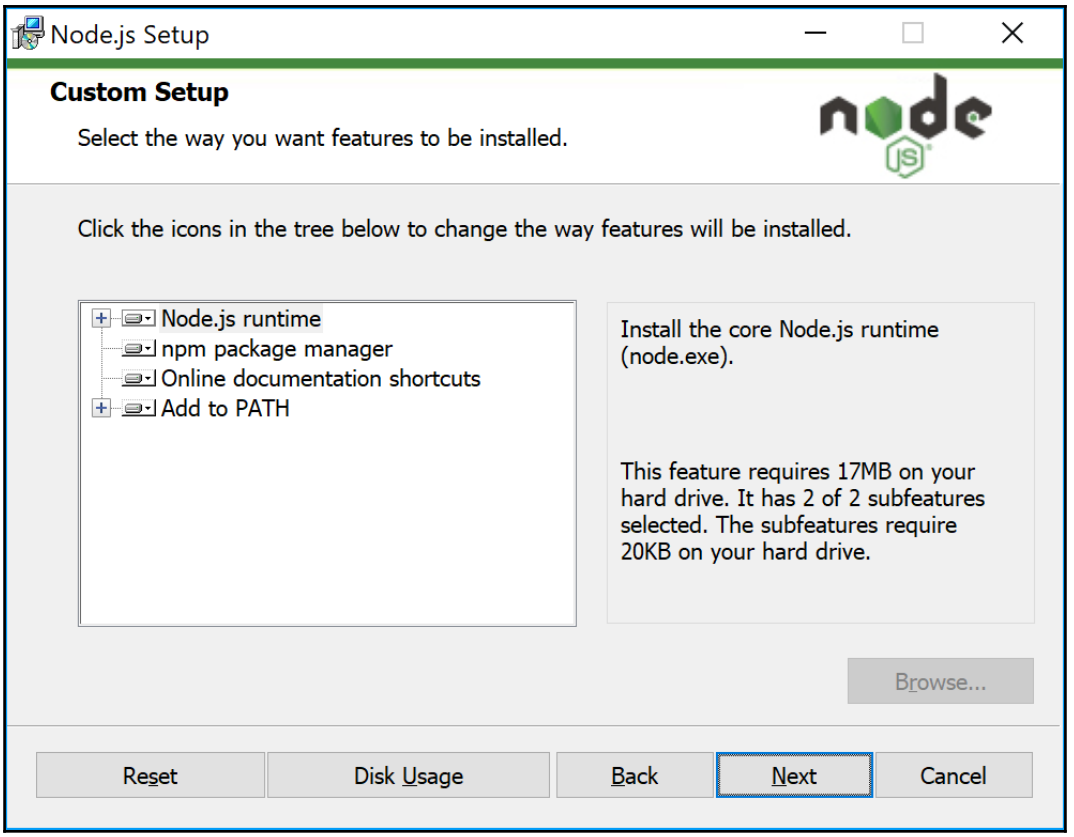
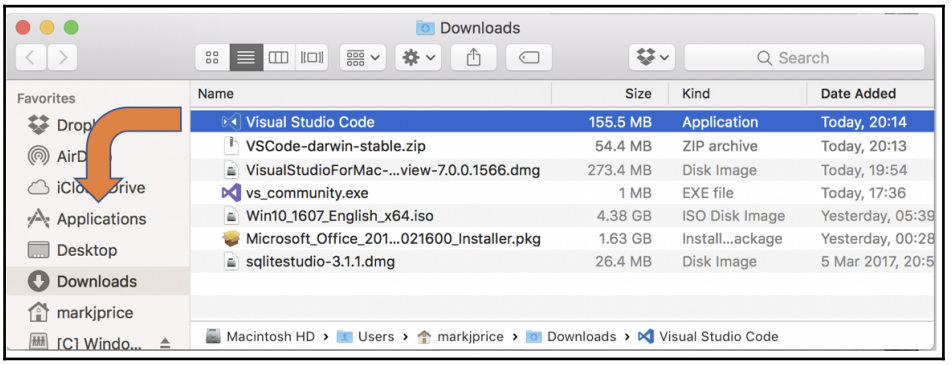
Chapter 1: Hello, C#! Welcome, .NET Core!

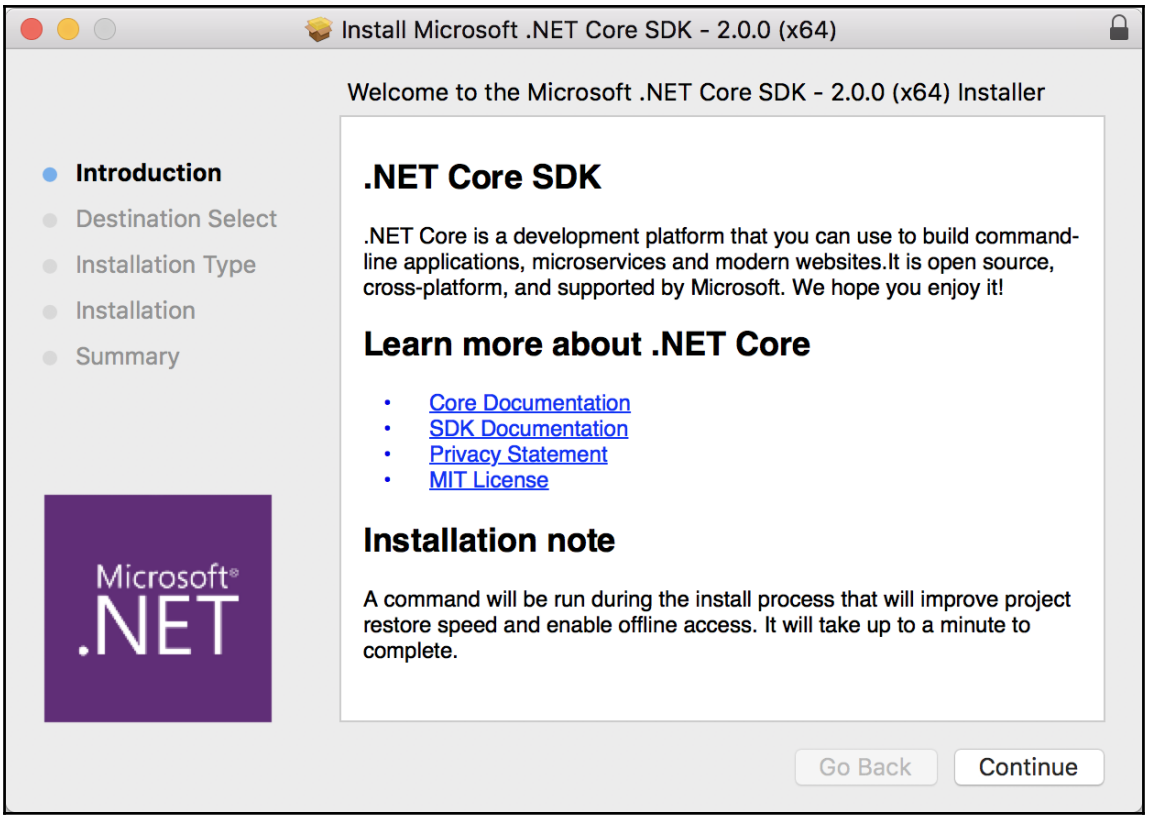


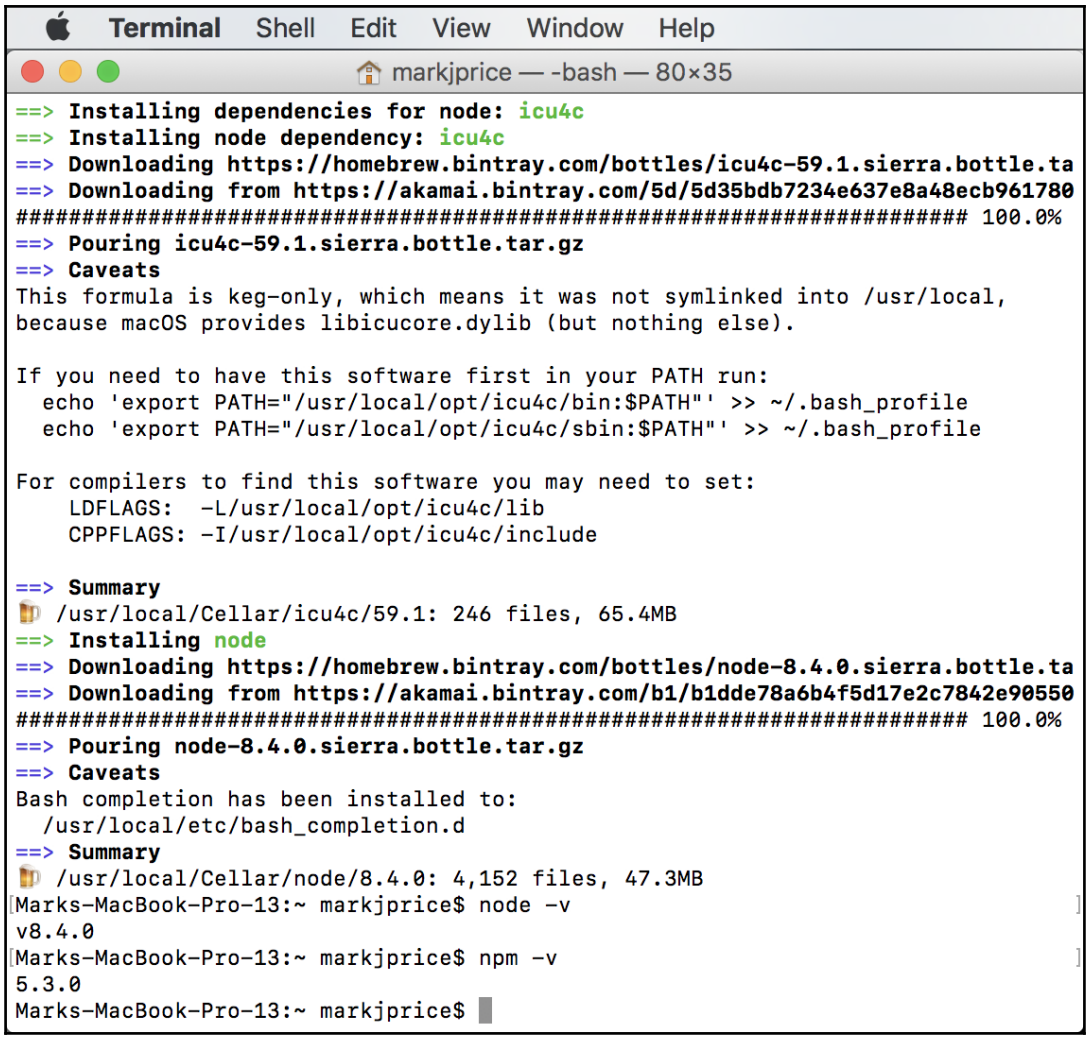

Modifying — Visual Studio Community 2017 Preview — 15.4.0 Preview 2.0
Workloads
Individual components
Language packs
Windows (3)
Universal Windows Platform development
Create applications for the Universal Windows Platform with C#, VB, JavaScript, or optionally C++.
.NET desktop development
Build WPF, Windows Forms, and console applications using C#, Visual Basic, and F#.
Desktop development with C++
Build classic Windows-based applications using the power of the Visual C++ toolset, ATL, and optional features like...
Web & Cloud (7)
ASP.NET and web development
Build web applications using ASP.NET, ASP.NET Core, HTML, JavaScript, and container development tools.
Azure development
Azure SDK, tools, and projects for developing cloud apps and creating resources.
Python development
Editing, debugging, interactive development and source control for Python.
Node.js development
Build scalable network applications using Node.js, an asynchronous event-driven JavaScript runtime.
Summary
Visual Studio core editor
Universal Windows Platform development
.NET desktop development
ASP.NET and web development
Azure development
Node.js development
.NET Core cross-platform development
Individual components
Location
C:\Program Files (x86)\Microsoft Visual Studio\Preview\Community
Total install size: 1.38 GB
By continuing, you agree to the license for the Visual Studio edition you selected. We also offer the ability to download other software with Visual Studio. This software is licensed separately, as set out in the 3rd Party Notices or in its accompanying license. By continuing, you also agree to those licenses.
Modify
Visual Studio Community 2017
1.12.76.824

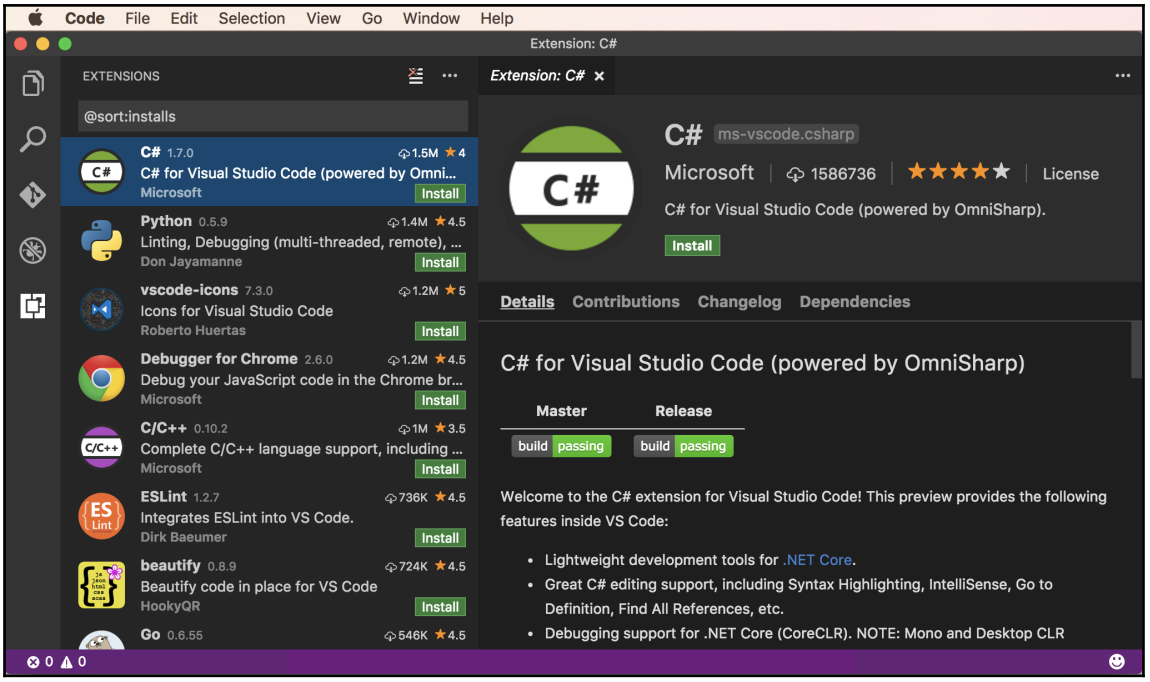

Start Page - Microsoft Visual Studio
File Edit View Project Debug Team Tools Test Analyze Window Help
Quick Launch (Ctrl+Q)
Mark Price
Attach...
Toolbox
Start Page
Get Started
New to Visual Studio? Check out coding tutorials and sample projects
Get training on new frameworks, languages, and technologies
Create a private code repo and backlog for your project
See how easy it is to get started with cloud services
Discover ways to extend and customize the IDE
Recent
The projects, solutions and folders you open locally appear here.
The remote host for Git repositories and other source control providers will appear on the recent list of other devices you've signed in to.
Open
Get code from a remote version control system or open something on your local drive.
Checkout from:
Visual Studio Team Services
GitHub
Open Project / Solution
Open Folder
Open Website
New project
Search project templates
Recent project templates:
The new project templates you use appear here. The list also...
More project templates...
Developer News
Announcing .NET Core Tools 1.0
Today, we are releasing .NET Core Tools 1.0. It's an exciting day and an important milestone in the .NET Core journey. Th...
NEW Tuesday, March 7, 2017
Announcing New ASP.NET Core and Web Development Features in Visual Studio 2017
We are pleased to announce updates to our ASP.NET tools, ASP.NET Core tools, Container tools, and frameworks that a...
NEW Tuesday, March 7, 2017
Redgate Data Tools in Visual Studio 2017
Today during the Visual Studio launch event, we announced that we've partnered with Redgate to include Red...
NEW Tuesday, March 7, 2017
Visual Studio 2017
Pin to taskbar
Close window
Solution Explorer
Solution Explorer
Team Explorer
Ready
Ask me anything
Mail – markcs7@ou...
Start Page - Micros...
11:28 PM
3/7/2017

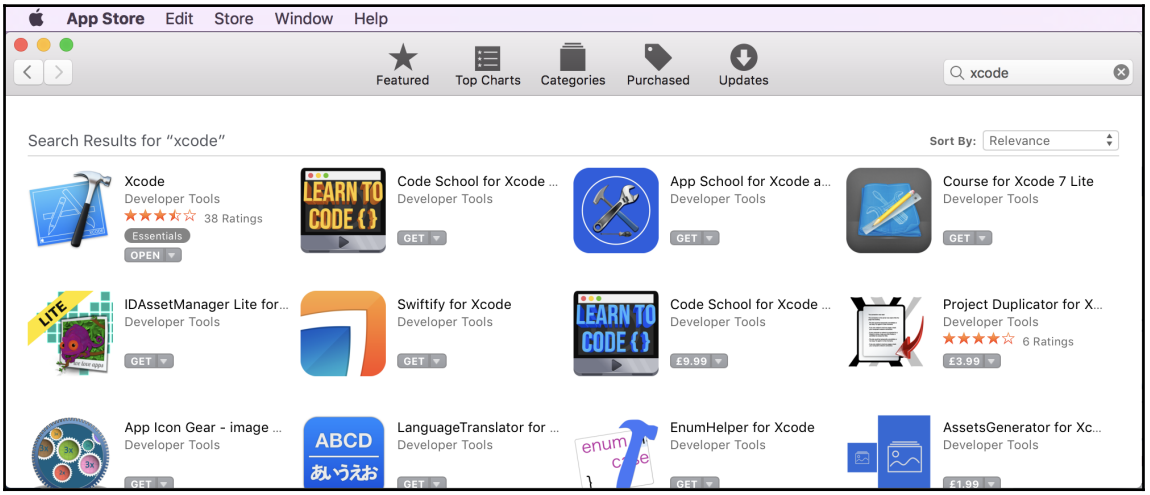

Node.js Setup
Custom Setup
Select the way you want features to be installed.
Click the icons in the tree below to change the way features will be installed.
Node.js runtime
npm package manager
Online documentation shortcuts
Add to PATH
Install the core Node.js runtime (node.exe).
This feature requires 17MB on your hard drive. It has 2 of 2 subfeatures selected. The subfeatures require 20KB on your hard drive.
Browse...
Reset
Disk Usage
Back
Next
Cancel

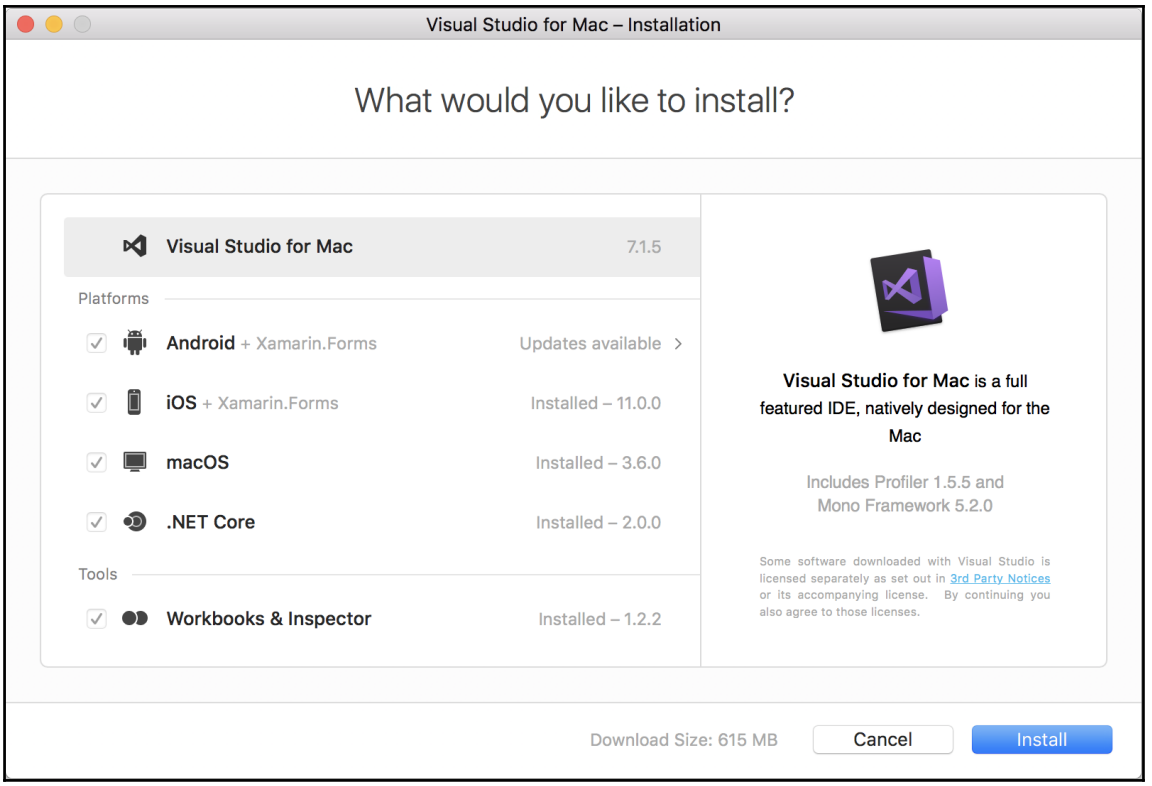

Downloads
Search
Favorites
Applications
Desktop
Downloads
markjprice
Name
Size
Kind
Date Added
Visual Studio Code
155.5 MB
Application
Today, 20:14
VSCode-darwin-stable.zip
54.4 MB
ZIP archive
Today, 20:13
VisualStudioForMac-...view-7.0.0.1566.dmg
273.4 MB
Disk Image
Today, 19:54
vs_community.exe
1 MB
EXE file
Today, 17:36
Win10_1607_English_x64.iso
4.38 GB
ISO Disk Image
Yesterday, 05:39
Microsoft_Office_201...021600_Installer.pkg
1.63 GB
Yesterday, 00:28
sqlitestudio-3.1.1.dmg
26.4 MB
Disk Image
5 Mar 2017, 20:5
Macintosh HD › Users › markjprice › Downloads › Visual Studio Code

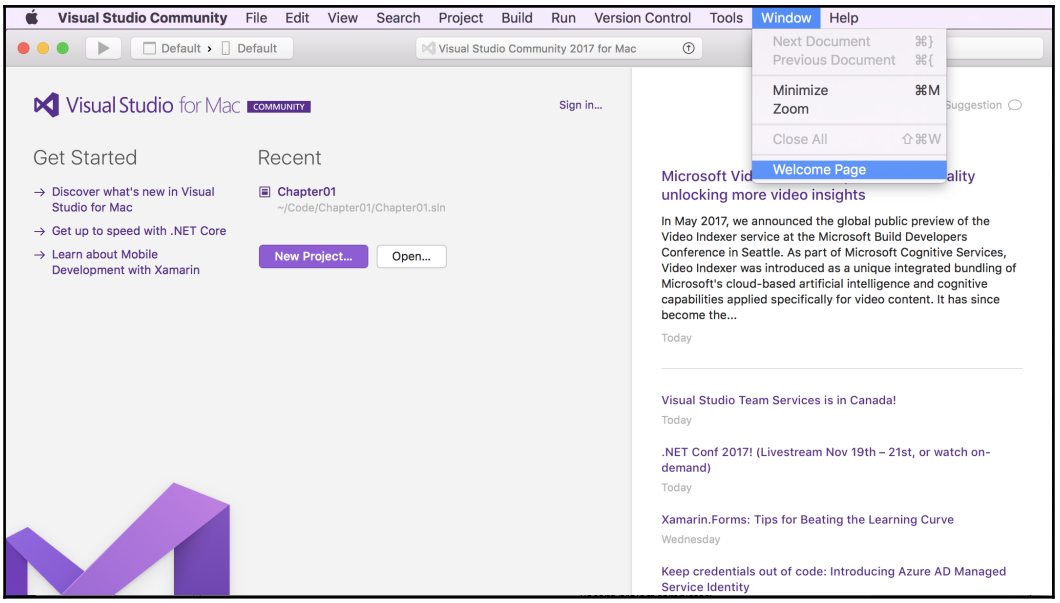

Install Microsoft .NET Core SDK - 2.0.0 (x64)
Welcome to the Microsoft .NET Core SDK - 2.0.0 (x64) Installer
Introduction
Destination Select
Installation Type
Installation
Summary
Microsoft
.NET
.NET Core SDK
.NET Core is a development platform that you can use to build command-line applications, microservices and modern websites.It is open source, cross-platform, and supported by Microsoft. We hope you enjoy it!
Learn more about .NET Core
Core Documentation
SDK Documentation
Privacy Statement
MIT License
Installation note
A command will be run during the install process that will improve project restore speed and enable offline access. It will take up to a minute to complete.
Go Back
Continue

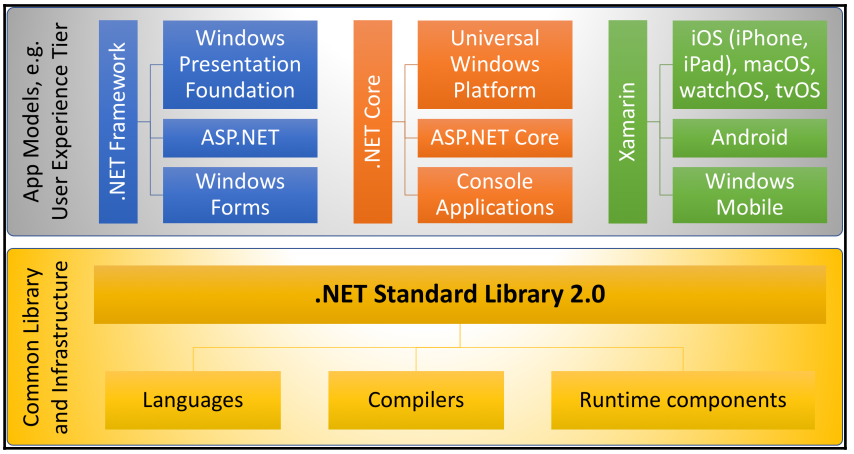

Terminal Shell Edit View Window Help
markjprice — -bash — 80×35
==> Installing dependencies for node: icu4c
==> Installing node dependency: icu4c
==> Downloading https://homebrew.bintray.com/bottles/icu4c-59.1.sierra.bottle.ta
==> Downloading from https://akamai.bintray.com/5d/5d35bdb7234e637e8a48ecb961780
100.0%
==> Pouring icu4c-59.1.sierra.bottle.tar.gz
==> Caveats
This formula is keg-only, which means it was not symlinked into /usr/local,
because macOS provides libicucore.dylib (but nothing else).
If you need to have this software first in your PATH run:
echo 'export PATH="/usr/local/opt/icu4c/bin:$PATH"' >> ~/.bash_profile
echo 'export PATH="/usr/local/opt/icu4c/sbin:$PATH"' >> ~/.bash_profile
For compilers to find this software you may need to set:
LDFLAGS: -L/usr/local/opt/icu4c/lib
CPPFLAGS: -I/usr/local/opt/icu4c/include
==> Summary
/usr/local/Cellar/icu4c/59.1: 246 files, 65.4MB
==> Installing node
==> Downloading https://homebrew.bintray.com/bottles/node-8.4.0.sierra.bottle.ta
==> Downloading from https://akamai.bintray.com/b1/b1dde78a6b4f5d17e2c7842e90550
100.0%
==> Pouring node-8.4.0.sierra.bottle.tar.gz
==> Caveats
Bash completion has been installed to:
/usr/local/etc/bash_completion.d
==> Summary
/usr/local/Cellar/node/8.4.0: 4,152 files, 47.3MB
Marks-MacBook-Pro-13:~ markjprice$ node -v
v8.4.0
Marks-MacBook-Pro-13:~ markjprice$ npm -v
5.3.0
Marks-MacBook-Pro-13:~ markjprice$

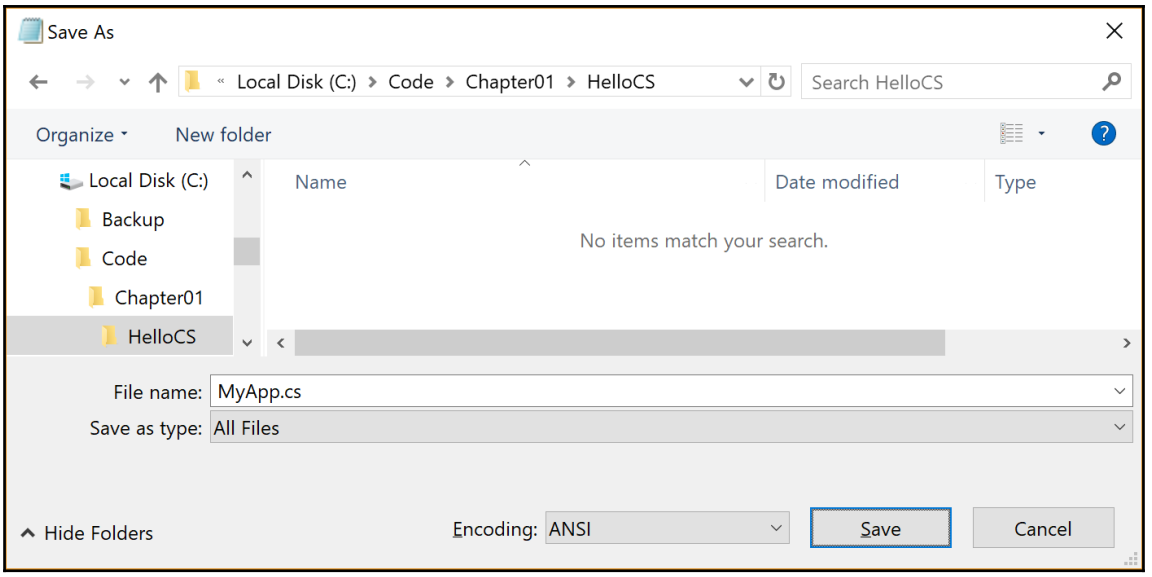

Code File Edit Selection View Go Window Help
Extension: C#
EXTENSIONS
@sort:installs
C# 1.7.0 1.5M ★4
C# for Visual Studio Code (powered by Omni...
Microsoft
Install
Python 0.5.9 1.4M ★4.5
Linting, Debugging (multi-threaded, remote), ...
Don Jayamanne
Install
vscode-icons 7.3.0 1.2M ★5
Icons for Visual Studio Code
Roberto Huertas
Install
Debugger for Chrome 2.6.0 1.2M ★4.5
Debug your JavaScript code in the Chrome br...
Microsoft
Install
C/C++ 0.10.2 1M ★3.5
Complete C/C++ language support, including ...
Microsoft
Install
ESLint 1.2.7 736K ★4.5
Integrates ESLint into VS Code.
Dirk Baeumer
Install
beautify 0.8.9 724K ★4.5
Beautify code in place for VS Code
HookyQR
Install
Go 0.6.55 546K ★4.5
Extension: C#
C#
ms-vscode.csharp
Microsoft
1586736
License
C# for Visual Studio Code (powered by OmniSharp).
Install
Details Contributions Changelog Dependencies
C# for Visual Studio Code (powered by OmniSharp)
Master
Release
build passing
build passing
Welcome to the C# extension for Visual Studio Code! This preview provides the following features inside VS Code:
Lightweight development tools for .NET Core.
Great C# editing support, including Syntax Highlighting, IntelliSense, Go to Definition, Find All References, etc.
Debugging support for .NET Core (CoreCLR). NOTE: Mono and Desktop CLR
0 0

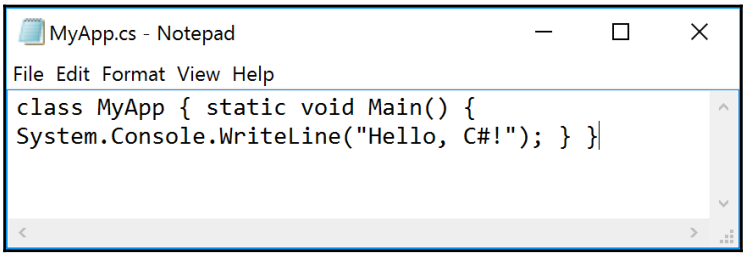

App Store Edit Store Window Help
Featured
Top Charts
Categories
Purchased
Updates
xcode
Search Results for “xcode”
Sort By: Relevance
Xcode
Developer Tools
38 Ratings
Essentials
OPEN
Code School for Xcode ...
Developer Tools
GET
App School for Xcode a...
Developer Tools
GET
Course for Xcode 7 Lite
Developer Tools
GET
IDAssetManager Lite for...
Developer Tools
GET
Swiftify for Xcode
Developer Tools
GET
Code School for Xcode ...
Developer Tools
£9.99
Project Duplicator for X...
Developer Tools
6 Ratings
£3.99
App Icon Gear - image ...
Developer Tools
GET
LanguageTranslator for ...
Developer Tools
GET
EnumHelper for Xcode
Developer Tools
GET
AssetsGenerator for Xc...
Developer Tools
£1.99

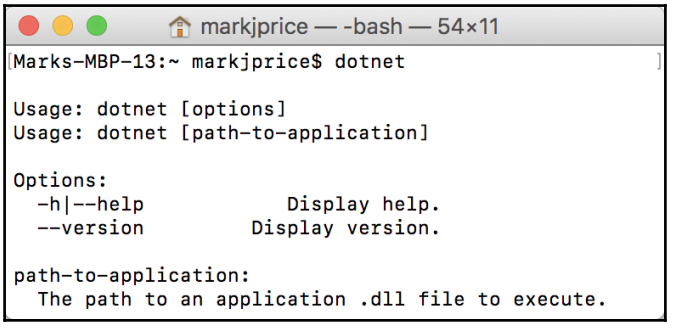

Visual Studio for Mac – Installation
What would you like to install?
Visual Studio for Mac
7.1.5
Platforms
Android + Xamarin.Forms
Updates available
iOS + Xamarin.Forms
Installed – 11.0.0
macOS
Installed – 3.6.0
.NET Core
Installed – 2.0.0
Tools
Workbooks & Inspector
Installed – 1.2.2
Visual Studio for Mac is a full featured IDE, natively designed for the Mac
Includes Profiler 1.5.5 and Mono Framework 5.2.0
Some software downloaded with Visual Studio is licensed separately as set out in 3rd Party Notices or its accompanying license. By continuing you also agree to those licenses.
Download Size: 615 MB
Cancel
Install

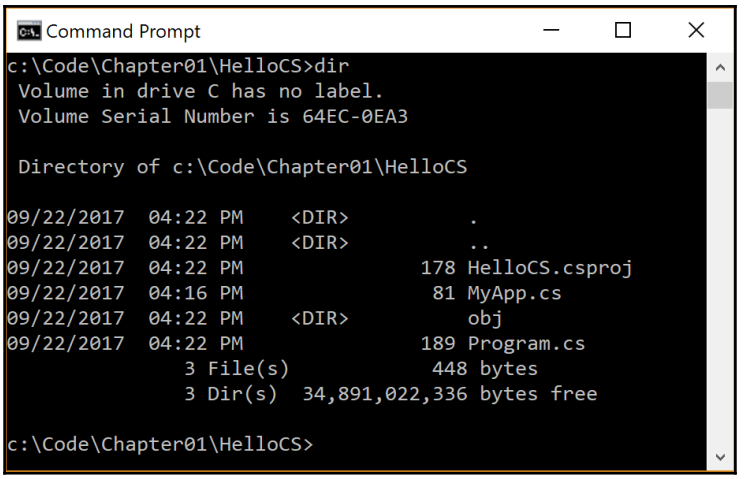

Visual Studio Community
File
Edit
View
Search
Project
Build
Run
Version Control
Tools
Window
Help
Next Document ⌘}
Previous Document ⌘{
Minimize ⌘M
Zoom
Close All ⇧⌘W
Welcome Page
Default
Default
Visual Studio Community 2017 for Mac
Visual Studio for Mac
COMMUNITY
Sign in...
Get Started
Discover what's new in Visual Studio for Mac
Get up to speed with .NET Core
Learn about Mobile Development with Xamarin
Recent
Chapter01
~/Code/Chapter01/Chapter01.sln
New Project...
Open...
Suggestion
unlocking more video insights
In May 2017, we announced the global public preview of the Video Indexer service at the Microsoft Build Developers Conference in Seattle. As part of Microsoft Cognitive Services, Video Indexer was introduced as a unique integrated bundling of Microsoft's cloud-based artificial intelligence and cognitive capabilities applied specifically for video content. It has since become the...
Today
Visual Studio Team Services is in Canada!
Today
.NET Conf 2017! (Livestream Nov 19th – 21st, or watch on-demand)
Today
Xamarin.Forms: Tips for Beating the Learning Curve
Wednesday
Keep credentials out of code: Introducing Azure AD Managed Service Identity

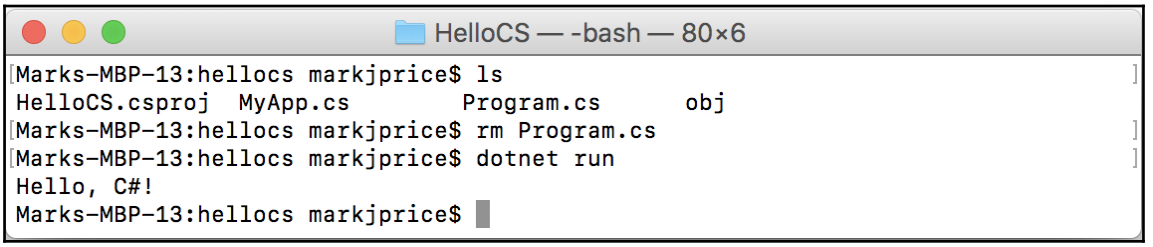

App Models, e.g. User Experience Tier
.NET Framework
Windows Presentation Foundation
ASP.NET
Windows Forms
.NET Core
Universal Windows Platform
ASP.NET Core
Console Applications
Xamarin
iOS (iPhone, iPad), macOS, watchOS, tvOS
Android
Windows Mobile
Common Library and Infrastructure
.NET Standard Library 2.0
Languages
Compilers
Runtime components

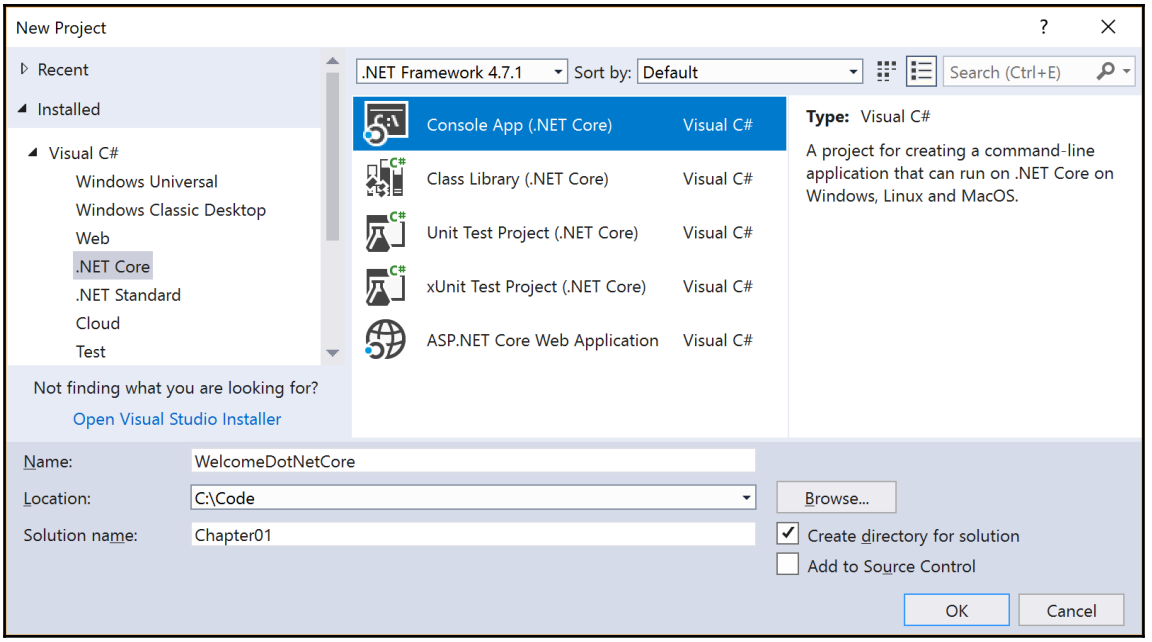

Save As
Local Disk (C:) › Code › Chapter01 › HelloCS
Search HelloCS
Organize
New folder
Local Disk (C:)
Backup
Code
Chapter01
HelloCS
Name
Date modified
Type
No items match your search.
File name: MyApp.cs
Save as type: All Files
Hide Folders
Encoding: ANSI
Save
Cancel

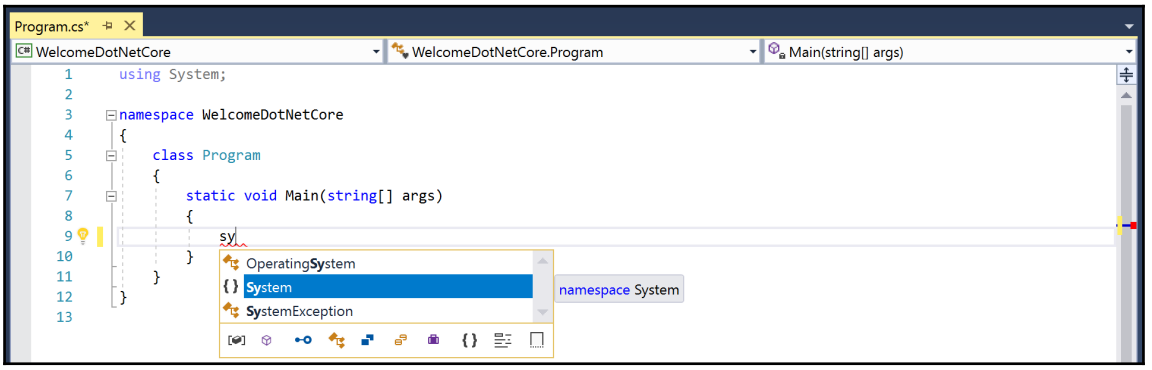

MyApp.cs - Notepad
File Edit Format View Help
class MyApp { static void Main() {
System.Console.WriteLine("Hello, C#!"); } }

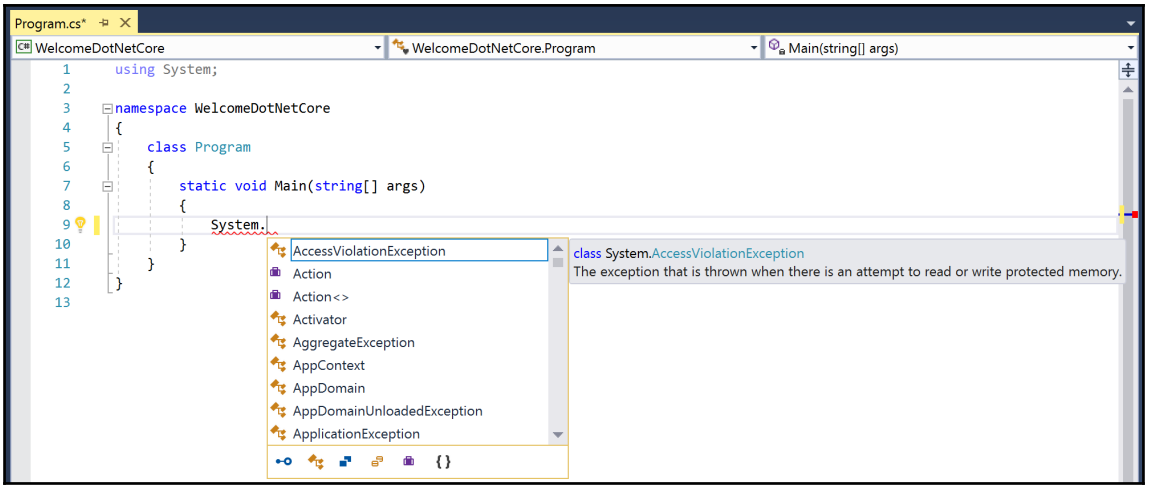

markjprice — -bash — 54×11
Marks-MBP-13:~ markjprice$ dotnet
Usage: dotnet [options]
Usage: dotnet [path-to-application]
Options:
-h|--help Display help.
--version Display version.
path-to-application:
The path to an application .dll file to execute.

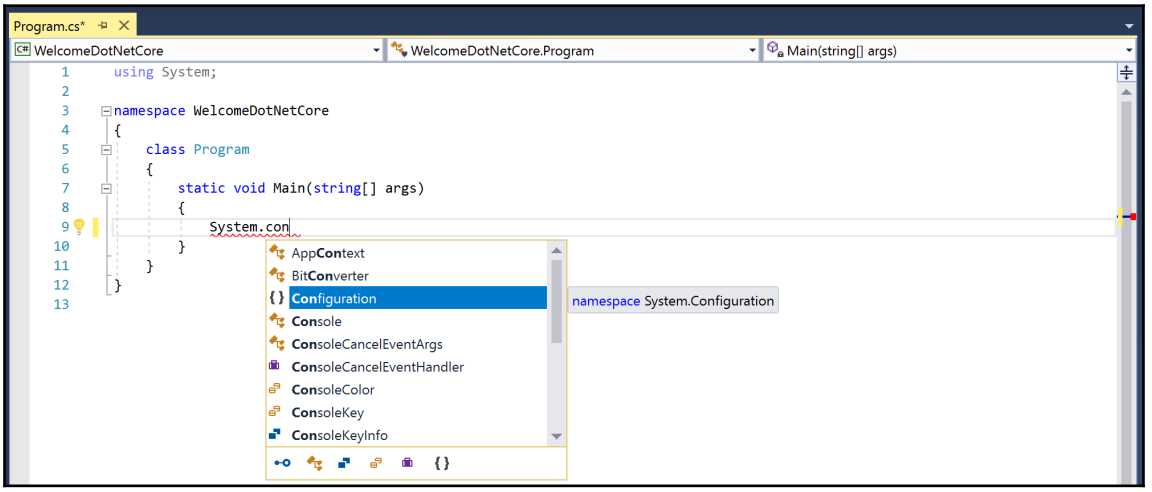

Command Prompt
c:\Code\Chapter01\HelloCS>dir
Volume in drive C has no label.
Volume Serial Number is 64EC-0EA3
Directory of c:\Code\Chapter01\HelloCS
09/22/2017 04:22 PM <DIR> .
09/22/2017 04:22 PM <DIR> ..
09/22/2017 04:22 PM 178 HelloCS.csproj
09/22/2017 04:16 PM 81 MyApp.cs
09/22/2017 04:22 PM <DIR> obj
09/22/2017 04:22 PM 189 Program.cs
3 File(s) 448 bytes
3 Dir(s) 34,891,022,336 bytes free
c:\Code\Chapter01\HelloCS>

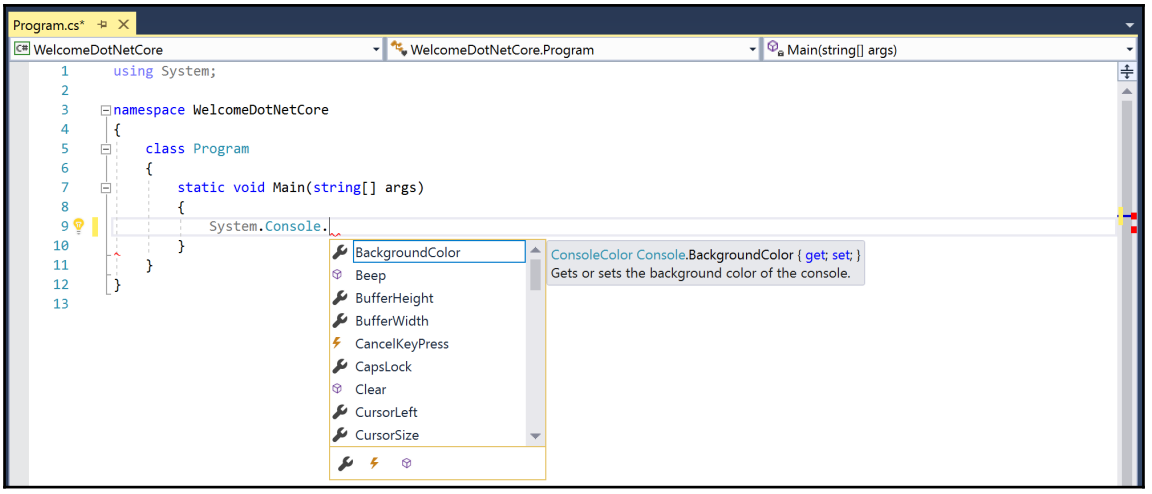

HelloCS — -bash — 80×6
Marks-MBP-13:hellocs markjprice$ ls
HelloCS.csproj MyApp.cs Program.cs obj
Marks-MBP-13:hellocs markjprice$ rm Program.cs
Marks-MBP-13:hellocs markjprice$ dotnet run
Hello, C#!
Marks-MBP-13:hellocs markjprice$

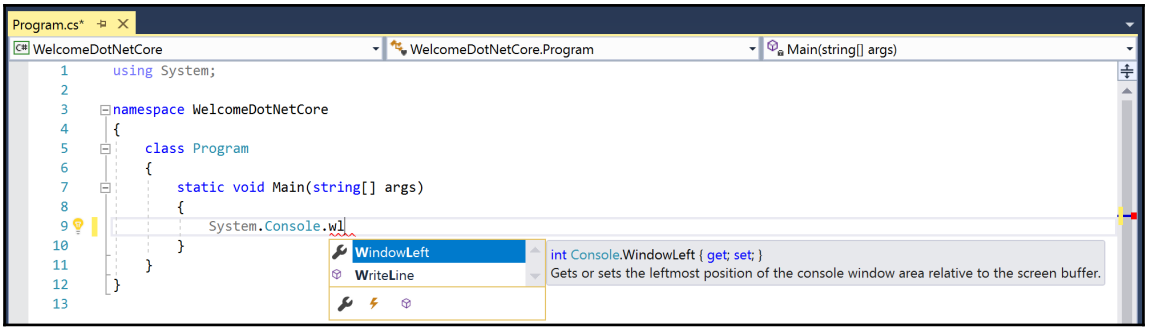

New Project
Recent
Installed
Visual C#
Windows Universal
Windows Classic Desktop
Web
.NET Core
.NET Standard
Cloud
Test
Not finding what you are looking for?
Open Visual Studio Installer
.NET Framework 4.7.1
Sort by: Default
Search (Ctrl+E)
Console App (.NET Core) Visual C#
Class Library (.NET Core) Visual C#
Unit Test Project (.NET Core) Visual C#
xUnit Test Project (.NET Core) Visual C#
ASP.NET Core Web Application Visual C#
Type: Visual C#
A project for creating a command-line application that can run on .NET Core on Windows, Linux and MacOS.
Name: WelcomeDotNetCore
Location: C:\Code
Solution name: Chapter01
Browse...
Create directory for solution
Add to Source Control
OK
Cancel

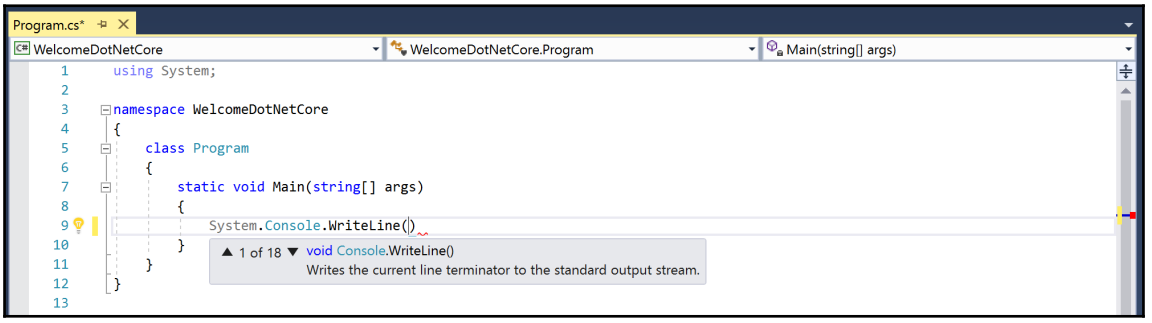

Program.cs*
WelcomeDotNetCore
WelcomeDotNetCore.Program
Main(string[] args)
using System;
namespace WelcomeDotNetCore
{
class Program
{
static void Main(string[] args)
{
sy
}
}
}
OperatingSystem
System
SystemException
namespace System

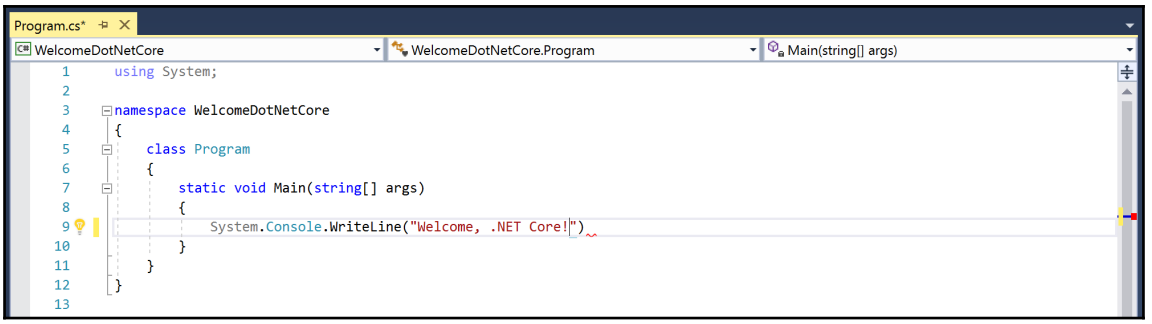

Program.cs*
WelcomeDotNetCore
WelcomeDotNetCore.Program
Main(string[] args)
using System;
namespace WelcomeDotNetCore
{
class Program
{
static void Main(string[] args)
{
System.
}
}
}
AccessViolationException
Action
Action<>
Activator
AggregateException
AppContext
AppDomain
AppDomainUnloadedException
ApplicationException
class System.AccessViolationException
The exception that is thrown when there is an attempt to read or write protected memory.


Program.cs*
WelcomeDotNetCore
WelcomeDotNetCore.Program
Main(string[] args)
using System;
namespace WelcomeDotNetCore
{
class Program
{
static void Main(string[] args)
{
System.con
}
}
}
AppContext
BitConverter
Configuration
Console
ConsoleCancelEventArgs
ConsoleCancelEventHandler
ConsoleColor
ConsoleKey
ConsoleKeyInfo
namespace System.Configuration

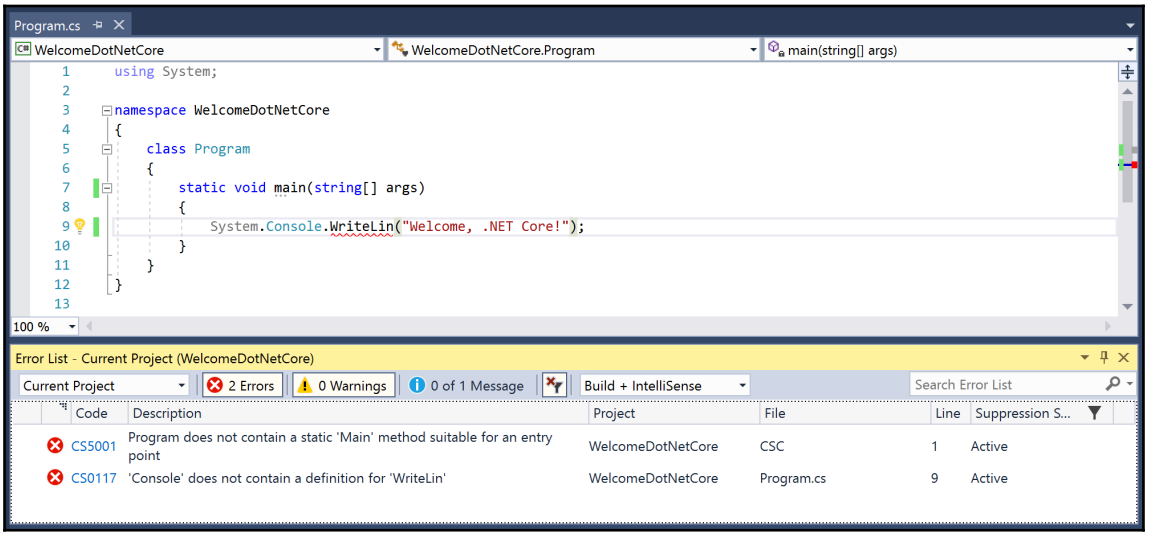

Program.cs*
WelcomeDotNetCore
WelcomeDotNetCore.Program
Main(string[] args)
using System;
namespace WelcomeDotNetCore
{
class Program
{
static void Main(string[] args)
{
System.Console.
}
}
}
BackgroundColor
Beep
BufferHeight
BufferWidth
CancelKeyPress
CapsLock
Clear
CursorLeft
CursorSize
ConsoleColor Console.BackgroundColor { get; set; }
Gets or sets the background color of the console.

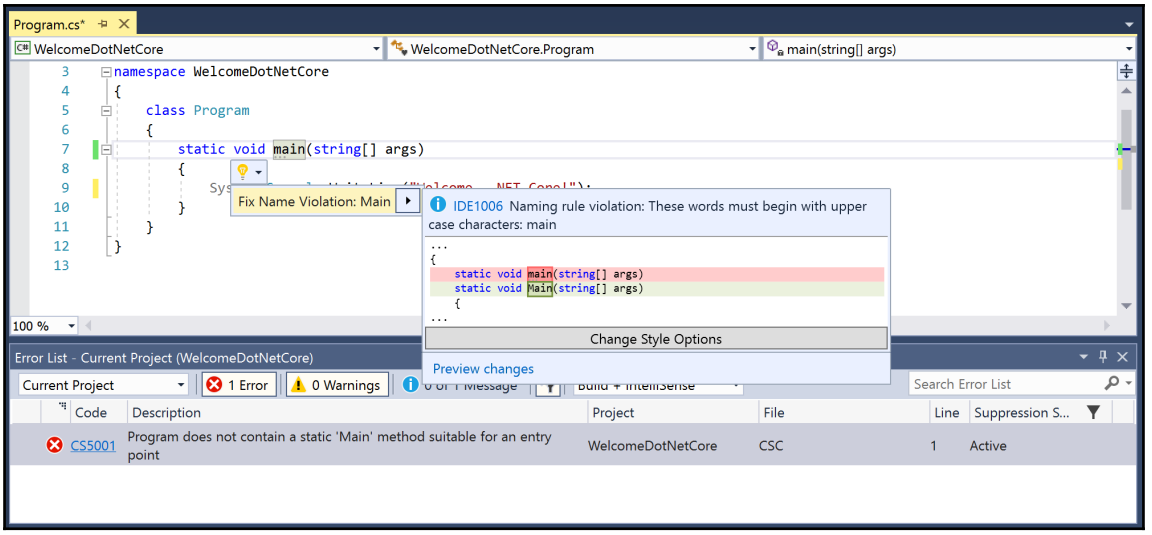

Program.cs*
WelcomeDotNetCore
WelcomeDotNetCore.Program
Main(string[] args)
using System;
namespace WelcomeDotNetCore
{
class Program
{
static void Main(string[] args)
{
System.Console.Wl
}
}
}
WindowLeft
WriteLine
int Console.WindowLeft { get; set; }
Gets or sets the leftmost position of the console window area relative to the screen buffer.

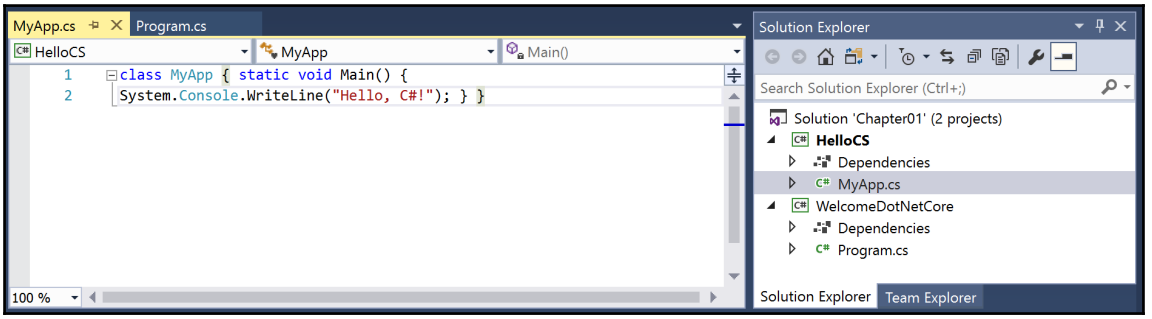

Program.cs*
WelcomeDotNetCore
WelcomeDotNetCore.Program
Main(string[] args)
using System;
namespace WelcomeDotNetCore
{
class Program
{
static void Main(string[] args)
{
System.Console.WriteLine()
}
}
}
▲ 1 of 18 ▼ void Console.WriteLine()
Writes the current line terminator to the standard output stream.

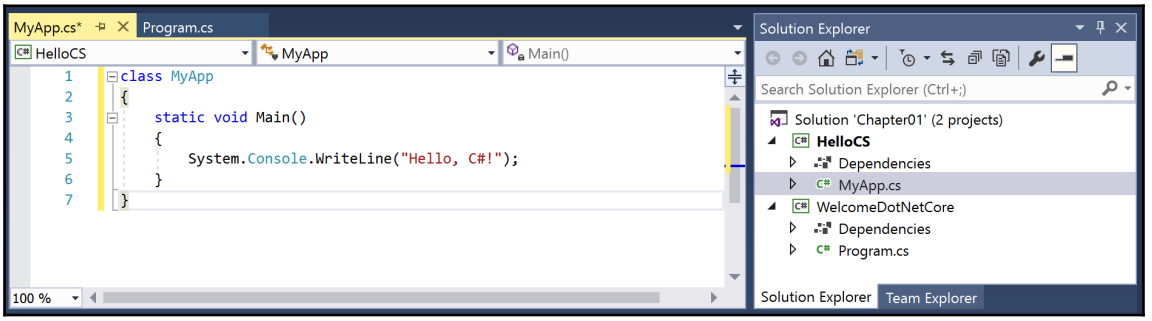

Program.cs*
WelcomeDotNetCore
WelcomeDotNetCore.Program
Main(string[] args)
using System;
namespace WelcomeDotNetCore
{
class Program
{
static void Main(string[] args)
{
System.Console.WriteLine("Welcome, .NET Core!")
}
}
}

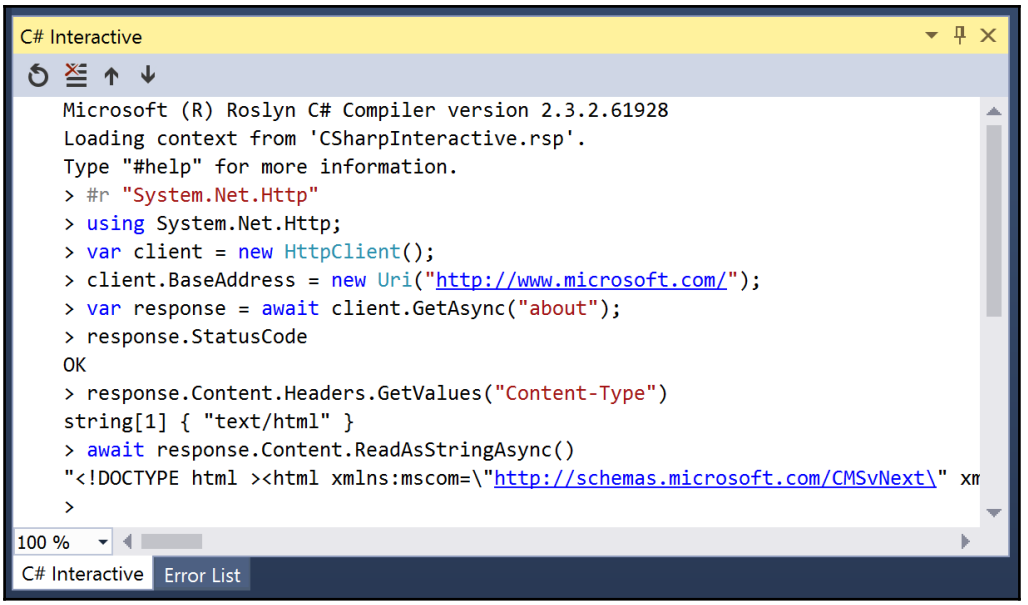

C:\Windows\system32\cmd.exe
Welcome, .NET Core!
Press any key to continue . . .

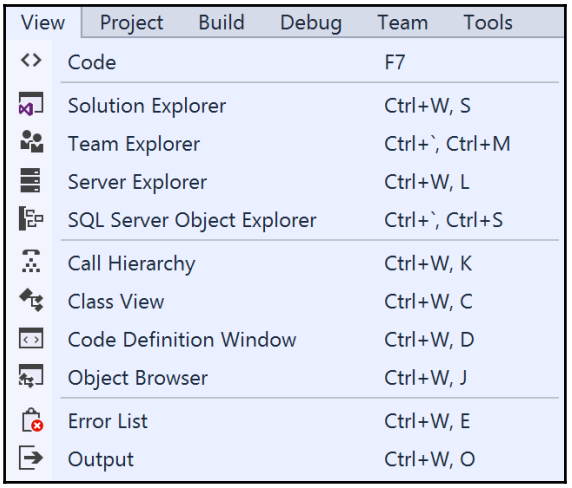

Program.cs
WelcomeDotNetCore
WelcomeDotNetCore.Program
main(string[] args)
using System;
namespace WelcomeDotNetCore
{
class Program
{
static void main(string[] args)
{
System.Console.WriteLin("Welcome, .NET Core!");
}
}
}
100 %
Error List - Current Project (WelcomeDotNetCore)
Current Project
2 Errors
0 Warnings
0 of 1 Message
Build + IntelliSense
Search Error List
Code
Description
Project
File
Line
Suppression S...
CS5001
Program does not contain a static 'Main' method suitable for an entry point
WelcomeDotNetCore
CSC
1
Active
CS0117
'Console' does not contain a definition for 'WriteLin'
WelcomeDotNetCore
Program.cs
9
Active

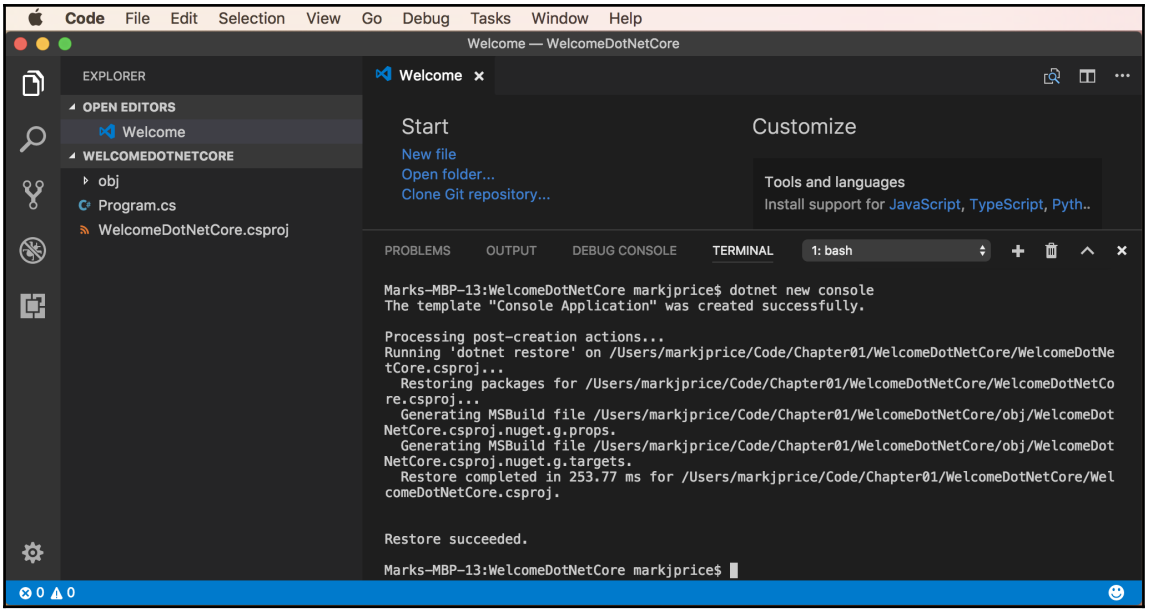

Program.cs*
WelcomeDotNetCore
WelcomeDotNetCore.Program
main(string[] args)
namespace WelcomeDotNetCore
{
class Program
{
static void main(string[] args)
{
}
}
}
Fix Name Violation: Main
IDE1006 Naming rule violation: These words must begin with upper case characters: main
static void main(string[] args)
static void Main(string[] args)
Change Style Options
Preview changes
100 %
Error List - Current Project (WelcomeDotNetCore)
Current Project
1 Error
0 Warnings
Search Error List
Code
Description
Project
File
Line
Suppression S...
CS5001
Program does not contain a static 'Main' method suitable for an entry point
WelcomeDotNetCore
CSC
1
Active

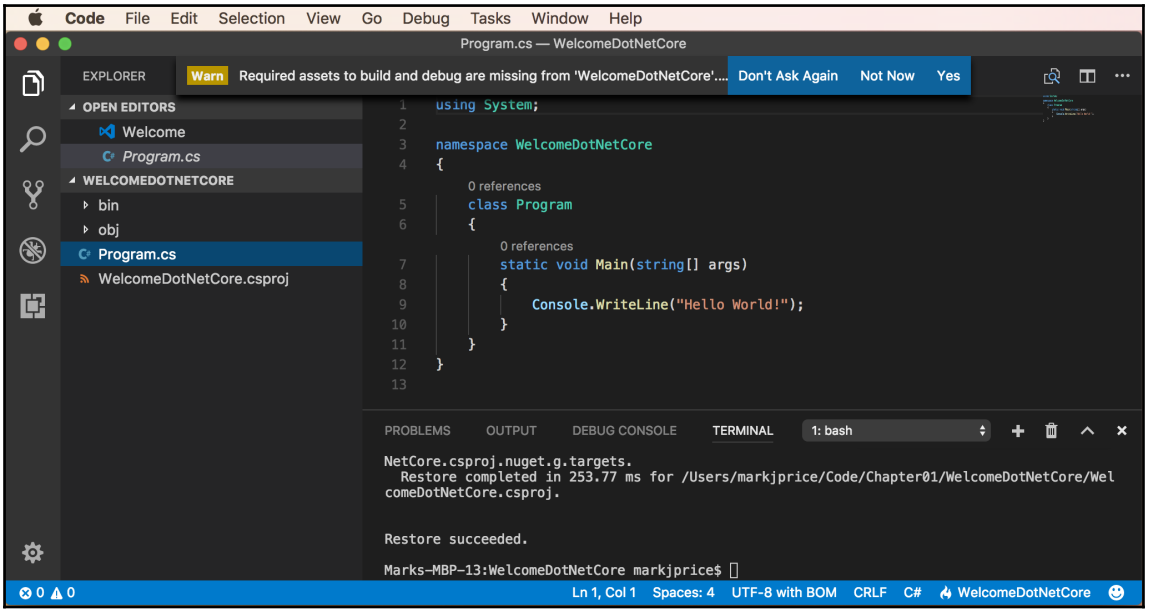

MyApp.cs
Program.cs
HelloCS
MyApp
Main()
class MyApp { static void Main() {
System.Console.WriteLine("Hello, C#!"); } }
100 %
Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Chapter01' (2 projects)
HelloCS
Dependencies
MyApp.cs
WelcomeDotNetCore
Dependencies
Program.cs
Solution Explorer
Team Explorer

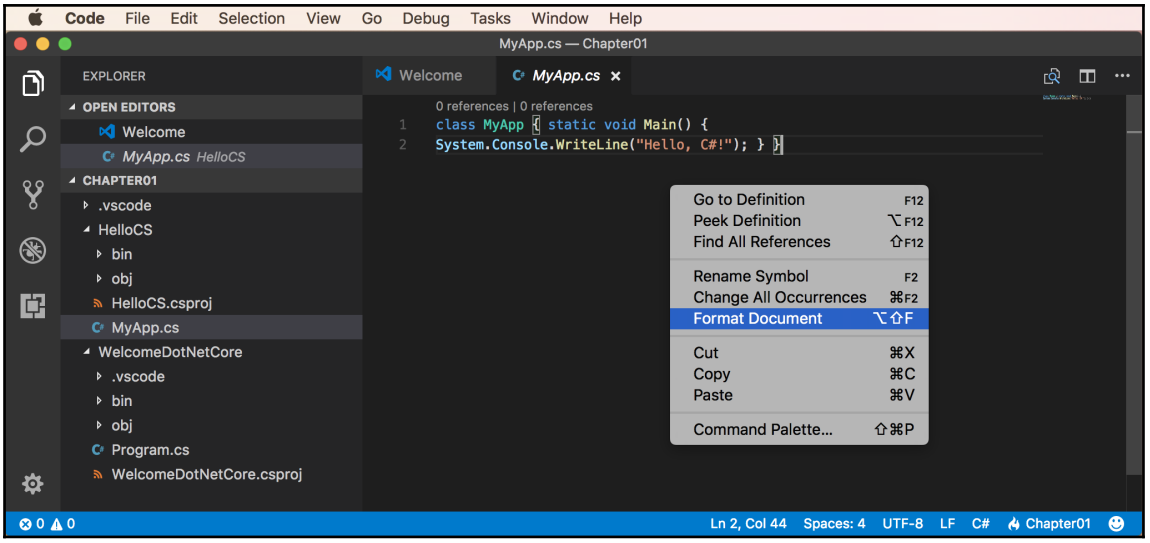

MyApp.cs*
Program.cs
HelloCS
MyApp
Main()
class MyApp
{
static void Main()
{
System.Console.WriteLine("Hello, C#!");
}
}
100 %
Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Chapter01' (2 projects)
HelloCS
Dependencies
MyApp.cs
WelcomeDotNetCore
Dependencies
Program.cs
Solution Explorer
Team Explorer

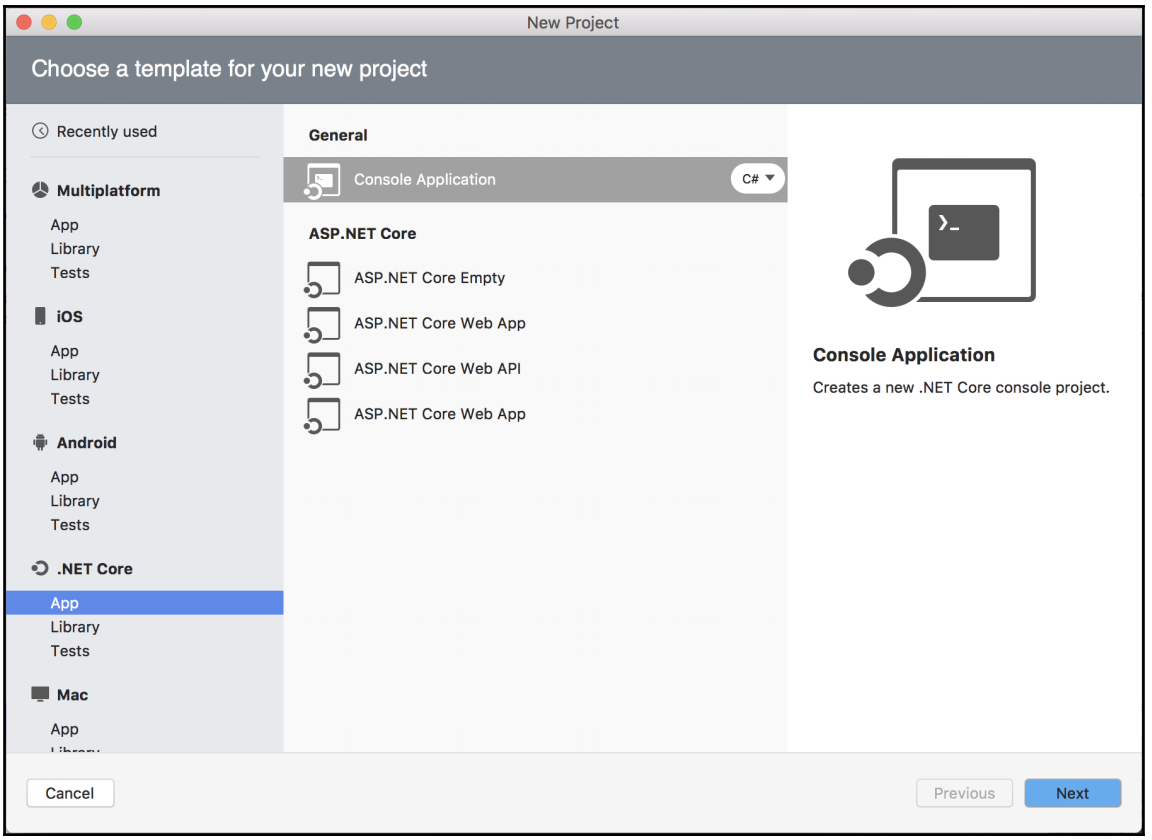

C# Interactive
Microsoft (R) Roslyn C# Compiler version 2.3.2.61928
Loading context from 'CSharpInteractive.rsp'.
Type "#help" for more information.
> #r "System.Net.Http"
> using System.Net.Http;
> var client = new HttpClient();
> client.BaseAddress = new Uri("http://www.microsoft.com/");
> var response = await client.GetAsync("about");
> response.StatusCode
OK
> response.Content.Headers.GetValues("Content-Type")
string[1] { "text/html" }
> await response.Content.ReadAsStringAsync()
"<!DOCTYPE html ><html xmlns:mscom=\"http://schemas.microsoft.com/CMSvNext\" xm
>
100 %
C# Interactive
Error List

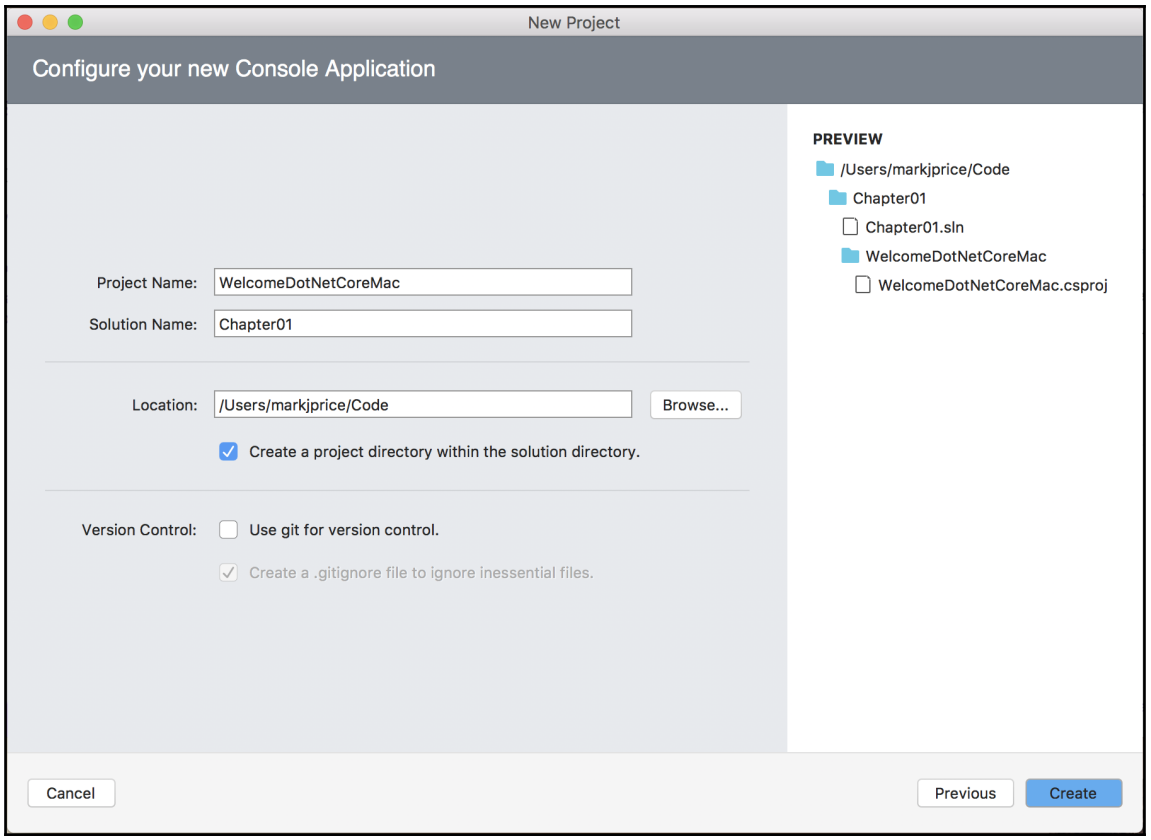

View
Project
Build
Debug
Team
Tools
Code F7
Solution Explorer Ctrl+W, S
Team Explorer Ctrl+`, Ctrl+M
Server Explorer Ctrl+W, L
SQL Server Object Explorer Ctrl+`, Ctrl+S
Call Hierarchy Ctrl+W, K
Class View Ctrl+W, C
Code Definition Window Ctrl+W, D
Object Browser Ctrl+W, J
Error List Ctrl+W, E
Output Ctrl+W, O

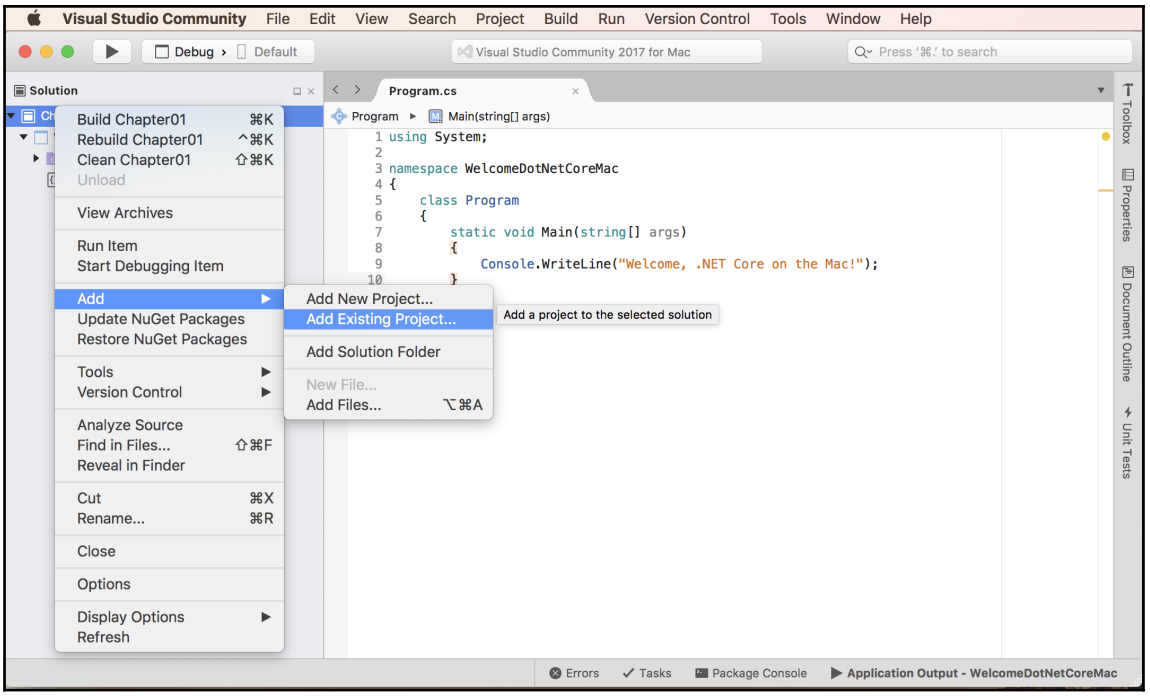

Code File Edit Selection View Go Debug Tasks Window Help
Welcome — WelcomeDotNetCore
EXPLORER
OPEN EDITORS
Welcome
WELCOMEDOTNETCORE
obj
Program.cs
WelcomeDotNetCore.csproj
Welcome
Start
New file
Open folder...
Clone Git repository...
Customize
Tools and languages
Install support for JavaScript, TypeScript, Pyth..
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: bash
Marks-MBP-13:WelcomeDotNetCore markjprice$ dotnet new console
The template "Console Application" was created successfully.
Processing post-creation actions...
Running 'dotnet restore' on /Users/markjprice/Code/Chapter01/WelcomeDotNetCore/WelcomeDotNetCore.csproj...
Restoring packages for /Users/markjprice/Code/Chapter01/WelcomeDotNetCore/WelcomeDotNetCore.csproj...
Generating MSBuild file /Users/markjprice/Code/Chapter01/WelcomeDotNetCore/obj/WelcomeDotNetCore.csproj.nuget.g.props.
Generating MSBuild file /Users/markjprice/Code/Chapter01/WelcomeDotNetCore/obj/WelcomeDotNetCore.csproj.nuget.g.targets.
Restore completed in 253.77 ms for /Users/markjprice/Code/Chapter01/WelcomeDotNetCore/WelcomeDotNetCore.csproj.
Restore succeeded.
Marks-MBP-13:WelcomeDotNetCore markjprice$
0 0

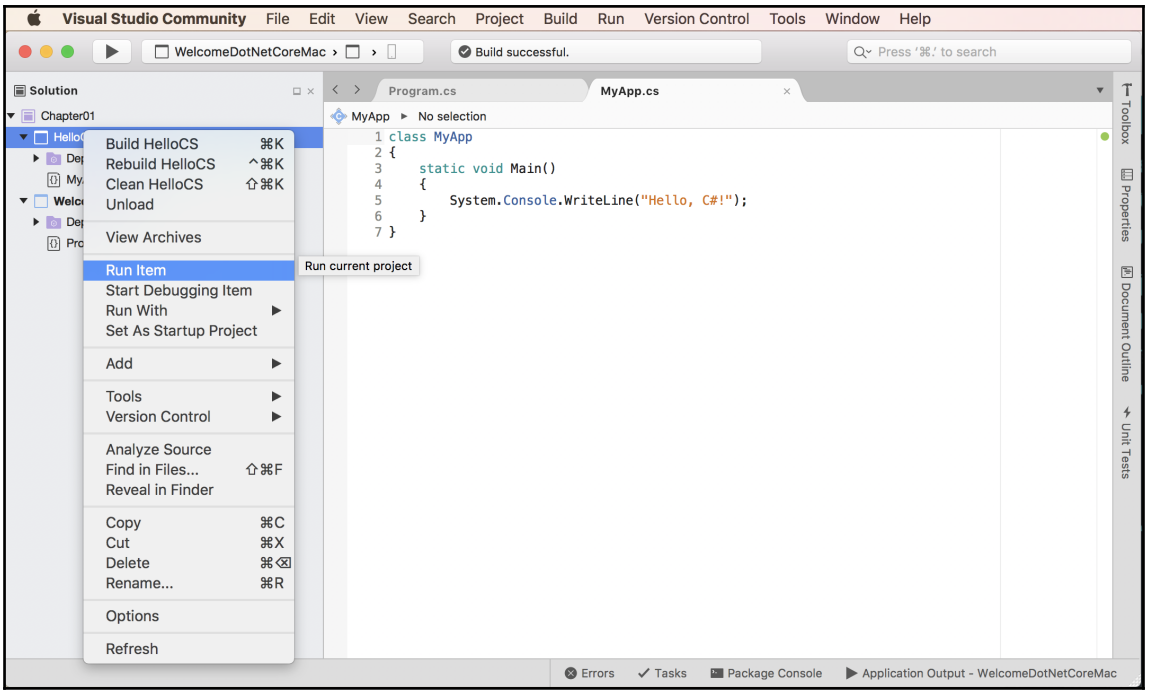

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — WelcomeDotNetCore
EXPLORER
Warn Required assets to build and debug are missing from 'WelcomeDotNetCore'.... Don't Ask Again Not Now Yes
OPEN EDITORS
Welcome
Program.cs
WELCOMEDOTNETCORE
bin
obj
Program.cs
WelcomeDotNetCore.csproj
using System;
namespace WelcomeDotNetCore
{
0 references
class Program
{
0 references
static void Main(string[] args)
{
Console.WriteLine("Hello World!");
}
}
}
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: bash
NetCore.csproj.nuget.g.targets.
Restore completed in 253.77 ms for /Users/markjprice/Code/Chapter01/WelcomeDotNetCore/WelcomeDotNetCore.csproj.
Restore succeeded.
Marks-MBP-13:WelcomeDotNetCore markjprice$
0 0
Ln 1, Col 1 Spaces: 4 UTF-8 with BOM CRLF C# WelcomeDotNetCore

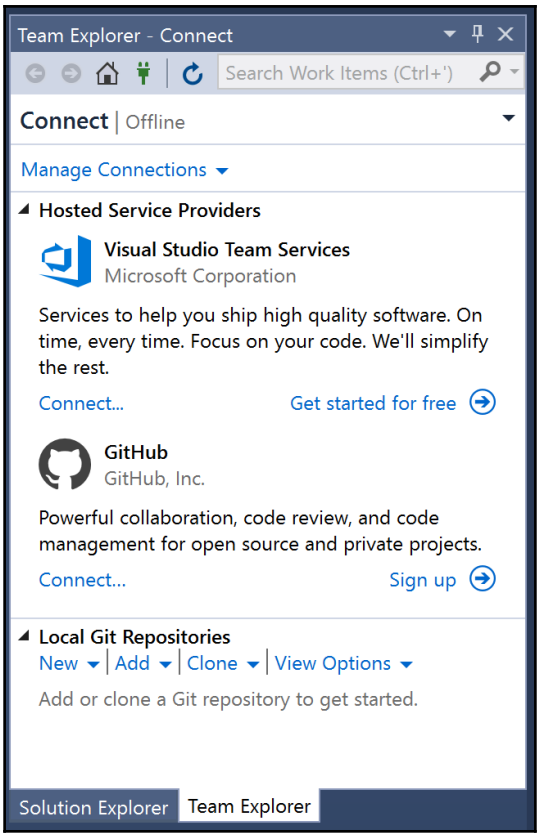

Code File Edit Selection View Go Debug Tasks Window Help
MyApp.cs — Chapter01
EXPLORER
OPEN EDITORS
Welcome
MyApp.cs HelloCS
CHAPTER01
.vscode
HelloCS
bin
obj
HelloCS.csproj
MyApp.cs
WelcomeDotNetCore
.vscode
bin
obj
Program.cs
WelcomeDotNetCore.csproj
Welcome
MyApp.cs
0 references | 0 references
1 class MyApp { static void Main() {
2 System.Console.WriteLine("Hello, C#!"); } }
Go to Definition F12
Peek Definition ⌥F12
Find All References ⇧F12
Rename Symbol F2
Change All Occurrences ⌘F2
Format Document ⌥⇧F
Cut ⌘X
Copy ⌘C
Paste ⌘V
Command Palette... ⇧⌘P
0 0
Ln 2, Col 44 Spaces: 4 UTF-8 LF C# Chapter01

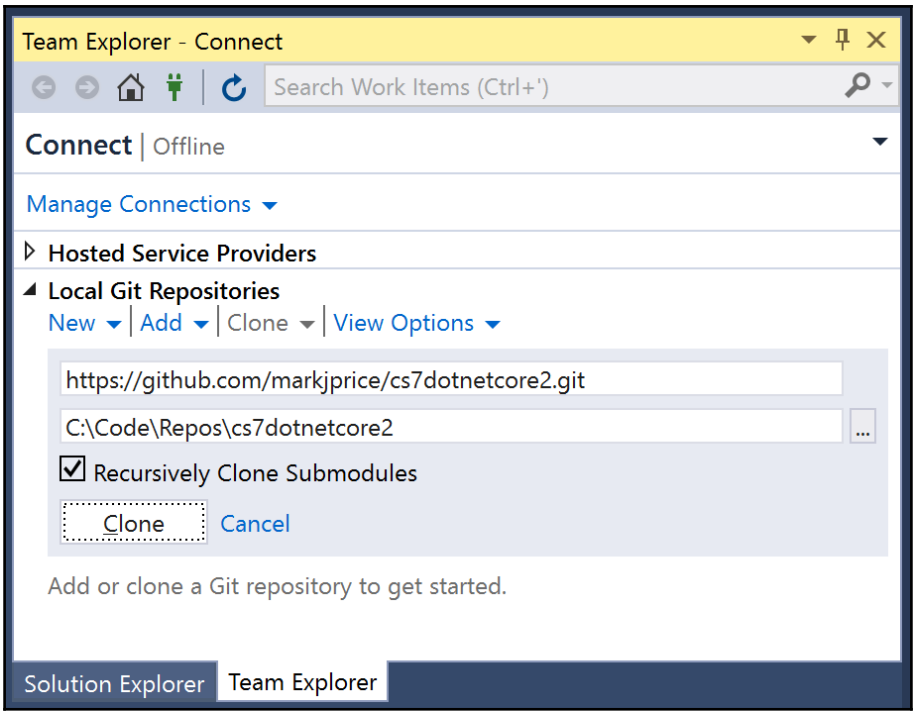

New Project
Choose a template for your new project
Recently used
Multiplatform
App
Library
Tests
iOS
App
Library
Tests
Android
App
Library
Tests
.NET Core
App
Library
Tests
Mac
App
General
Console Application
C#
ASP.NET Core
ASP.NET Core Empty
ASP.NET Core Web App
ASP.NET Core Web API
ASP.NET Core Web App
Console Application
Creates a new .NET Core console project.
Cancel
Previous
Next

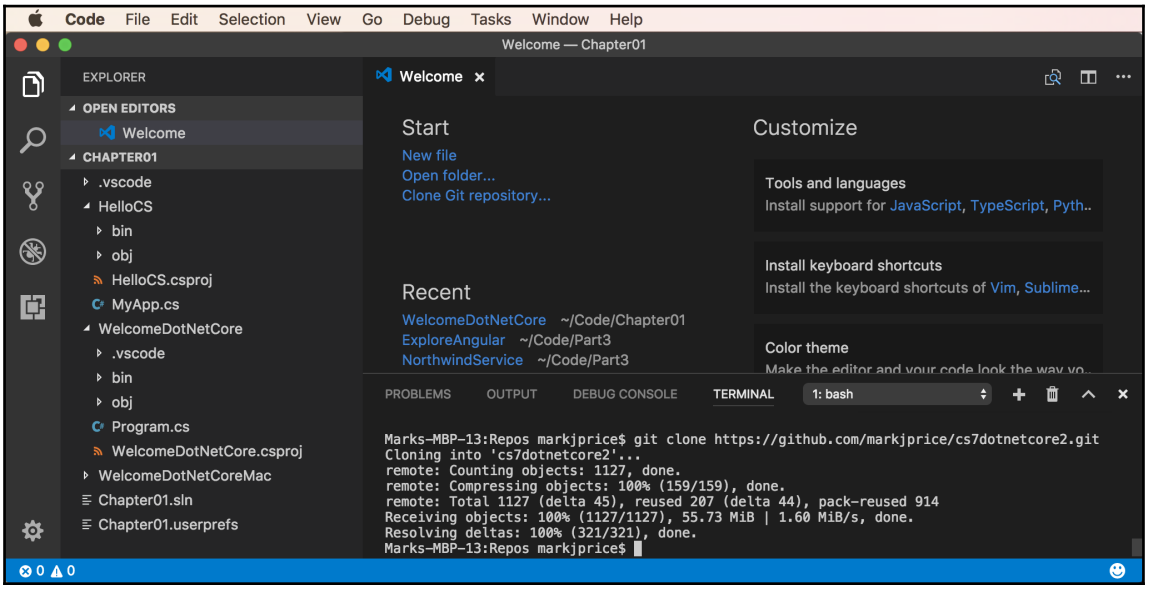

New Project
Configure your new Console Application
PREVIEW
/Users/markjprice/Code
Chapter01
Chapter01.sln
WelcomeDotNetCoreMac
WelcomeDotNetCoreMac.csproj
Project Name:
WelcomeDotNetCoreMac
Solution Name:
Chapter01
Location:
/Users/markjprice/Code
Browse...
Create a project directory within the solution directory.
Version Control:
Use git for version control.
Create a .gitignore file to ignore inessential files.
Cancel
Previous
Create


Visual Studio Community File Edit View Search Project Build Run Version Control Tools Window Help
Debug › Default
Visual Studio Community 2017 for Mac
Press '⌘.' to search
Solution
Program.cs
Program ▸ Main(string[] args)
using System;
namespace WelcomeDotNetCoreMac
{
class Program
{
static void Main(string[] args)
{
Console.WriteLine("Welcome, .NET Core on the Mac!");
}
}
Build Chapter01 ⌘K
Rebuild Chapter01 ^⌘K
Clean Chapter01 ⇧⌘K
Unload
View Archives
Run Item
Start Debugging Item
Add
Update NuGet Packages
Restore NuGet Packages
Tools
Version Control
Analyze Source
Find in Files... ⇧⌘F
Reveal in Finder
Cut ⌘X
Rename... ⌘R
Close
Options
Display Options
Refresh
Add New Project...
Add Existing Project...
Add Solution Folder
New File...
Add Files... ⌥⌘A
Add a project to the selected solution
Toolbox
Properties
Document Outline
Unit Tests
Errors
Tasks
Package Console
Application Output - WelcomeDotNetCoreMac

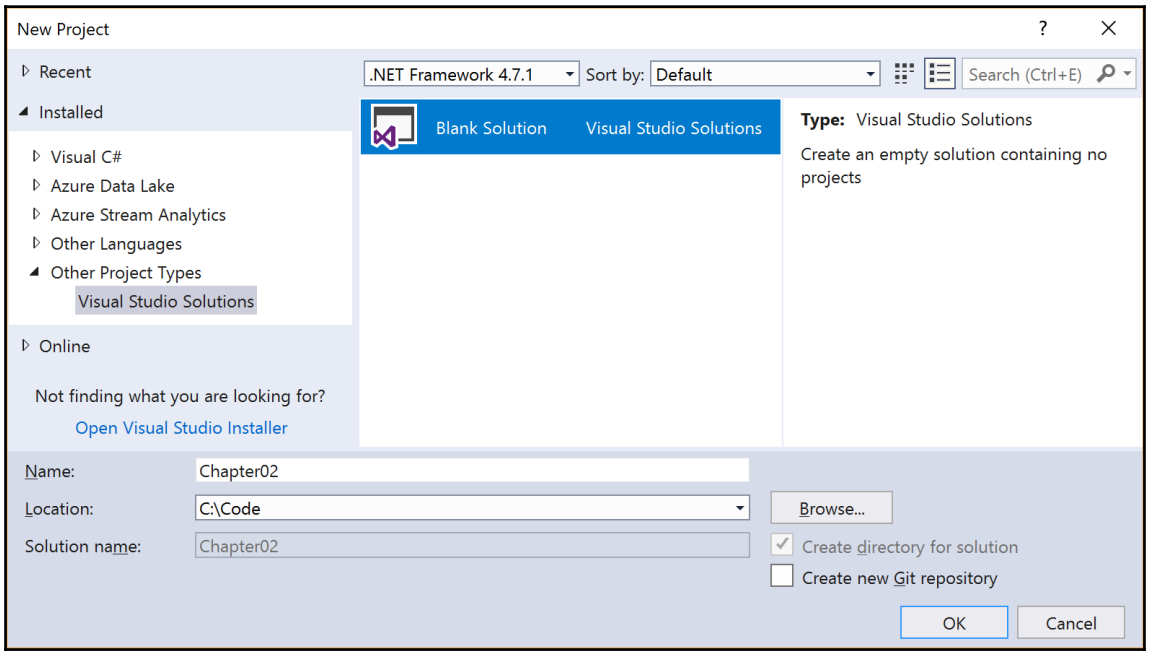

Visual Studio Community
File
Edit
View
Search
Project
Build
Run
Version Control
Tools
Window
Help
WelcomeDotNetCoreMac
Build successful.
Press '⌘.' to search
Solution
Chapter01
Program.cs
MyApp.cs
MyApp
No selection
1 class MyApp
2 {
3 static void Main()
4 {
5 System.Console.WriteLine("Hello, C#!");
6 }
7 }
Build HelloCS ⌘K
Rebuild HelloCS ^⌘K
Clean HelloCS ⇧⌘K
Unload
View Archives
Run Item
Start Debugging Item
Run With
Set As Startup Project
Add
Tools
Version Control
Analyze Source
Find in Files... ⇧⌘F
Reveal in Finder
Copy ⌘C
Cut ⌘X
Delete ⌘⌫
Rename... ⌘R
Options
Refresh
Run current project
Toolbox
Properties
Document Outline
Unit Tests
Errors
Tasks
Package Console
Application Output - WelcomeDotNetCoreMac

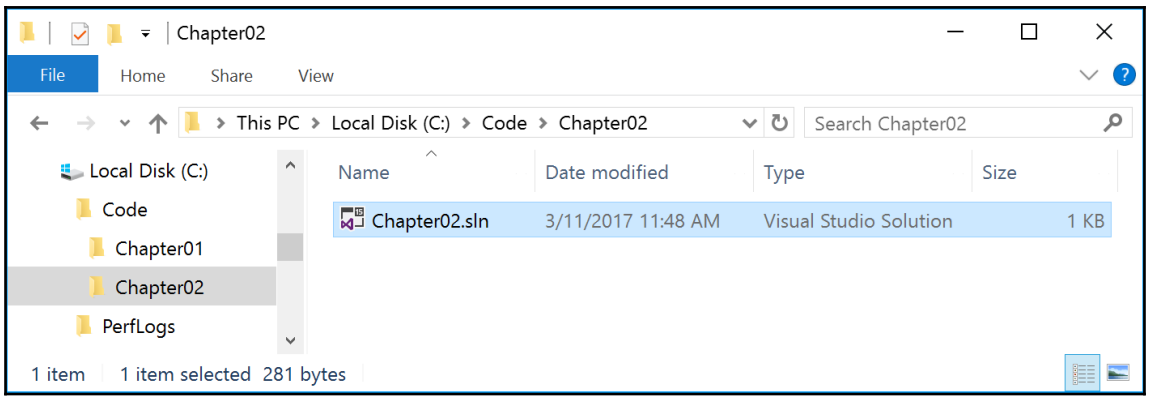

Team Explorer - Connect
Search Work Items (Ctrl+')
Connect | Offline
Manage Connections
Hosted Service Providers
Visual Studio Team Services
Microsoft Corporation
Services to help you ship high quality software. On time, every time. Focus on your code. We'll simplify the rest.
Connect...
Get started for free
GitHub
GitHub, Inc.
Powerful collaboration, code review, and code management for open source and private projects.
Connect...
Sign up
Local Git Repositories
New | Add | Clone | View Options
Add or clone a Git repository to get started.
Solution Explorer
Team Explorer

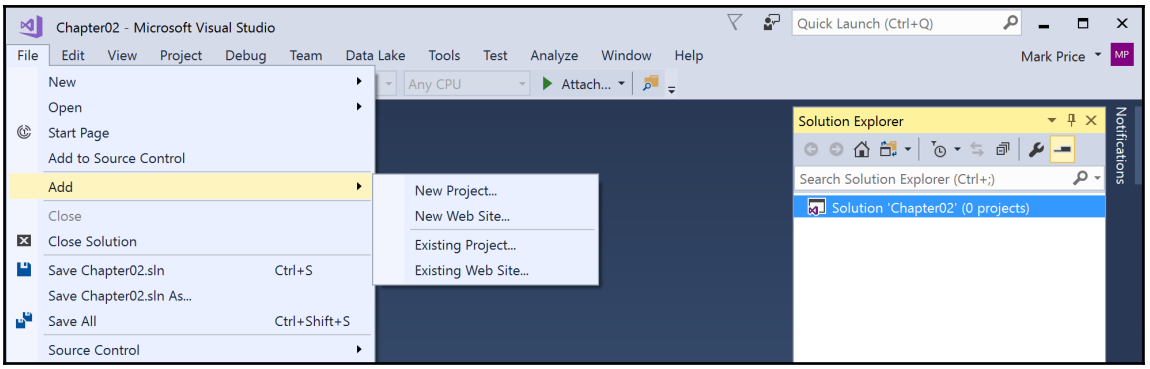

Team Explorer - Connect
Search Work Items (Ctrl+')
Connect | Offline
Manage Connections
Hosted Service Providers
Local Git Repositories
New | Add | Clone | View Options
https://github.com/markjprice/cs7dotnetcore2.git
C:\Code\Repos\cs7dotnetcore2
Recursively Clone Submodules
Clone
Cancel
Add or clone a Git repository to get started.
Solution Explorer
Team Explorer

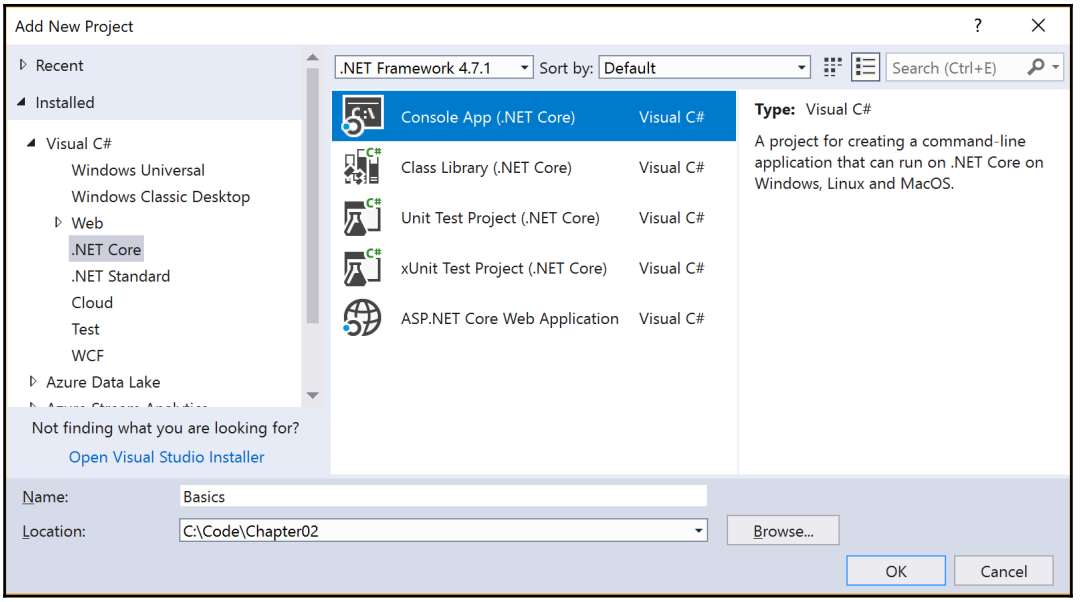

Code File Edit Selection View Go Debug Tasks Window Help
Welcome — Chapter01
EXPLORER
OPEN EDITORS
Welcome
CHAPTER01
.vscode
HelloCS
bin
obj
HelloCS.csproj
MyApp.cs
WelcomeDotNetCore
.vscode
bin
obj
Program.cs
WelcomeDotNetCore.csproj
WelcomeDotNetCoreMac
Chapter01.sln
Chapter01.userprefs
Welcome
Start
New file
Open folder...
Clone Git repository...
Recent
WelcomeDotNetCore ~/Code/Chapter01
ExploreAngular ~/Code/Part3
NorthwindService ~/Code/Part3
Customize
Tools and languages
Install support for JavaScript, TypeScript, Pyth..
Install keyboard shortcuts
Install the keyboard shortcuts of Vim, Sublime...
Color theme
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: bash
Marks-MBP-13:Repos markjprice$ git clone https://github.com/markjprice/cs7dotnetcore2.git
Cloning into 'cs7dotnetcore2'...
remote: Counting objects: 1127, done.
remote: Compressing objects: 100% (159/159), done.
remote: Total 1127 (delta 45), reused 207 (delta 44), pack-reused 914
Receiving objects: 100% (1127/1127), 55.73 MiB | 1.60 MiB/s, done.
Resolving deltas: 100% (321/321), done.
Marks-MBP-13:Repos markjprice$
0 0

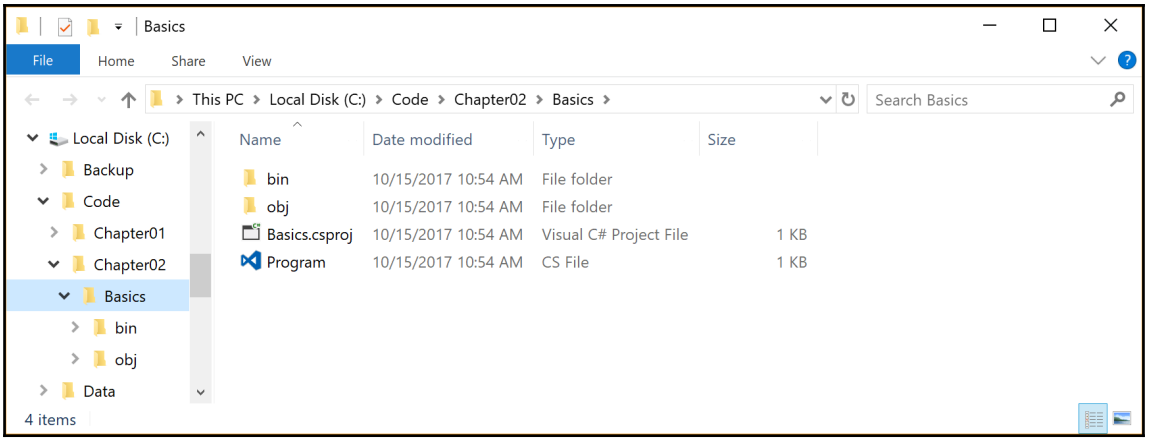
Chapter 2: Speaking C#

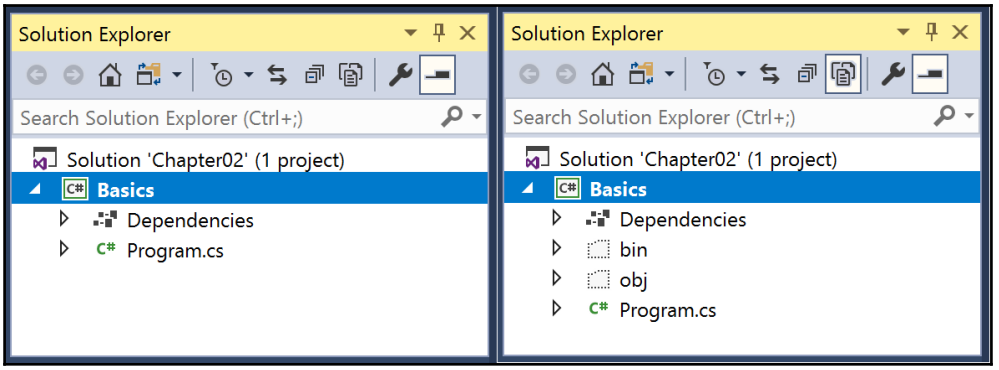


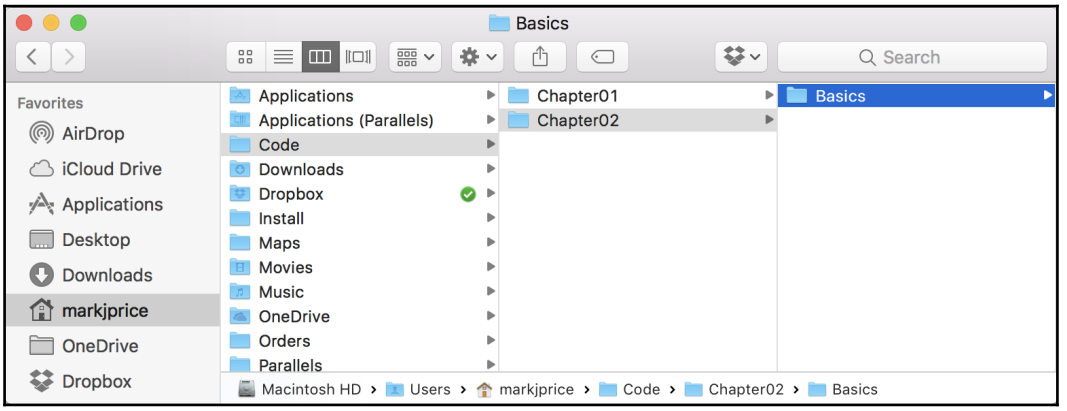


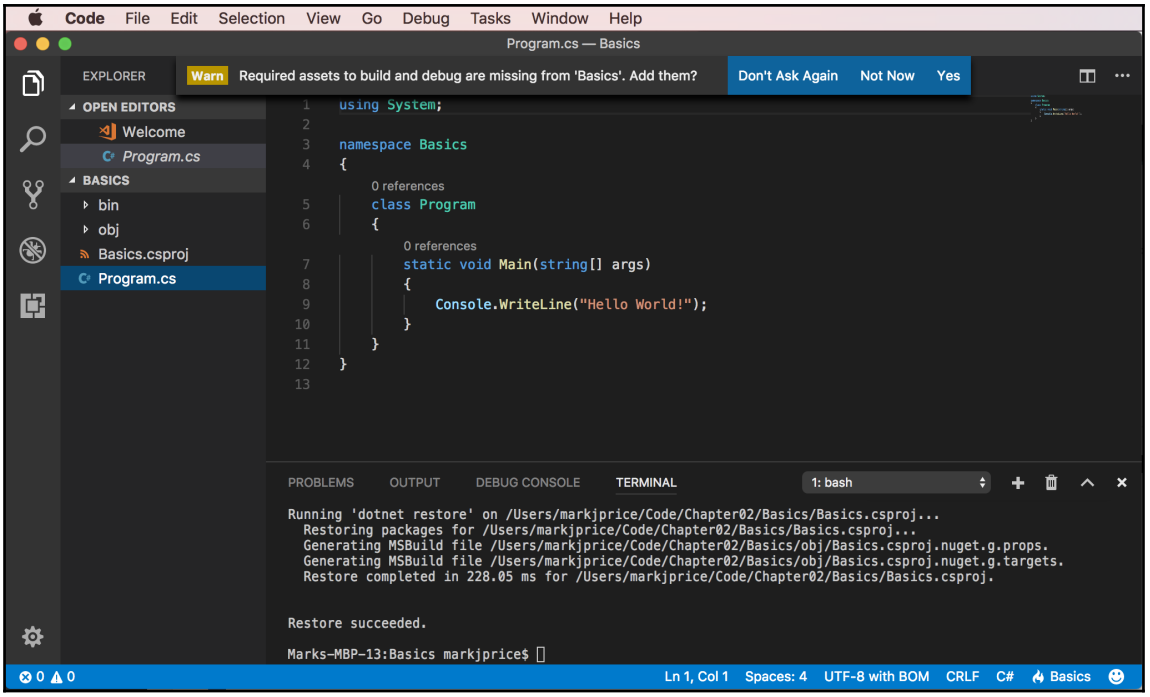

Chapter02 - Microsoft Visual Studio
Quick Launch (Ctrl+Q)
File Edit View Project Debug Team Data Lake Tools Test Analyze Window Help
Mark Price
New
Open
Start Page
Add to Source Control
Add
Close
Close Solution
Save Chapter02.sln Ctrl+S
Save Chapter02.sln As...
Save All Ctrl+Shift+S
Source Control
New Project...
New Web Site...
Existing Project...
Existing Web Site...
Any CPU
Attach...
Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Chapter02' (0 projects)
Notifications

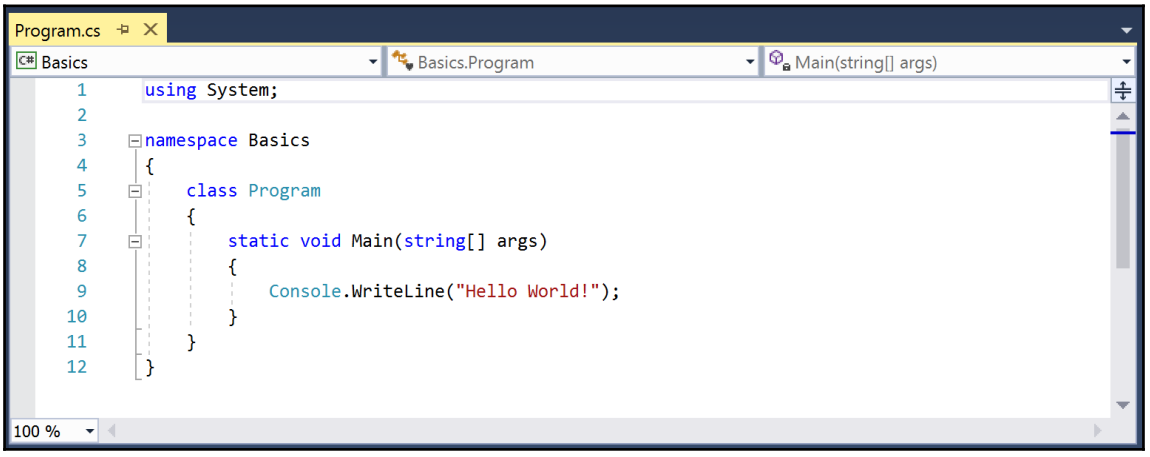

Add New Project
Recent
Installed
Visual C#
Windows Universal
Windows Classic Desktop
Web
.NET Core
.NET Standard
Cloud
Test
WCF
Azure Data Lake
Not finding what you are looking for?
Open Visual Studio Installer
.NET Framework 4.7.1
Sort by: Default
Search (Ctrl+E)
Console App (.NET Core) Visual C#
Class Library (.NET Core) Visual C#
Unit Test Project (.NET Core) Visual C#
xUnit Test Project (.NET Core) Visual C#
ASP.NET Core Web Application Visual C#
Type: Visual C#
A project for creating a command-line application that can run on .NET Core on Windows, Linux and MacOS.
Name: Basics
Location: C:\Code\Chapter02
Browse...
OK
Cancel

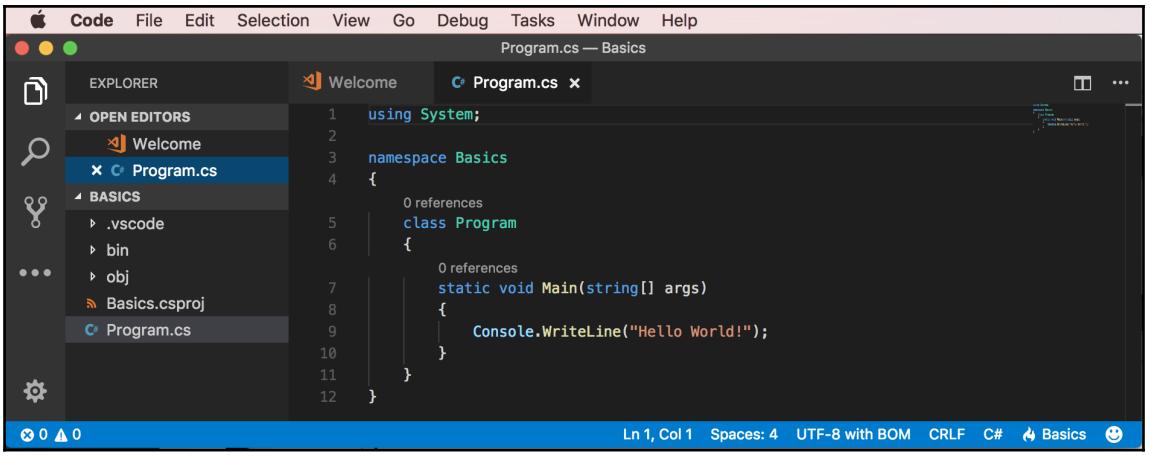

Basics
File
Home
Share
View
This PC › Local Disk (C:) › Code › Chapter02 › Basics ›
Search Basics
Local Disk (C:)
Backup
Code
Chapter01
Chapter02
Basics
bin
obj
Data
Name
Date modified
Type
Size
bin 10/15/2017 10:54 AM File folder
obj 10/15/2017 10:54 AM File folder
Basics.csproj 10/15/2017 10:54 AM Visual C# Project File 1 KB
Program 10/15/2017 10:54 AM CS File 1 KB
4 items

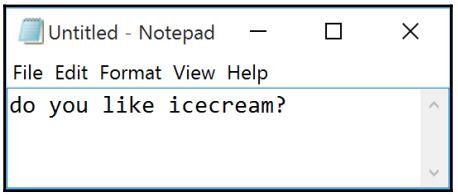

Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Chapter02' (1 project)
Basics
Dependencies
Program.cs
Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Chapter02' (1 project)
Basics
Dependencies
bin
obj
Program.cs

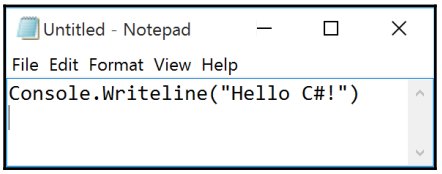

Basics
Search
Favorites
AirDrop
iCloud Drive
Applications
Desktop
Downloads
markjprice
OneDrive
Dropbox
Applications
Applications (Parallels)
Code
Downloads
Dropbox
Install
Maps
Movies
Music
OneDrive
Orders
Parallels
Chapter01
Chapter02
Basics
Macintosh HD › Users › markjprice › Code › Chapter02 › Basics

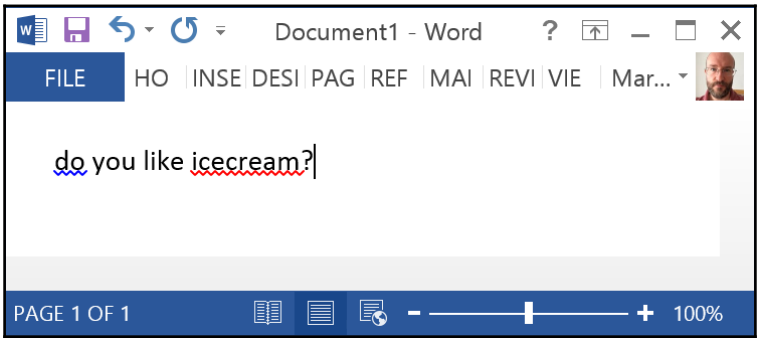

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — Basics
EXPLORER
Warn Required assets to build and debug are missing from 'Basics'. Add them?
Don't Ask Again
Not Now
Yes
OPEN EDITORS
Welcome
Program.cs
BASICS
bin
obj
Basics.csproj
Program.cs
using System;
namespace Basics
{
0 references
class Program
{
0 references
static void Main(string[] args)
{
Console.WriteLine("Hello World!");
}
}
}
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
1: bash
Running 'dotnet restore' on /Users/markjprice/Code/Chapter02/Basics/Basics.csproj...
Restoring packages for /Users/markjprice/Code/Chapter02/Basics/Basics.csproj...
Generating MSBuild file /Users/markjprice/Code/Chapter02/Basics/obj/Basics.csproj.nuget.g.props.
Generating MSBuild file /Users/markjprice/Code/Chapter02/Basics/obj/Basics.csproj.nuget.g.targets.
Restore completed in 228.05 ms for /Users/markjprice/Code/Chapter02/Basics/Basics.csproj.
Restore succeeded.
Marks-MBP-13:Basics markjprice$
0 0
Ln 1, Col 1
Spaces: 4
UTF-8 with BOM
CRLF
C#
Basics

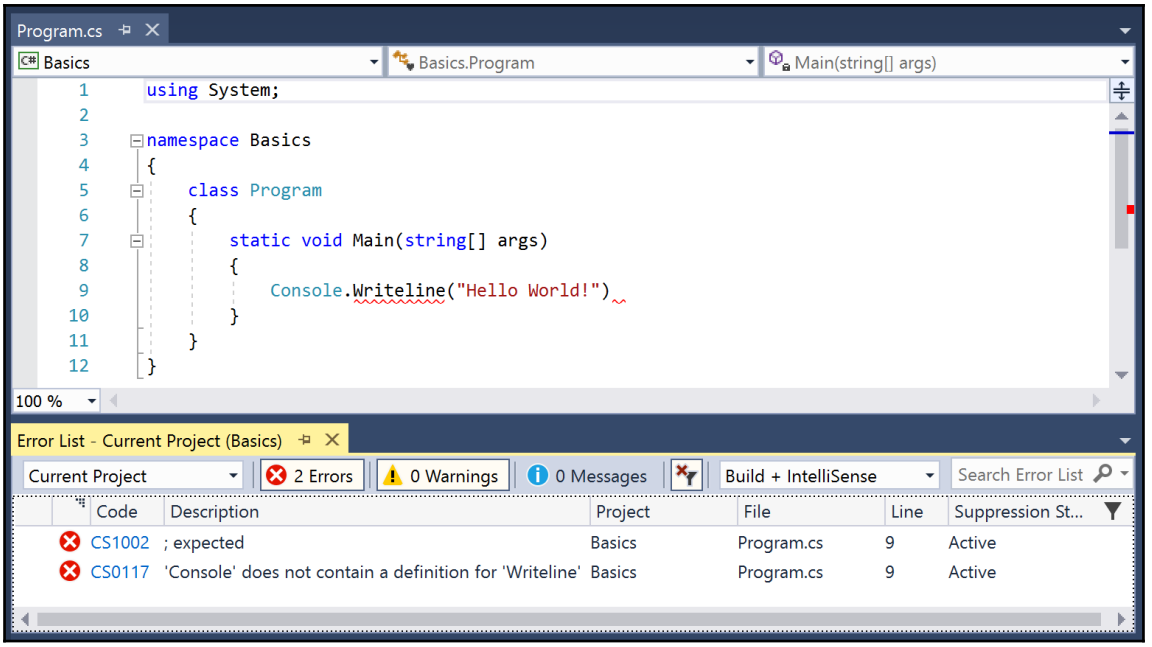

Program.cs
Basics
Basics.Program
Main(string[] args)
using System;
namespace Basics
{
class Program
{
static void Main(string[] args)
{
Console.WriteLine("Hello World!");
}
}
}
100 %

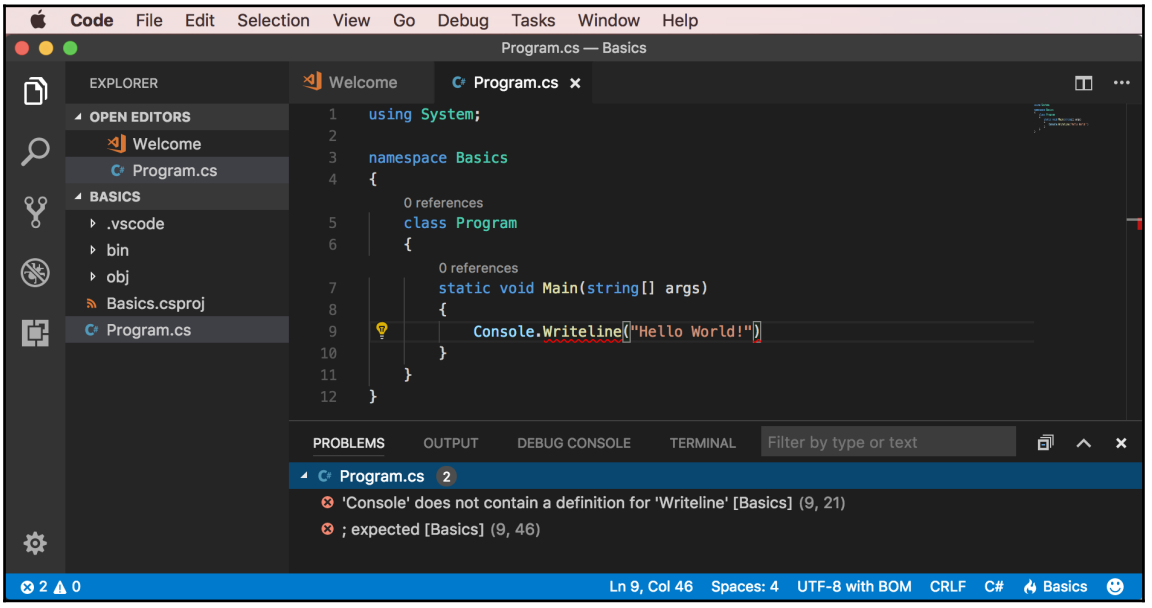

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — Basics
EXPLORER
OPEN EDITORS
Welcome
Program.cs
BASICS
.vscode
bin
obj
Basics.csproj
Program.cs
Welcome
Program.cs
using System;
namespace Basics
{
0 references
class Program
{
0 references
static void Main(string[] args)
{
Console.WriteLine("Hello World!");
}
}
}
Ln 1, Col 1 Spaces: 4 UTF-8 with BOM CRLF C# Basics

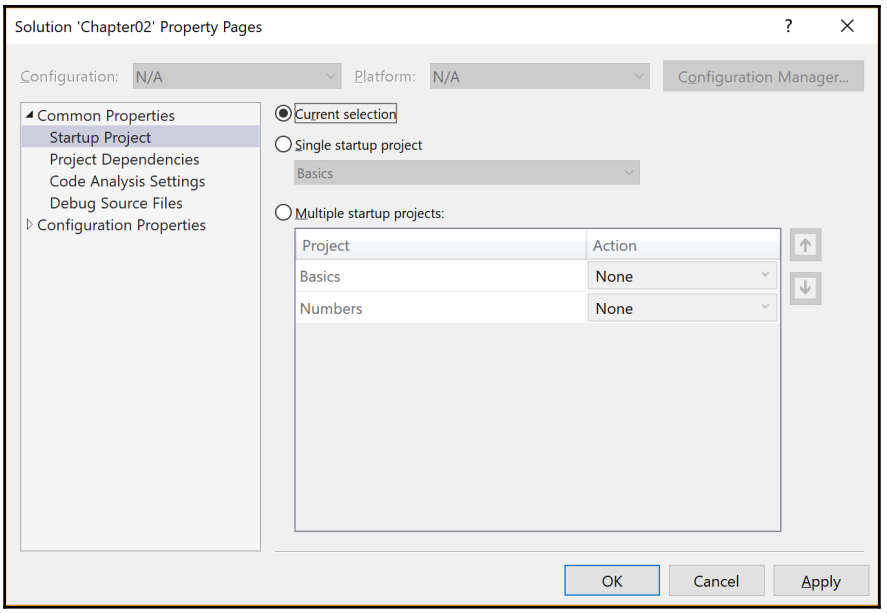

Untitled - Notepad
File Edit Format View Help
do you like icecream?

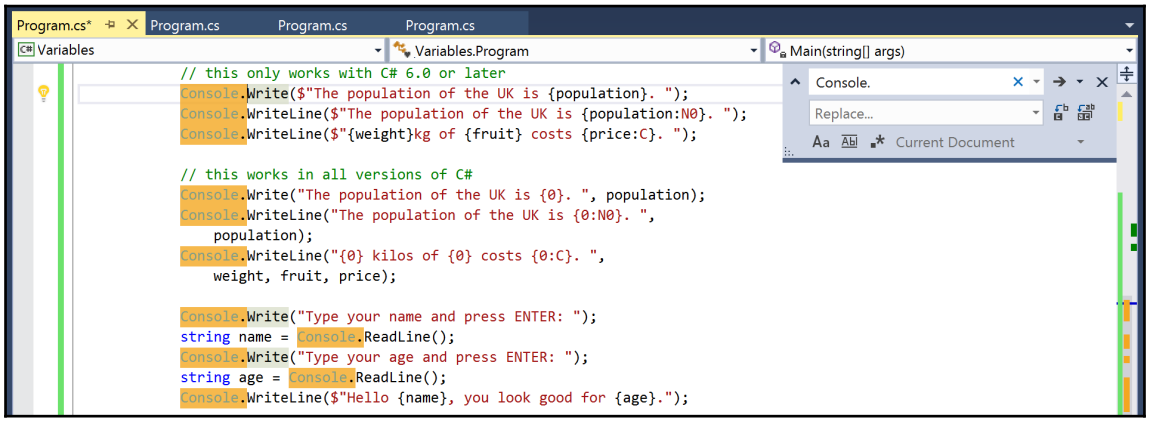

Untitled - Notepad
File Edit Format View Help
Console.Writeline("Hello C#!")


Document1 - Word
FILE HO INSE DESI PAG REF MAI REVI VIE Mar...
do you like icecream?
PAGE 1 OF 1
100%

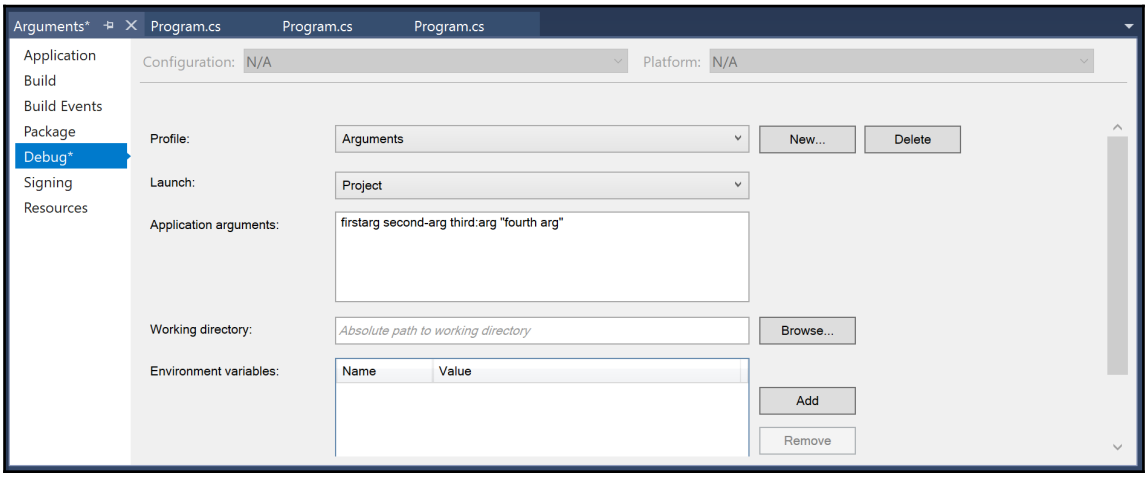

Program.cs
Basics
Basics.Program
Main(string[] args)
using System;
namespace Basics
{
class Program
{
static void Main(string[] args)
{
Console.Writeline("Hello World!")
}
}
}
100 %
Error List - Current Project (Basics)
Current Project
2 Errors
0 Warnings
0 Messages
Build + IntelliSense
Search Error List
Code
Description
Project
File
Line
Suppression St...
CS1002 ; expected Basics Program.cs 9 Active
CS0117 'Console' does not contain a definition for 'Writeline' Basics Program.cs 9 Active

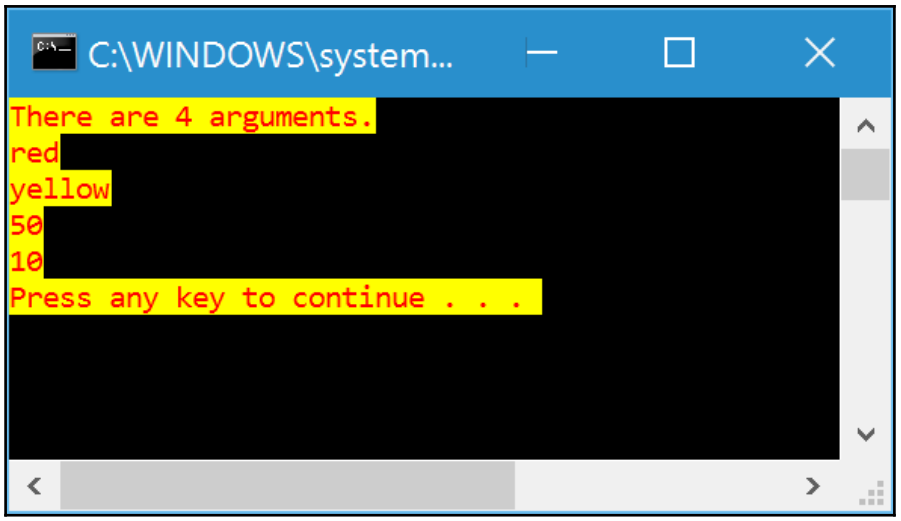

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — Basics
EXPLORER
OPEN EDITORS
Welcome
Program.cs
BASICS
.vscode
bin
obj
Basics.csproj
Program.cs
Welcome
Program.cs
using System;
namespace Basics
{
0 references
class Program
{
0 references
static void Main(string[] args)
{
Console.Writeline("Hello World!")
}
}
}
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
Filter by type or text
Program.cs 2
'Console' does not contain a definition for 'Writeline' [Basics] (9, 21)
; expected [Basics] (9, 46)
2 0
Ln 9, Col 46
Spaces: 4
UTF-8 with BOM
CRLF
C#
Basics

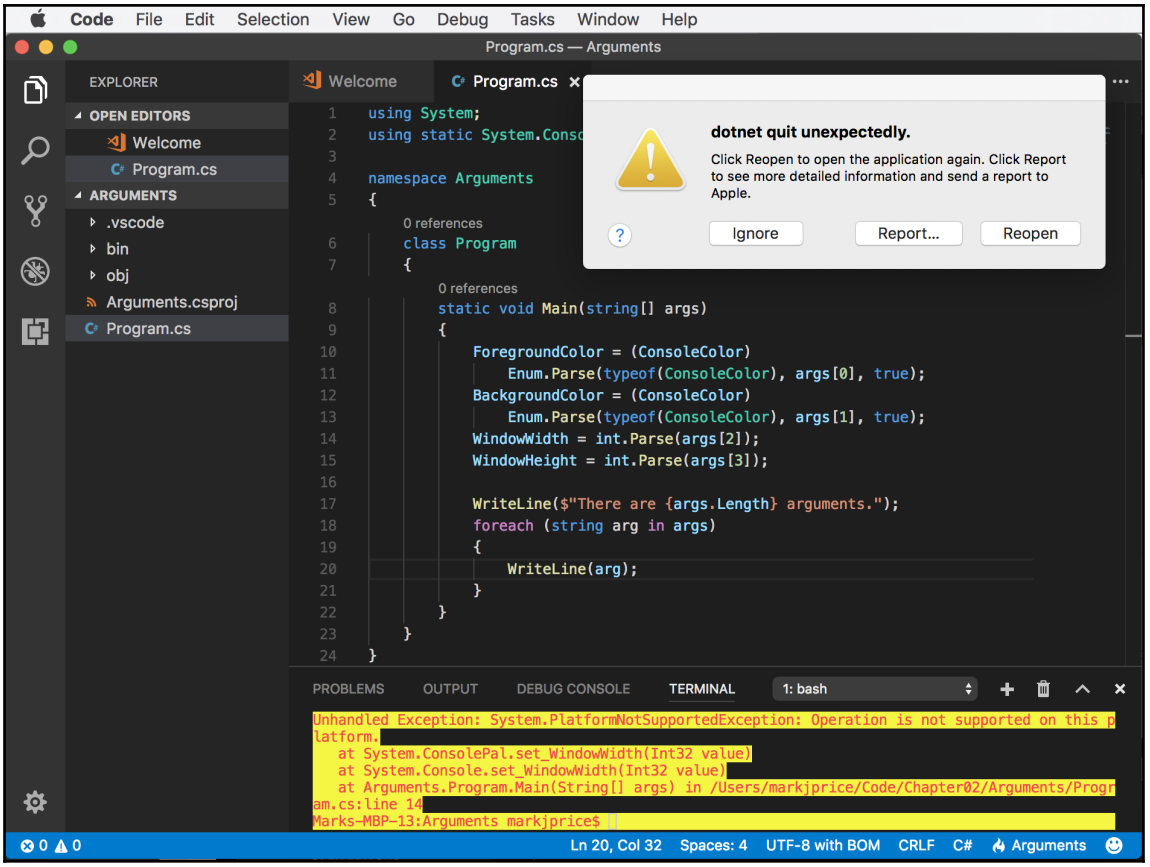

Solution 'Chapter02' Property Pages
Configuration: N/A
Platform: N/A
Configuration Manager...
Common Properties
Startup Project
Project Dependencies
Code Analysis Settings
Debug Source Files
Configuration Properties
Current selection
Single startup project
Basics
Multiple startup projects:
Project
Action
Basics
None
Numbers
None
OK
Cancel
Apply

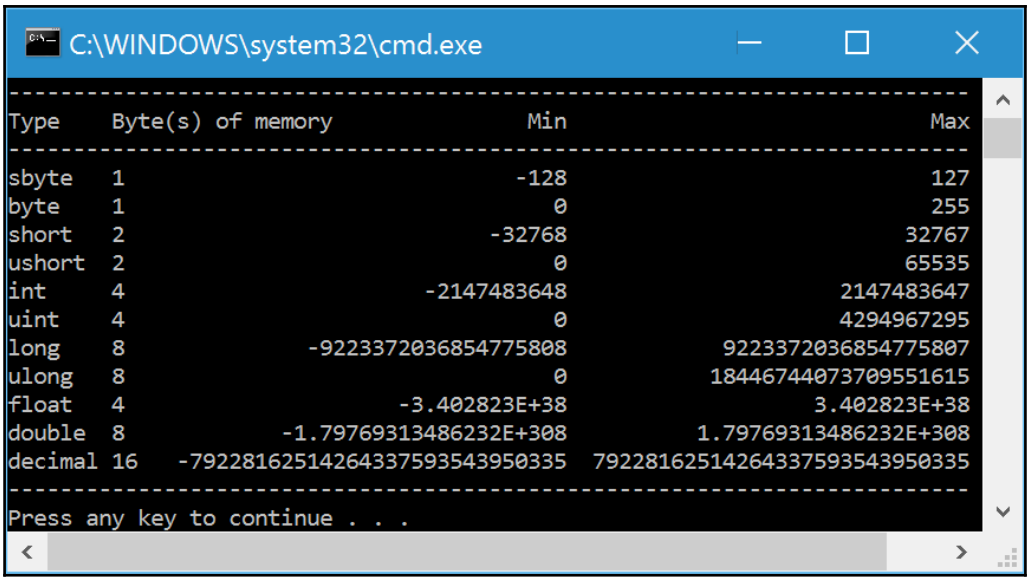

Program.cs*
Program.cs
Program.cs
Program.cs
Variables
Variables.Program
Main(string[] args)
// this only works with C# 6.0 or later
Console.Write($"The population of the UK is {population}. ");
Console.WriteLine($"The population of the UK is {population:N0}. ");
Console.WriteLine($"{weight}kg of {fruit} costs {price:C}. ");
// this works in all versions of C#
Console.Write("The population of the UK is {0}. ", population);
Console.WriteLine("The population of the UK is {0:N0}. ",
population);
Console.WriteLine("{0} kilos of {0} costs {0:C}. ",
weight, fruit, price);
Console.Write("Type your name and press ENTER: ");
string name = Console.ReadLine();
Console.Write("Type your age and press ENTER: ");
string age = Console.ReadLine();
Console.WriteLine($"Hello {name}, you look good for {age}.");
Console.
Replace...
Current Document


Program.cs
Console.
Aa
1 of 9
Replace
Replace All (⌥⌘Enter)
// declaring the size of the array
string[] names = new string[4];
// storing items at index positions
names[0] = "Kate";
names[1] = "Jack";
names[2] = "Rebecca";
names[3] = "Tom";
for (int i = 0; i < names.Length; i++)
{
Console.WriteLine(names[i]); // read the item at this index
}
Console.Write($"The population of the UK is {population}. ");
Console.WriteLine($"The population of the UK is {population:N0}. ");

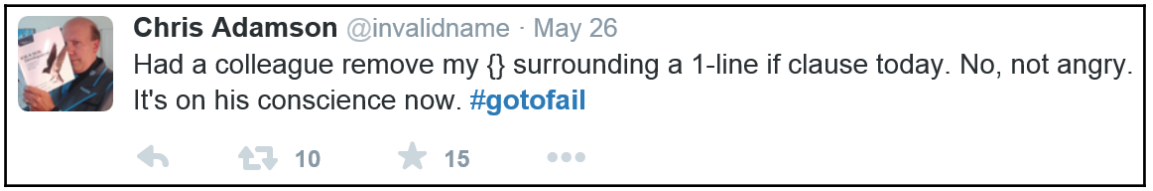

Arguments*
Program.cs
Program.cs
Program.cs
Application
Build
Build Events
Package
Debug*
Signing
Resources
Configuration: N/A
Platform: N/A
Profile:
Arguments
New...
Delete
Launch:
Project
Application arguments:
firstarg second-arg third:arg "fourth arg"
Working directory:
Absolute path to working directory
Browse...
Environment variables:
Name
Value
Add
Remove

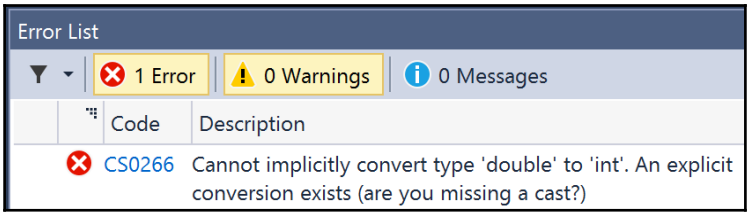

C:\WINDOWS\system...
There are 4 arguments.
red
yellow
50
10
Press any key to continue . . .

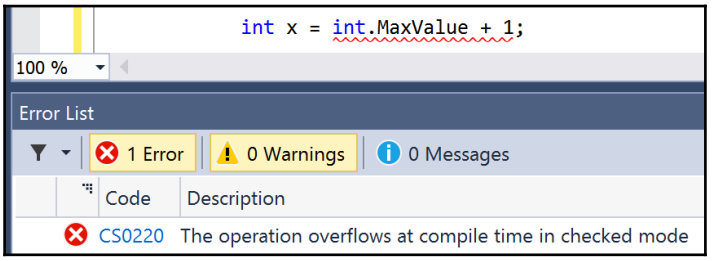

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — Arguments
EXPLORER
OPEN EDITORS
Welcome
Program.cs
ARGUMENTS
.vscode
bin
obj
Arguments.csproj
Program.cs
Welcome
Program.cs
dotnet quit unexpectedly.
Click Reopen to open the application again. Click Report to see more detailed information and send a report to Apple.
Ignore
Report...
Reopen
using System;
using static System.Conso
namespace Arguments
{
0 references
class Program
{
0 references
static void Main(string[] args)
{
ForegroundColor = (ConsoleColor)
Enum.Parse(typeof(ConsoleColor), args[0], true);
BackgroundColor = (ConsoleColor)
Enum.Parse(typeof(ConsoleColor), args[1], true);
WindowWidth = int.Parse(args[2]);
WindowHeight = int.Parse(args[3]);
WriteLine($"There are {args.Length} arguments.");
foreach (string arg in args)
{
WriteLine(arg);
}
}
}
}
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
1: bash
Unhandled Exception: System.PlatformNotSupportedException: Operation is not supported on this platform.
at System.ConsolePal.set_WindowWidth(Int32 value)
at System.Console.set_WindowWidth(Int32 value)
at Arguments.Program.Main(String[] args) in /Users/markjprice/Code/Chapter02/Arguments/Program.cs:line 14
Marks-MBP-13:Arguments markjprice$
0 0
Ln 20, Col 32
Spaces: 4
UTF-8 with BOM
CRLF
C#
Arguments

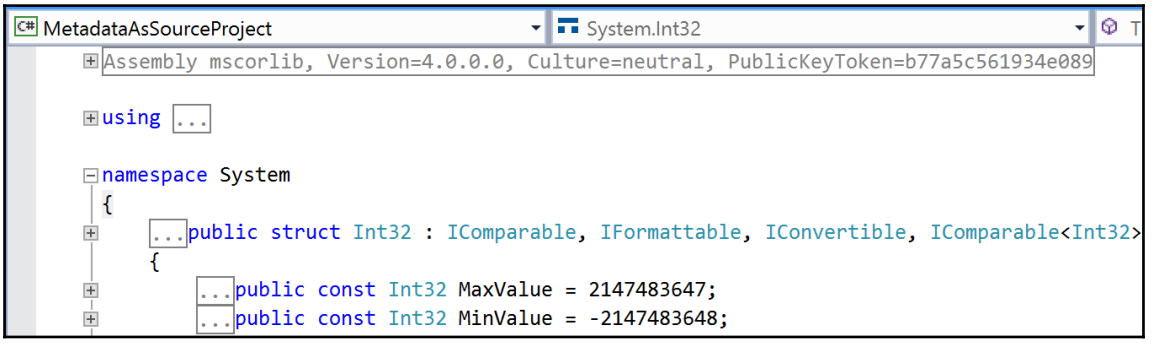

C:\WINDOWS\system32\cmd.exe
Type Byte(s) of memory Min Max
sbyte 1 -128 127
byte 1 0 255
short 2 -32768 32767
ushort 2 0 65535
int 4 -2147483648 2147483647
uint 4 0 4294967295
long 8 -9223372036854775808 9223372036854775807
ulong 8 0 18446744073709551615
float 4 -3.402823E+38 3.402823E+38
double 8 -1.79769313486232E+308 1.79769313486232E+308
decimal 16 -79228162514264337593543950335 79228162514264337593543950335
Press any key to continue . . .

Chapter 3: Controlling the Flow and Converting Types









```
//
// Summary:
//     Converts the string representation of a number to its 32-bit signed integer equivalent.
//
// Parameters:
//   s:
//     A string containing a number to convert.
//
// Returns:
//     A 32-bit signed integer equivalent to the number contained in s.
//
// Exceptions:
//   T:System.ArgumentNullException:
//     s is null.
//
//   T:System.FormatException:
//     s is not in the correct format.
//
//   T:System.OverflowException:
//     s represents a number less than System.Int32.MinValue or greater than System.Int32.MaxValue.
public static Int32 Parse(string s);
```

20 votes

7 answers

Q: Using SecureString

Can this be simplified to a one liner? Feel free to completely rewrite it as long as **secureString** gets initialized properly. **SecureString secureString** = new **SecureString** (); foreach (char c in "fizzbuzz".ToCharArray()) { secureString.AppendChar (c); } …

c# security securestring

asked Mar 10 '10 by Todd Smith

16 votes

7 answers

Q: Convert String to SecureString

How to convert String to **SecureString**? …

c# securestring

asked Oct 15 '09 by Nila

145 votes

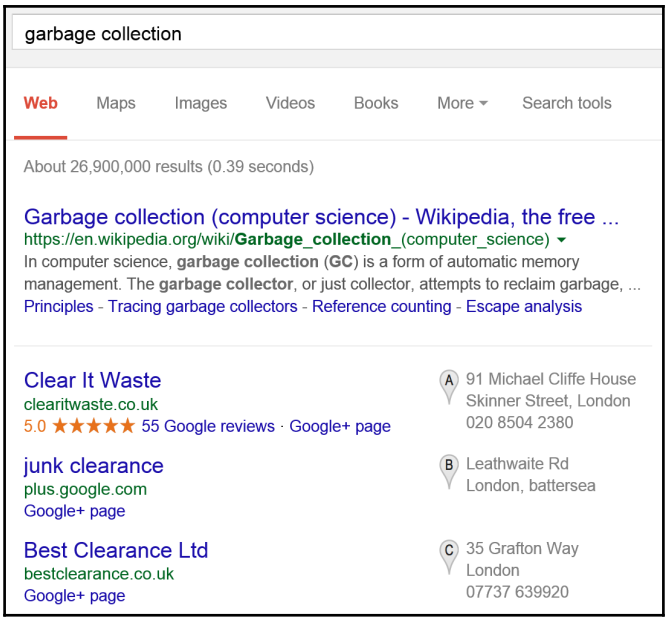
8 answers

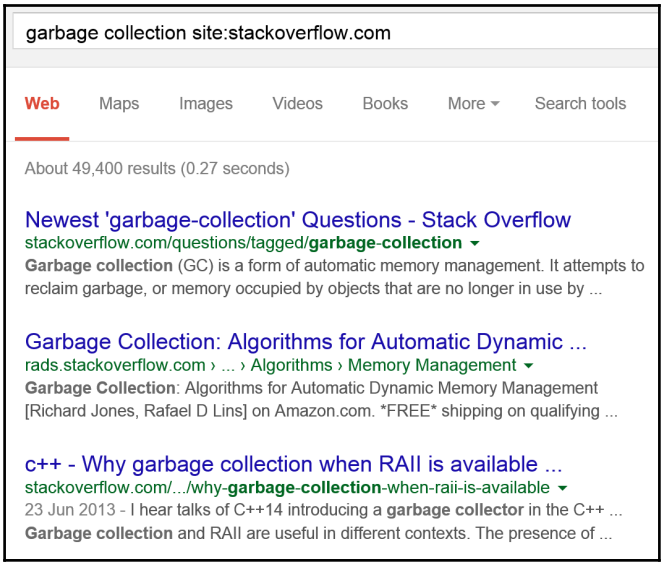
Q: When would I need a SecureString in .NET?

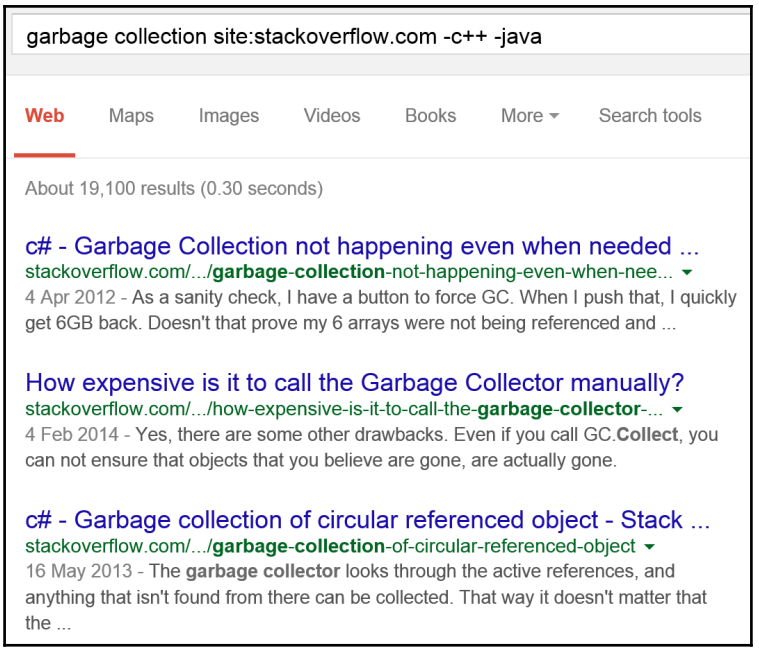
I'm trying to grok the purpose of .NET's **SecureString**. From MSDN: An instance of the System.String class is both immutable and, when no longer needed, cannot be programmatically scheduled … from computer memory. A **SecureString** object is similar to a String object in that it has a text value. However, the value of a **SecureString** object is automatically encrypted, can be modified …

.net security encryption

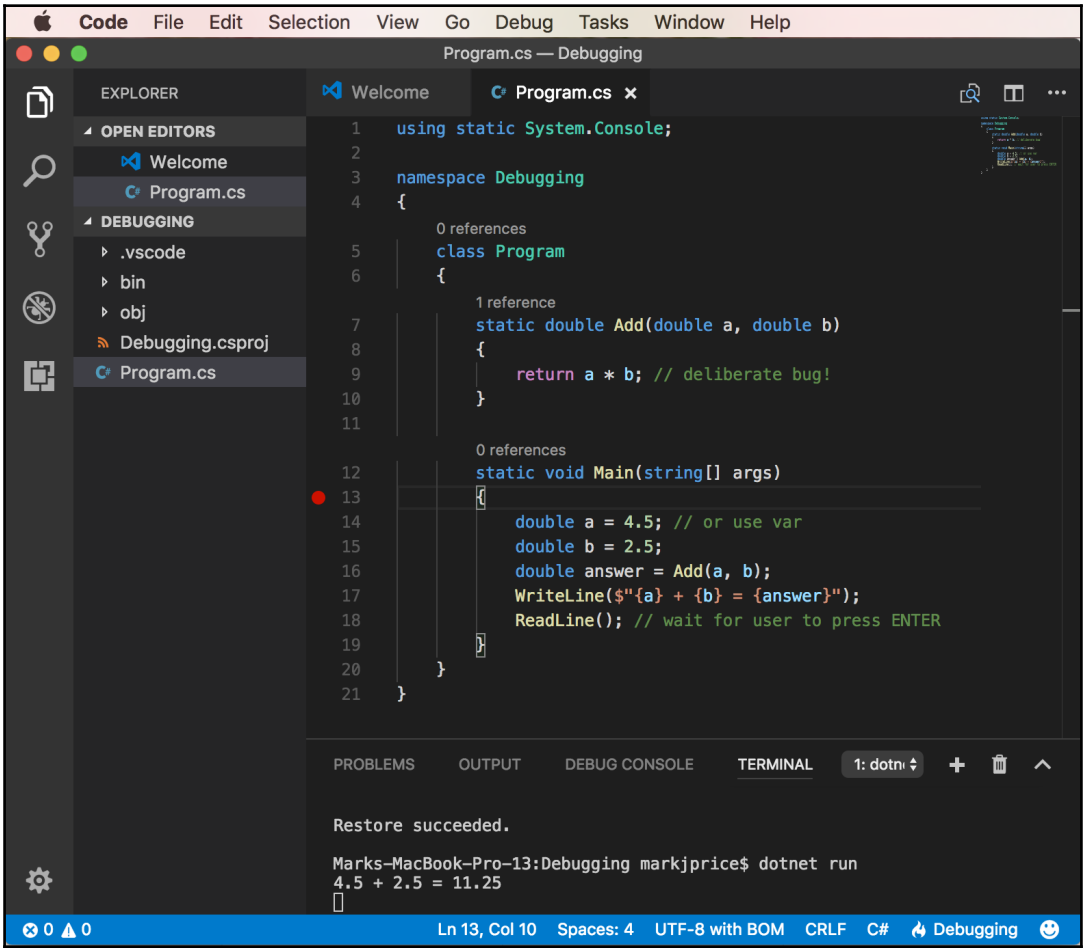
asked Sep 26 '08 by Richard Morgan

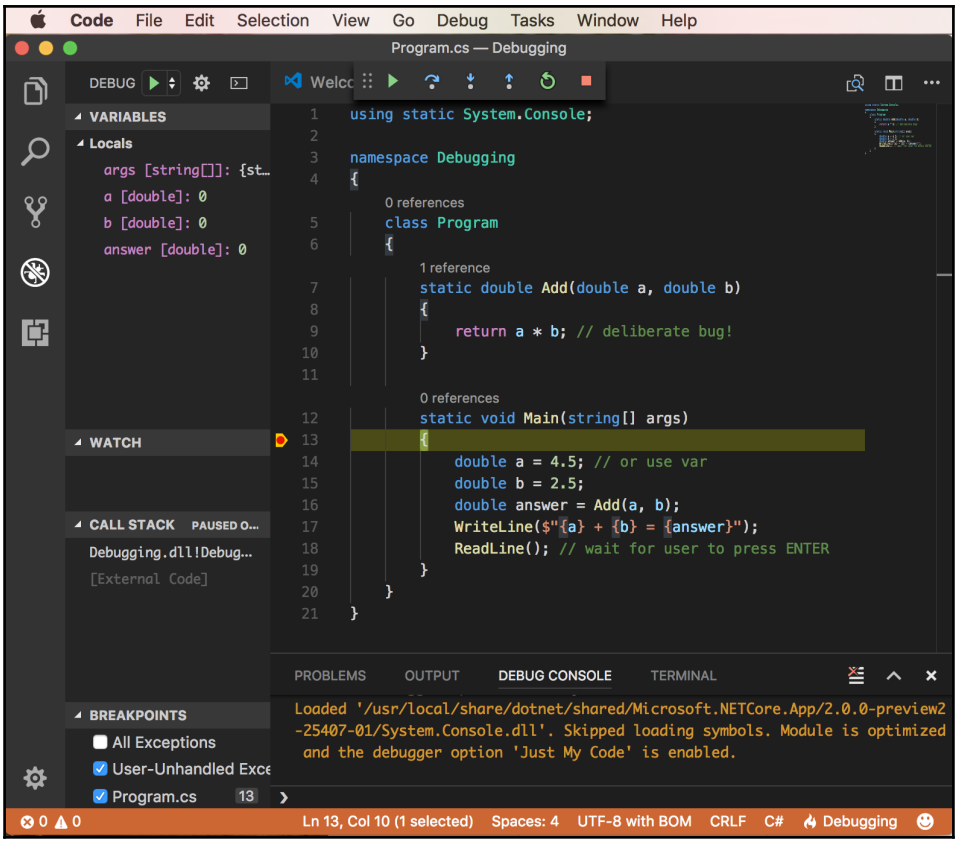

garbage collection
Web
Maps
Images
Videos
Books
More
Search tools
About 26,900,000 results (0.39 seconds)
Garbage collection (computer science) - Wikipedia, the free ...
https://en.wikipedia.org/wiki/Garbage_collection_(computer_science)
In computer science, garbage collection (GC) is a form of automatic memory management. The garbage collector, or just collector, attempts to reclaim garbage, ...
Principles - Tracing garbage collectors - Reference counting - Escape analysis
Clear It Waste
clearitwaste.co.uk
5.0 ★★★★★ 55 Google reviews · Google+ page
A 91 Michael Cliffe House
Skinner Street, London
020 8504 2380
junk clearance
plus.google.com
Google+ page
B Leathwaite Rd
London, battersea
Best Clearance Ltd
bestclearance.co.uk
Google+ page
C 35 Grafton Way
London
07737 639920


garbage collection site:stackoverflow.com
Web
Maps
Images
Videos
Books
More
Search tools
About 49,400 results (0.27 seconds)
Newest 'garbage-collection' Questions - Stack Overflow
stackoverflow.com/questions/tagged/garbage-collection
Garbage collection (GC) is a form of automatic memory management. It attempts to reclaim garbage, or memory occupied by objects that are no longer in use by ...
Garbage Collection: Algorithms for Automatic Dynamic ...
rads.stackoverflow.com › ... › Algorithms › Memory Management
Garbage Collection: Algorithms for Automatic Dynamic Memory Management [Richard Jones, Rafael D Lins] on Amazon.com. *FREE* shipping on qualifying ...
c++ - Why garbage collection when RAII is available ...
stackoverflow.com/.../why-garbage-collection-when-raii-is-available
23 Jun 2013 - I hear talks of C++14 introducing a garbage collector in the C++ ...
Garbage collection and RAII are useful in different contexts. The presence of ...

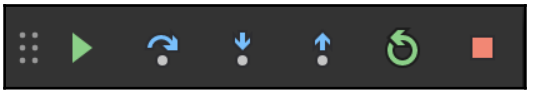

garbage collection site:stackoverflow.com -c++ -java
Web
Maps
Images
Videos
Books
More
Search tools
About 19,100 results (0.30 seconds)
c# - Garbage Collection not happening even when needed ...
stackoverflow.com/.../garbage-collection-not-happening-even-when-nee...
4 Apr 2012 - As a sanity check, I have a button to force GC. When I push that, I quickly get 6GB back. Doesn't that prove my 6 arrays were not being referenced and ...
How expensive is it to call the Garbage Collector manually?
stackoverflow.com/.../how-expensive-is-it-to-call-the-garbage-collector-...
4 Feb 2014 - Yes, there are some other drawbacks. Even if you call GC.Collect, you can not ensure that objects that you believe are gone, are actually gone.
c# - Garbage collection of circular referenced object - Stack ...
stackoverflow.com/.../garbage-collection-of-circular-referenced-object
16 May 2013 - The garbage collector looks through the active references, and anything that isn't found from there can be collected. That way it doesn't matter that the ...

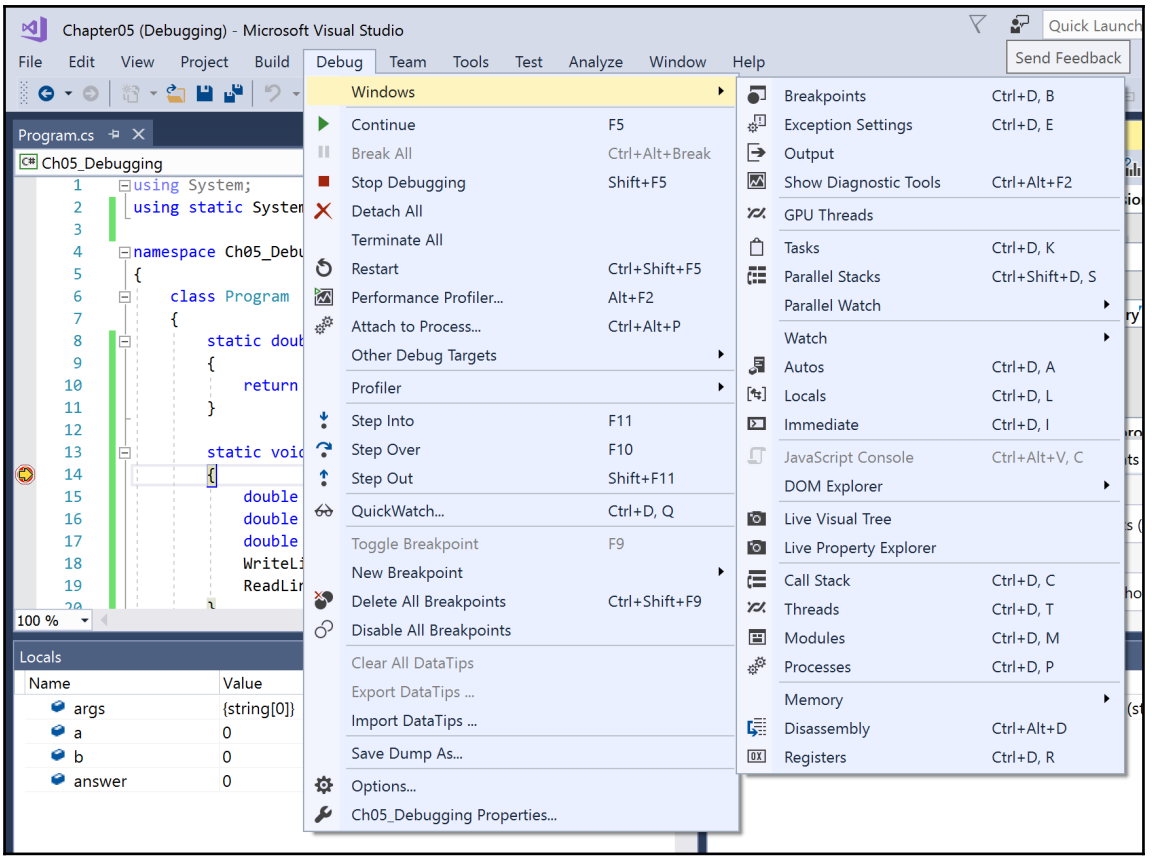
Chapter 4: Writing, Debugging, and Testing Functions

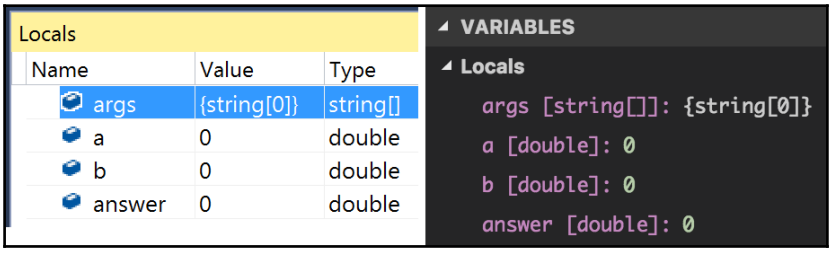


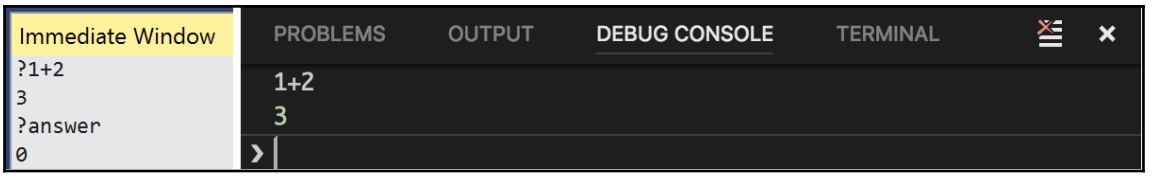

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — Debugging
DEBUG
VARIABLES
Locals
args [string[]]: {st…
a [double]: 0
b [double]: 0
answer [double]: 0
WATCH
CALL STACK PAUSED O…
Debugging.dll!Debug…
[External Code]
BREAKPOINTS
All Exceptions
User-Unhandled Exce
Program.cs 13
using static System.Console;
namespace Debugging
{
0 references
class Program
{
1 reference
static double Add(double a, double b)
{
return a * b; // deliberate bug!
}
0 references
static void Main(string[] args)
{
double a = 4.5; // or use var
double b = 2.5;
double answer = Add(a, b);
WriteLine($"{a} + {b} = {answer}");
ReadLine(); // wait for user to press ENTER
}
}
}
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Loaded '/usr/local/share/dotnet/shared/Microsoft.NETCore.App/2.0.0-preview2
-25407-01/System.Console.dll'. Skipped loading symbols. Module is optimized
and the debugger option 'Just My Code' is enabled.
Ln 13, Col 10 (1 selected) Spaces: 4 UTF-8 with BOM CRLF C# Debugging

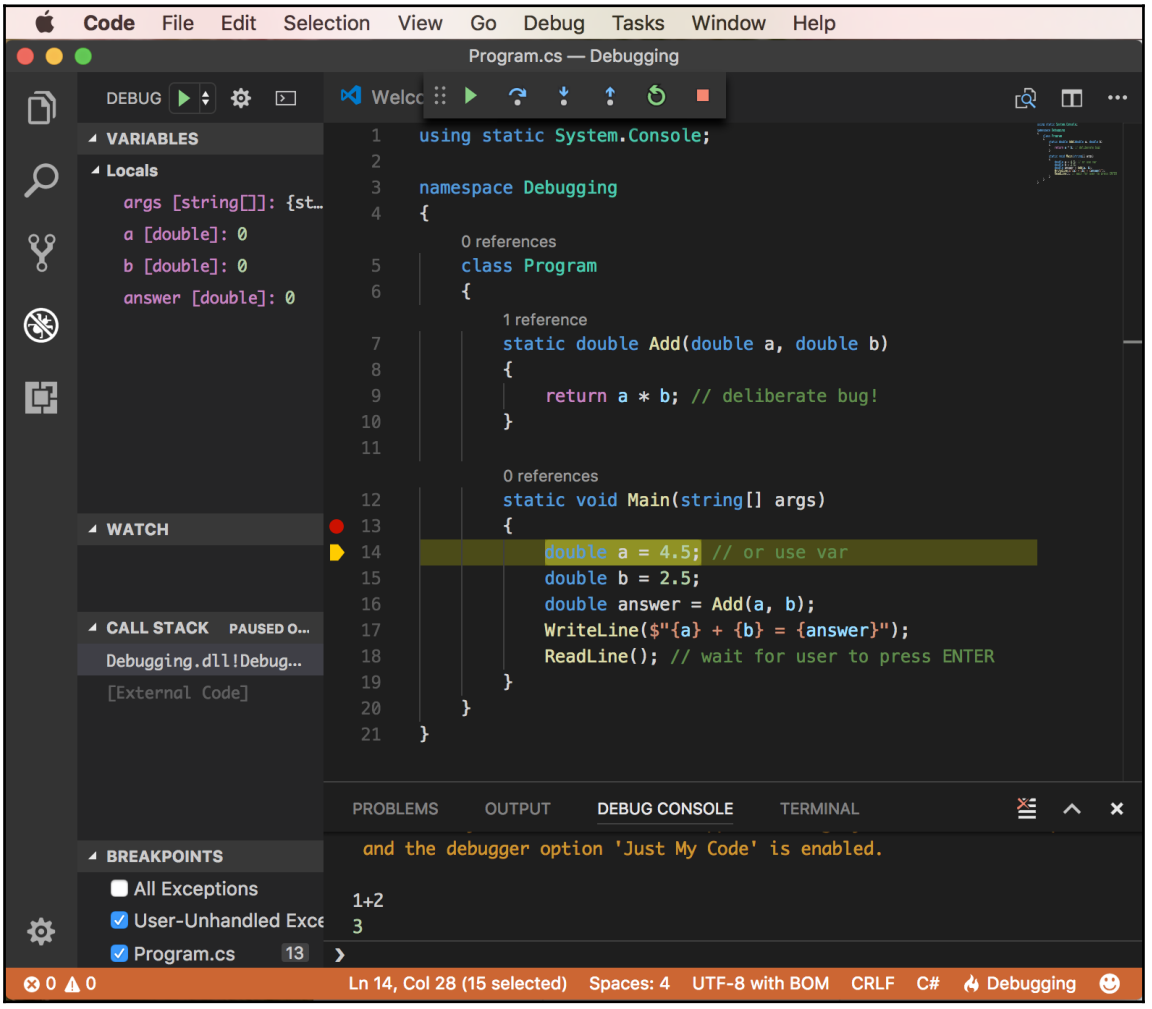

Continue

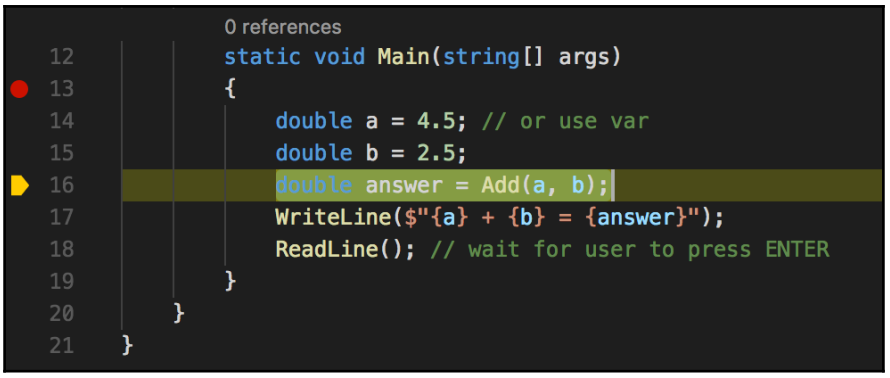


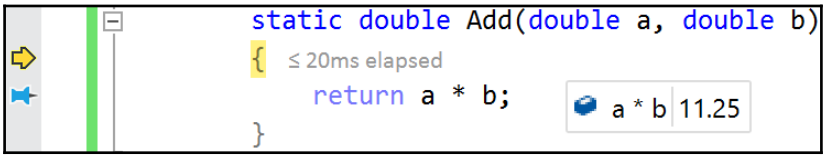

Chapter05 (Debugging) - Microsoft Visual Studio
File Edit View Project Build Debug Team Tools Test Analyze Window Help
Quick Launch
Send Feedback
Program.cs
Ch05_Debugging
Windows
Continue F5
Break All Ctrl+Alt+Break
Stop Debugging Shift+F5
Detach All
Terminate All
Restart Ctrl+Shift+F5
Performance Profiler... Alt+F2
Attach to Process... Ctrl+Alt+P
Other Debug Targets
Profiler
Step Into F11
Step Over F10
Step Out Shift+F11
QuickWatch... Ctrl+D, Q
Toggle Breakpoint F9
New Breakpoint
Delete All Breakpoints Ctrl+Shift+F9
Disable All Breakpoints
Clear All DataTips
Export DataTips ...
Import DataTips ...
Save Dump As...
Options...
Ch05_Debugging Properties...
Breakpoints Ctrl+D, B
Exception Settings Ctrl+D, E
Output
Show Diagnostic Tools Ctrl+Alt+F2
GPU Threads
Tasks Ctrl+D, K
Parallel Stacks Ctrl+Shift+D, S
Parallel Watch
Watch
Autos Ctrl+D, A
Locals Ctrl+D, L
Immediate Ctrl+D, I
JavaScript Console Ctrl+Alt+V, C
DOM Explorer
Live Visual Tree
Live Property Explorer
Call Stack Ctrl+D, C
Threads Ctrl+D, T
Modules Ctrl+D, M
Processes Ctrl+D, P
Memory
Disassembly Ctrl+Alt+D
Registers Ctrl+D, R
Locals
Name Value
args {string[0]}
a 0
b 0
answer 0

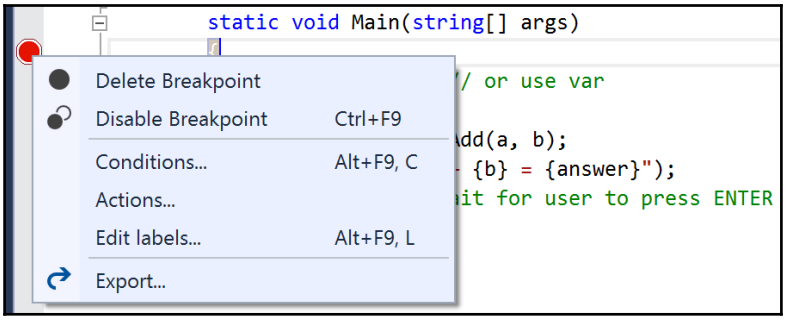

Locals
Name Value Type
args {string[0]} string[]
a 0 double
b 0 double
answer 0 double
VARIABLES
Locals
args [string[]]: {string[0]}
a [double]: 0
b [double]: 0
answer [double]: 0

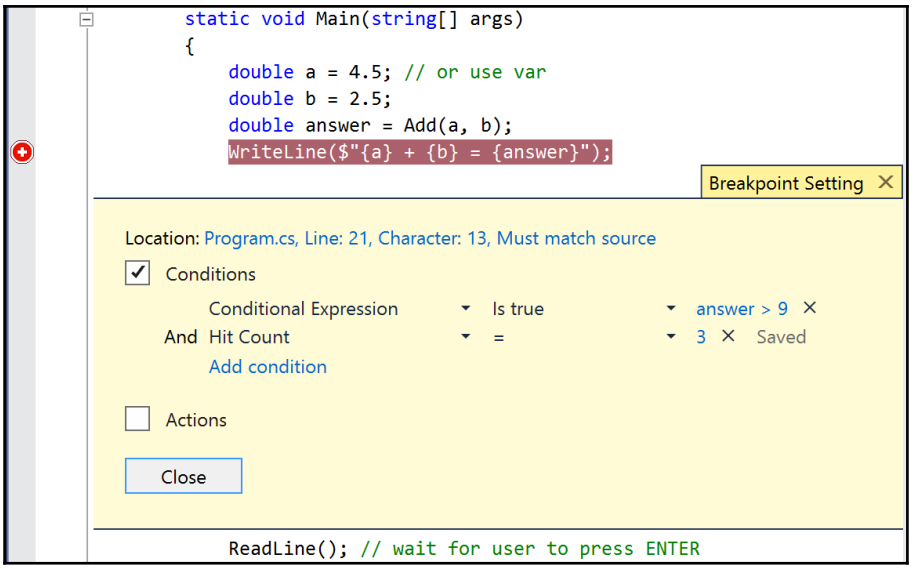

Immediate Window
?1+2
3
?answer
0
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
1+2
3

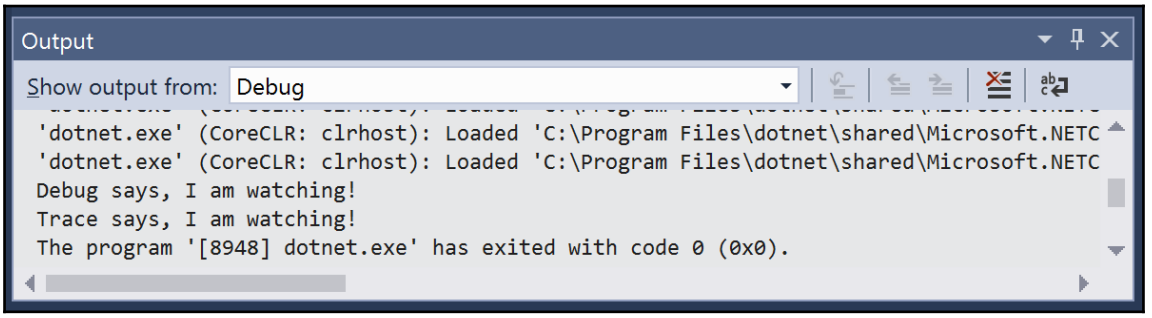

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — Debugging
DEBUG
VARIABLES
Locals
args [string[]]: {st…
a [double]: 0
b [double]: 0
answer [double]: 0
WATCH
CALL STACK PAUSED O…
Debugging.dll!Debug…
[External Code]
BREAKPOINTS
All Exceptions
User-Unhandled Exce
Program.cs 13
using static System.Console;
namespace Debugging
{
0 references
class Program
{
1 reference
static double Add(double a, double b)
{
return a * b; // deliberate bug!
}
0 references
static void Main(string[] args)
{
double a = 4.5; // or use var
double b = 2.5;
double answer = Add(a, b);
WriteLine($"{a} + {b} = {answer}");
ReadLine(); // wait for user to press ENTER
}
}
}
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
and the debugger option 'Just My Code' is enabled.
1+2
3
0 0
Ln 14, Col 28 (15 selected)
Spaces: 4
UTF-8 with BOM
CRLF
C#
Debugging

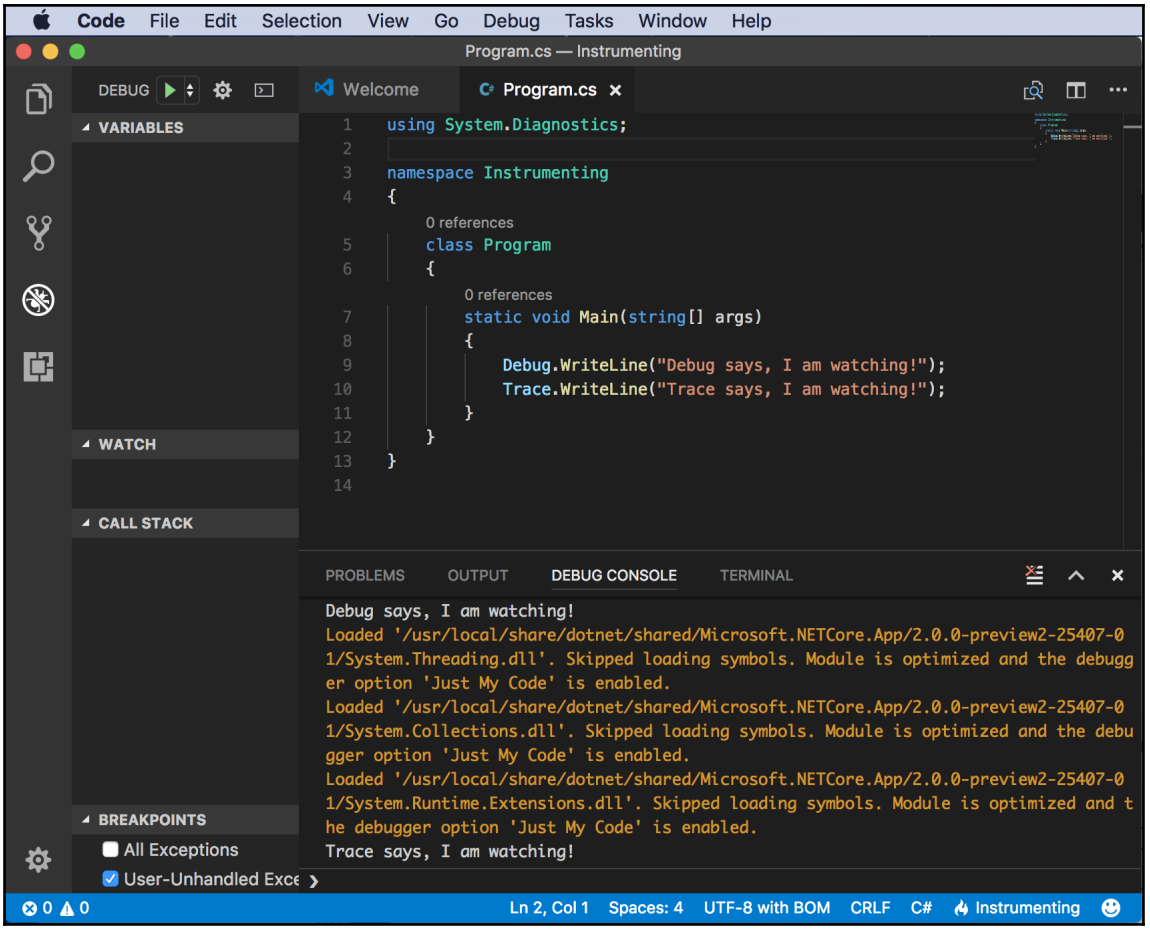

0 references
12 static void Main(string[] args)
13 {
14 double a = 4.5; // or use var
15 double b = 2.5;
16 double answer = Add(a, b);
17 WriteLine($"{a} + {b} = {answer}");
18 ReadLine(); // wait for user to press ENTER
19 }
20 }
21 }

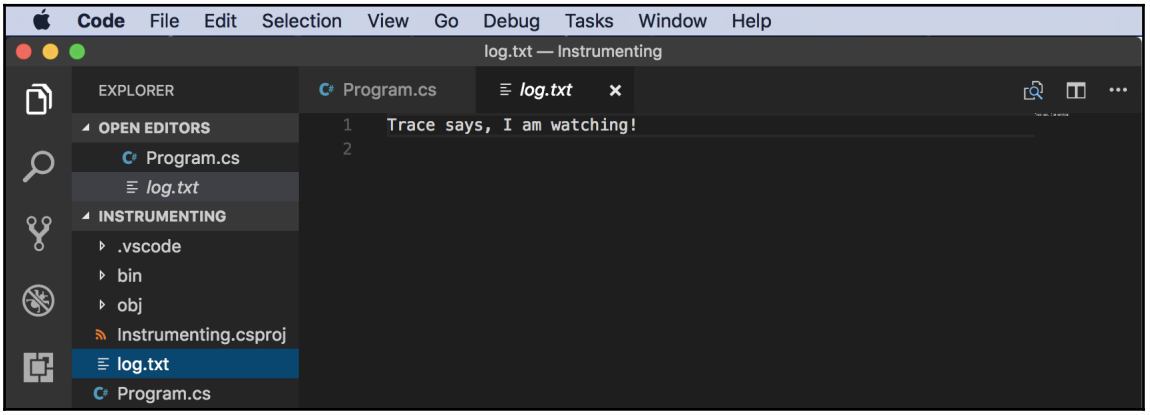

static double Add(double a, double b)
{ ≤ 20ms elapsed
return a * b;
a * b 11.25
}

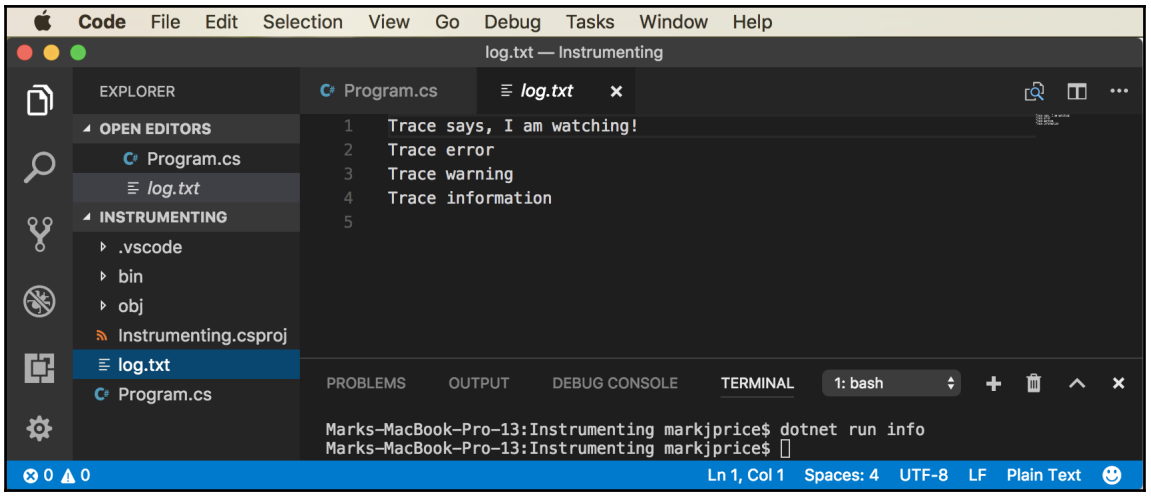

static void Main(string[] args)
Delete Breakpoint
Disable Breakpoint Ctrl+F9
Conditions... Alt+F9, C
Actions...
Edit labels... Alt+F9, L
Export...
// or use var
Add(a, b);
{b} = {answer}");
it for user to press ENTER

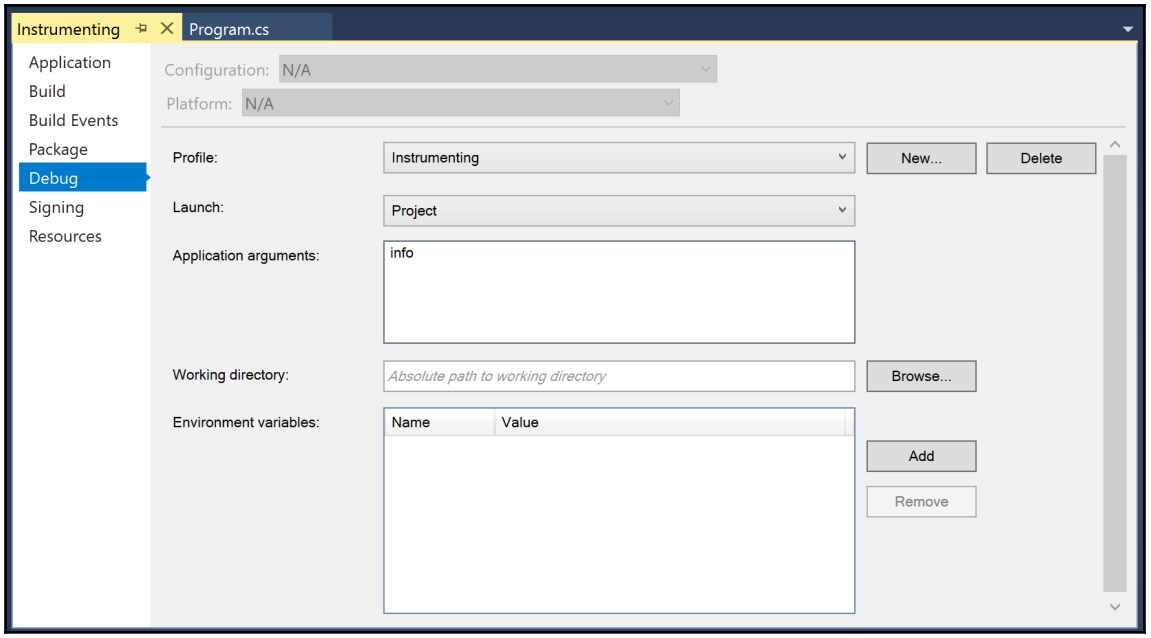

static void Main(string[] args)
{
double a = 4.5; // or use var
double b = 2.5;
double answer = Add(a, b);
WriteLine($"{a} + {b} = {answer}");
Breakpoint Setting
Location: Program.cs, Line: 21, Character: 13, Must match source
Conditions
Conditional Expression
Is true
answer > 9
And Hit Count
=
3
Saved
Add condition
Actions
Close
ReadLine(); // wait for user to press ENTER

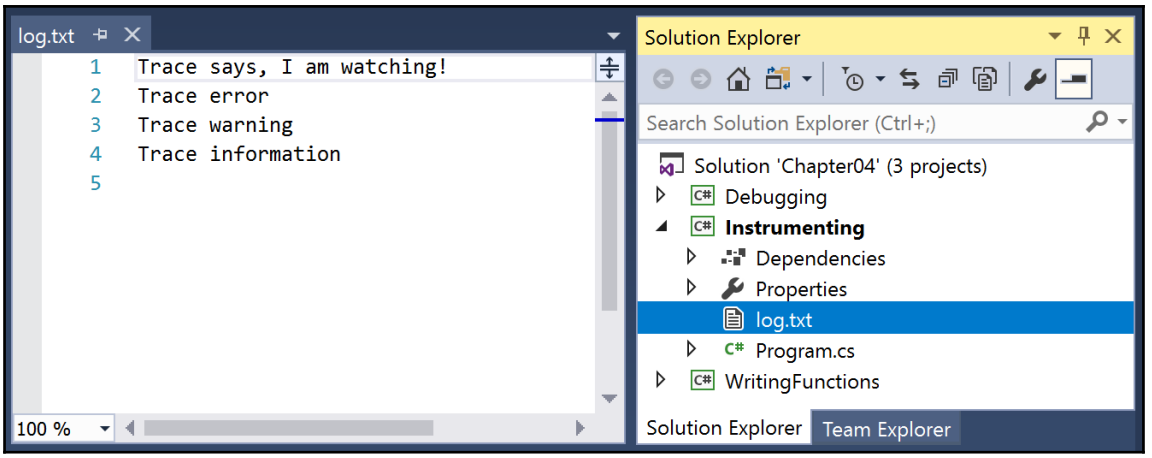

Output
Show output from: Debug
'dotnet.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETC
'dotnet.exe' (CoreCLR: clrhost): Loaded 'C:\Program Files\dotnet\shared\Microsoft.NETC
Debug says, I am watching!
Trace says, I am watching!
The program '[8948] dotnet.exe' has exited with code 0 (0x0).

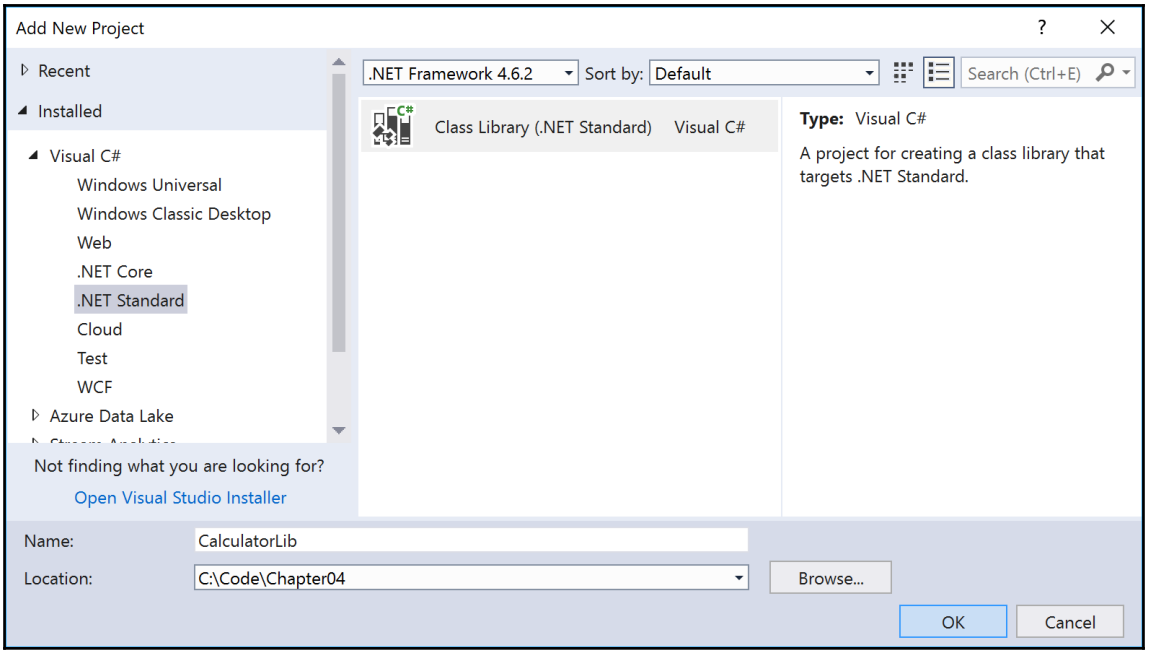

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — Instrumenting
DEBUG
VARIABLES
WATCH
CALL STACK
BREAKPOINTS
All Exceptions
User-Unhandled Exce
Welcome
Program.cs
using System.Diagnostics;
namespace Instrumenting
{
0 references
class Program
{
0 references
static void Main(string[] args)
{
Debug.WriteLine("Debug says, I am watching!");
Trace.WriteLine("Trace says, I am watching!");
}
}
}
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
Debug says, I am watching!
Loaded '/usr/local/share/dotnet/shared/Microsoft.NETCore.App/2.0.0-preview2-25407-01/System.Threading.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just My Code' is enabled.
Loaded '/usr/local/share/dotnet/shared/Microsoft.NETCore.App/2.0.0-preview2-25407-01/System.Collections.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just My Code' is enabled.
Loaded '/usr/local/share/dotnet/shared/Microsoft.NETCore.App/2.0.0-preview2-25407-01/System.Runtime.Extensions.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just My Code' is enabled.
Trace says, I am watching!
0 0
Ln 2, Col 1 Spaces: 4 UTF-8 with BOM CRLF C# Instrumenting

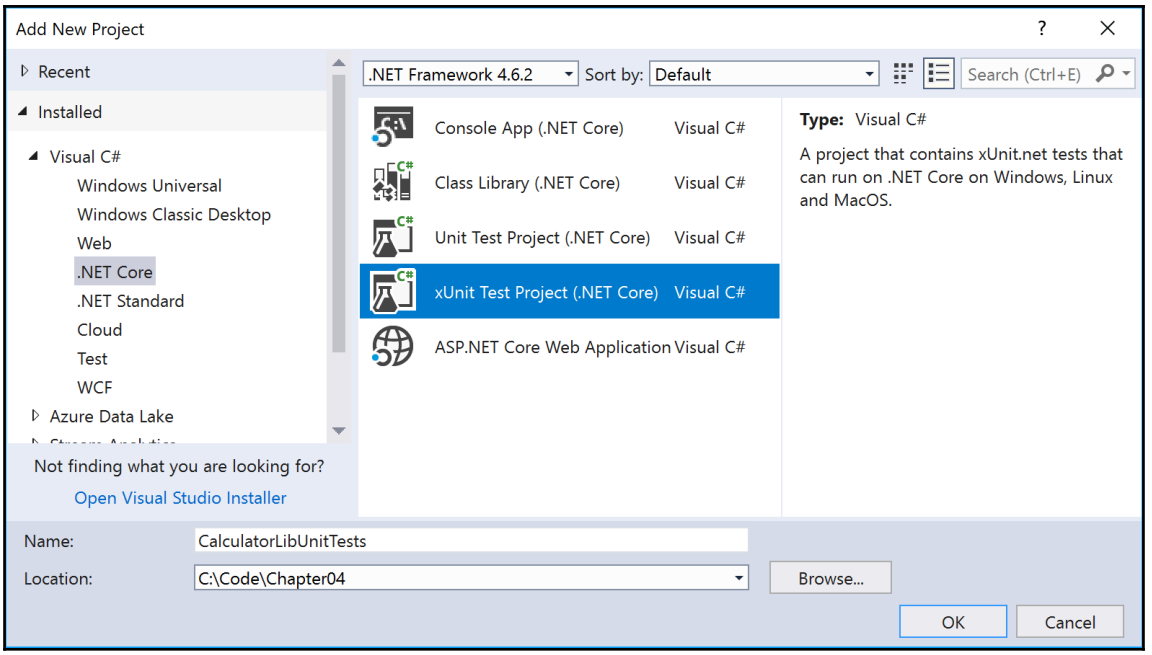

Code File Edit Selection View Go Debug Tasks Window Help
log.txt — Instrumenting
EXPLORER
OPEN EDITORS
Program.cs
log.txt
INSTRUMENTING
.vscode
bin
obj
Instrumenting.csproj
log.txt
Program.cs
Program.cs
log.txt
Trace says, I am watching!

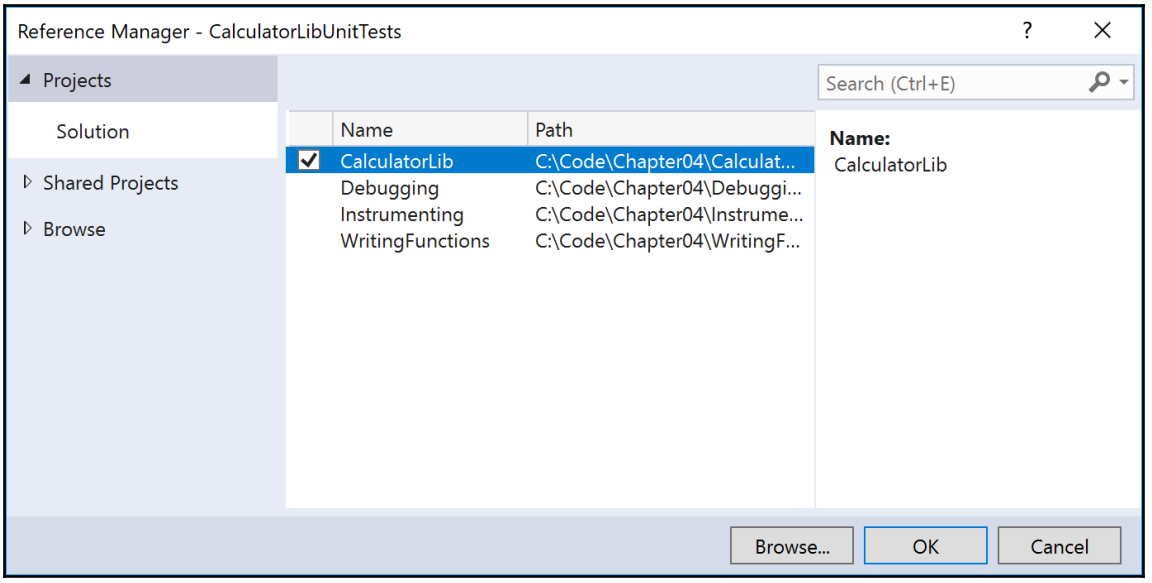

Code File Edit Selection View Go Debug Tasks Window Help
log.txt — Instrumenting
EXPLORER
OPEN EDITORS
Program.cs
log.txt
INSTRUMENTING
.vscode
bin
obj
Instrumenting.csproj
log.txt
Program.cs
Program.cs
log.txt
1 Trace says, I am watching!
2 Trace error
3 Trace warning
4 Trace information
5
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: bash
Marks-MacBook-Pro-13:Instrumenting markjprice$ dotnet run info
Marks-MacBook-Pro-13:Instrumenting markjprice$
0 0
Ln 1, Col 1 Spaces: 4 UTF-8 LF Plain Text

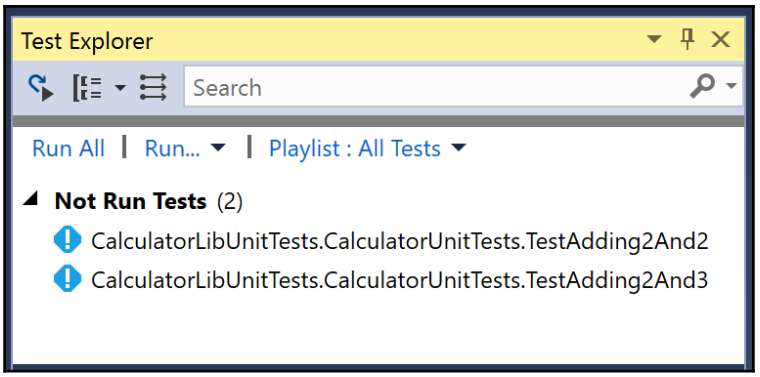

Instrumenting
Program.cs
Application
Build
Build Events
Package
Debug
Signing
Resources
Configuration: N/A
Platform: N/A
Profile: Instrumenting
New...
Delete
Launch: Project
Application arguments: info
Working directory: Absolute path to working directory
Browse...
Environment variables:
Name
Value
Add
Remove

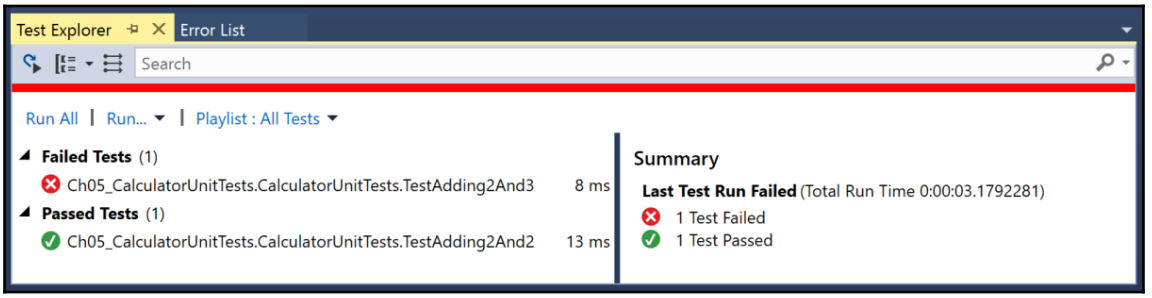

log.txt
1 Trace says, I am watching!
2 Trace error
3 Trace warning
4 Trace information
5
100 %
Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Chapter04' (3 projects)
Debugging
Instrumenting
Dependencies
Properties
log.txt
Program.cs
WritingFunctions
Solution Explorer
Team Explorer

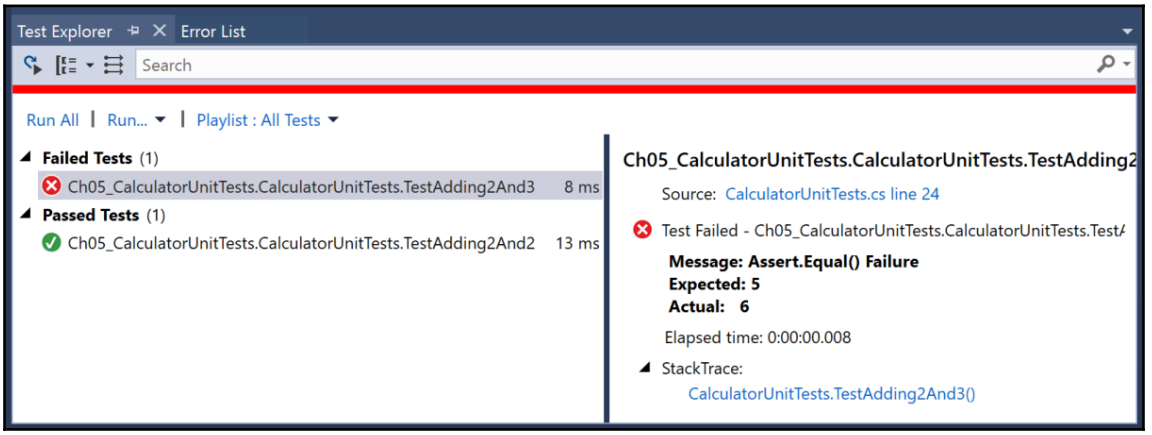

Add New Project
Recent
Installed
Visual C#
Windows Universal
Windows Classic Desktop
Web
.NET Core
.NET Standard
Cloud
Test
WCF
Azure Data Lake
Not finding what you are looking for?
Open Visual Studio Installer
.NET Framework 4.6.2
Sort by:
Default
Search (Ctrl+E)
Class Library (.NET Standard)
Visual C#
Type: Visual C#
A project for creating a class library that targets .NET Standard.
Name:
CalculatorLib
Location:
C:\Code\Chapter04
Browse...
OK
Cancel

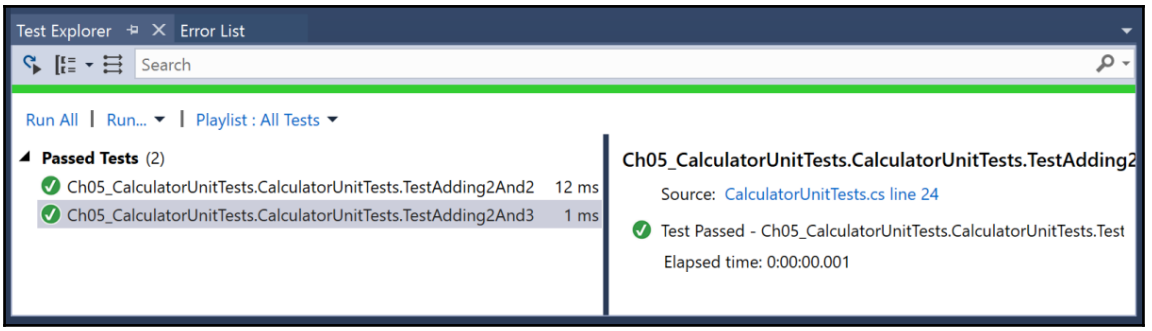

Add New Project
Recent
Installed
Visual C#
Windows Universal
Windows Classic Desktop
Web
.NET Core
.NET Standard
Cloud
Test
WCF
Azure Data Lake
Not finding what you are looking for?
Open Visual Studio Installer
.NET Framework 4.6.2
Sort by:
Default
Search (Ctrl+E)
Console App (.NET Core) Visual C#
Class Library (.NET Core) Visual C#
Unit Test Project (.NET Core) Visual C#
xUnit Test Project (.NET Core) Visual C#
ASP.NET Core Web Application Visual C#
Type: Visual C#
A project that contains xUnit.net tests that can run on .NET Core on Windows, Linux and MacOS.
Name:
CalculatorLibUnitTests
Location:
C:\Code\Chapter04
Browse...
OK
Cancel

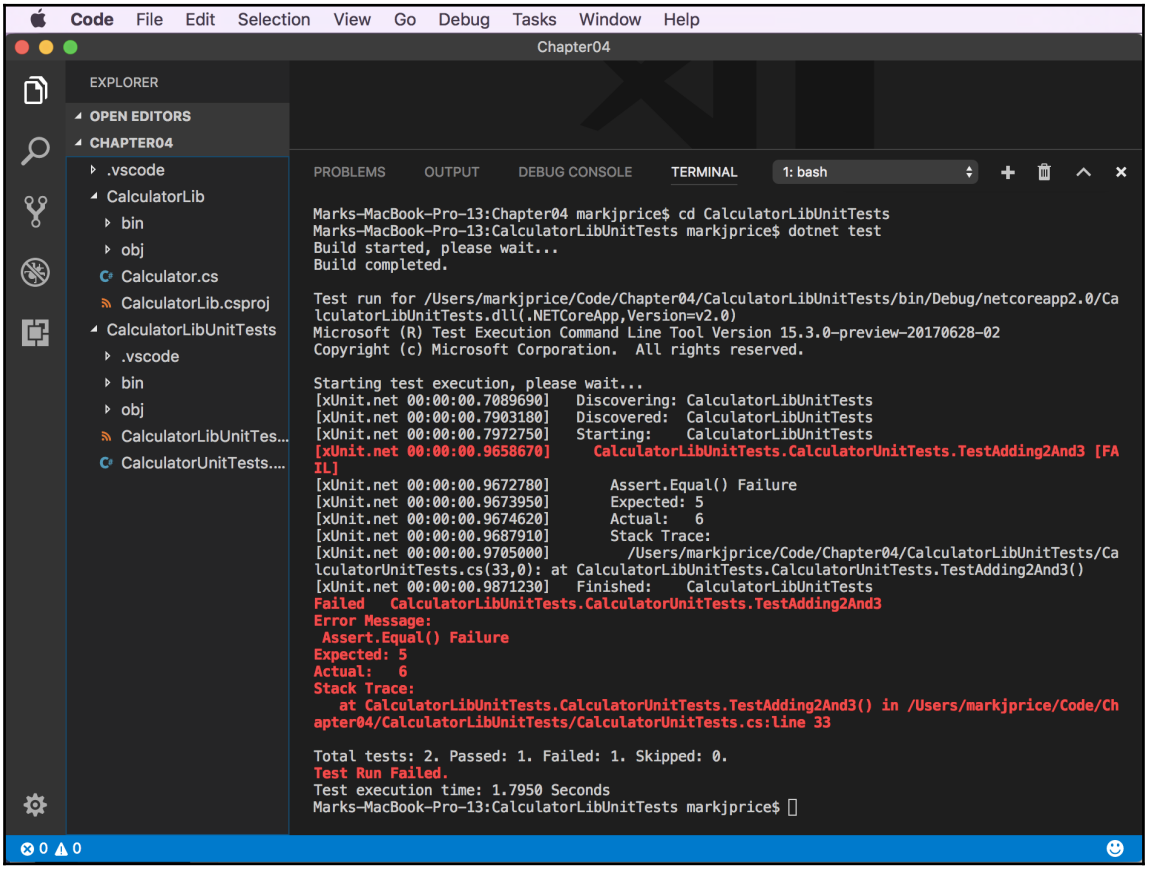

Reference Manager - CalculatorLibUnitTests
Projects
Solution
Shared Projects
Browse
Search (Ctrl+E)
Name
Path
CalculatorLib C:\Code\Chapter04\Calculat...
Debugging C:\Code\Chapter04\Debuggi...
Instrumenting C:\Code\Chapter04\Instrume...
WritingFunctions C:\Code\Chapter04\WritingF...
Name:
CalculatorLib
Browse...
OK
Cancel

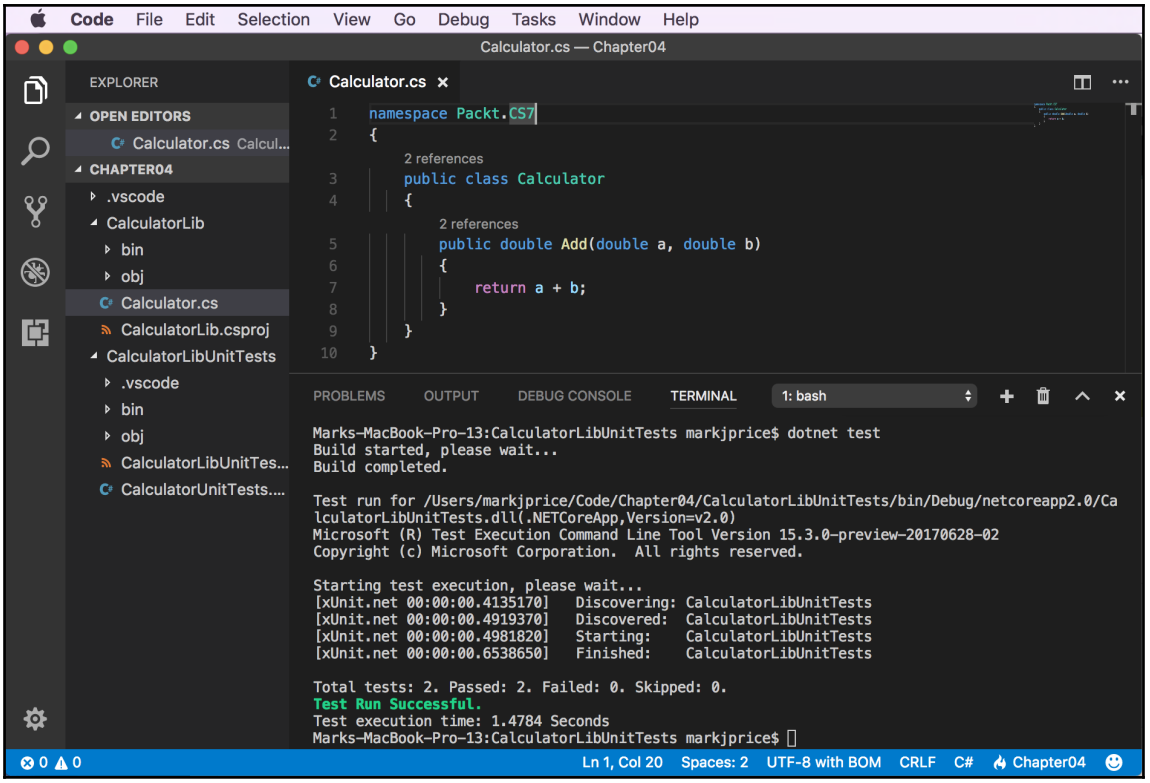

Test Explorer
Search
Run All | Run... | Playlist : All Tests
Not Run Tests (2)
CalculatorLibUnitTests.CalculatorUnitTests.TestAdding2And2
CalculatorLibUnitTests.CalculatorUnitTests.TestAdding2And3


Test Explorer
Error List
Search
Run All | Run... | Playlist : All Tests
Failed Tests (1)
Ch05_CalculatorUnitTests.CalculatorUnitTests.TestAdding2And3 8 ms
Passed Tests (1)
Ch05_CalculatorUnitTests.CalculatorUnitTests.TestAdding2And2 13 ms
Summary
Last Test Run Failed (Total Run Time 0:00:03.1792281)
1 Test Failed
1 Test Passed

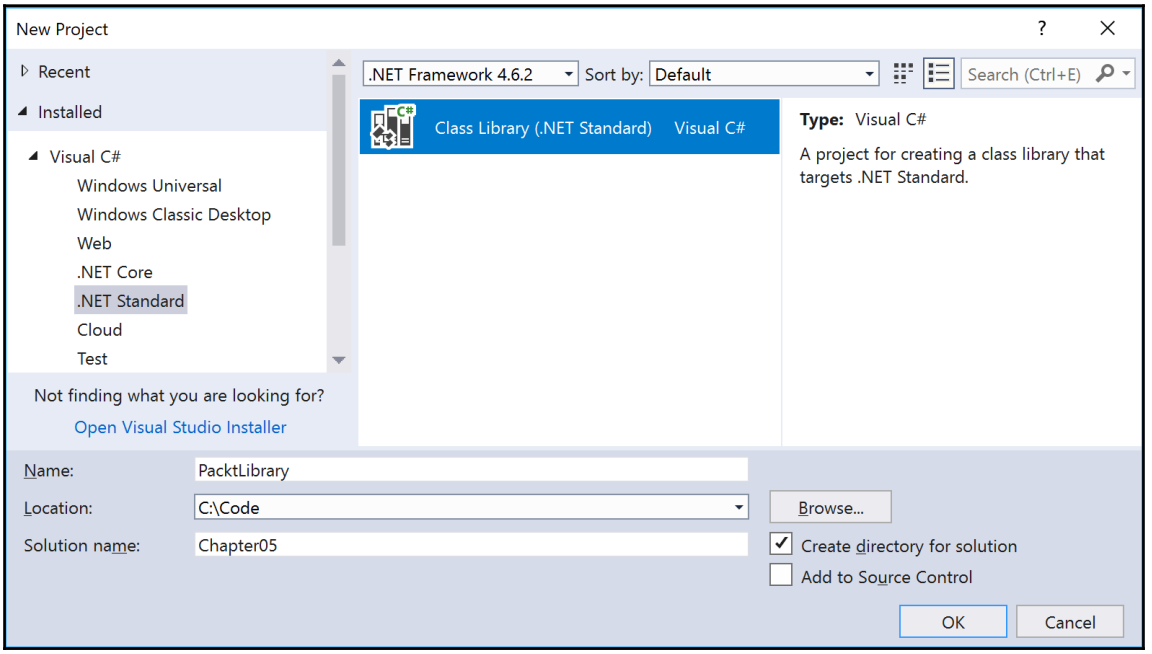

Test Explorer
Error List
Search
Run All | Run... | Playlist : All Tests
Failed Tests (1)
Ch05_CalculatorUnitTests.CalculatorUnitTests.TestAdding2And3 8 ms
Passed Tests (1)
Ch05_CalculatorUnitTests.CalculatorUnitTests.TestAdding2And2 13 ms
Ch05_CalculatorUnitTests.CalculatorUnitTests.TestAdding2
Source: CalculatorUnitTests.cs line 24
Test Failed - Ch05_CalculatorUnitTests.CalculatorUnitTests.Test
Message: Assert.Equal() Failure
Expected: 5
Actual: 6
Elapsed time: 0:00:00.008
StackTrace:
CalculatorUnitTests.TestAdding2And3()

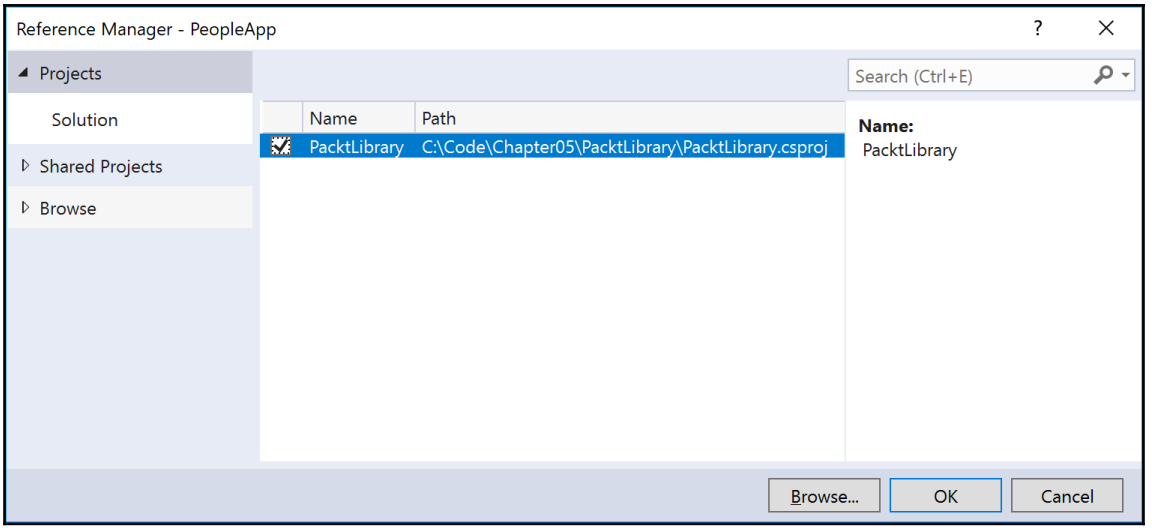

Test Explorer
Error List
Search
Run All | Run... | Playlist : All Tests
Passed Tests (2)
Ch05_CalculatorUnitTests.CalculatorUnitTests.TestAdding2And2 12 ms
Ch05_CalculatorUnitTests.CalculatorUnitTests.TestAdding2And3 1 ms
Ch05_CalculatorUnitTests.CalculatorUnitTests.TestAdding2
Source: CalculatorUnitTests.cs line 24
Test Passed - Ch05_CalculatorUnitTests.CalculatorUnitTests.Test
Elapsed time: 0:00:00.001

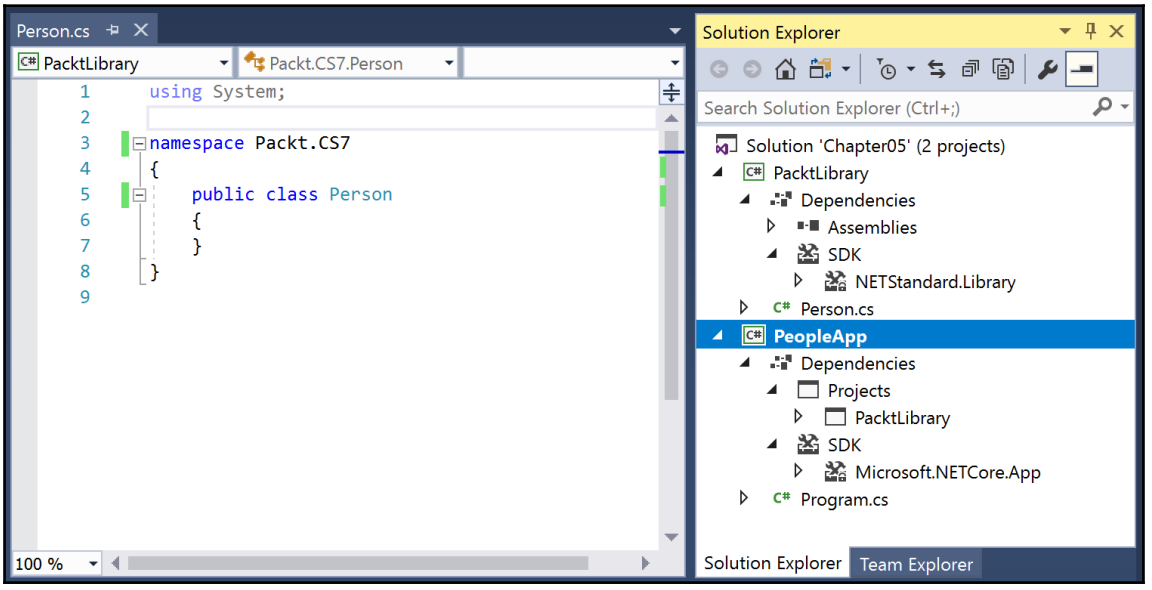

Code File Edit Selection View Go Debug Tasks Window Help
Chapter04
EXPLORER
OPEN EDITORS
CHAPTER04
.vscode
CalculatorLib
bin
obj
Calculator.cs
CalculatorLib.csproj
CalculatorLibUnitTests
.vscode
bin
obj
CalculatorLibUnitTes...
CalculatorUnitTests....
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: bash
Marks-MacBook-Pro-13:Chapter04 markjprice$ cd CalculatorLibUnitTests
Marks-MacBook-Pro-13:CalculatorLibUnitTests markjprice$ dotnet test
Build started, please wait...
Build completed.
Test run for /Users/markjprice/Code/Chapter04/CalculatorLibUnitTests/bin/Debug/netcoreapp2.0/CalculatorLibUnitTests.dll(.NETCoreApp,Version=v2.0)
Microsoft (R) Test Execution Command Line Tool Version 15.3.0-preview-20170628-02
Copyright (c) Microsoft Corporation. All rights reserved.
Starting test execution, please wait...
[xUnit.net 00:00:00.7089690] Discovering: CalculatorLibUnitTests
[xUnit.net 00:00:00.7903180] Discovered: CalculatorLibUnitTests
[xUnit.net 00:00:00.7972750] Starting: CalculatorLibUnitTests
[xUnit.net 00:00:00.9658670] CalculatorLibUnitTests.CalculatorUnitTests.TestAdding2And3 [FAIL]
[xUnit.net 00:00:00.9672780] Assert.Equal() Failure
[xUnit.net 00:00:00.9673950] Expected: 5
[xUnit.net 00:00:00.9674620] Actual: 6
[xUnit.net 00:00:00.9687910] Stack Trace:
[xUnit.net 00:00:00.9705000] /Users/markjprice/Code/Chapter04/CalculatorLibUnitTests/CalculatorUnitTests.cs(33,0): at CalculatorLibUnitTests.CalculatorUnitTests.TestAdding2And3()
[xUnit.net 00:00:00.9871230] Finished: CalculatorLibUnitTests
Failed CalculatorLibUnitTests.CalculatorUnitTests.TestAdding2And3
Error Message:
Assert.Equal() Failure
Expected: 5
Actual: 6
Stack Trace:
at CalculatorLibUnitTests.CalculatorUnitTests.TestAdding2And3() in /Users/markjprice/Code/Chapter04/CalculatorLibUnitTests/CalculatorUnitTests.cs:line 33
Total tests: 2. Passed: 1. Failed: 1. Skipped: 0.
Test Run Failed.
Test execution time: 1.7950 Seconds
Marks-MacBook-Pro-13:CalculatorLibUnitTests markjprice$
0 0

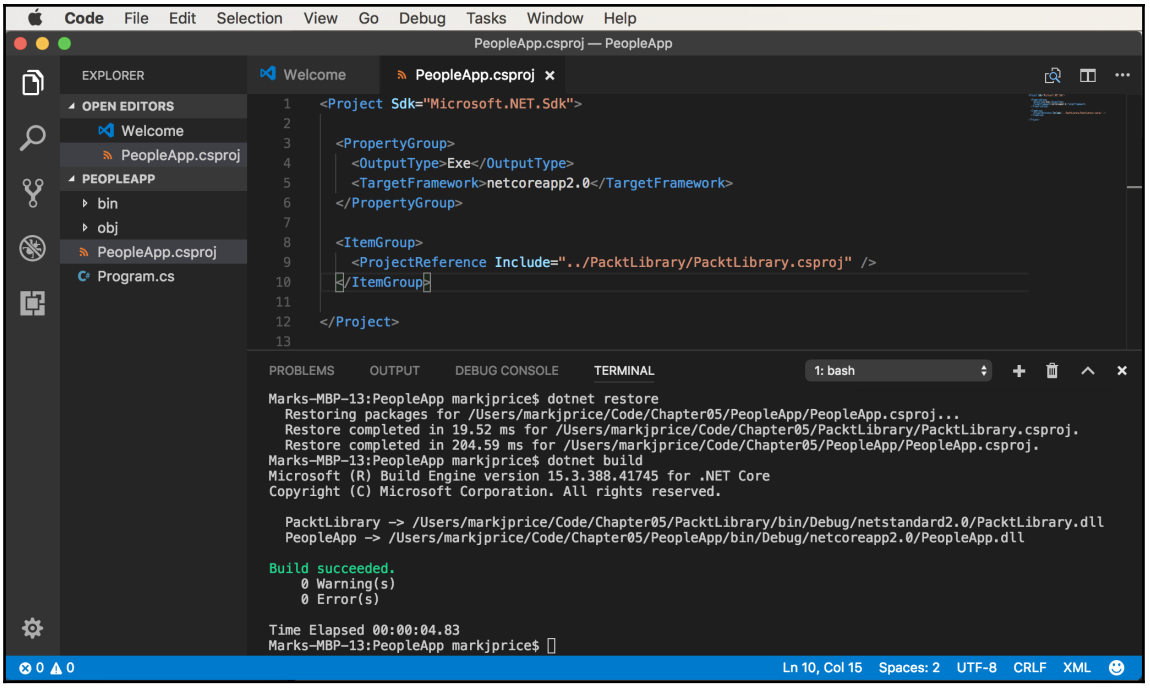

Code File Edit Selection View Go Debug Tasks Window Help
Calculator.cs — Chapter04
EXPLORER
OPEN EDITORS
Calculator.cs Calcul...
CHAPTER04
.vscode
CalculatorLib
bin
obj
Calculator.cs
CalculatorLib.csproj
CalculatorLibUnitTests
.vscode
bin
obj
CalculatorLibUnitTes...
CalculatorUnitTests....
Calculator.cs
namespace Packt.CS7
{
2 references
public class Calculator
{
2 references
public double Add(double a, double b)
{
return a + b;
}
}
}
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: bash
Marks-MacBook-Pro-13:CalculatorLibUnitTests markjprice$ dotnet test
Build started, please wait...
Build completed.
Test run for /Users/markjprice/Code/Chapter04/CalculatorLibUnitTests/bin/Debug/netcoreapp2.0/CalculatorLibUnitTests.dll(.NETCoreApp,Version=v2.0)
Microsoft (R) Test Execution Command Line Tool Version 15.3.0-preview-20170628-02
Copyright (c) Microsoft Corporation. All rights reserved.
Starting test execution, please wait...
[xUnit.net 00:00:00.4135170] Discovering: CalculatorLibUnitTests
[xUnit.net 00:00:00.4919370] Discovered: CalculatorLibUnitTests
[xUnit.net 00:00:00.4981820] Starting: CalculatorLibUnitTests
[xUnit.net 00:00:00.6538650] Finished: CalculatorLibUnitTests
Total tests: 2. Passed: 2. Failed: 0. Skipped: 0.
Test Run Successful.
Test execution time: 1.4784 Seconds
Marks-MacBook-Pro-13:CalculatorLibUnitTests markjprice$
0 0
Ln 1, Col 20 Spaces: 2 UTF-8 with BOM CRLF C# Chapter04

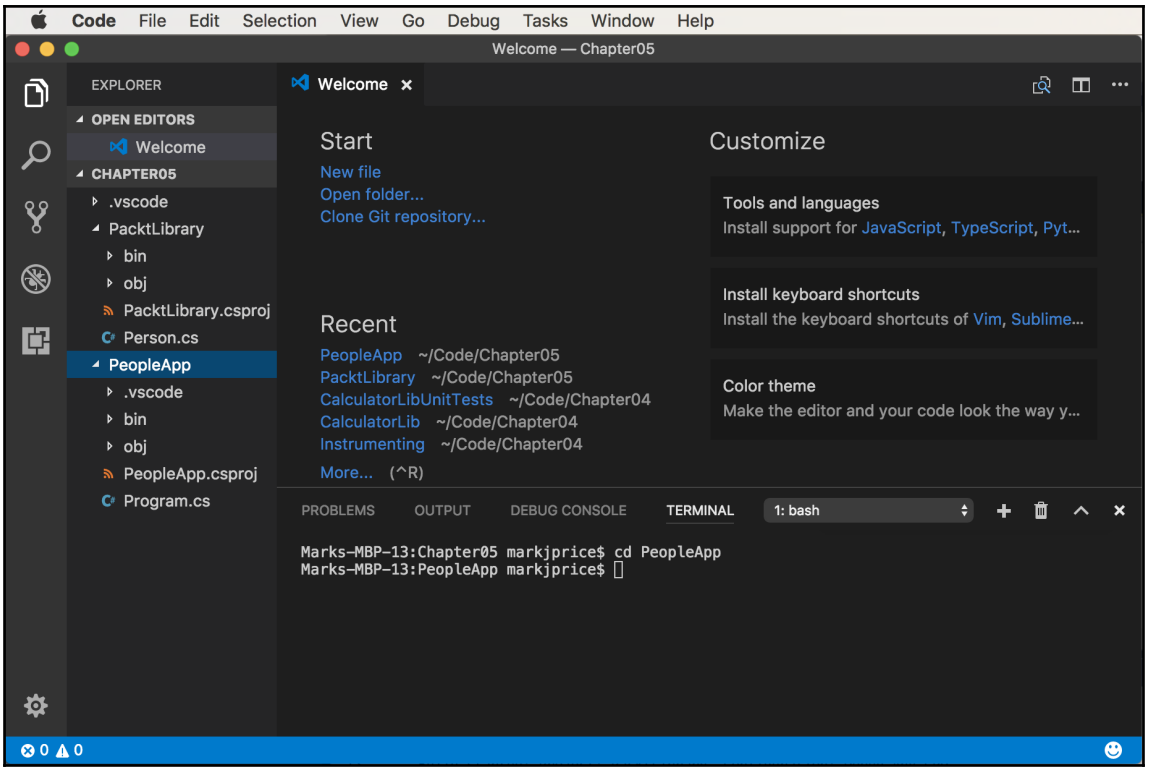
Chapter 5: Building Your Own Types with Object-Oriented Programming



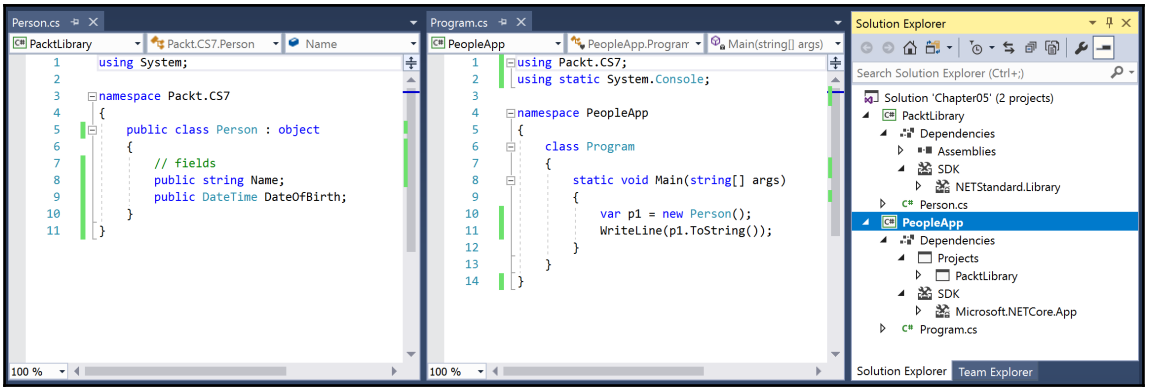

Reference Manager - PeopleApp
Projects
Solution
Shared Projects
Browse
Search (Ctrl+E)
Name
Path
PacktLibrary
C:\Code\Chapter05\PacktLibrary\PacktLibrary.csproj
Name:
PacktLibrary
Browse...
OK
Cancel

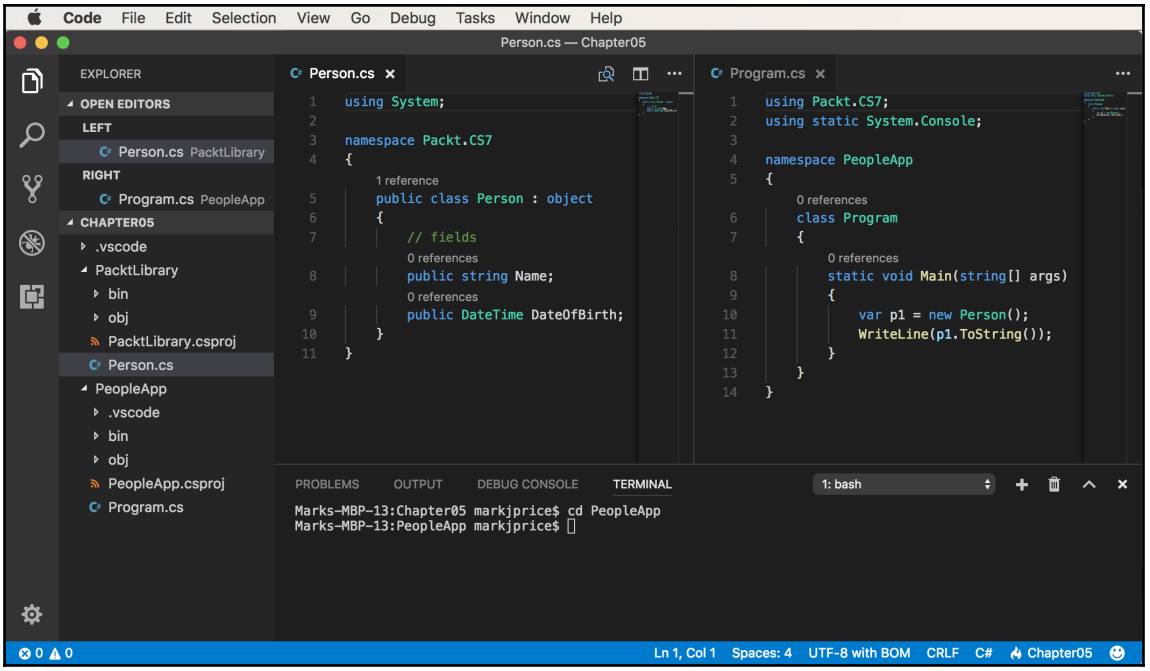

Person.cs
PacktLibrary
Packt.CS7.Person
using System;
namespace Packt.CS7
{
public class Person
{
}
}
100 %
Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Chapter05' (2 projects)
PacktLibrary
Dependencies
Assemblies
SDK
NETStandard.Library
Person.cs
PeopleApp
Dependencies
Projects
PacktLibrary
SDK
Microsoft.NETCore.App
Program.cs
Solution Explorer
Team Explorer

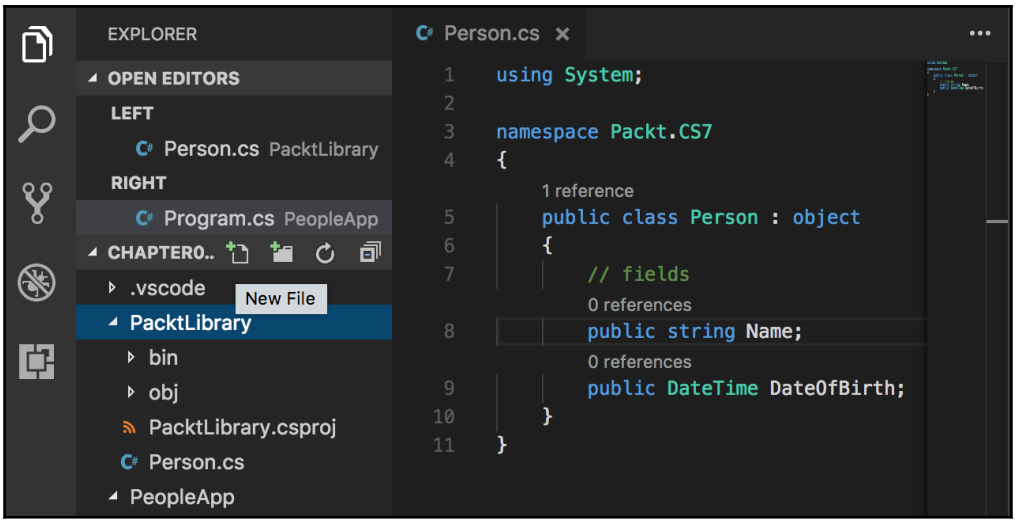

Code File Edit Selection View Go Debug Tasks Window Help
PeopleApp.csproj — PeopleApp
EXPLORER
OPEN EDITORS
Welcome
PeopleApp.csproj
PEOPLEAPP
bin
obj
PeopleApp.csproj
Program.cs
Welcome
PeopleApp.csproj
<Project Sdk="Microsoft.NET.Sdk">
<PropertyGroup>
<OutputType>Exe</OutputType>
<TargetFramework>netcoreapp2.0</TargetFramework>
</PropertyGroup>
<ItemGroup>
<ProjectReference Include="../PacktLibrary/PacktLibrary.csproj" />
</ItemGroup>
</Project>
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: bash
Marks-MBP-13:PeopleApp markjprice$ dotnet restore
Restoring packages for /Users/markjprice/Code/Chapter05/PeopleApp/PeopleApp.csproj...
Restore completed in 19.52 ms for /Users/markjprice/Code/Chapter05/PacktLibrary/PacktLibrary.csproj.
Restore completed in 204.59 ms for /Users/markjprice/Code/Chapter05/PeopleApp/PeopleApp.csproj.
Marks-MBP-13:PeopleApp markjprice$ dotnet build
Microsoft (R) Build Engine version 15.3.388.41745 for .NET Core
Copyright (C) Microsoft Corporation. All rights reserved.
PacktLibrary -> /Users/markjprice/Code/Chapter05/PacktLibrary/bin/Debug/netstandard2.0/PacktLibrary.dll
PeopleApp -> /Users/markjprice/Code/Chapter05/PeopleApp/bin/Debug/netcoreapp2.0/PeopleApp.dll
Build succeeded.
0 Warning(s)
0 Error(s)
Time Elapsed 00:00:04.83
Marks-MBP-13:PeopleApp markjprice$
0 0
Ln 10, Col 15 Spaces: 2 UTF-8 CRLF XML




```
namespace System
{
    public class Object
    {
        public Object();

        ~Object();

        public static bool Equals(Object objA, Object objB);
        public static bool ReferenceEquals(Object objA, Object objB);
        public virtual bool Equals(Object obj);
        public virtual int GetHashCode();
        public Type GetType();
        public virtual string ToString();
        protected Object MemberwiseClone();
    }
}
```


Person.cs
PacktLibrary
Packt.CS7.Person
Name
using System;
namespace Packt.CS7
{
public class Person : object
{
// fields
public string Name;
public DateTime DateOfBirth;
}
}
Program.cs
PeopleApp
PeopleApp.Program
Main(string[] args)
using Packt.CS7;
using static System.Console;
namespace PeopleApp
{
class Program
{
static void Main(string[] args)
{
var p1 = new Person();
WriteLine(p1.ToString());
}
}
}
100 %
Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Chapter05' (2 projects)
PacktLibrary
Dependencies
Assemblies
SDK
NETStandard.Library
Person.cs
PeopleApp
Dependencies
Projects
PacktLibrary
SDK
Microsoft.NETCore.App
Program.cs
Solution Explorer
Team Explorer


Code File Edit Selection View Go Debug Tasks Window Help
Person.cs — Chapter05
EXPLORER
OPEN EDITORS
LEFT
Person.cs PacktLibrary
RIGHT
Program.cs PeopleApp
CHAPTER05
.vscode
PacktLibrary
bin
obj
PacktLibrary.csproj
Person.cs
PeopleApp
.vscode
bin
obj
PeopleApp.csproj
Program.cs
Person.cs
using System;
namespace Packt.CS7
{
1 reference
public class Person : object
{
// fields
0 references
public string Name;
0 references
public DateTime DateOfBirth;
}
}
Program.cs
using Packt.CS7;
using static System.Console;
namespace PeopleApp
{
0 references
class Program
{
0 references
static void Main(string[] args)
{
var p1 = new Person();
WriteLine(p1.ToString());
}
}
}
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: bash
Marks-MBP-13:Chapter05 markjprice$ cd PeopleApp
Marks-MBP-13:PeopleApp markjprice$
0 0
Ln 1, Col 1 Spaces: 4 UTF-8 with BOM CRLF C# Chapter05




```
(constant) int int.MaxValue = 2147483647
Represents the largest possible value of an int. This field is constant.

(constant) double Math.PI = 3.1415926535897931
Represents the ratio of the circumference of a circle to its diameter, specified by the constant, π.
```

```
1 reference
public ThingOfDefaults()
{
  Population = default; // C# 7.1 and later
  When = de
  Name = de
  People = default;
}
}
```

Feature 'default literal' is not available in C# 7. Please use language version 7.1 or greater. [PacktLibrary]

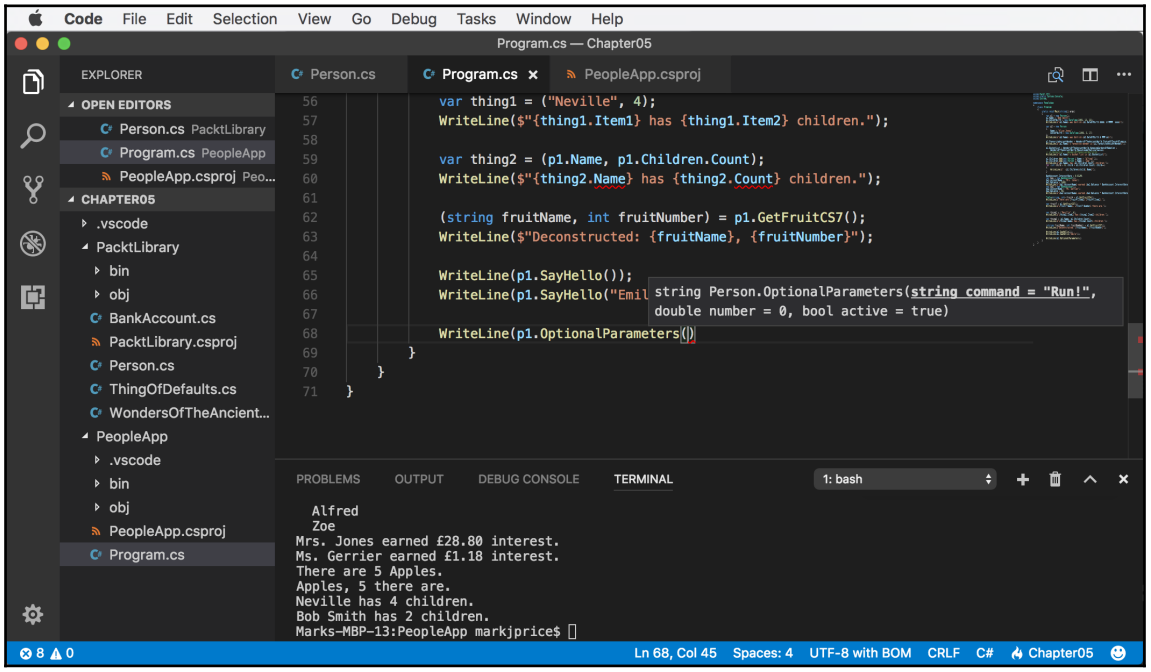
```
SayHello());

string Person.SayHello()
```

```
SayHelloTo("Emily"));
```

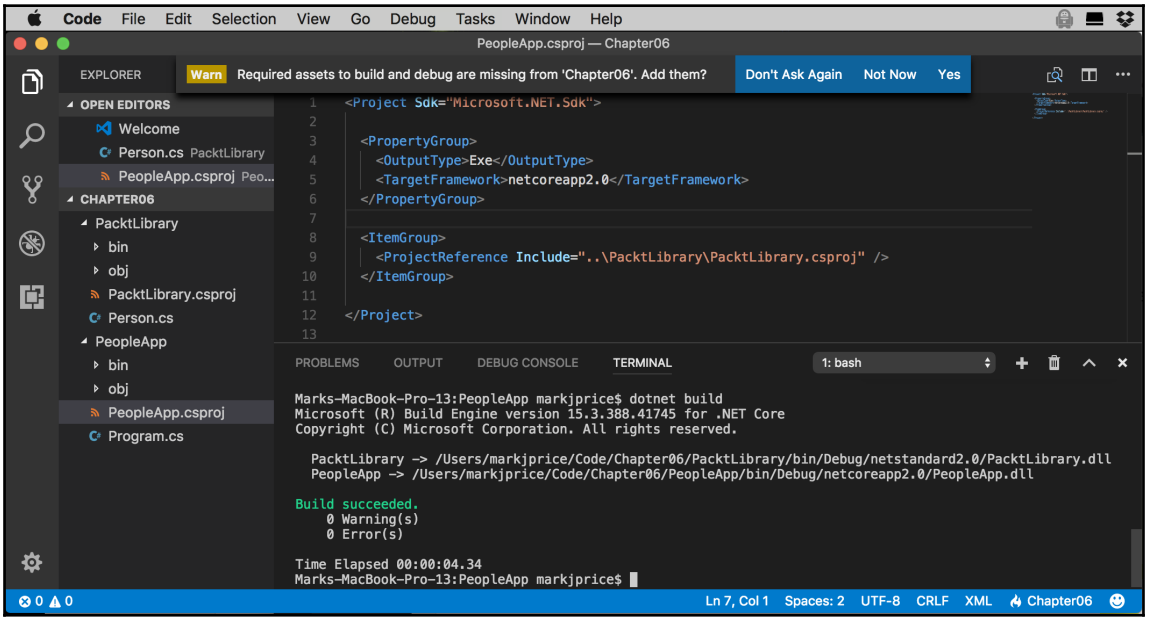
```
string Person.SayHelloTo(string name)
```

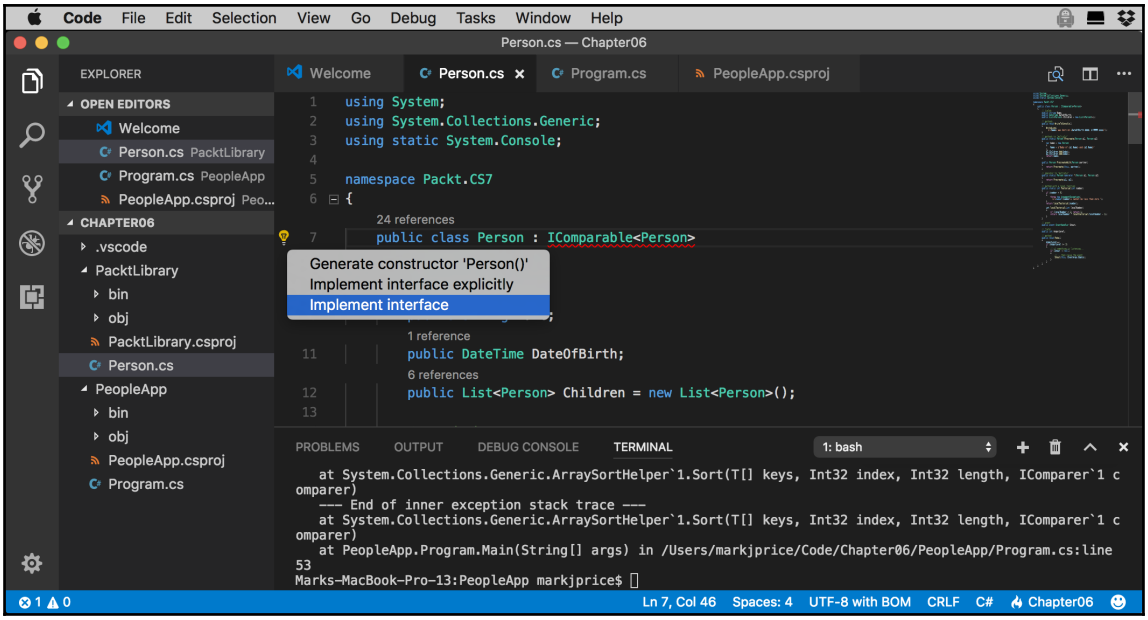
```
SayHello("Emily"));
```

```
string Person.SayHello(string name) (+ 1 overload)
```



Chapter 6: Implementing Interfaces and Inheriting Classes

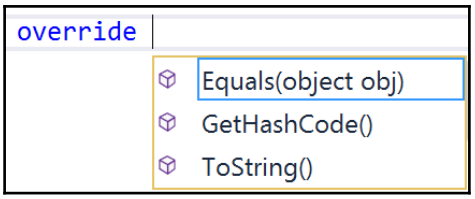


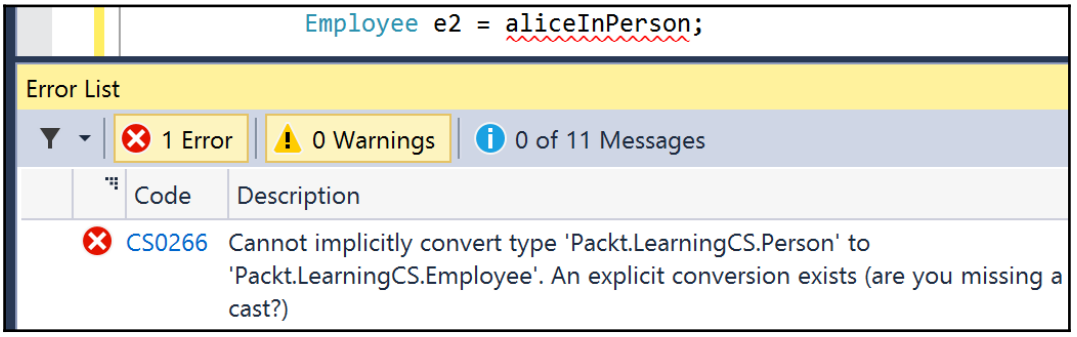


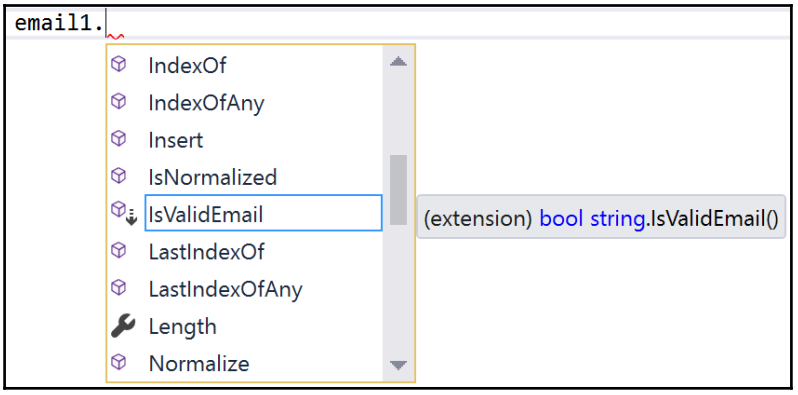

```
2 references
public class Employee : Person
{
    1 reference
    public strin
    3 references
    public DateT

    1 reference
    public void WriteToConsole()
    {
        WriteLine($"{Name}'s birth date is {DateOfBirth:dd/MM/yy} and hire date was {H:
    }
}
```

'Employee.WriteToConsole()' hides inherited member 'Person.WriteToConsole()'. Use the new keyword if hiding was intended. [Ch07_PacktLibrary]

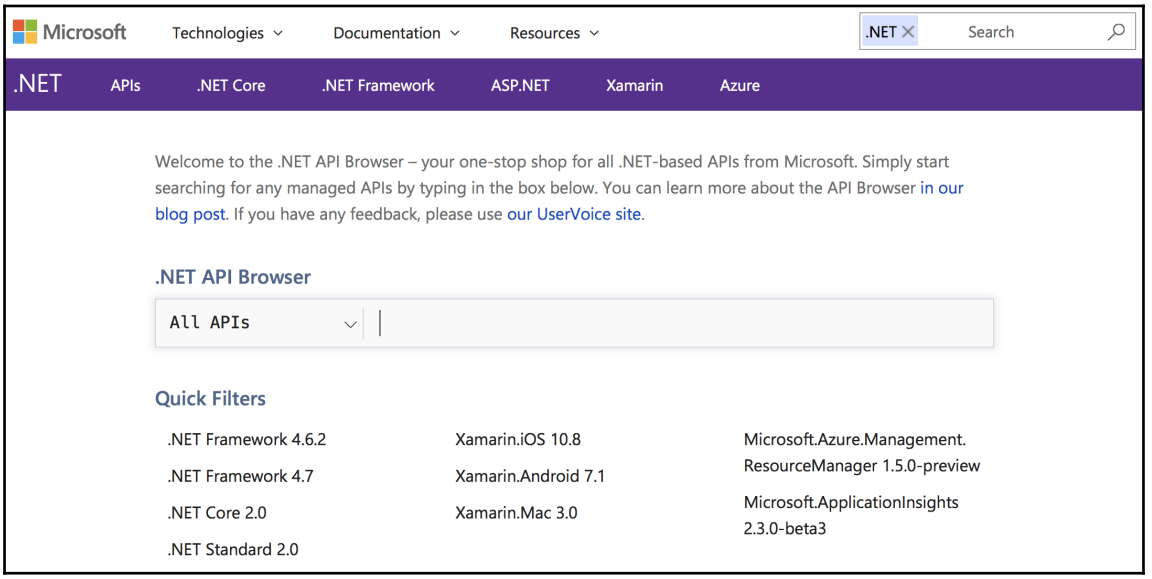
void Employee.WriteToConsole()


override
Equals(object obj)
GetHashCode()
ToString()

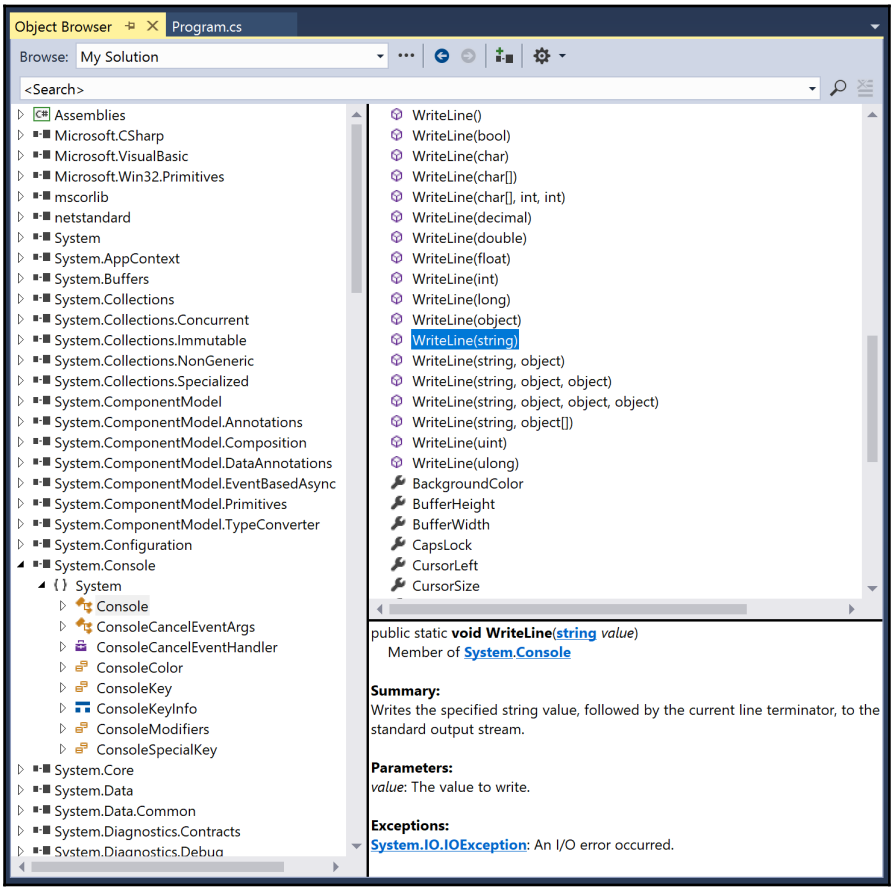

Employee e2 = aliceInPerson;
Error List
1 Error
0 Warnings
0 of 11 Messages
Code
Description
CS0266
Cannot implicitly convert type 'Packt.LearningCS.Person' to 'Packt.LearningCS.Employee'. An explicit conversion exists (are you missing a cast?)

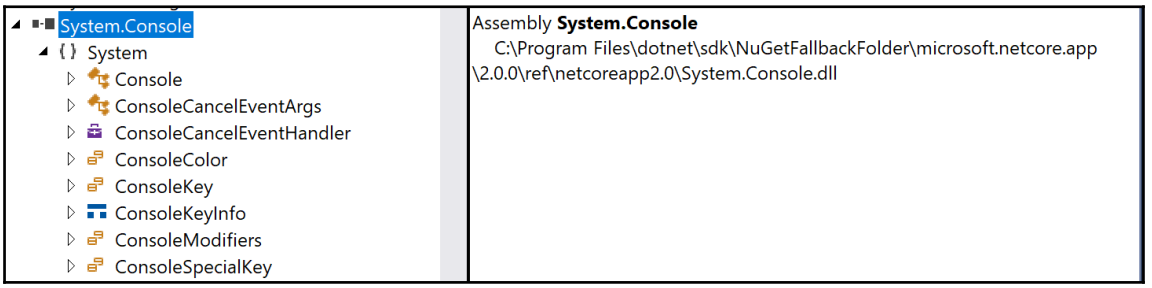

email1.
IndexOf
IndexOfAny
Insert
IsNormalized
IsValidEmail
LastIndexOf
LastIndexOfAny
Length
Normalize
(extension) bool string.IsValidEmail()

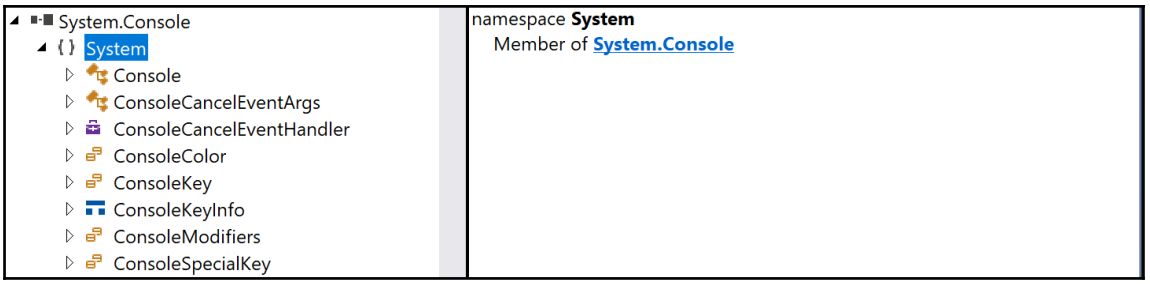
Part 2: .NET Core 2.0 and .NET Standard 2.0

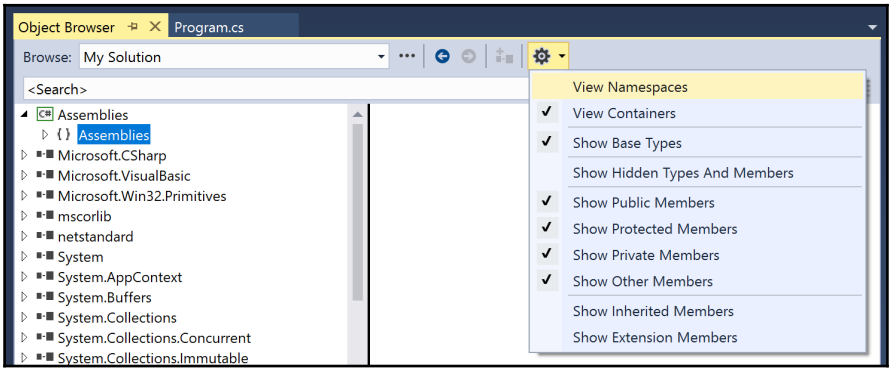


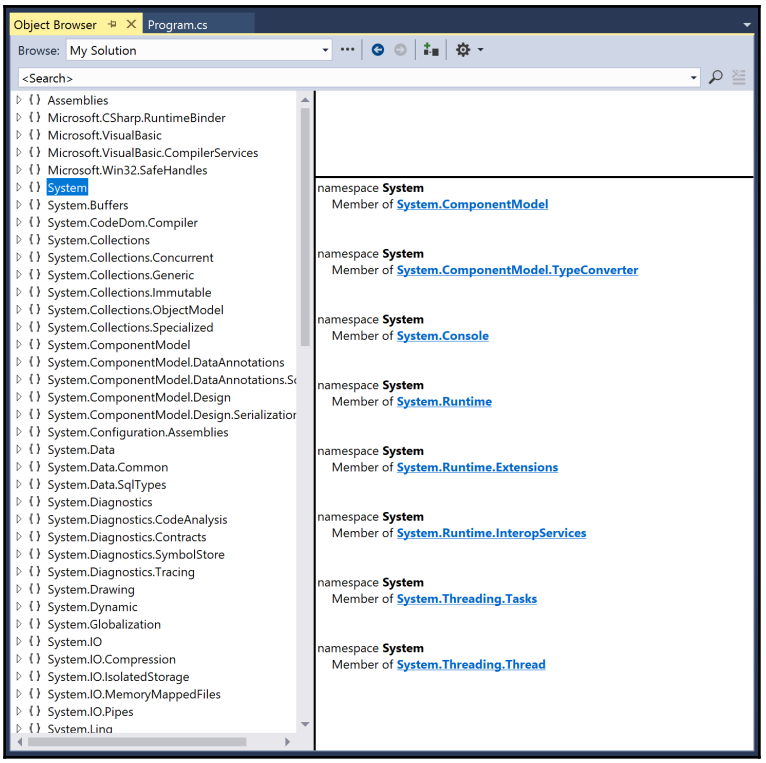
Chapter 7: Understanding and Packaging .NET Standard Types

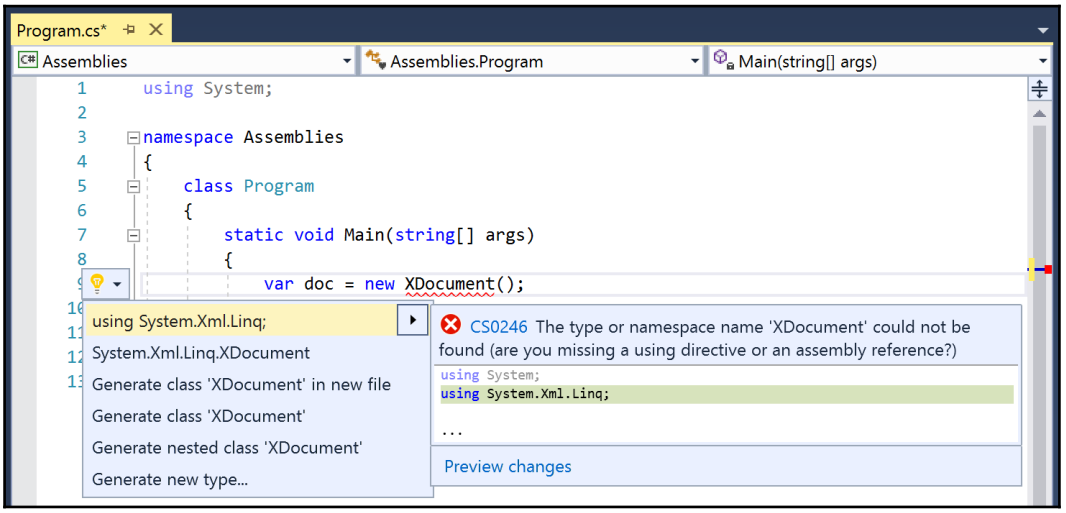


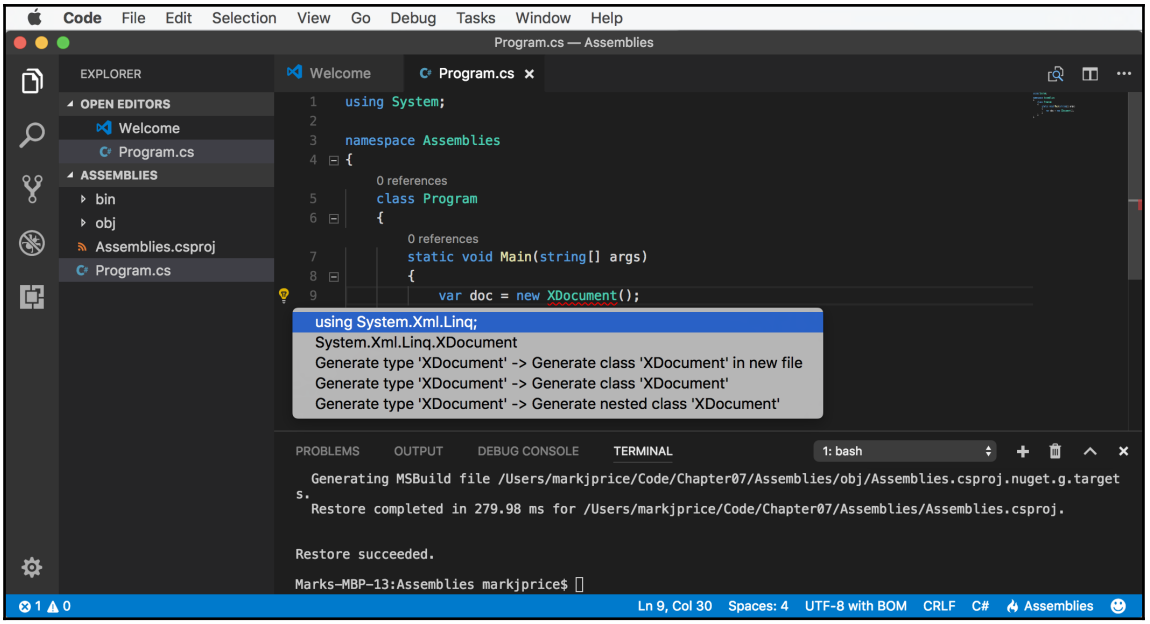


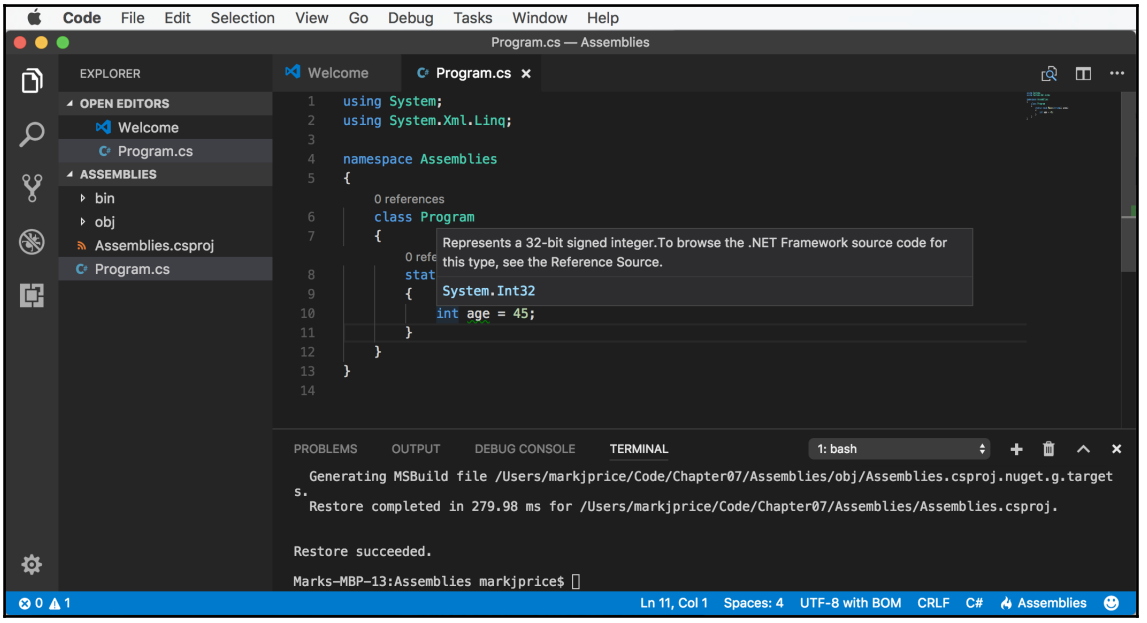

System.Console
System
Console
ConsoleCancelEventArgs
ConsoleCancelEventHandler
ConsoleColor
ConsoleKey
ConsoleKeyInfo
ConsoleModifiers
ConsoleSpecialKey
namespace System
Member of System.Console

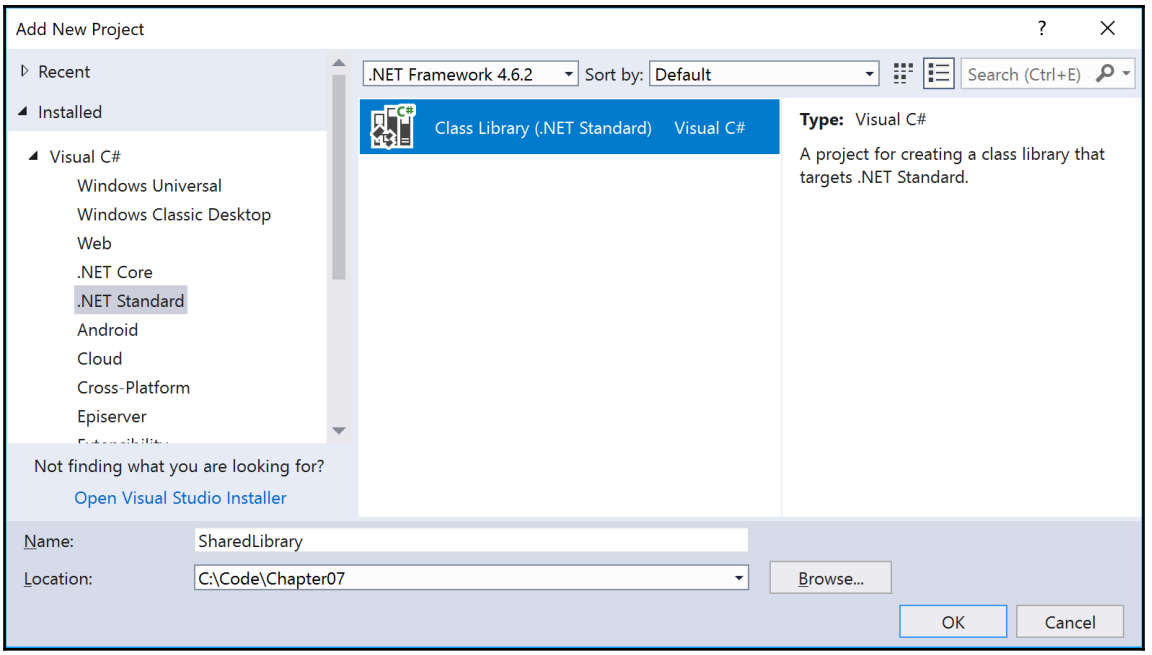

Object Browser
Program.cs
Browse:
My Solution
<Search>
Assemblies
Assemblies
Microsoft.CSharp
Microsoft.VisualBasic
Microsoft.Win32.Primitives
mscorlib
netstandard
System
System.AppContext
System.Buffers
System.Collections
System.Collections.Concurrent
System.Collections.Immutable
View Namespaces
View Containers
Show Base Types
Show Hidden Types And Members
Show Public Members
Show Protected Members
Show Private Members
Show Other Members
Show Inherited Members
Show Extension Members

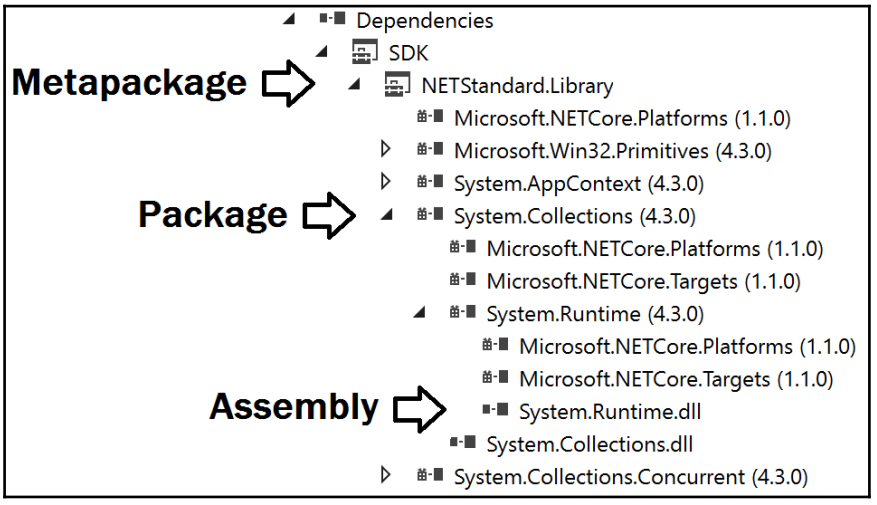

Object Browser
Program.cs
Browse: My Solution
<Search>
Assemblies
Microsoft.CSharp.RuntimeBinder
Microsoft.VisualBasic
Microsoft.VisualBasic.CompilerServices
Microsoft.Win32.SafeHandles
System
System.Buffers
System.CodeDom.Compiler
System.Collections
System.Collections.Concurrent
System.Collections.Generic
System.Collections.Immutable
System.Collections.ObjectModel
System.Collections.Specialized
System.ComponentModel
System.ComponentModel.DataAnnotations
System.ComponentModel.Design
System.ComponentModel.Design.Serialization
System.Configuration.Assemblies
System.Data
System.Data.Common
System.Data.SqlTypes
System.Diagnostics
System.Diagnostics.CodeAnalysis
System.Diagnostics.Contracts
System.Diagnostics.SymbolStore
System.Diagnostics.Tracing
System.Drawing
System.Dynamic
System.Globalization
System.IO
System.IO.Compression
System.IO.IsolatedStorage
System.IO.MemoryMappedFiles
System.IO.Pipes
namespace System
Member of System.ComponentModel
namespace System
Member of System.ComponentModel.TypeConverter
namespace System
Member of System.Console
namespace System
Member of System.Runtime
namespace System
Member of System.Runtime.Extensions
namespace System
Member of System.Runtime.InteropServices
namespace System
Member of System.Threading.Tasks
namespace System
Member of System.Threading.Thread

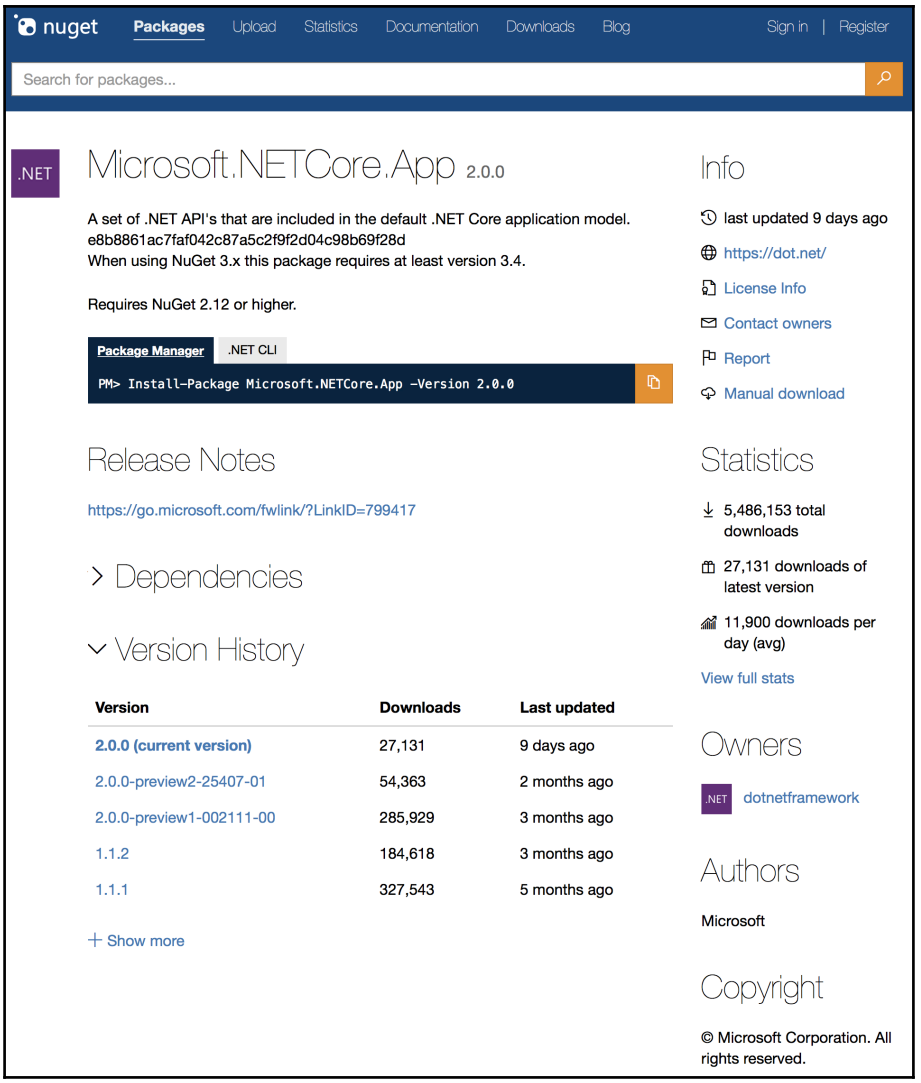

Program.cs*
Assemblies
Assemblies.Program
Main(string[] args)
using System;
namespace Assemblies
{
class Program
{
static void Main(string[] args)
{
var doc = new XDocument();
using System.Xml.Linq;
System.Xml.Linq.XDocument
Generate class 'XDocument' in new file
Generate class 'XDocument'
Generate nested class 'XDocument'
Generate new type...
CS0246 The type or namespace name 'XDocument' could not be found (are you missing a using directive or an assembly reference?)
using System;
using System.Xml.Linq;
...
Preview changes


Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — Assemblies
EXPLORER
OPEN EDITORS
Welcome
Program.cs
ASSEMBLIES
bin
obj
Assemblies.csproj
Program.cs
Welcome
Program.cs
using System;
namespace Assemblies
{
0 references
class Program
{
0 references
static void Main(string[] args)
{
var doc = new XDocument();
using System.Xml.Linq;
System.Xml.Linq.XDocument
Generate type 'XDocument' -> Generate class 'XDocument' in new file
Generate type 'XDocument' -> Generate class 'XDocument'
Generate type 'XDocument' -> Generate nested class 'XDocument'
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
1: bash
Generating MSBuild file /Users/markjprice/Code/Chapter07/Assemblies/obj/Assemblies.csproj.nuget.g.targets.
Restore completed in 279.98 ms for /Users/markjprice/Code/Chapter07/Assemblies/Assemblies.csproj.
Restore succeeded.
Marks-MBP-13:Assemblies markjprice$
1 0
Ln 9, Col 30
Spaces: 4
UTF-8 with BOM
CRLF
C#
Assemblies


Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — Assemblies
EXPLORER
OPEN EDITORS
Welcome
Program.cs
ASSEMBLIES
bin
obj
Assemblies.csproj
Program.cs
Welcome
Program.cs
using System;
using System.Xml.Linq;
namespace Assemblies
{
0 references
class Program
{
Represents a 32-bit signed integer.To browse the .NET Framework source code for this type, see the Reference Source.
System.Int32
int age = 45;
}
}
}
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
1: bash
Generating MSBuild file /Users/markjprice/Code/Chapter07/Assemblies/obj/Assemblies.csproj.nuget.g.targets.
Restore completed in 279.98 ms for /Users/markjprice/Code/Chapter07/Assemblies/Assemblies.csproj.
Restore succeeded.
Marks-MBP-13:Assemblies markjprice$
0 1
Ln 11, Col 1
Spaces: 4
UTF-8 with BOM
CRLF
C#
Assemblies

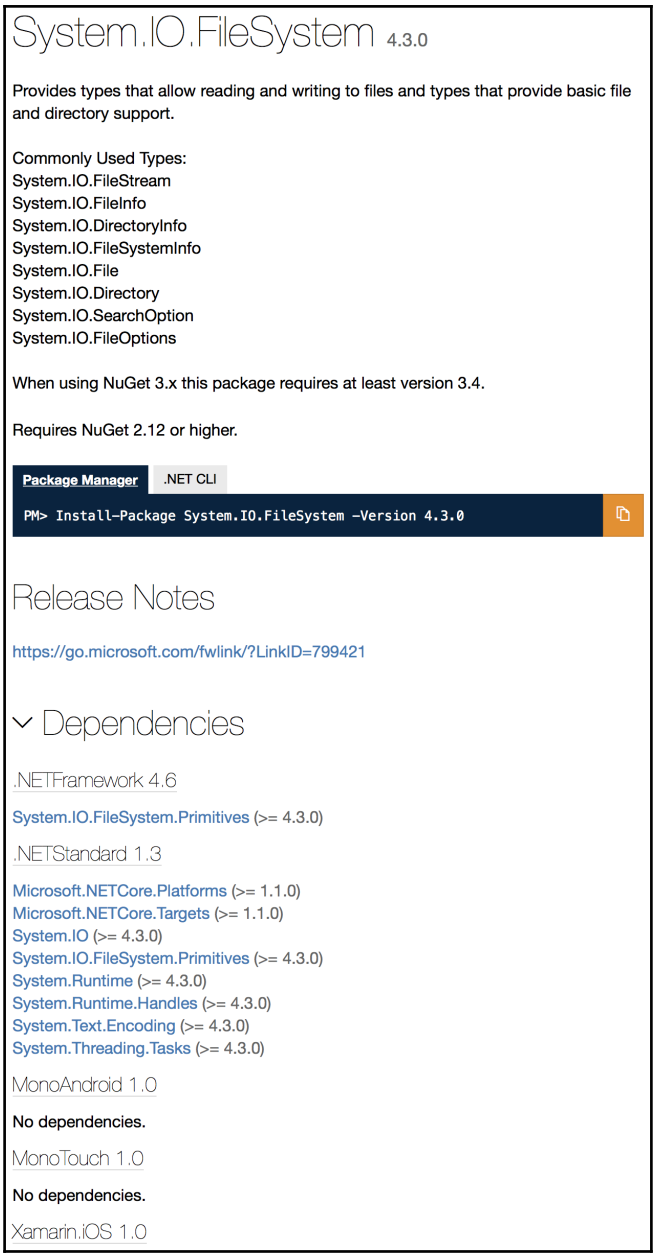

Add New Project
Recent
Installed
Visual C#
Windows Universal
Windows Classic Desktop
Web
.NET Core
.NET Standard
Android
Cloud
Cross-Platform
Episerver
Not finding what you are looking for?
Open Visual Studio Installer
.NET Framework 4.6.2
Sort by:
Default
Search (Ctrl+E)
Class Library (.NET Standard) Visual C#
Type: Visual C#
A project for creating a class library that targets .NET Standard.
Name:
SharedLibrary
Location:
C:\Code\Chapter07
Browse...
OK
Cancel


Dependencies
SDK
Metapackage
NETStandard.Library
Microsoft.NETCore.Platforms (1.1.0)
Microsoft.Win32.Primitives (4.3.0)
System.AppContext (4.3.0)
Package
System.Collections (4.3.0)
Microsoft.NETCore.Platforms (1.1.0)
Microsoft.NETCore.Targets (1.1.0)
System.Runtime (4.3.0)
Microsoft.NETCore.Platforms (1.1.0)
Microsoft.NETCore.Targets (1.1.0)
Assembly
System.Runtime.dll
System.Collections.dll
System.Collections.Concurrent (4.3.0)



.NETCoreApp 2.0

Microsoft.NETCore.DotNetHostPolicy (>= 2.0.0)
Microsoft.NETCore.Platforms (>= 2.0.0)
NETStandard.Library (>= 2.0.0)



System.IO.FileSystem 4.3.0

Provides types that allow reading and writing to files and types that provide basic file and directory support.

Commonly Used Types:
System.IO.FileStream
System.IO.FileInfo
System.IO.DirectoryInfo
System.IO.FileSystemInfo
System.IO.File
System.IO.Directory
System.IO.SearchOption
System.IO.FileOptions

When using NuGet 3.x this package requires at least version 3.4.

Requires NuGet 2.12 or higher.

Package Manager | .NET CLI

```
PM> Install-Package System.IO.FileSystem -Version 4.3.0
```

Release Notes

https://go.microsoft.com/fwlink/?LinkID=799421

Dependencies

.NETFramework 4.6

System.IO.FileSystem.Primitives (>= 4.3.0)

.NETStandard 1.3

Microsoft.NETCore.Platforms (>= 1.1.0)
Microsoft.NETCore.Targets (>= 1.1.0)
System.IO (>= 4.3.0)
System.IO.FileSystem.Primitives (>= 4.3.0)
System.Runtime (>= 4.3.0)
System.Runtime.Handles (>= 4.3.0)
System.Text.Encoding (>= 4.3.0)
System.Threading.Tasks (>= 4.3.0)

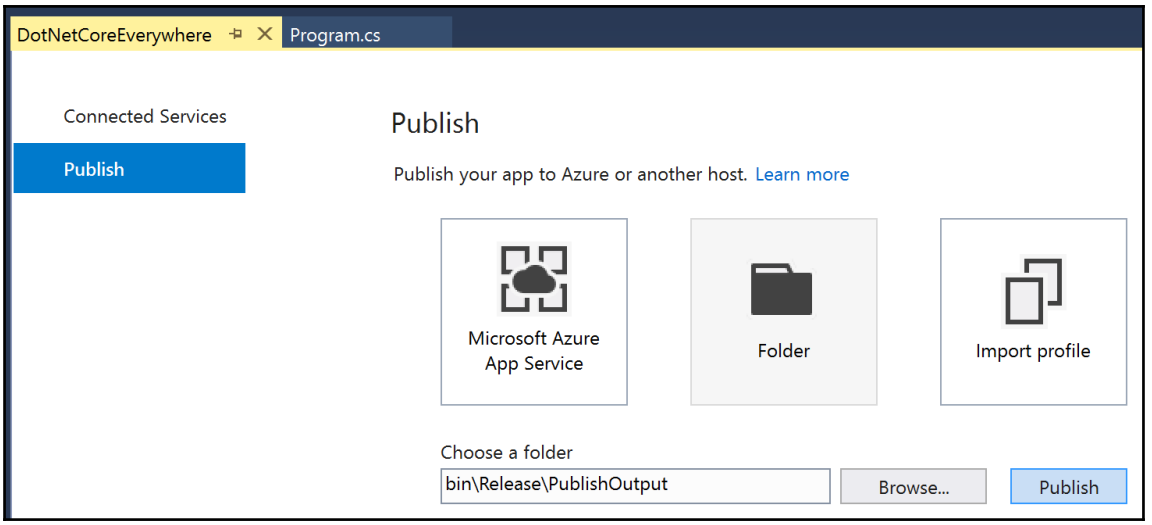
MonoAndroid 1.0

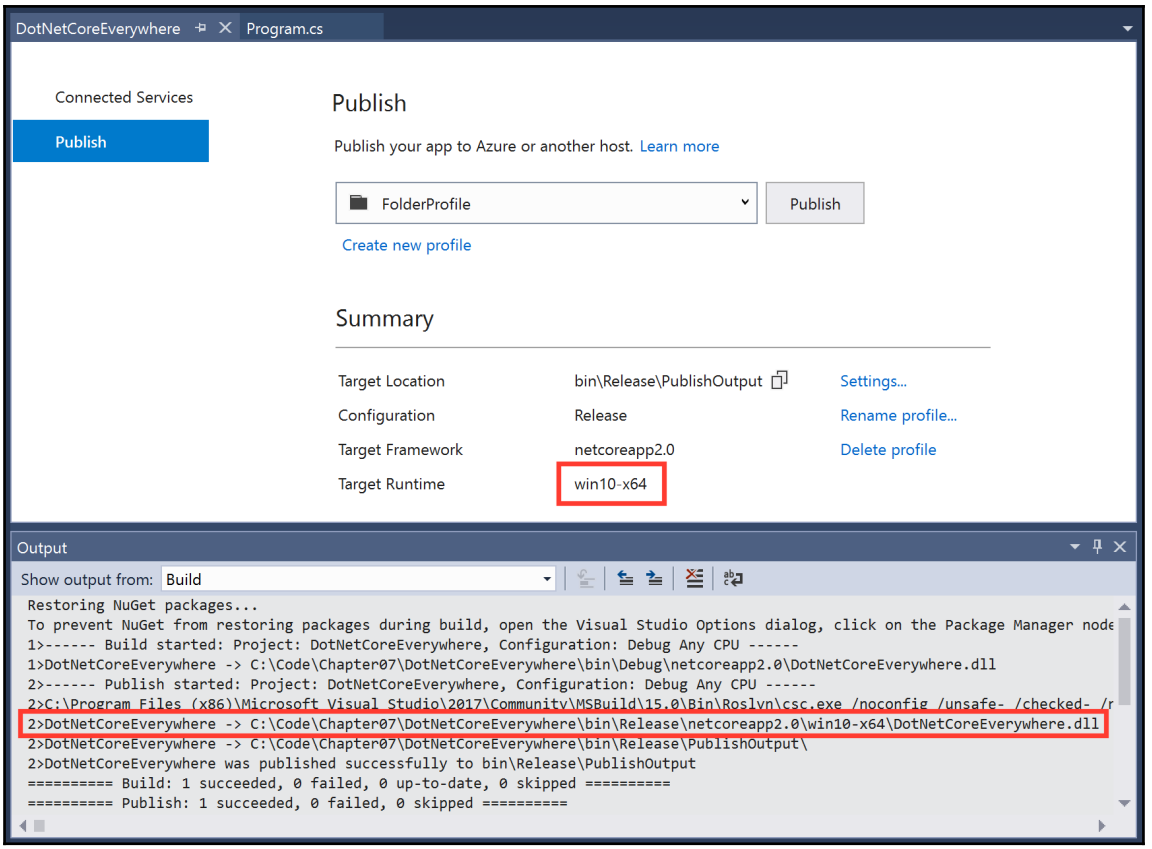
No dependencies.

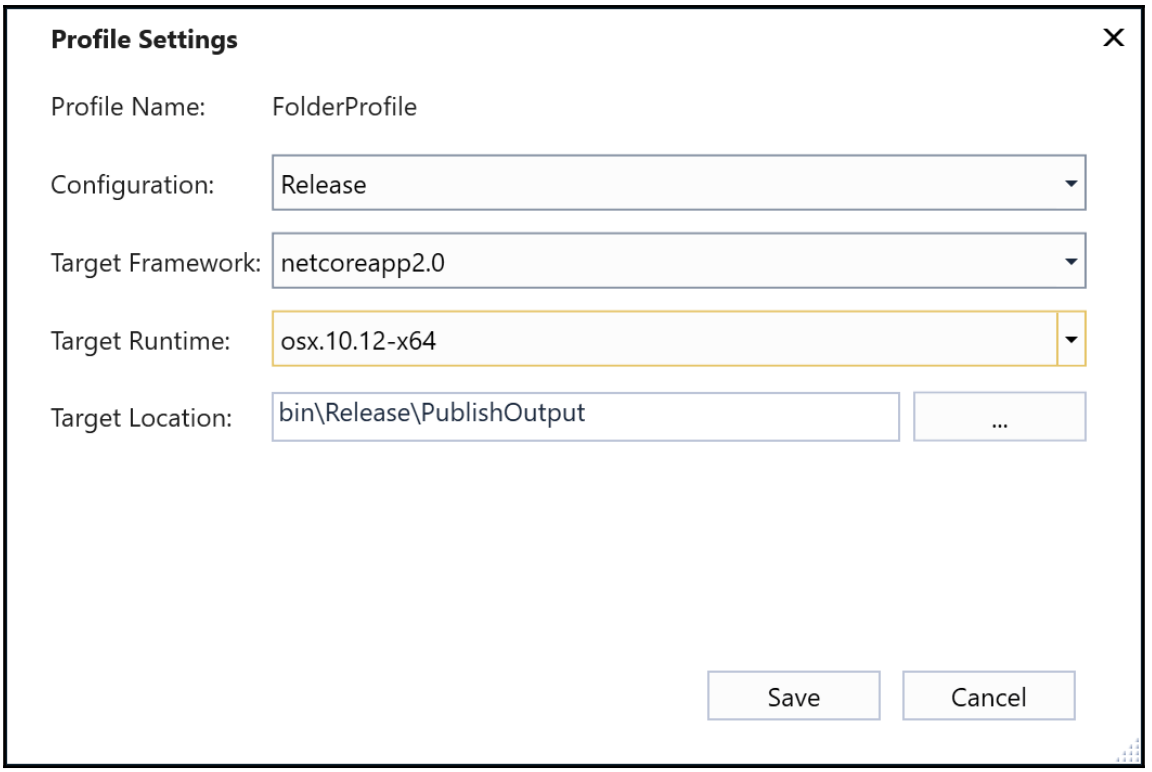
MonoTouch 1.0

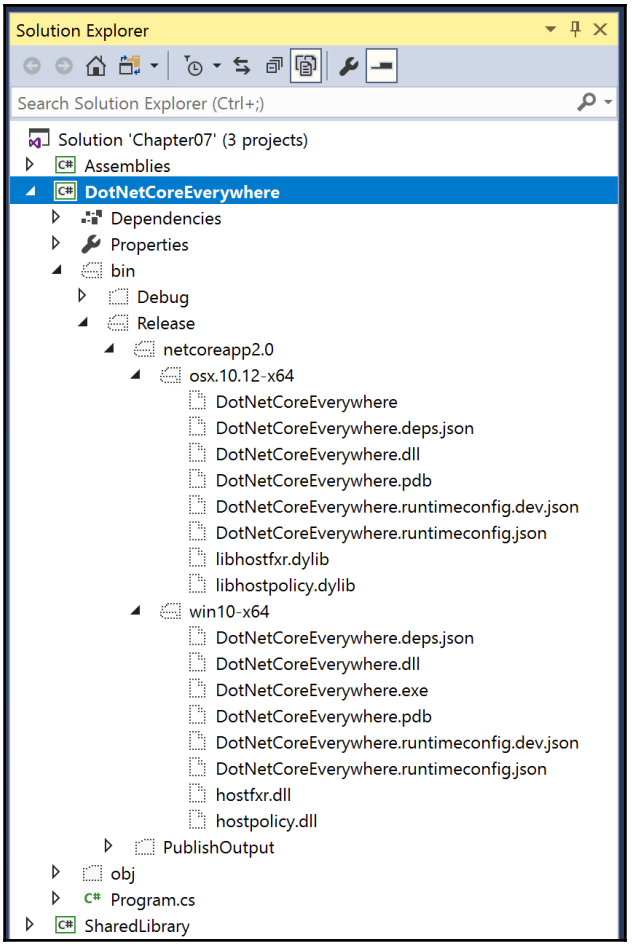
No dependencies.

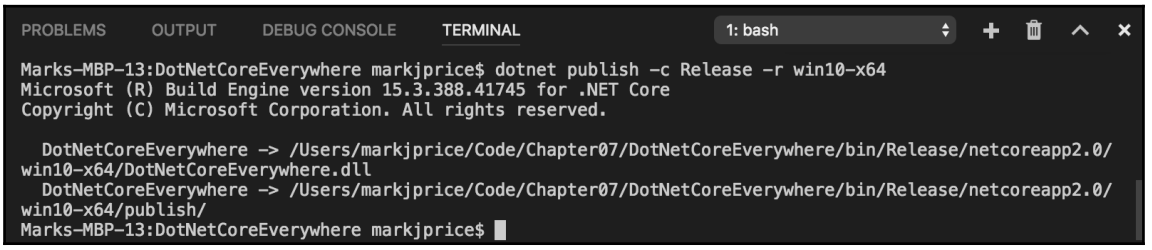
Xamarin.iOS 1.0

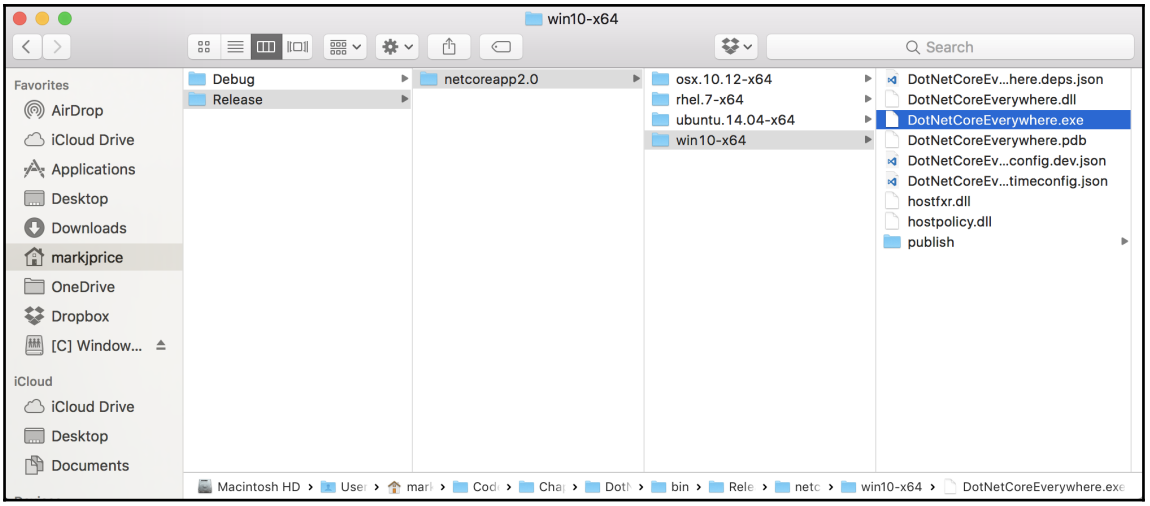

DotNetCoreEverywhere
Program.cs
Connected Services
Publish
Publish
Publish your app to Azure or another host. Learn more
Microsoft Azure App Service
Folder
Import profile
Choose a folder
bin\Release\PublishOutput
Browse...
Publish

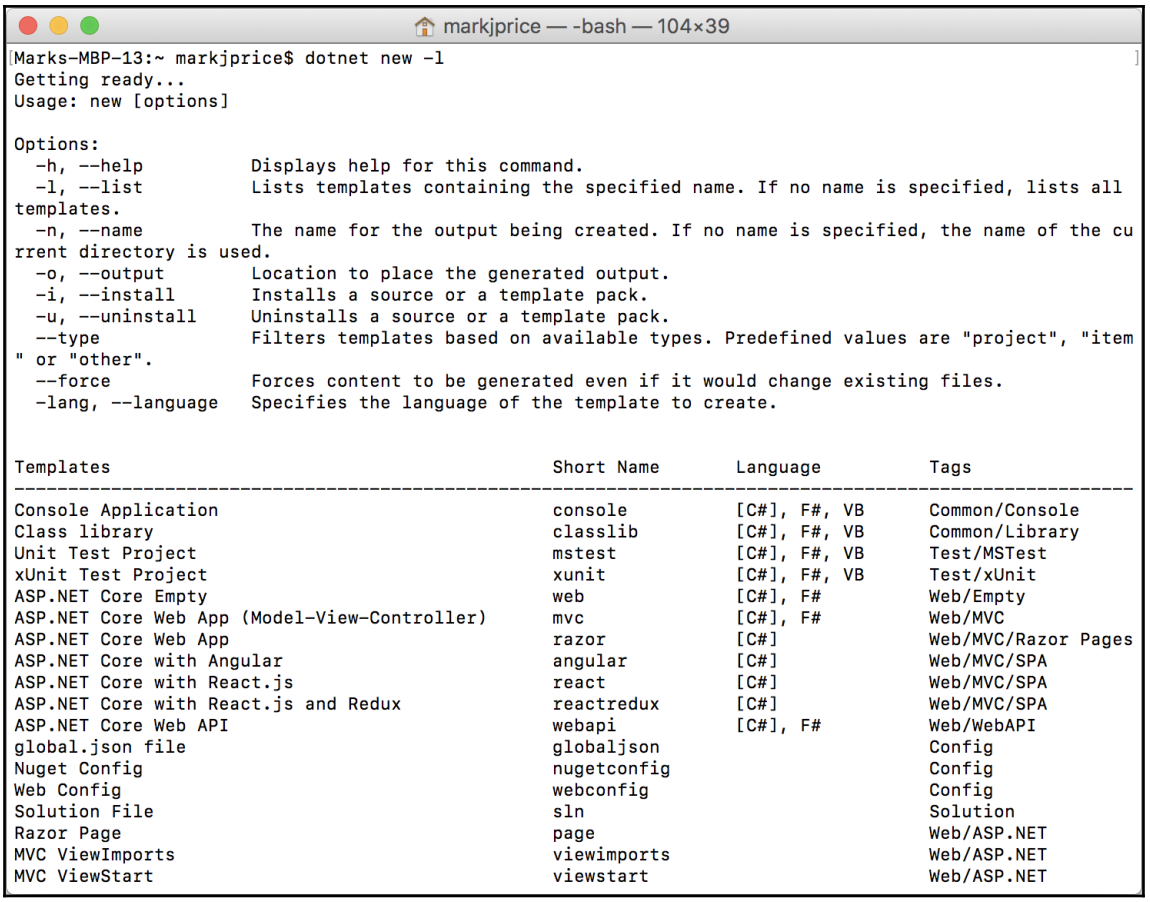

DotNetCoreEverywhere
Program.cs
Connected Services
Publish
Publish
Publish your app to Azure or another host. Learn more
FolderProfile
Publish
Create new profile
Summary
Target Location
bin\Release\PublishOutput
Settings...
Configuration
Release
Rename profile...
Target Framework
netcoreapp2.0
Delete profile
Target Runtime
win10-x64
Output
Show output from: Build
Restoring NuGet packages...
To prevent NuGet from restoring packages during build, open the Visual Studio Options dialog, click on the Package Manager node
1>------ Build started: Project: DotNetCoreEverywhere, Configuration: Debug Any CPU ------
1>DotNetCoreEverywhere -> C:\Code\Chapter07\DotNetCoreEverywhere\bin\Debug\netcoreapp2.0\DotNetCoreEverywhere.dll
2>------ Publish started: Project: DotNetCoreEverywhere, Configuration: Debug Any CPU ------
2>C:\Program Files (x86)\Microsoft Visual Studio\2017\Community\MSBuild\15.0\Bin\Roslyn\csc.exe /noconfig /unsafe- /checked- /r
2>DotNetCoreEverywhere -> C:\Code\Chapter07\DotNetCoreEverywhere\bin\Release\netcoreapp2.0\win10-x64\DotNetCoreEverywhere.dll
2>DotNetCoreEverywhere -> C:\Code\Chapter07\DotNetCoreEverywhere\bin\Release\PublishOutput\
2>DotNetCoreEverywhere was published successfully to bin\Release\PublishOutput
========== Build: 1 succeeded, 0 failed, 0 up-to-date, 0 skipped ==========
========== Publish: 1 succeeded, 0 failed, 0 skipped ==========

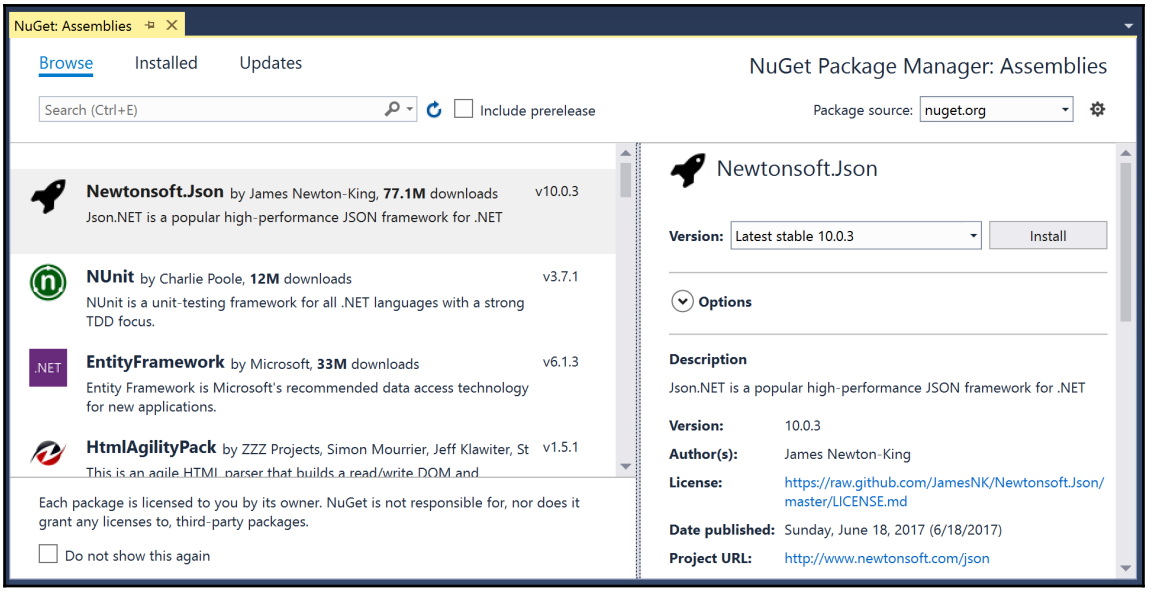

Profile Settings
Profile Name:
FolderProfile
Configuration:
Release
Target Framework:
netcoreapp2.0
Target Runtime:
osx.10.12-x64
Target Location:
bin\Release\PublishOutput
...
Save
Cancel


Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Chapter07' (3 projects)
Assemblies
DotNetCoreEverywhere
Dependencies
Properties
bin
Debug
Release
netcoreapp2.0
osx.10.12-x64
DotNetCoreEverywhere
DotNetCoreEverywhere.deps.json
DotNetCoreEverywhere.dll
DotNetCoreEverywhere.pdb
DotNetCoreEverywhere.runtimeconfig.dev.json
DotNetCoreEverywhere.runtimeconfig.json
libhostfxr.dylib
libhostpolicy.dylib
win10-x64
DotNetCoreEverywhere.deps.json
DotNetCoreEverywhere.dll
DotNetCoreEverywhere.exe
DotNetCoreEverywhere.pdb
DotNetCoreEverywhere.runtimeconfig.dev.json
DotNetCoreEverywhere.runtimeconfig.json
hostfxr.dll
hostpolicy.dll
PublishOutput
obj
Program.cs
SharedLibrary


PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
1: bash
Marks-MBP-13:DotNetCoreEverywhere markjprice$ dotnet publish -c Release -r win10-x64
Microsoft (R) Build Engine version 15.3.388.41745 for .NET Core
Copyright (C) Microsoft Corporation. All rights reserved.
DotNetCoreEverywhere -> /Users/markjprice/Code/Chapter07/DotNetCoreEverywhere/bin/Release/netcoreapp2.0/win10-x64/DotNetCoreEverywhere.dll
DotNetCoreEverywhere -> /Users/markjprice/Code/Chapter07/DotNetCoreEverywhere/bin/Release/netcoreapp2.0/win10-x64/publish/
Marks-MBP-13:DotNetCoreEverywhere markjprice$


win10-x64
Search
Favorites
AirDrop
iCloud Drive
Applications
Desktop
Downloads
markjprice
OneDrive
Dropbox
[C] Window...
iCloud
iCloud Drive
Desktop
Documents
Debug
Release
netcoreapp2.0
osx.10.12-x64
rhel.7-x64
ubuntu.14.04-x64
win10-x64
DotNetCoreEv...here.deps.json
DotNetCoreEverywhere.dll
DotNetCoreEverywhere.exe
DotNetCoreEverywhere.pdb
DotNetCoreEv...config.dev.json
DotNetCoreEv...timeconfig.json
hostfxr.dll
hostpolicy.dll
publish
Macintosh HD
bin
win10-x64
DotNetCoreEverywhere.exe


markjprice — -bash — 104×39
Marks-MBP-13:~ markjprice$ dotnet new -l
Getting ready...
Usage: new [options]
Options:
-h, --help Displays help for this command.
-l, --list Lists templates containing the specified name. If no name is specified, lists all templates.
-n, --name The name for the output being created. If no name is specified, the name of the current directory is used.
-o, --output Location to place the generated output.
-i, --install Installs a source or a template pack.
-u, --uninstall Uninstalls a source or a template pack.
--type Filters templates based on available types. Predefined values are "project", "item" or "other".
--force Forces content to be generated even if it would change existing files.
-lang, --language Specifies the language of the template to create.
Templates Short Name Language Tags
Console Application console [C#], F#, VB Common/Console
Class library classlib [C#], F#, VB Common/Library
Unit Test Project mstest [C#], F#, VB Test/MSTest
xUnit Test Project xunit [C#], F#, VB Test/xUnit
ASP.NET Core Empty web [C#], F# Web/Empty
ASP.NET Core Web App (Model-View-Controller) mvc [C#], F# Web/MVC
ASP.NET Core Web App razor [C#] Web/MVC/Razor Pages
ASP.NET Core with Angular angular [C#] Web/MVC/SPA
ASP.NET Core with React.js react [C#] Web/MVC/SPA
ASP.NET Core with React.js and Redux reactredux [C#] Web/MVC/SPA
ASP.NET Core Web API webapi [C#], F# Web/WebAPI
global.json file globaljson Config
Nuget Config nugetconfig Config
Web Config webconfig Config
Solution File sln Solution
Razor Page page Web/ASP.NET
MVC ViewImports viewimports Web/ASP.NET
MVC ViewStart viewstart Web/ASP.NET


NuGet: Assemblies
Browse
Installed
Updates
NuGet Package Manager: Assemblies
Search (Ctrl+E)
Include prerelease
Package source:
nuget.org
Newtonsoft.Json by James Newton-King, 77.1M downloads
v10.0.3
Json.NET is a popular high-performance JSON framework for .NET
NUnit by Charlie Poole, 12M downloads
v3.7.1
NUnit is a unit-testing framework for all .NET languages with a strong TDD focus.
EntityFramework by Microsoft, 33M downloads
v6.1.3
Entity Framework is Microsoft's recommended data access technology for new applications.
HtmlAgilityPack by ZZZ Projects, Simon Mourrier, Jeff Klawiter, St
v1.5.1
This is an agile HTML parser that builds a read/write DOM and
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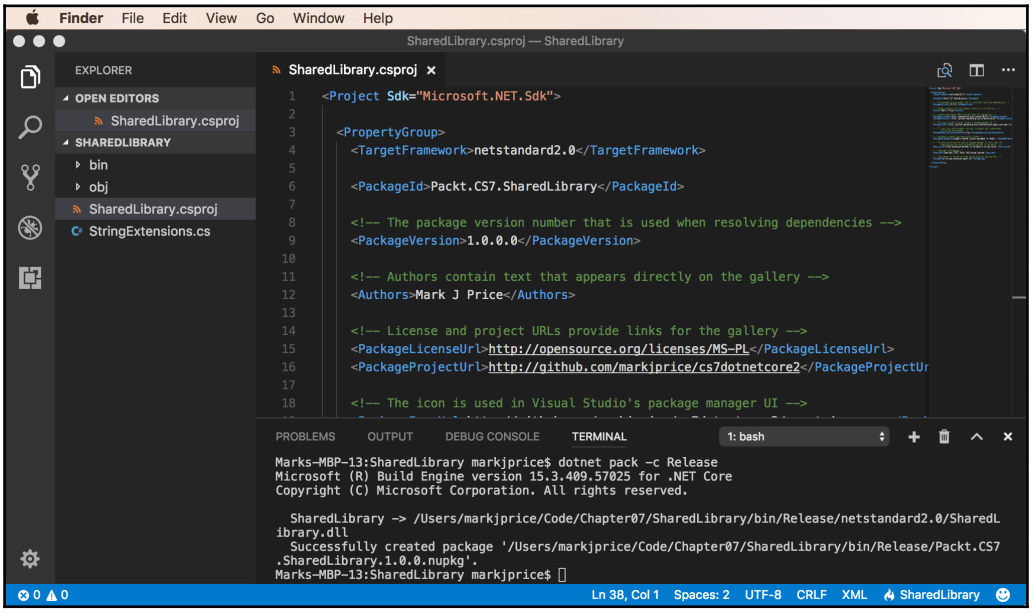
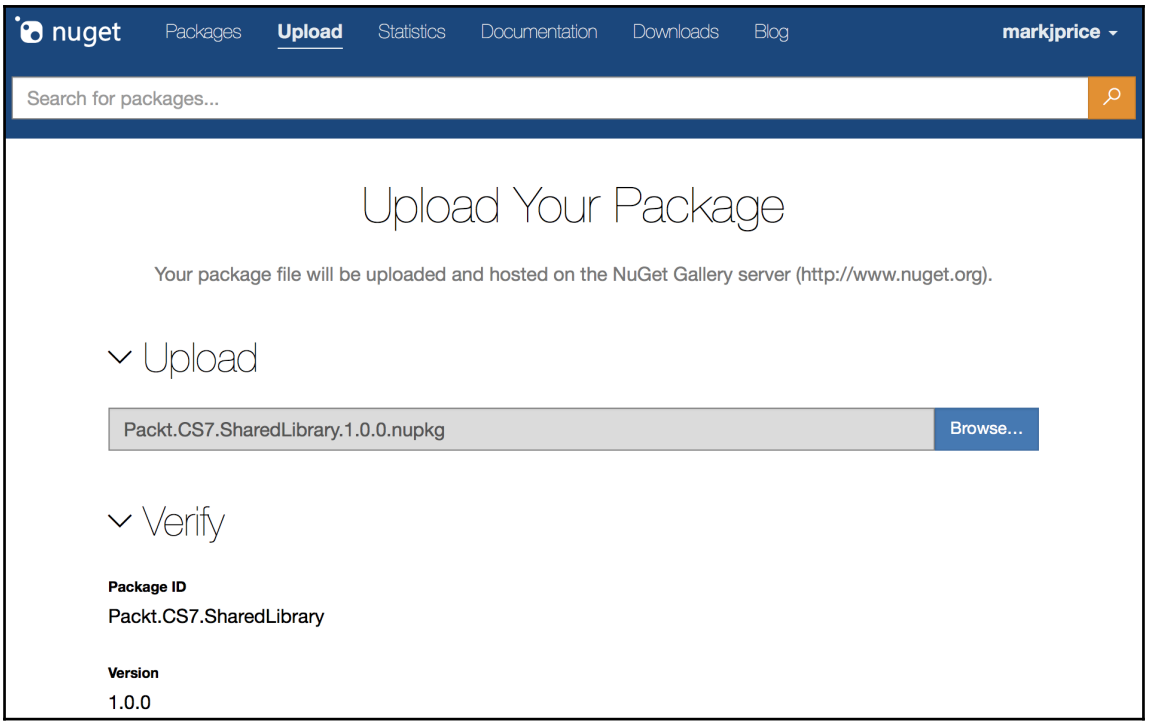
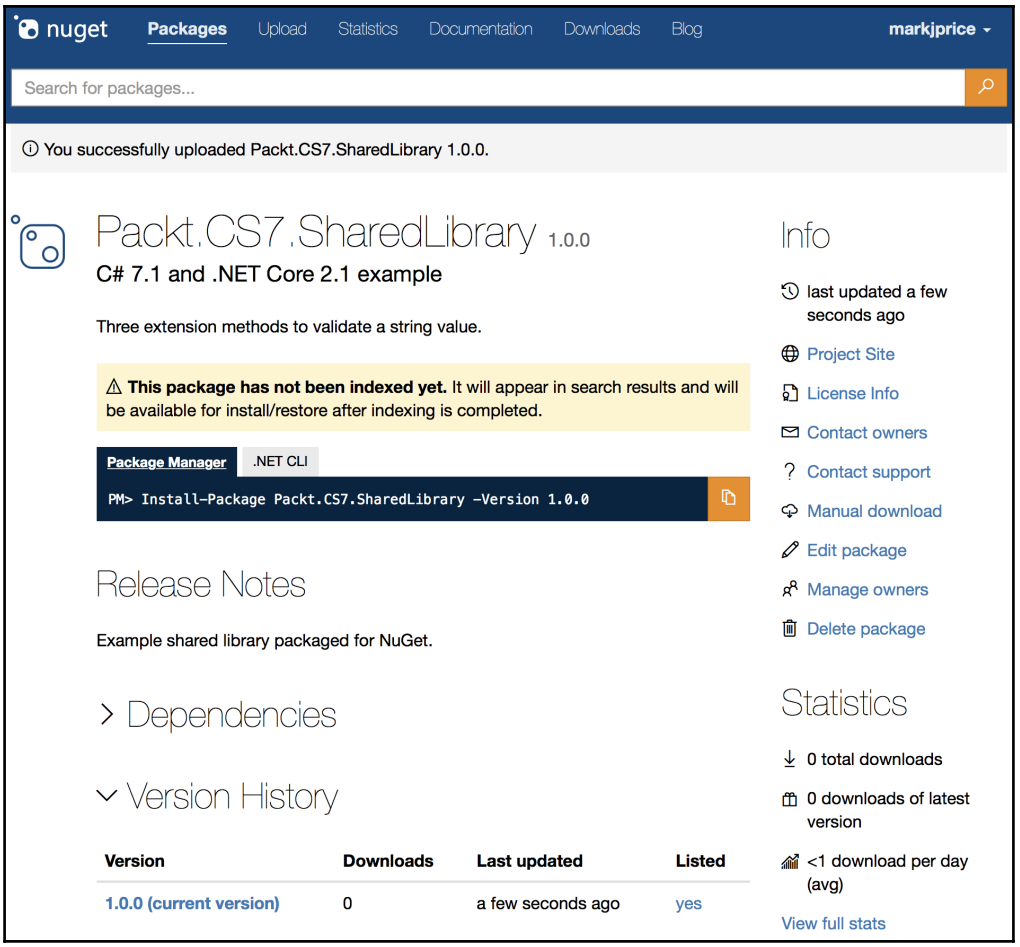
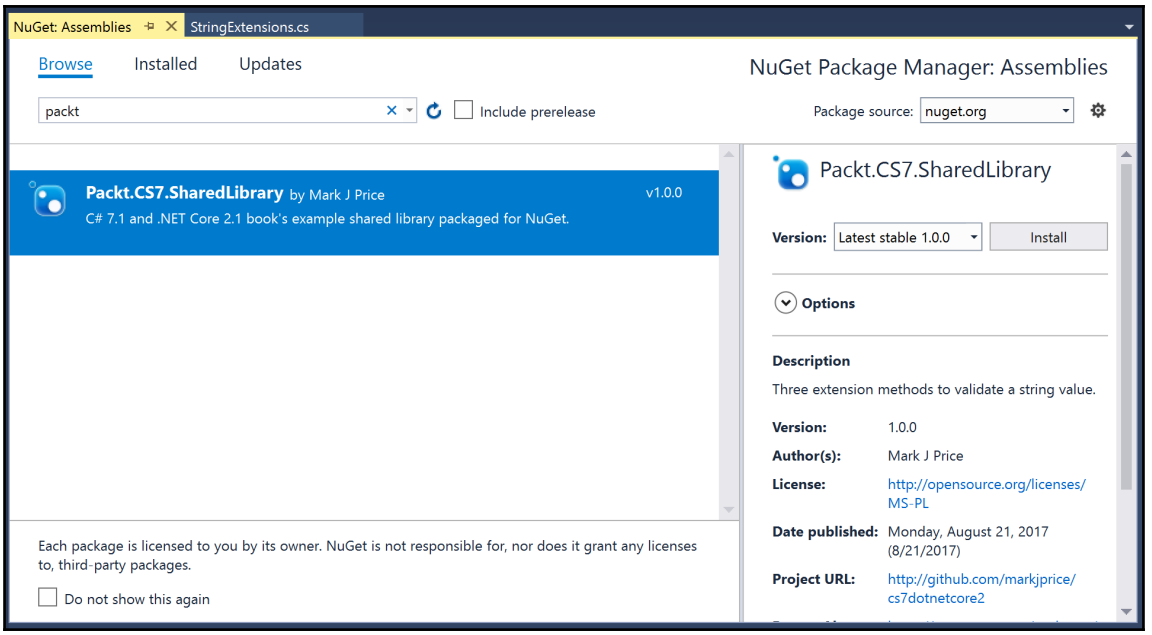
Do not show this again
Newtonsoft.Json
Version:
Latest stable 10.0.3
Install
Options
Description
Json.NET is a popular high-performance JSON framework for .NET
Version:
10.0.3
Author(s):
James Newton-King
License:
https://raw.github.com/JamesNK/Newtonsoft.Json/master/LICENSE.md
Date published:
Sunday, June 18, 2017 (6/18/2017)
Project URL:
http://www.newtonsoft.com/json


Finder File Edit View Go Window Help
SharedLibrary.csproj — SharedLibrary
EXPLORER
OPEN EDITORS
SharedLibrary.csproj
SHAREDLIBRARY
bin
obj
SharedLibrary.csproj
StringExtensions.cs
SharedLibrary.csproj
<Project Sdk="Microsoft.NET.Sdk">
<PropertyGroup>
<TargetFramework>netstandard2.0</TargetFramework>
<PackageId>Packt.CS7.SharedLibrary</PackageId>
<!-- The package version number that is used when resolving dependencies -->
<PackageVersion>1.0.0.0</PackageVersion>
<!-- Authors contain text that appears directly on the gallery -->
<Authors>Mark J Price</Authors>
<!-- License and project URLs provide links for the gallery -->
<PackageLicenseUrl>http://opensource.org/licenses/MS-PL</PackageLicenseUrl>
<PackageProjectUrl>http://github.com/markjprice/cs7dotnetcore2</PackageProjectUr
<!-- The icon is used in Visual Studio's package manager UI -->
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
1: bash
Marks-MBP-13:SharedLibrary markjprice$ dotnet pack -c Release
Microsoft (R) Build Engine version 15.3.409.57025 for .NET Core
Copyright (C) Microsoft Corporation. All rights reserved.
SharedLibrary -> /Users/markjprice/Code/Chapter07/SharedLibrary/bin/Release/netstandard2.0/SharedLibrary.dll
Successfully created package '/Users/markjprice/Code/Chapter07/SharedLibrary/bin/Release/Packt.CS7.SharedLibrary.1.0.0.nupkg'.
Marks-MBP-13:SharedLibrary markjprice$
Ln 38, Col 1
Spaces: 2
UTF-8
CRLF
XML
SharedLibrary


nuget
Packages
Upload
Statistics
Documentation
Downloads
Blog
markjprice
Search for packages...
Upload Your Package
Your package file will be uploaded and hosted on the NuGet Gallery server (http://www.nuget.org).
Upload
Packt.CS7.SharedLibrary.1.0.0.nupkg
Browse...
Verify
Package ID
Packt.CS7.SharedLibrary
Version
1.0.0


nuget
Packages
Upload
Statistics
Documentation
Downloads
Blog
markjprice
Search for packages...
You successfully uploaded Packt.CS7.SharedLibrary 1.0.0.
Packt.CS7.SharedLibrary 1.0.0
C# 7.1 and .NET Core 2.1 example
Three extension methods to validate a string value.
This package has not been indexed yet. It will appear in search results and will be available for install/restore after indexing is completed.
Package Manager
.NET CLI
PM> Install-Package Packt.CS7.SharedLibrary -Version 1.0.0
Release Notes
Example shared library packaged for NuGet.
Dependencies
Version History
Version
Downloads
Last updated
Listed
1.0.0 (current version)
0
a few seconds ago
yes
Info
last updated a few seconds ago
Project Site
License Info
Contact owners
Contact support
Manual download
Edit package
Manage owners
Delete package
Statistics
0 total downloads
0 downloads of latest version
<1 download per day (avg)
View full stats


NuGet: Assemblies
StringExtensions.cs
Browse
Installed
Updates
NuGet Package Manager: Assemblies
packt
Include prerelease
Package source: nuget.org
Packt.CS7.SharedLibrary by Mark J Price
v1.0.0
C# 7.1 and .NET Core 2.1 book's example shared library packaged for NuGet.
Packt.CS7.SharedLibrary
Version: Latest stable 1.0.0
Install
Options
Description
Three extension methods to validate a string value.
Version: 1.0.0
Author(s): Mark J Price
License: http://opensource.org/licenses/MS-PL
Date published: Monday, August 21, 2017 (8/21/2017)
Project URL: http://github.com/markjprice/cs7dotnetcore2
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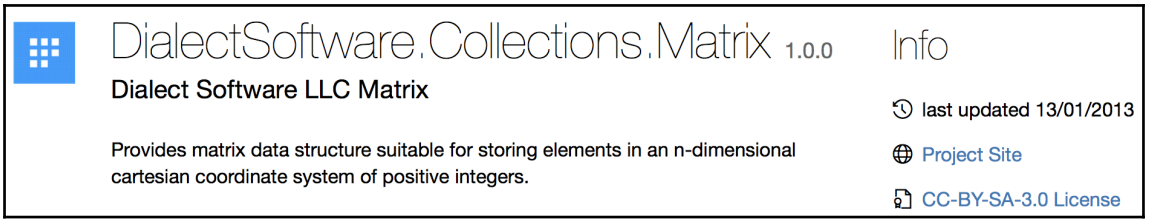
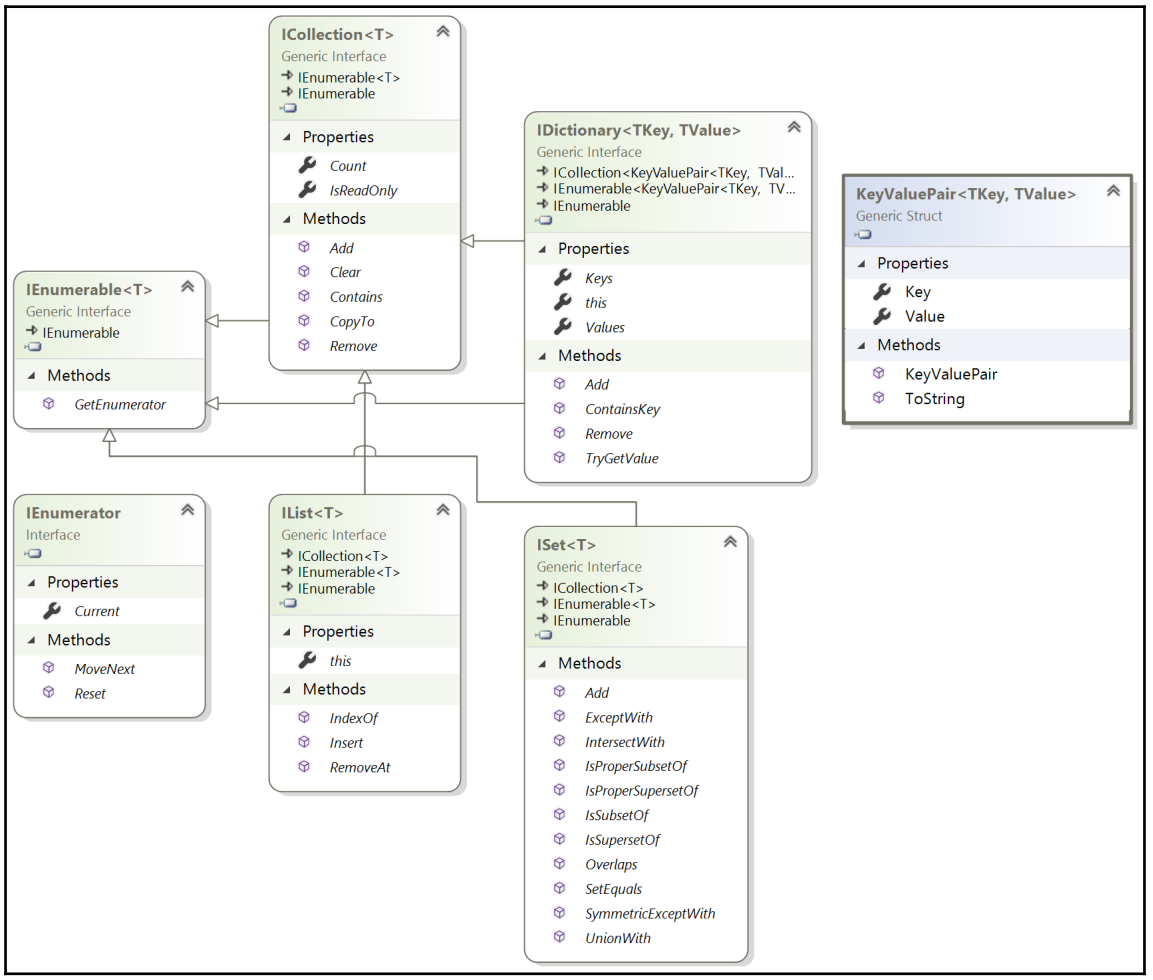
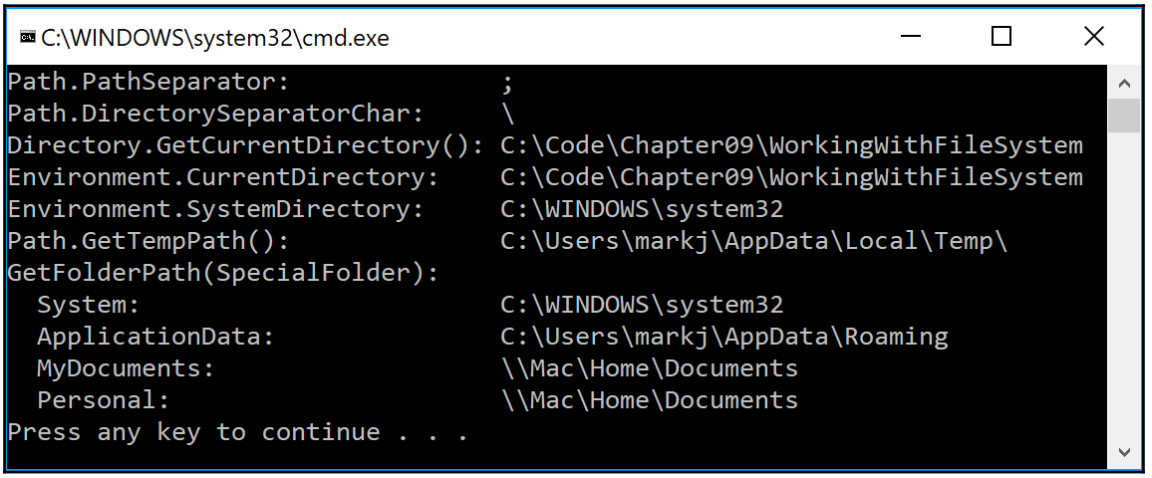
Do not show this again

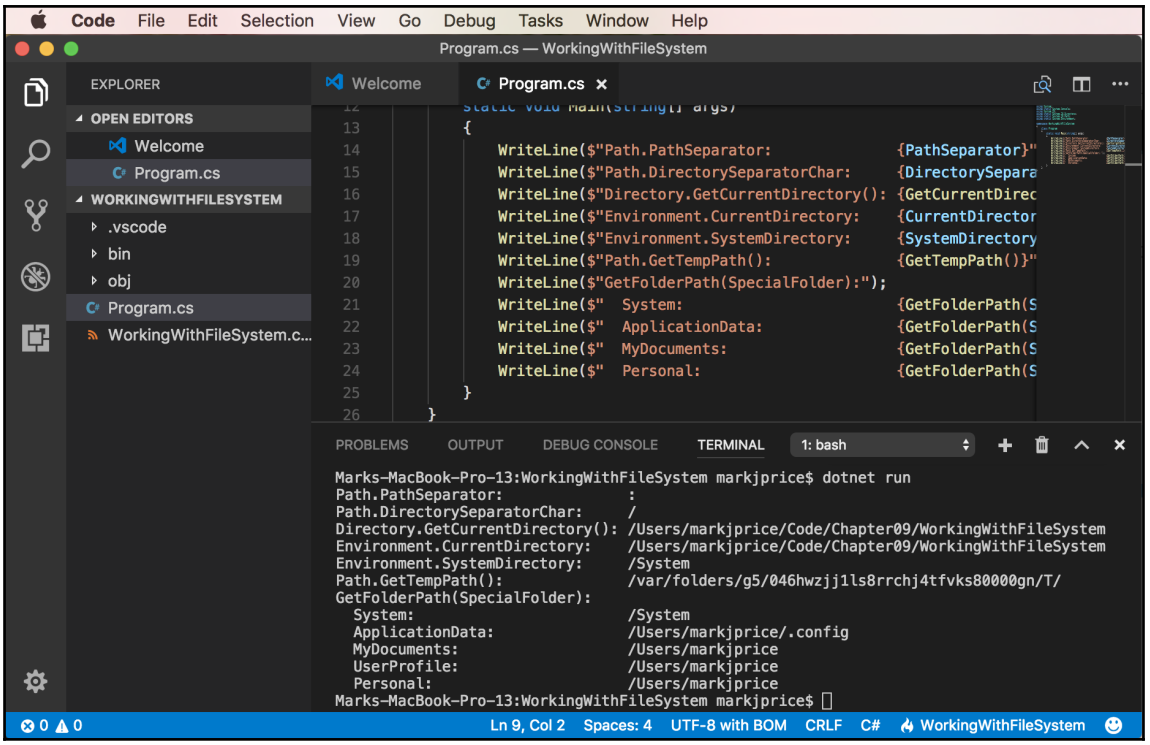

DialectSoftware.Collections.Matrix 1.0.0
Dialect Software LLC Matrix
Provides matrix data structure suitable for storing elements in an n-dimensional cartesian coordinate system of positive integers.
Info
last updated 13/01/2013
Project Site
CC-BY-SA-3.0 License

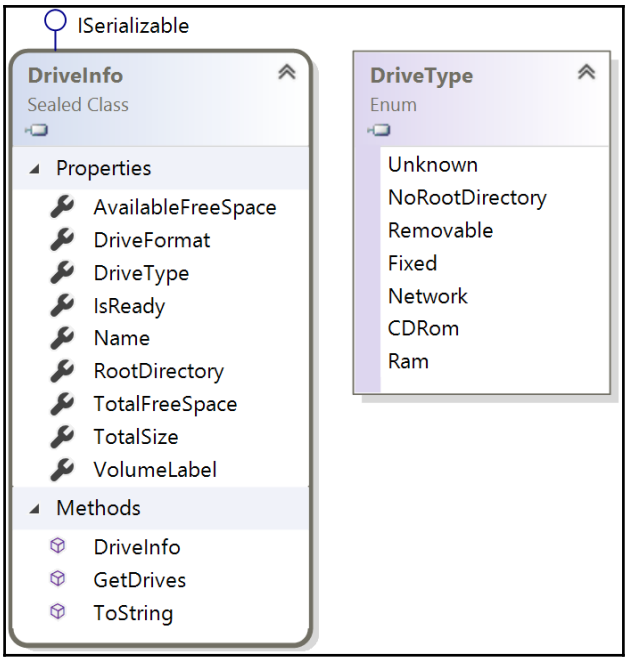
Chapter 8: Using Common .NET Standard Types



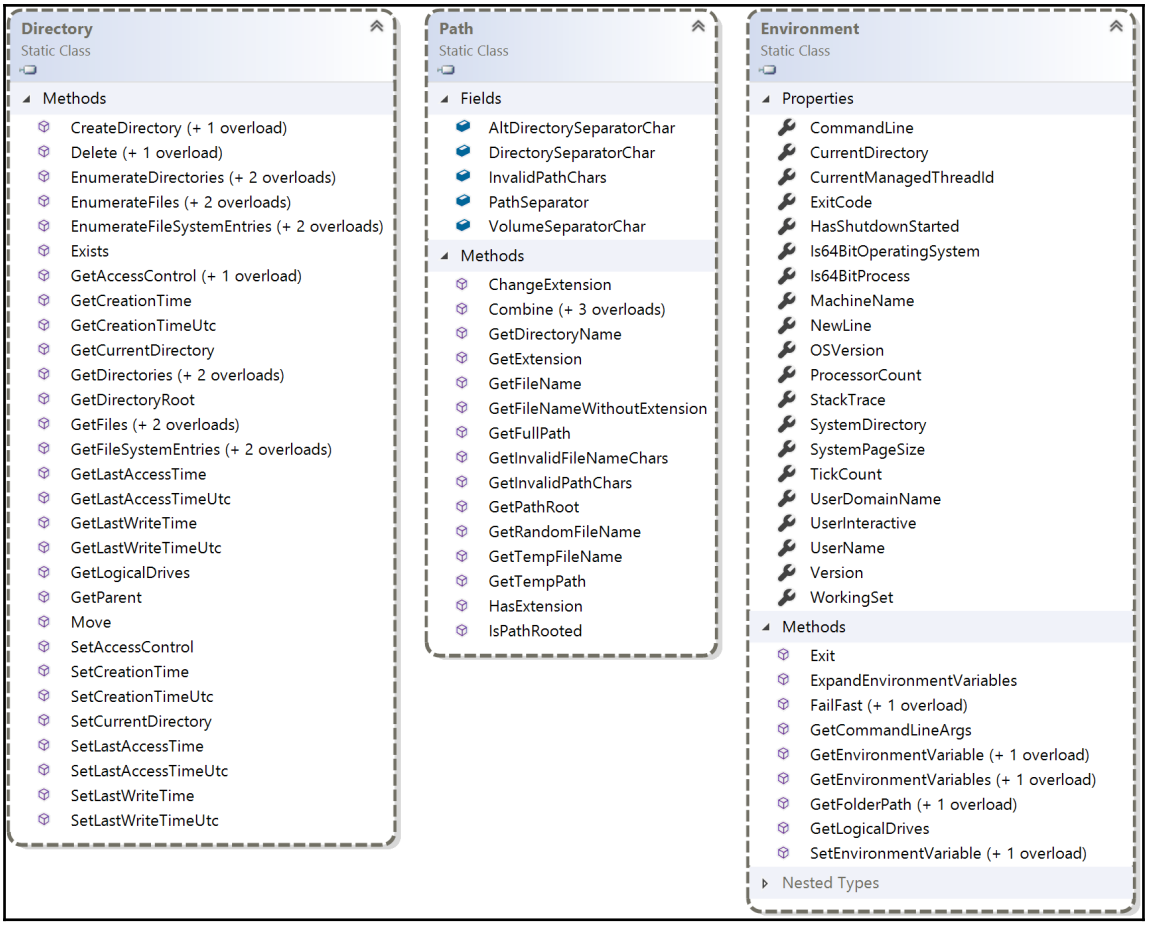
Chapter 9: Working with Files, Streams, and Serialization

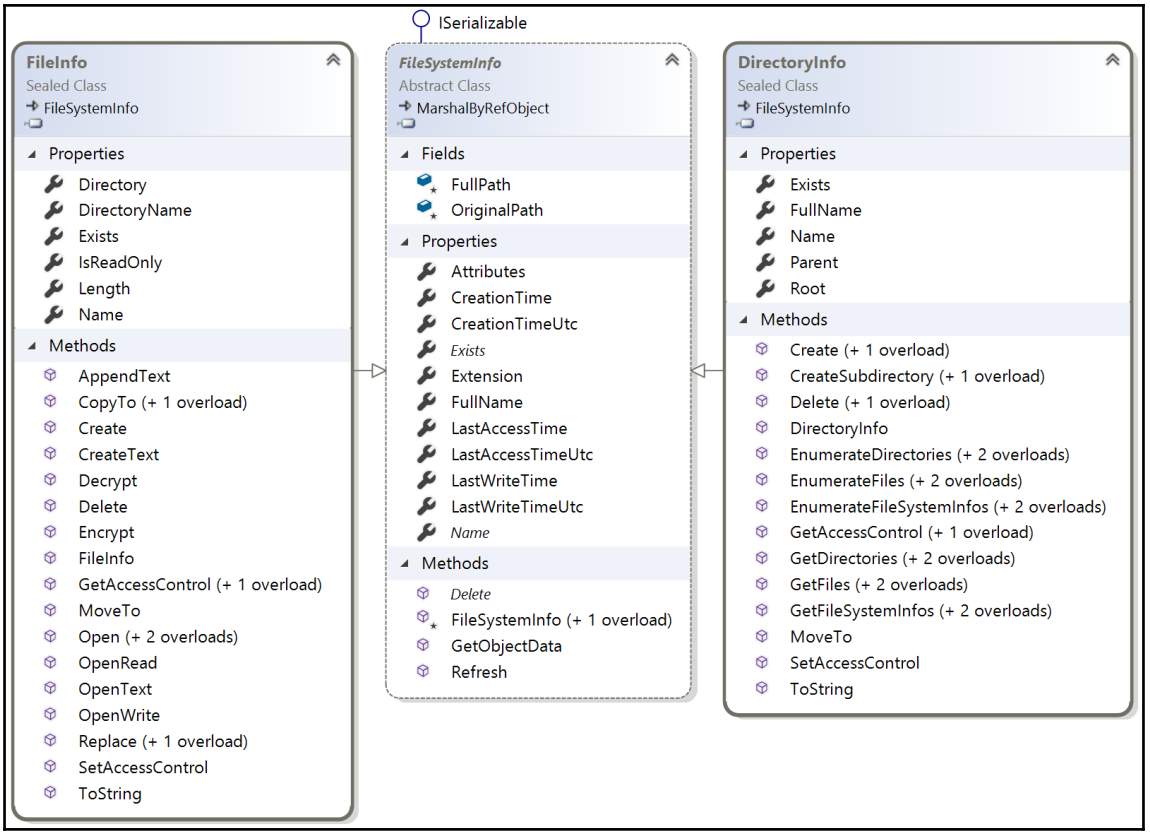


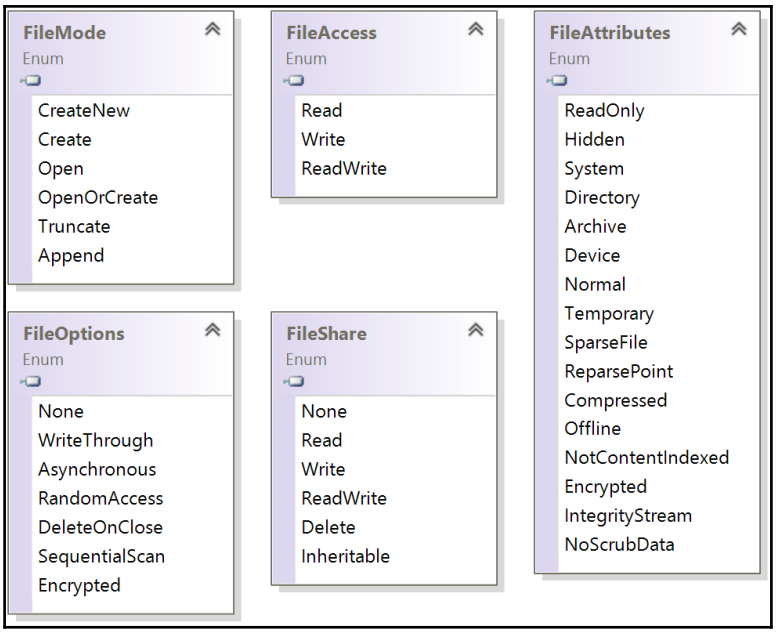

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — WorkingWithFileSystem
EXPLORER
OPEN EDITORS
Welcome
Program.cs
WORKINGWITHFILESYSTEM
.vscode
bin
obj
Program.cs
WorkingWithFileSystem.c...
Welcome
Program.cs
{
WriteLine($"Path.PathSeparator: {PathSeparator}"
WriteLine($"Path.DirectorySeparatorChar: {DirectorySepara
WriteLine($"Directory.GetCurrentDirectory(): {GetCurrentDirec
WriteLine($"Environment.CurrentDirectory: {CurrentDirector
WriteLine($"Environment.SystemDirectory: {SystemDirectory
WriteLine($"Path.GetTempPath(): {GetTempPath()}"
WriteLine($"GetFolderPath(SpecialFolder):");
WriteLine($" System: {GetFolderPath(S
WriteLine($" ApplicationData: {GetFolderPath(S
WriteLine($" MyDocuments: {GetFolderPath(S
WriteLine($" Personal: {GetFolderPath(S
}
}
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: bash
Marks-MacBook-Pro-13:WorkingWithFileSystem markjprice$ dotnet run
Path.PathSeparator: :
Path.DirectorySeparatorChar: /
Directory.GetCurrentDirectory(): /Users/markjprice/Code/Chapter09/WorkingWithFileSystem
Environment.CurrentDirectory: /Users/markjprice/Code/Chapter09/WorkingWithFileSystem
Environment.SystemDirectory: /System
Path.GetTempPath(): /var/folders/g5/046hwzjj1ls8rrchj4tfvks80000gn/T/
GetFolderPath(SpecialFolder):
System: /System
ApplicationData: /Users/markjprice/.config
MyDocuments: /Users/markjprice
UserProfile: /Users/markjprice
Personal: /Users/markjprice
Marks-MacBook-Pro-13:WorkingWithFileSystem markjprice$
0 0
Ln 9, Col 2 Spaces: 4 UTF-8 with BOM CRLF C# WorkingWithFileSystem

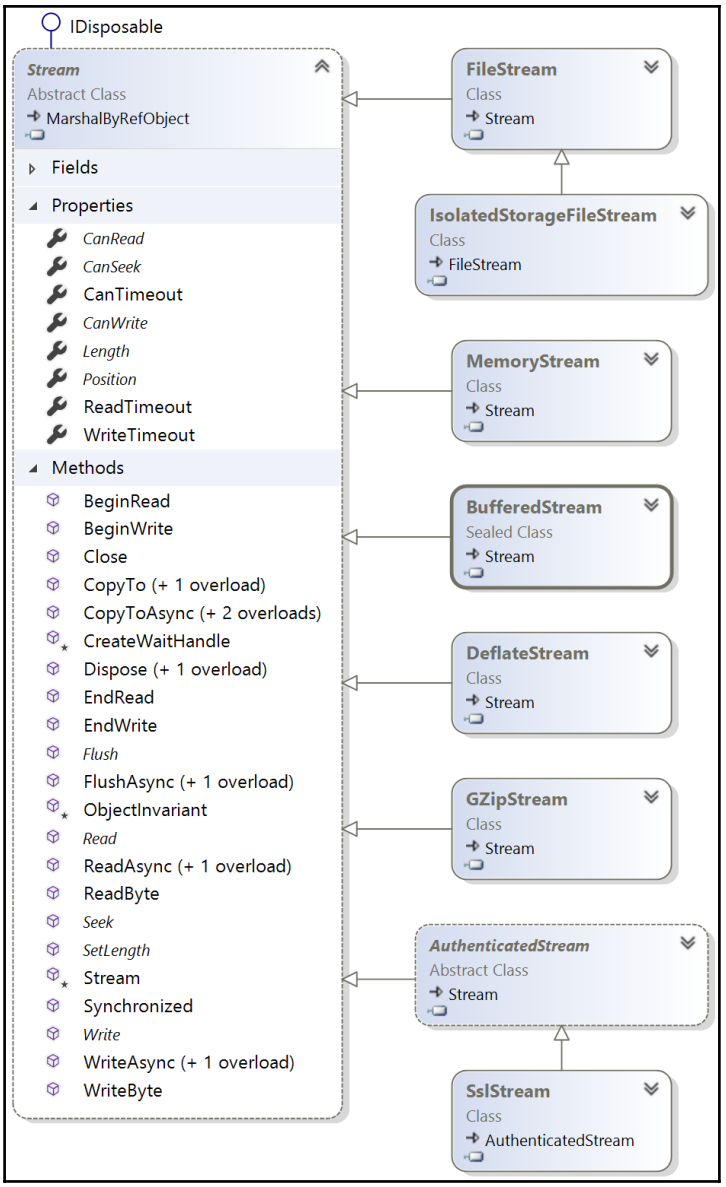


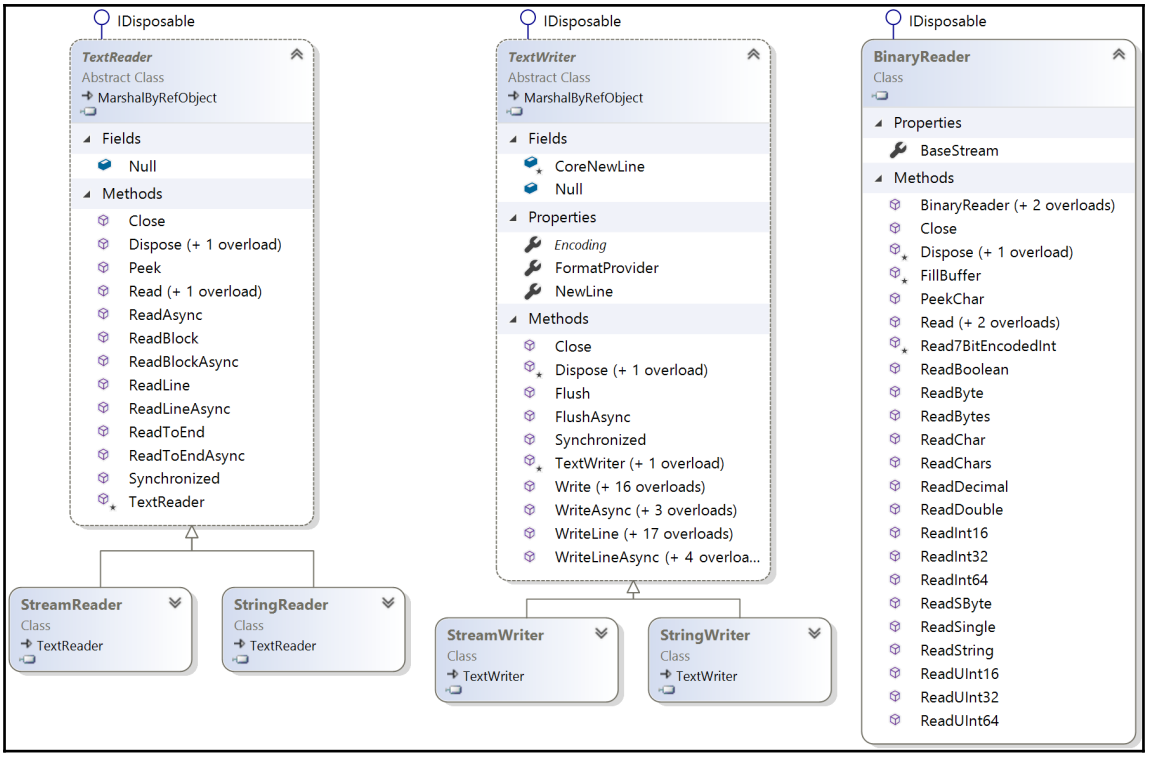
Name	Type	Format	Size	Free space
/	Fixed	hfs	498,954,403,840	135,917,678,592
/dev	Ram	devfs	191,488	0
/net	Network	autofs	0	0
/home	Network	autofs	0	0
/Volumes/LaCie	Fixed	hfs	4,000,443,056,128	3,775,136,669,696
/Volumes/[C] Windows 10.hidden	Network	smbfs	136,844,406,784	43,311,140,864


Directory
Static Class
Methods
CreateDirectory (+ 1 overload)
Delete (+ 1 overload)
EnumerateDirectories (+ 2 overloads)
EnumerateFiles (+ 2 overloads)
EnumerateFileSystemEntries (+ 2 overloads)
Exists
GetAccessControl (+ 1 overload)
GetCreationTime
GetCreationTimeUtc
GetCurrentDirectory
GetDirectories (+ 2 overloads)
GetDirectoryRoot
GetFiles (+ 2 overloads)
GetFileSystemEntries (+ 2 overloads)
GetLastAccessTime
GetLastAccessTimeUtc
GetLastWriteTime
GetLastWriteTimeUtc
GetLogicalDrives
GetParent
Move
SetAccessControl
SetCreationTime
SetCreationTimeUtc
SetCurrentDirectory
SetLastAccessTime
SetLastAccessTimeUtc
SetLastWriteTime
SetLastWriteTimeUtc
Path
Static Class
Fields
AltDirectorySeparatorChar
DirectorySeparatorChar
InvalidPathChars
PathSeparator
VolumeSeparatorChar
Methods
ChangeExtension
Combine (+ 3 overloads)
GetDirectoryName
GetExtension
GetFileName
GetFileNameWithoutExtension
GetFullPath
GetInvalidFileNameChars
GetInvalidPathChars
GetPathRoot
GetRandomFileName
GetTempFileName
GetTempPath
HasExtension
IsPathRooted
Environment
Static Class
Properties
CommandLine
CurrentDirectory
CurrentManagedThreadId
ExitCode
HasShutdownStarted
Is64BitOperatingSystem
Is64BitProcess
MachineName
NewLine
OSVersion
ProcessorCount
StackTrace
SystemDirectory
SystemPageSize
TickCount
UserDomainName
UserInteractive
UserName
Version
WorkingSet
Methods
Exit
ExpandEnvironmentVariables
FailFast (+ 1 overload)
GetCommandLineArgs
GetEnvironmentVariable (+ 1 overload)
GetEnvironmentVariables (+ 1 overload)
GetFolderPath (+ 1 overload)
GetLogicalDrives
SetEnvironmentVariable (+ 1 overload)
Nested Types

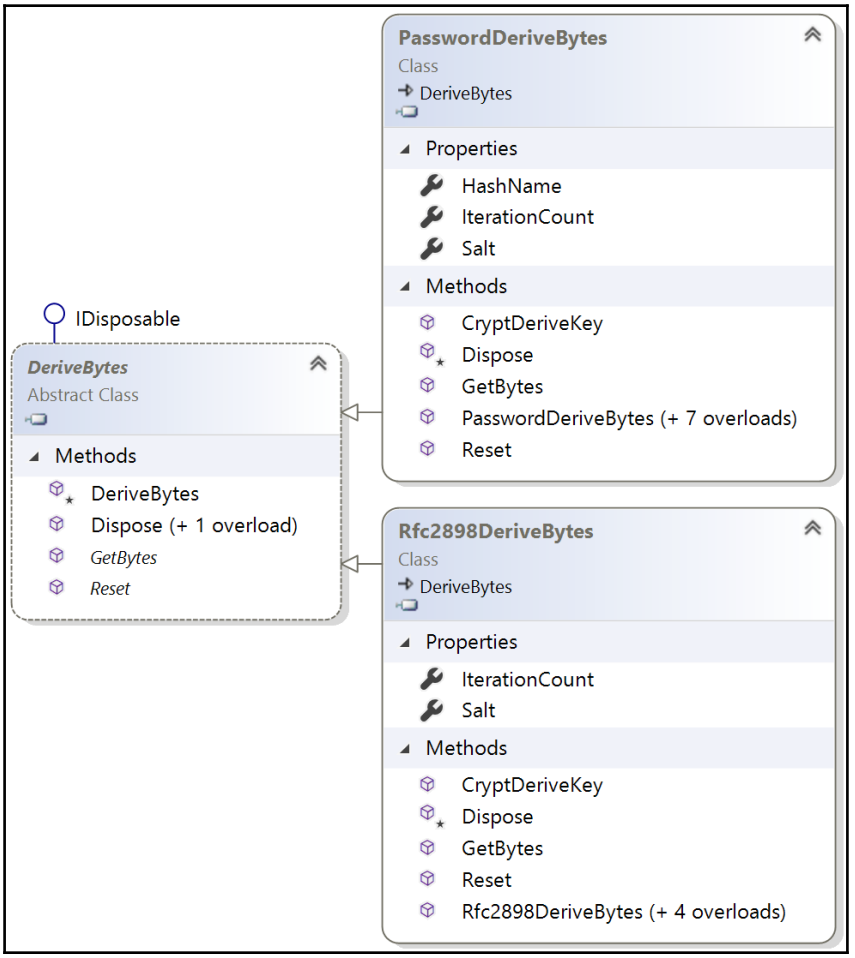

ISerializable
FileInfo
Sealed Class
FileSystemInfo
Properties
Directory
DirectoryName
Exists
IsReadOnly
Length
Name
Methods
AppendText
CopyTo (+ 1 overload)
Create
CreateText
Decrypt
Delete
Encrypt
FileInfo
GetAccessControl (+ 1 overload)
MoveTo
Open (+ 2 overloads)
OpenRead
OpenText
OpenWrite
Replace (+ 1 overload)
SetAccessControl
ToString
FileSystemInfo
Abstract Class
MarshalByRefObject
Fields
FullPath
OriginalPath
Properties
Attributes
CreationTime
CreationTimeUtc
Exists
Extension
FullName
LastAccessTime
LastAccessTimeUtc
LastWriteTime
LastWriteTimeUtc
Name
Methods
Delete
FileSystemInfo (+ 1 overload)
GetObjectData
Refresh
DirectoryInfo
Sealed Class
FileSystemInfo
Properties
Exists
FullName
Name
Parent
Root
Methods
Create (+ 1 overload)
CreateSubdirectory (+ 1 overload)
Delete (+ 1 overload)
DirectoryInfo
EnumerateDirectories (+ 2 overloads)
EnumerateFiles (+ 2 overloads)
EnumerateFileSystemInfos (+ 2 overloads)
GetAccessControl (+ 1 overload)
GetDirectories (+ 2 overloads)
GetFiles (+ 2 overloads)
GetFileSystemInfos (+ 2 overloads)
MoveTo
SetAccessControl
ToString

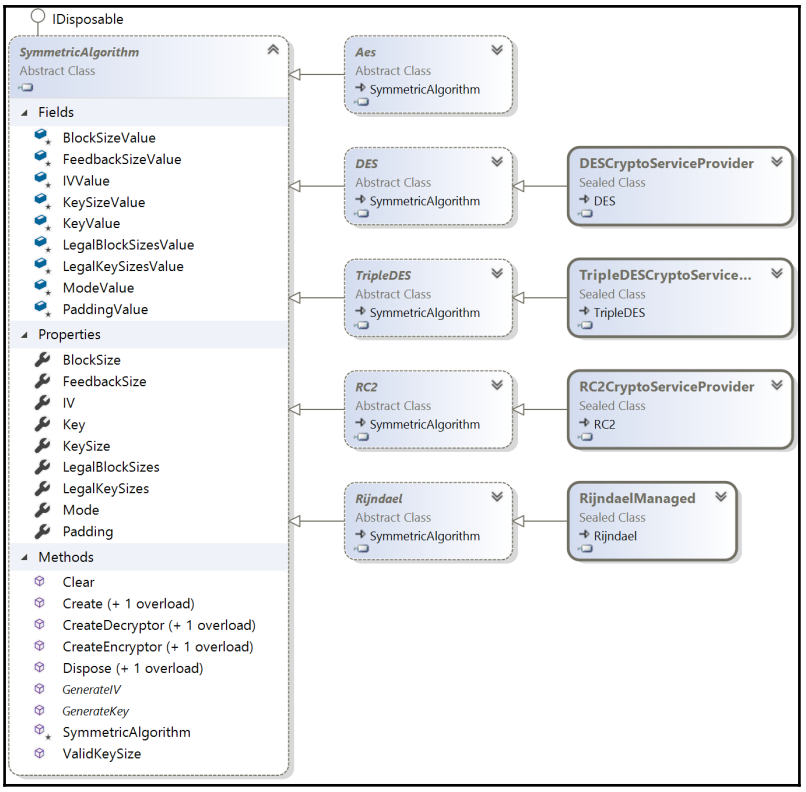

FileMode
Enum
CreateNew
Create
Open
OpenOrCreate
Truncate
Append
FileAccess
Enum
Read
Write
ReadWrite
FileAttributes
Enum
ReadOnly
Hidden
System
Directory
Archive
Device
Normal
Temporary
SparseFile
ReparsePoint
Compressed
Offline
NotContentIndexed
Encrypted
IntegrityStream
NoScrubData
FileOptions
Enum
None
WriteThrough
Asynchronous
RandomAccess
DeleteOnClose
SequentialScan
Encrypted
FileShare
Enum
None
Read
Write
ReadWrite
Delete
Inheritable

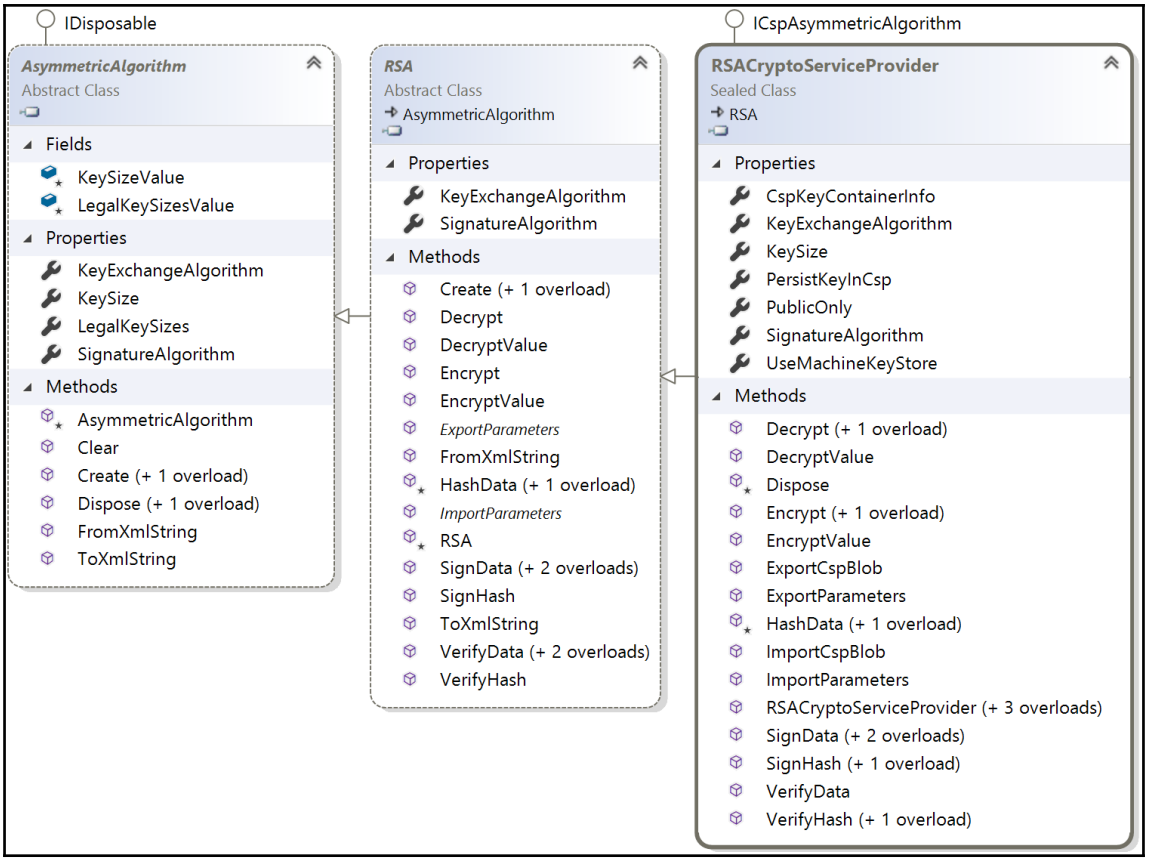

IDisposable
Stream
Abstract Class
MarshalByRefObject
Fields
Properties
CanRead
CanSeek
CanTimeout
CanWrite
Length
Position
ReadTimeout
WriteTimeout
Methods
BeginRead
BeginWrite
Close
CopyTo (+ 1 overload)
CopyToAsync (+ 2 overloads)
CreateWaitHandle
Dispose (+ 1 overload)
EndRead
EndWrite
Flush
FlushAsync (+ 1 overload)
ObjectInvariant
Read
ReadAsync (+ 1 overload)
ReadByte
Seek
SetLength
Stream
Synchronized
Write
WriteAsync (+ 1 overload)
WriteByte
FileStream
Class
Stream
IsolatedStorageFileStream
Class
FileStream
MemoryStream
Class
Stream
BufferedStream
Sealed Class
Stream
DeflateStream
Class
Stream
GZipStream
Class
Stream
AuthenticatedStream
Abstract Class
Stream
SslStream
Class
AuthenticatedStream

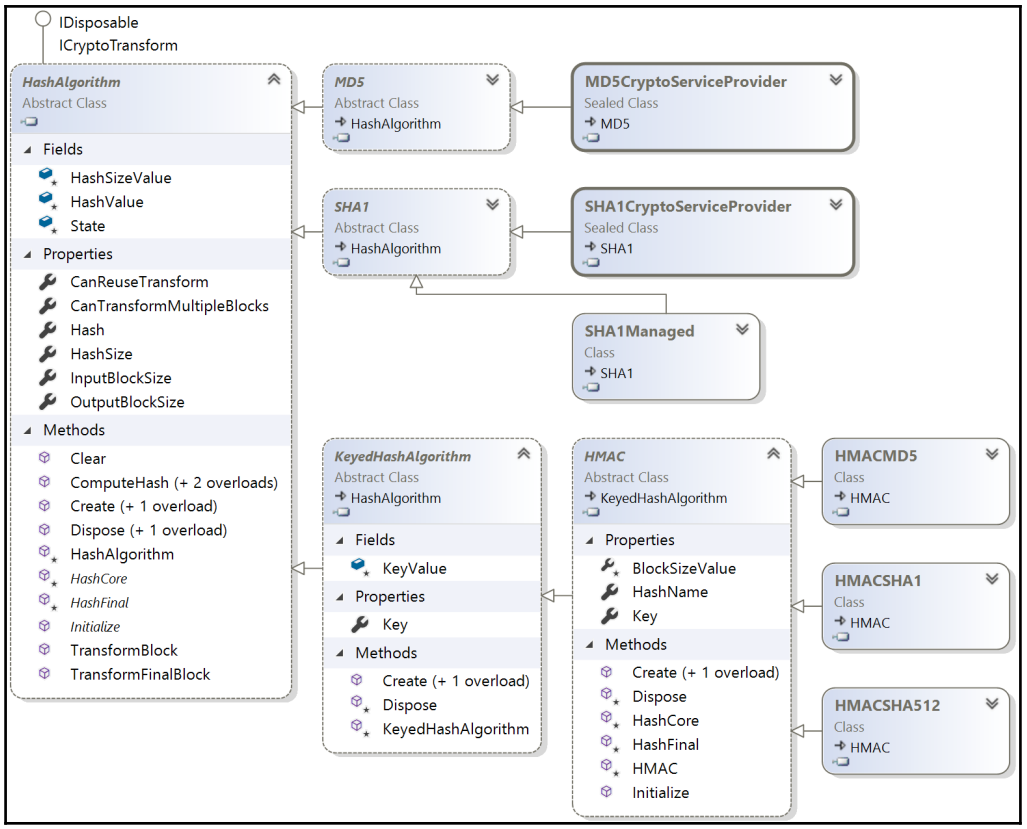

IDisposable
TextReader
Abstract Class
MarshalByRefObject
Fields
Null
Methods
Close
Dispose (+ 1 overload)
Peek
Read (+ 1 overload)
ReadAsync
ReadBlock
ReadBlockAsync
ReadLine
ReadLineAsync
ReadToEnd
ReadToEndAsync
Synchronized
TextReader
StreamReader
Class
TextReader
StringReader
Class
TextReader
IDisposable
TextWriter
Abstract Class
MarshalByRefObject
Fields
CoreNewLine
Null
Properties
Encoding
FormatProvider
NewLine
Methods
Close
Dispose (+ 1 overload)
Flush
FlushAsync
Synchronized
TextWriter (+ 1 overload)
Write (+ 16 overloads)
WriteAsync (+ 3 overloads)
WriteLine (+ 17 overloads)
WriteLineAsync (+ 4 overloa...
StreamWriter
Class
TextWriter
StringWriter
Class
TextWriter
IDisposable
BinaryReader
Class
Properties
BaseStream
Methods
BinaryReader (+ 2 overloads)
Close
Dispose (+ 1 overload)
FillBuffer
PeekChar
Read (+ 2 overloads)
Read7BitEncodedInt
ReadBoolean
ReadByte
ReadBytes
ReadChar
ReadChars
ReadDecimal
ReadDouble
ReadInt16
ReadInt32
ReadInt64
ReadSByte
ReadSingle
ReadString
ReadUInt16
ReadUInt32
ReadUInt64

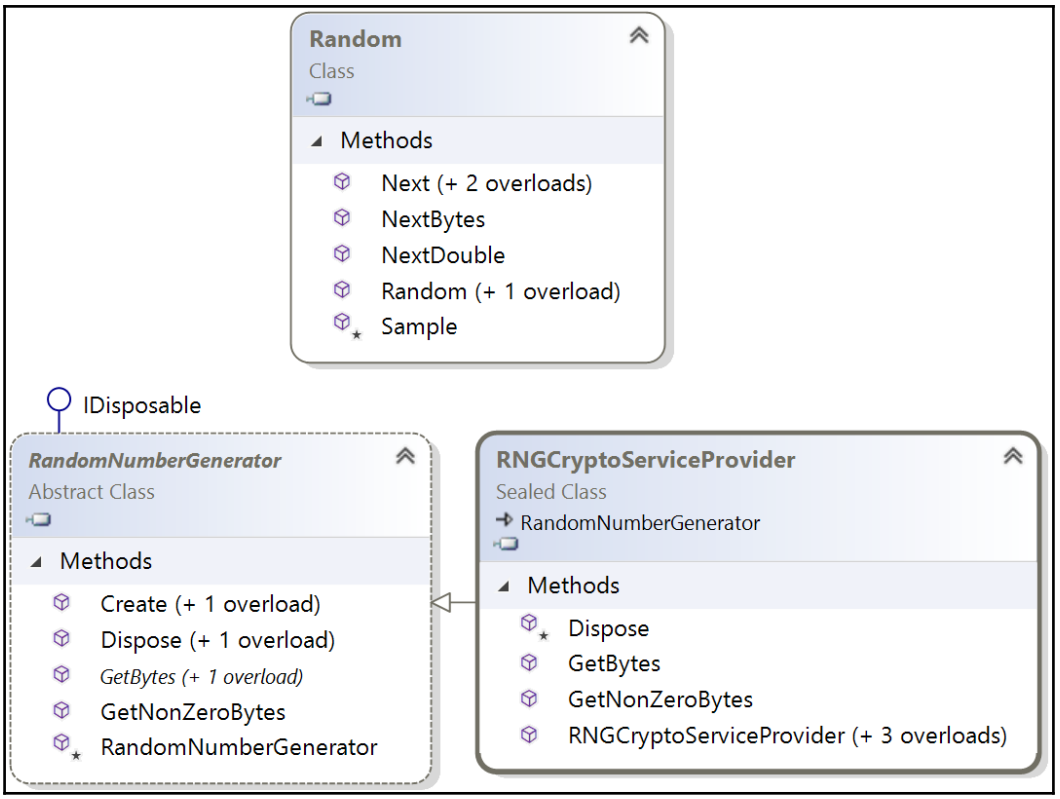
Chapter 10: Protecting Your Data and Applications

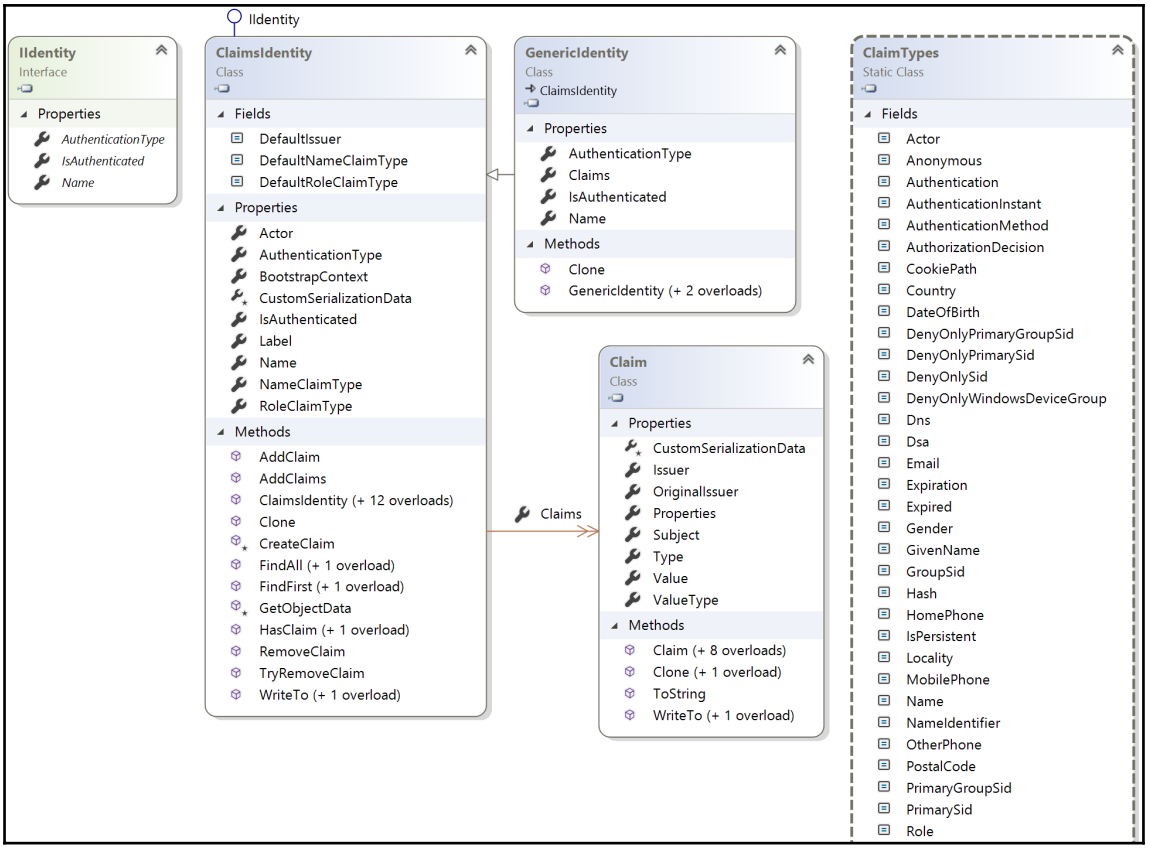


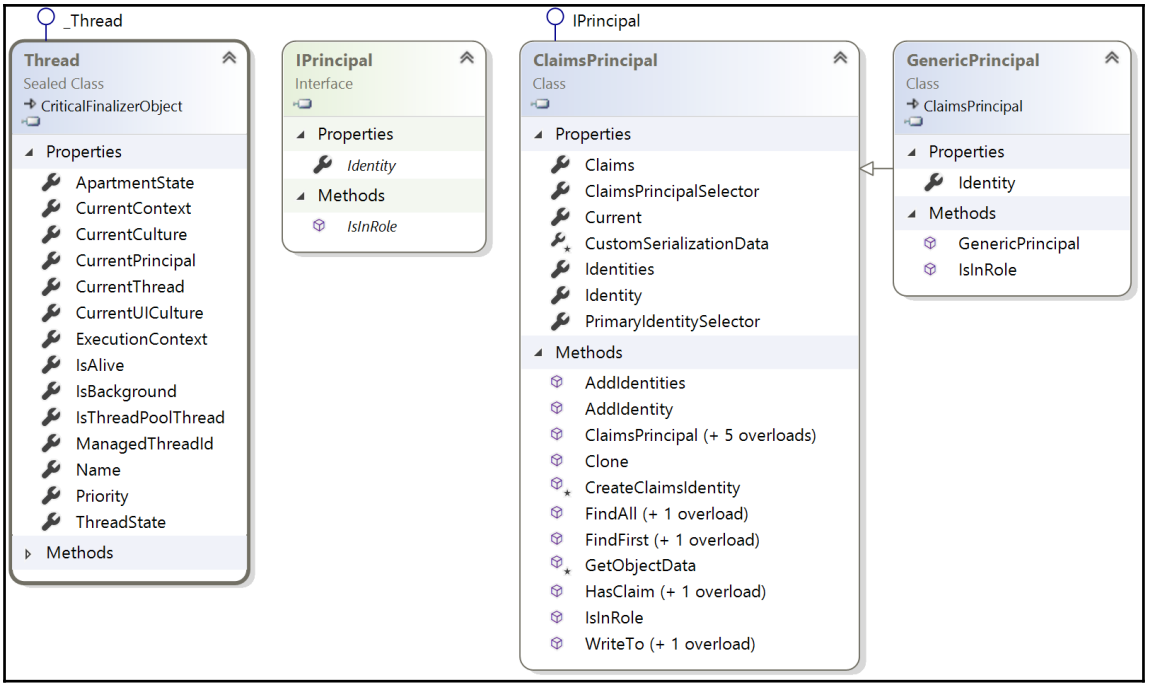

IDisposable
SymmetricAlgorithm
Abstract Class
Fields
BlockSizeValue
FeedbackSizeValue
IVValue
KeySizeValue
KeyValue
LegalBlockSizesValue
LegalKeySizesValue
ModeValue
PaddingValue
Properties
BlockSize
FeedbackSize
IV
Key
KeySize
LegalBlockSizes
LegalKeySizes
Mode
Padding
Methods
Clear
Create (+ 1 overload)
CreateDecryptor (+ 1 overload)
CreateEncryptor (+ 1 overload)
Dispose (+ 1 overload)
GenerateIV
GenerateKey
SymmetricAlgorithm
ValidKeySize
Aes
Abstract Class
SymmetricAlgorithm
DES
Abstract Class
SymmetricAlgorithm
DESCryptoServiceProvider
Sealed Class
DES
TripleDES
Abstract Class
SymmetricAlgorithm
TripleDESCryptoService...
Sealed Class
TripleDES
RC2
Abstract Class
SymmetricAlgorithm
RC2CryptoServiceProvider
Sealed Class
RC2
Rijndael
Abstract Class
SymmetricAlgorithm
RijndaelManaged
Sealed Class
Rijndael


IDisposable
AsymmetricAlgorithm
Abstract Class
Fields
KeySizeValue
LegalKeySizesValue
Properties
KeyExchangeAlgorithm
KeySize
LegalKeySizes
SignatureAlgorithm
Methods
AsymmetricAlgorithm
Clear
Create (+ 1 overload)
Dispose (+ 1 overload)
FromXmlString
ToXmlString
RSA
Abstract Class
AsymmetricAlgorithm
Properties
KeyExchangeAlgorithm
SignatureAlgorithm
Methods
Create (+ 1 overload)
Decrypt
DecryptValue
Encrypt
EncryptValue
ExportParameters
FromXmlString
HashData (+ 1 overload)
ImportParameters
RSA
SignData (+ 2 overloads)
SignHash
ToXmlString
VerifyData (+ 2 overloads)
VerifyHash
ICspAsymmetricAlgorithm
RSACryptoServiceProvider
Sealed Class
RSA
Properties
CspKeyContainerInfo
KeyExchangeAlgorithm
KeySize
PersistKeyInCsp
PublicOnly
SignatureAlgorithm
UseMachineKeyStore
Methods
Decrypt (+ 1 overload)
DecryptValue
Dispose
Encrypt (+ 1 overload)
EncryptValue
ExportCspBlob
ExportParameters
HashData (+ 1 overload)
ImportCspBlob
ImportParameters
RSACryptoServiceProvider (+ 3 overloads)
SignData (+ 2 overloads)
SignHash (+ 1 overload)
VerifyData
VerifyHash (+ 1 overload)

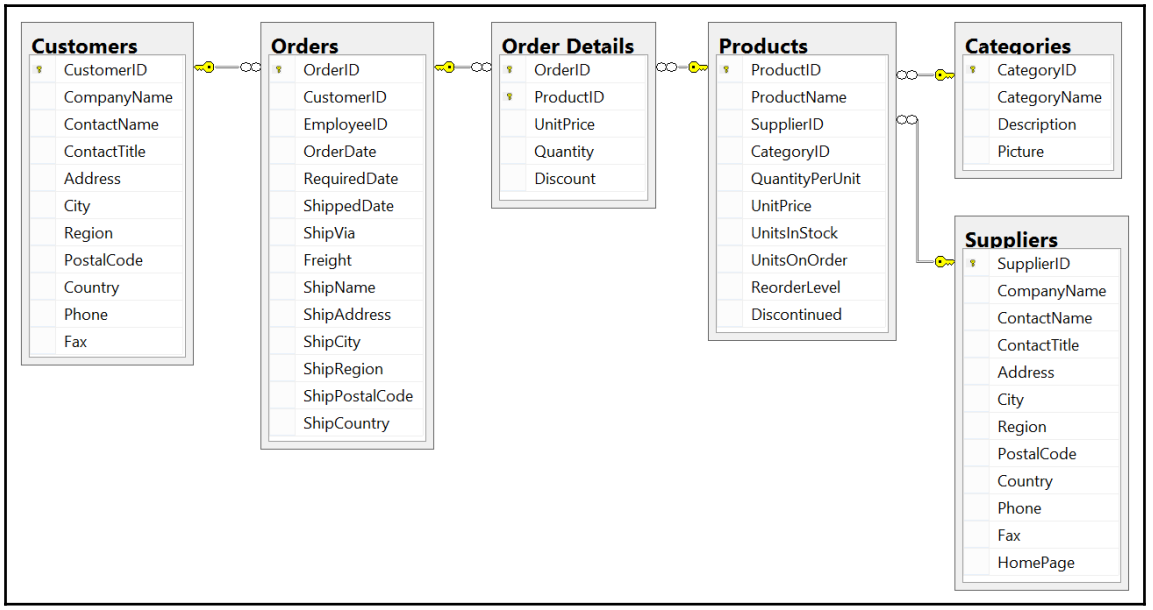

IDisposable
ICryptoTransform
HashAlgorithm
Abstract Class
Fields
HashSizeValue
HashValue
State
Properties
CanReuseTransform
CanTransformMultipleBlocks
Hash
HashSize
InputBlockSize
OutputBlockSize
Methods
Clear
ComputeHash (+ 2 overloads)
Create (+ 1 overload)
Dispose (+ 1 overload)
HashAlgorithm
HashCore
HashFinal
Initialize
TransformBlock
TransformFinalBlock
MD5
Abstract Class
HashAlgorithm
MD5CryptoServiceProvider
Sealed Class
MD5
SHA1
Abstract Class
HashAlgorithm
SHA1CryptoServiceProvider
Sealed Class
SHA1
SHA1Managed
Class
SHA1
KeyedHashAlgorithm
Abstract Class
HashAlgorithm
Fields
KeyValue
Properties
Key
Methods
Create (+ 1 overload)
Dispose
KeyedHashAlgorithm
HMAC
Abstract Class
KeyedHashAlgorithm
Properties
BlockSizeValue
HashName
Key
Methods
Create (+ 1 overload)
Dispose
HashCore
HashFinal
HMAC
Initialize
HMACMD5
Class
HMAC
HMACSHA1
Class
HMAC
HMACSHA512
Class
HMAC

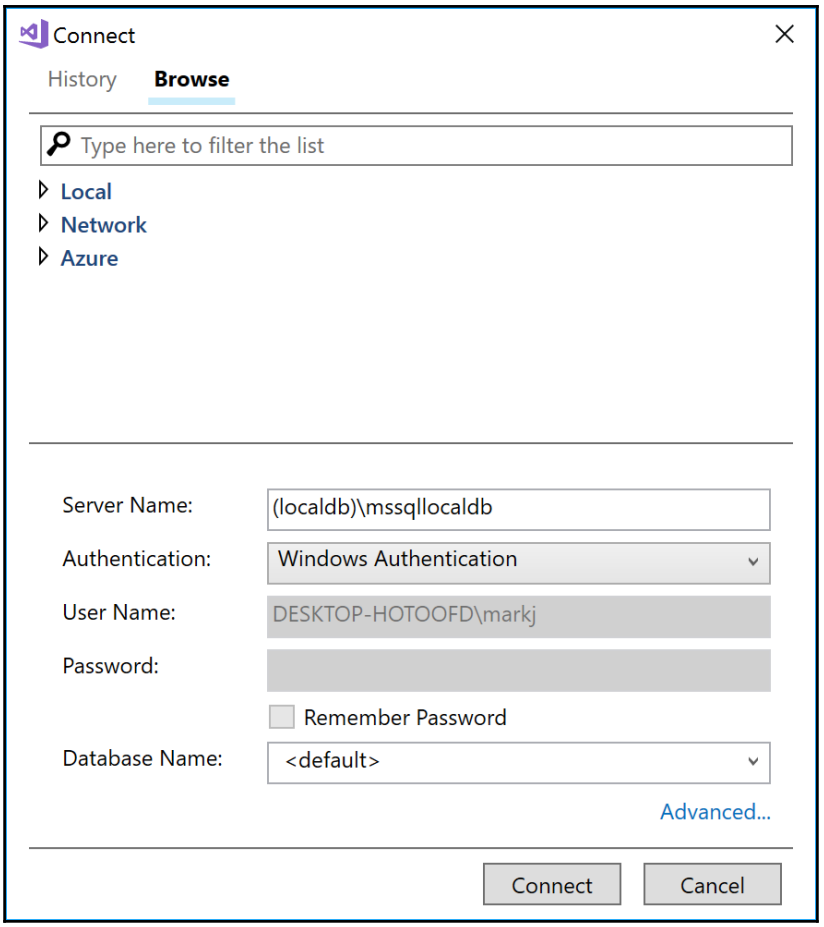

Random
Class
Methods
Next (+ 2 overloads)
NextBytes
NextDouble
Random (+ 1 overload)
Sample
IDisposable
RandomNumberGenerator
Abstract Class
Methods
Create (+ 1 overload)
Dispose (+ 1 overload)
GetBytes (+ 1 overload)
GetNonZeroBytes
RandomNumberGenerator
RNGCryptoServiceProvider
Sealed Class
RandomNumberGenerator
Methods
Dispose
GetBytes
GetNonZeroBytes
RNGCryptoServiceProvider (+ 3 overloads)

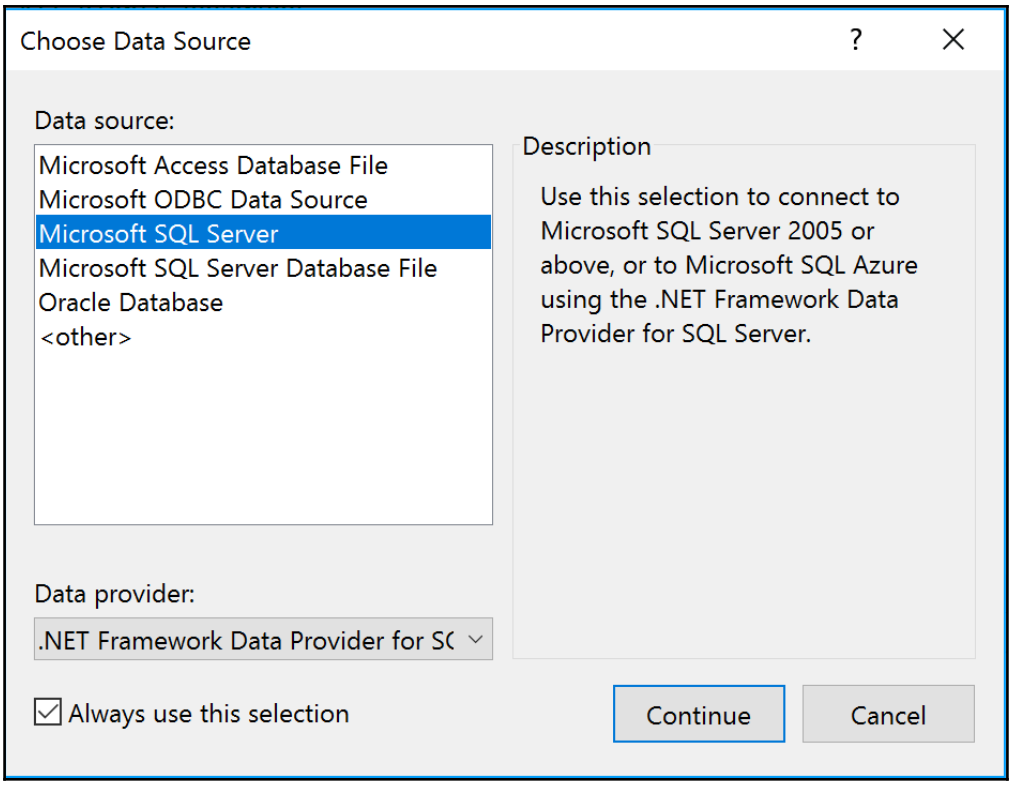

IIdentity
IIdentity
Interface
Properties
AuthenticationType
IsAuthenticated
Name
IIdentity
ClaimsIdentity
Class
Fields
DefaultIssuer
DefaultNameClaimType
DefaultRoleClaimType
Properties
Actor
AuthenticationType
BootstrapContext
CustomSerializationData
IsAuthenticated
Label
Name
NameClaimType
RoleClaimType
Methods
AddClaim
AddClaims
ClaimsIdentity (+ 12 overloads)
Clone
CreateClaim
FindAll (+ 1 overload)
FindFirst (+ 1 overload)
GetObjectData
HasClaim (+ 1 overload)
RemoveClaim
TryRemoveClaim
WriteTo (+ 1 overload)
GenericIdentity
Class
ClaimsIdentity
Properties
AuthenticationType
Claims
IsAuthenticated
Name
Methods
Clone
GenericIdentity (+ 2 overloads)
Claims
Claim
Class
Properties
CustomSerializationData
Issuer
OriginalIssuer
Properties
Subject
Type
Value
ValueType
Methods
Claim (+ 8 overloads)
Clone (+ 1 overload)
ToString
WriteTo (+ 1 overload)
ClaimTypes
Static Class
Fields
Actor
Anonymous
Authentication
AuthenticationInstant
AuthenticationMethod
AuthorizationDecision
CookiePath
Country
DateOfBirth
DenyOnlyPrimaryGroupSid
DenyOnlyPrimarySid
DenyOnlySid
DenyOnlyWindowsDeviceGroup
Dns
Dsa
Email
Expiration
Expired
Gender
GivenName
GroupSid
Hash
HomePhone
IsPersistent
Locality
MobilePhone
Name
NameIdentifier
OtherPhone
PostalCode
PrimaryGroupSid
PrimarySid
Role

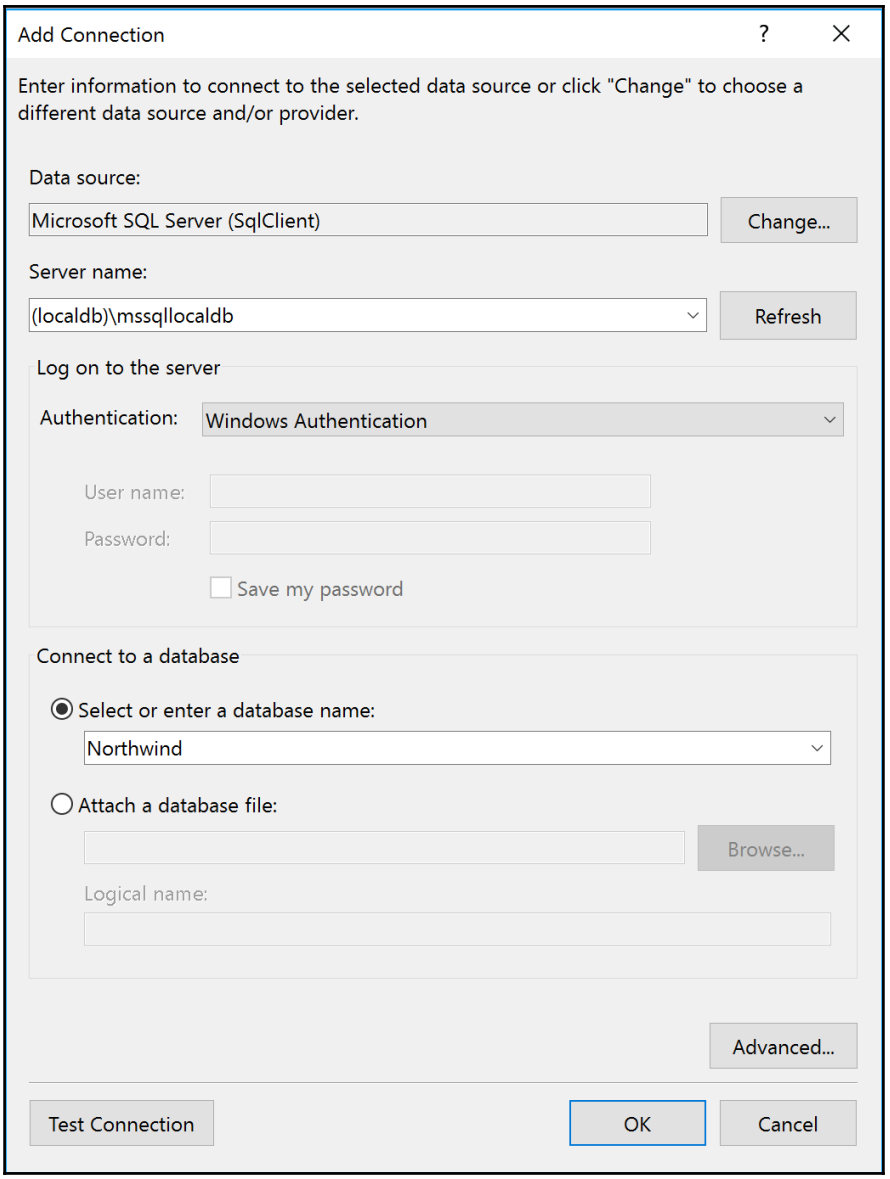

_Thread
IPrincipal
Thread
Sealed Class
CriticalFinalizerObject
Properties
ApartmentState
CurrentContext
CurrentCulture
CurrentPrincipal
CurrentThread
CurrentUICulture
ExecutionContext
IsAlive
IsBackground
IsThreadPoolThread
ManagedThreadId
Name
Priority
ThreadState
Methods
IPrincipal
Interface
Properties
Identity
Methods
IsInRole
ClaimsPrincipal
Class
Properties
Claims
ClaimsPrincipalSelector
Current
CustomSerializationData
Identities
Identity
PrimaryIdentitySelector
Methods
AddIdentities
AddIdentity
ClaimsPrincipal (+ 5 overloads)
Clone
CreateClaimsIdentity
FindAll (+ 1 overload)
FindFirst (+ 1 overload)
GetObjectData
HasClaim (+ 1 overload)
IsInRole
WriteTo (+ 1 overload)
GenericPrincipal
Class
ClaimsPrincipal
Properties
Identity
Methods
GenericPrincipal
IsInRole

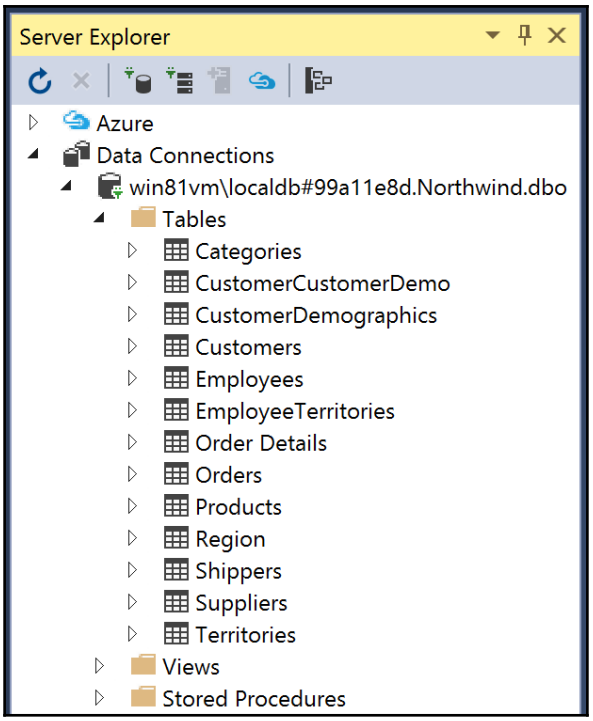
Chapter 11: Working with Databases Using Entity Framework Core




Connect
History
Browse
Type here to filter the list
Local
Network
Azure
Server Name:
(localdb)\mssqllocaldb
Authentication:
Windows Authentication
User Name:
DESKTOP-HOTOOFD\markj
Password:
Remember Password
Database Name:
<default>
Advanced...
Connect
Cancel


Choose Data Source
Data source:
Microsoft Access Database File
Microsoft ODBC Data Source
Microsoft SQL Server
Microsoft SQL Server Database File
Oracle Database
<other>
Description
Use this selection to connect to Microsoft SQL Server 2005 or above, or to Microsoft SQL Azure using the .NET Framework Data Provider for SQL Server.
Data provider:
.NET Framework Data Provider for SC
Always use this selection
Continue
Cancel

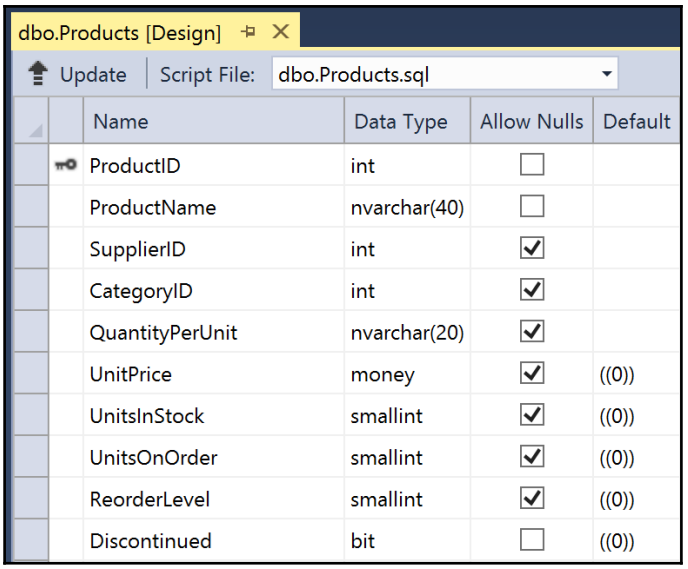

Add Connection
Enter information to connect to the selected data source or click "Change" to choose a different data source and/or provider.
Data source:
Microsoft SQL Server (SqlClient)
Change...
Server name:
(localdb)\mssqllocaldb
Refresh
Log on to the server
Authentication:
Windows Authentication
User name:
Password:
Save my password
Connect to a database
Select or enter a database name:
Northwind
Attach a database file:
Browse...
Logical name:
Advanced...
Test Connection
OK
Cancel

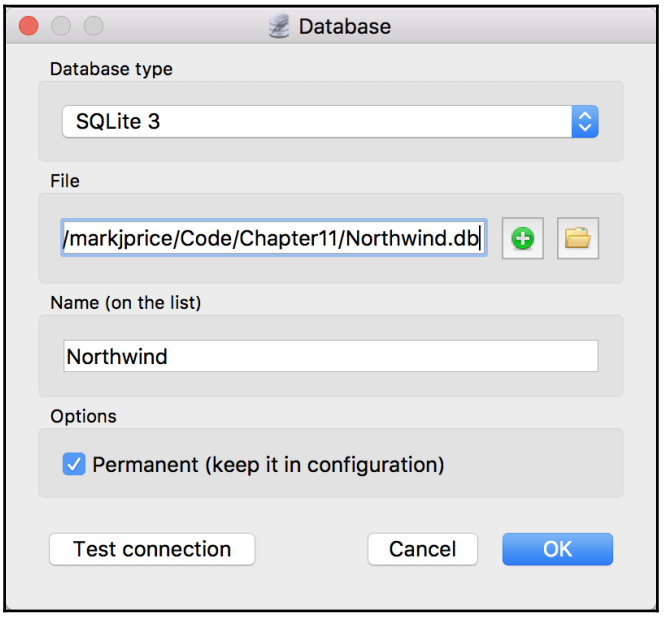


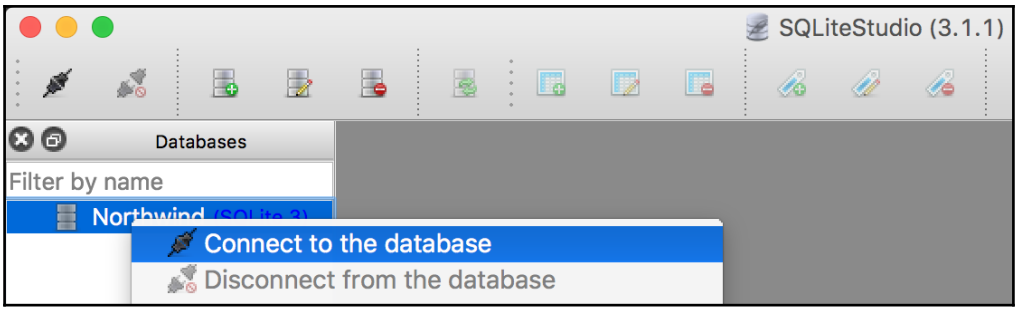
dbo.Products [Data]

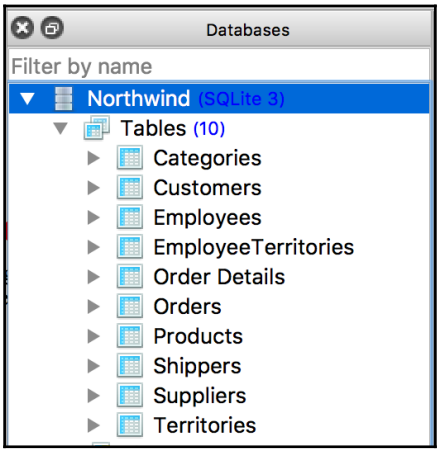
Max Rows: 1000

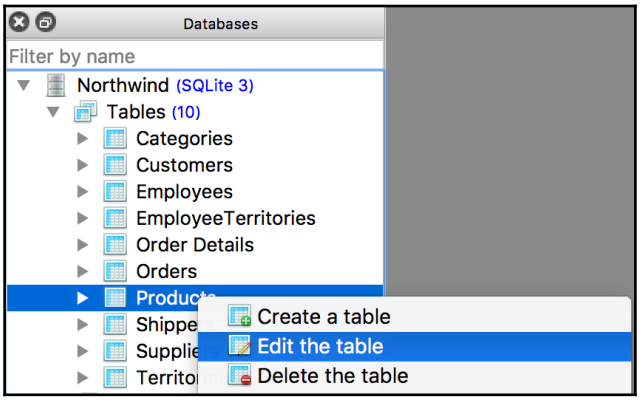
ProductID	ProductName	SupplierID	CategoryID	QuantityPerUnit
1	Chai	1	1	10 boxes x 20 bags
2	Chang	1	1	24 - 12 oz bottles
3	Aniseed Syrup	1	2	12 - 550 ml bottles
4	Chef Anton's Cajun Seasoning	2	2	48 - 6 oz jars
5	Chef Anton's Gumbo Mix	2	2	36 boxes

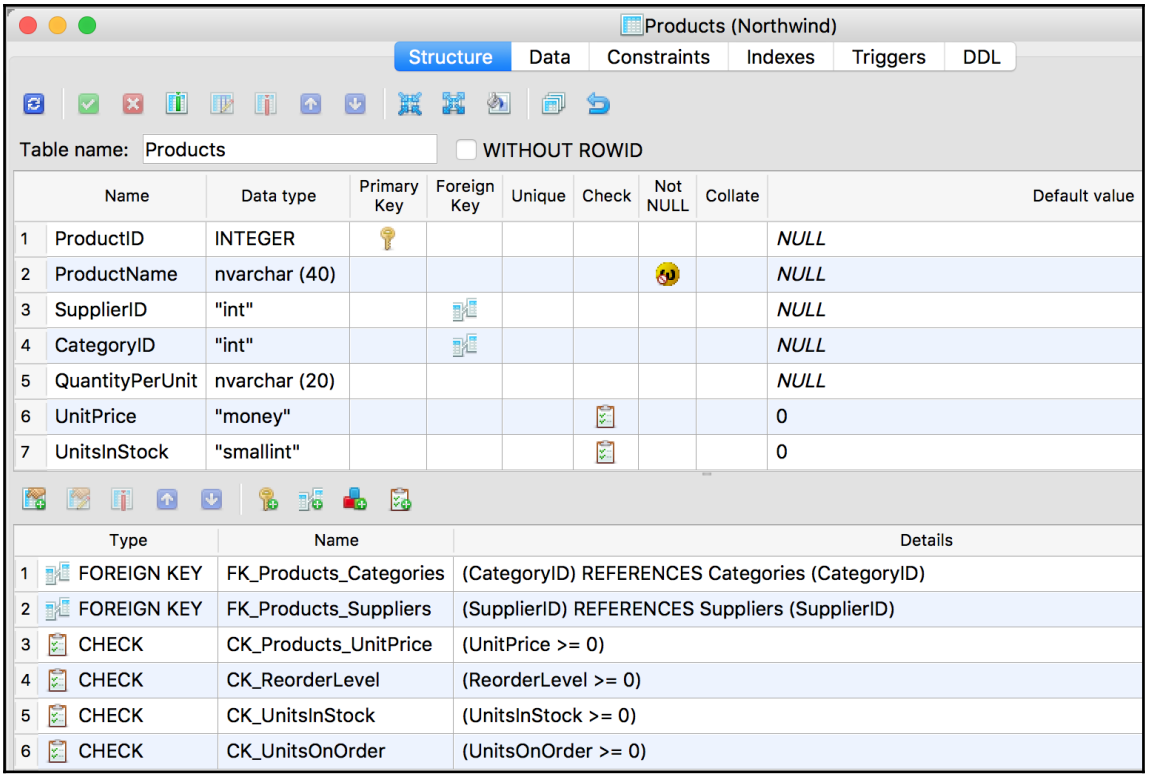

dbo.Products [Design]
Update
Script File:
dbo.Products.sql
Name
Data Type
Allow Nulls
Default
ProductID
int
ProductName
nvarchar(40)
SupplierID
int
CategoryID
int
QuantityPerUnit
nvarchar(20)
UnitPrice
money
((0))
UnitsInStock
smallint
((0))
UnitsOnOrder
smallint
((0))
ReorderLevel
smallint
((0))
Discontinued
bit
((0))

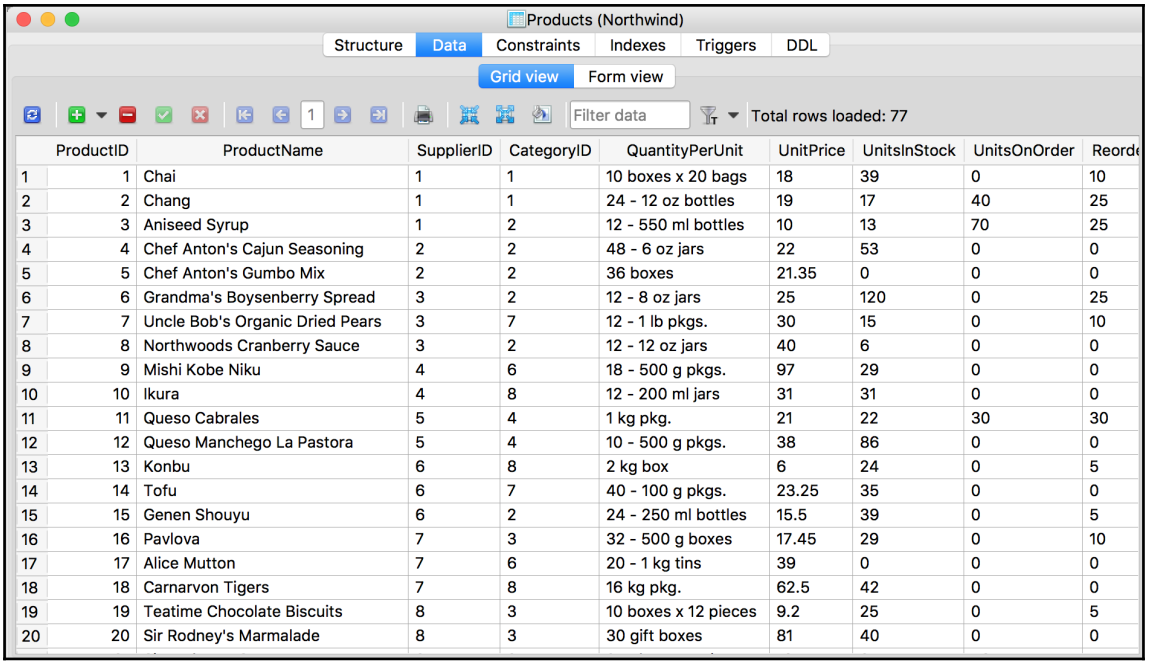

Database
Database type
SQLite 3
File
/markjprice/Code/Chapter11/Northwind.db
Name (on the list)
Northwind
Options
Permanent (keep it in configuration)
Test connection
Cancel
OK


SQLiteStudio (3.1.1)
Databases
Filter by name
Connect to the database
Disconnect from the database

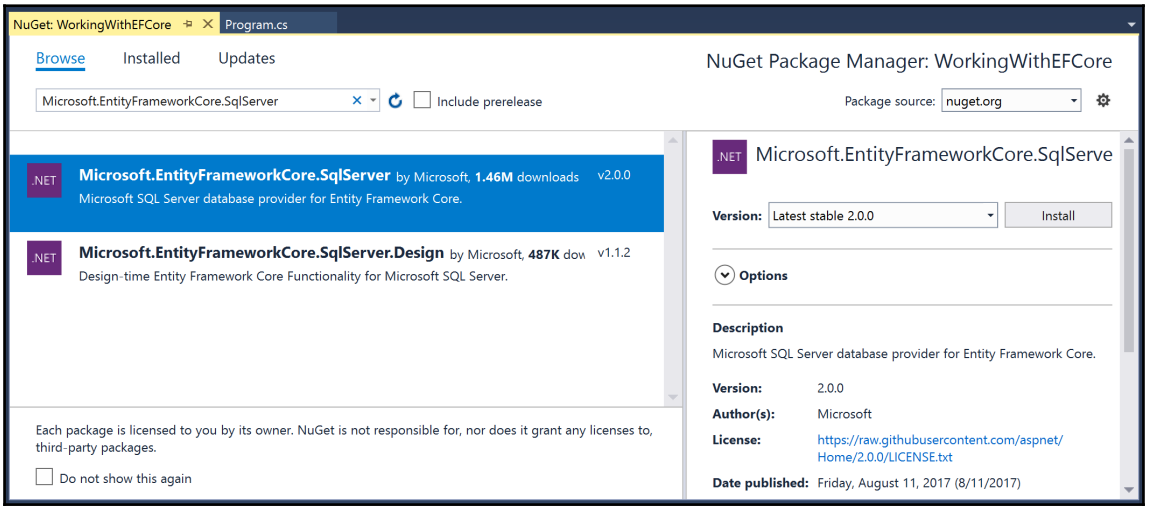

Databases
Filter by name
Northwind (SQLite 3)
Tables (10)
Categories
Customers
Employees
EmployeeTerritories
Order Details
Orders
Products
Shippers
Suppliers
Territories

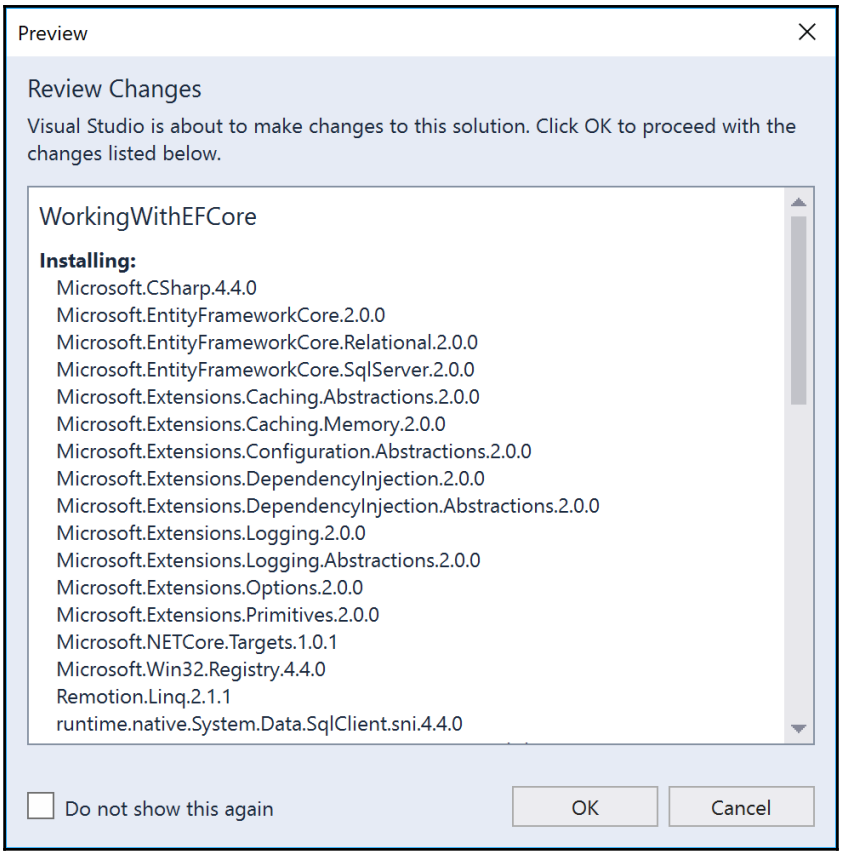

Databases
Filter by name
Northwind (SQLite 3)
Tables (10)
Categories
Customers
Employees
EmployeeTerritories
Order Details
Orders
Create a table
Edit the table
Delete the table

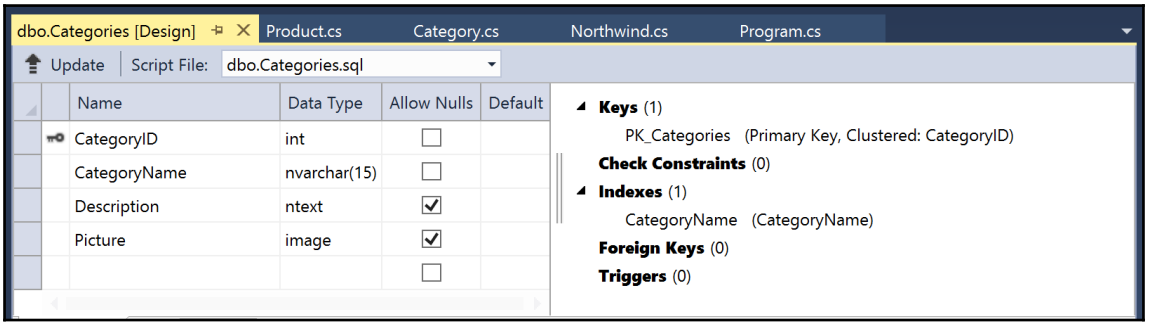

Products (Northwind)
Structure
Data
Constraints
Indexes
Triggers
DDL
Table name: Products
WITHOUT ROWID
Name
Data type
Primary Key
Foreign Key
Unique
Check
Not NULL
Collate
Default value
1 ProductID INTEGER NULL
2 ProductName nvarchar (40) NULL
3 SupplierID "int" NULL
4 CategoryID "int" NULL
5 QuantityPerUnit nvarchar (20) NULL
6 UnitPrice "money" 0
7 UnitsInStock "smallint" 0
Type
Name
Details
1 FOREIGN KEY FK_Products_Categories (CategoryID) REFERENCES Categories (CategoryID)
2 FOREIGN KEY FK_Products_Suppliers (SupplierID) REFERENCES Suppliers (SupplierID)
3 CHECK CK_Products_UnitPrice (UnitPrice >= 0)
4 CHECK CK_ReorderLevel (ReorderLevel >= 0)
5 CHECK CK_UnitsInStock (UnitsInStock >= 0)
6 CHECK CK_UnitsOnOrder (UnitsOnOrder >= 0)

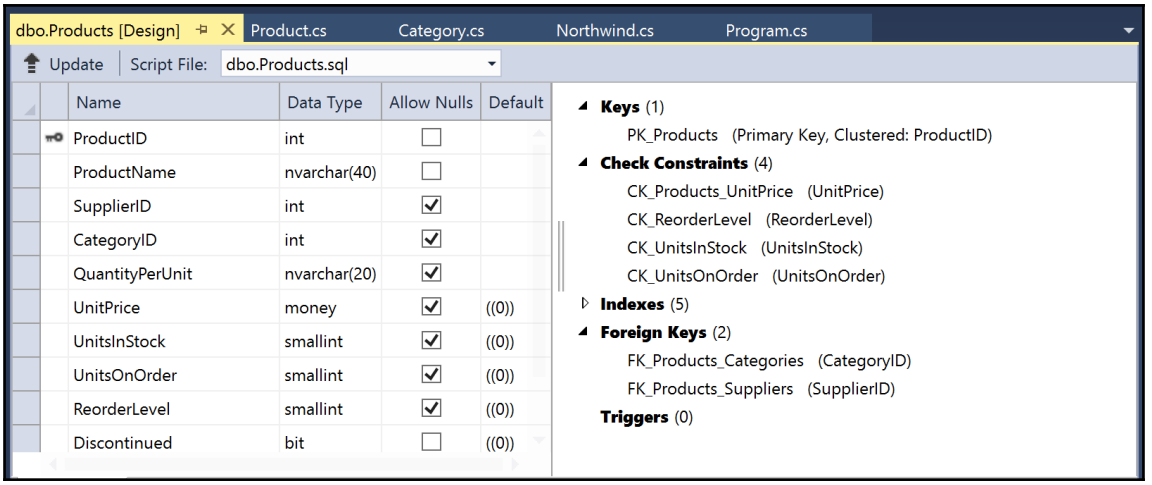


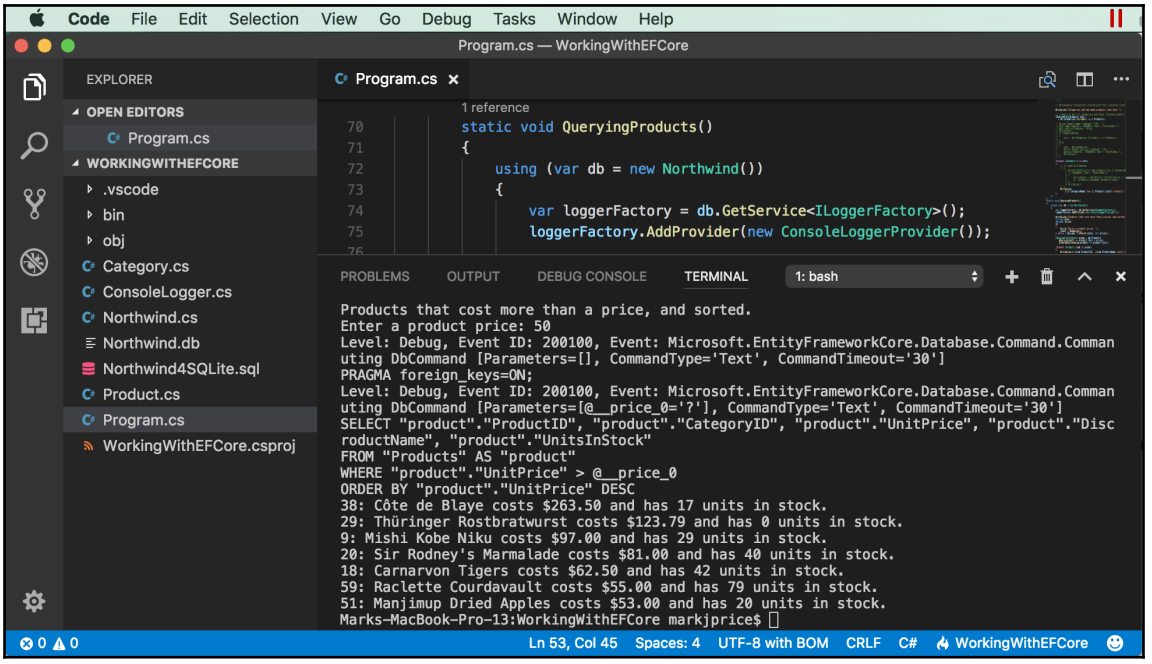
	ProductID	ProductName	SupplierID	CategoryID	QuantityPerUnit	UnitPrice	UnitsInStock	UnitsOnOrder	Reorde
1	1	Chai	1	1	10 boxes x 20 bags	18	39	0	10
2	2	Chang	1	1	24 - 12 oz bottles	19	17	40	25
3	3	Aniseed Syrup	1	2	12 - 550 ml bottles	10	13	70	25
4	4	Chef Anton's Cajun Seasoning	2	2	48 - 6 oz jars	22	53	0	0
5	5	Chef Anton's Gumbo Mix	2	2	36 boxes	21.35	0	0	0
6	6	Grandma's Boysenberry Spread	3	2	12 - 8 oz jars	25	120	0	25
7	7	Uncle Bob's Organic Dried Pears	3	7	12 - 1 lb pkgs.	30	15	0	10
8	8	Northwoods Cranberry Sauce	3	2	12 - 12 oz jars	40	6	0	0
9	9	Mishi Kobe Niku	4	6	18 - 500 g pkgs.	97	29	0	0
10	10	Ikura	4	8	12 - 200 ml jars	31	31	0	0
11	11	Queso Cabrales	5	4	1 kg pkg.	21	22	30	30
12	12	Queso Manchego La Pastora	5	4	10 - 500 g pkgs.	38	86	0	0
13	13	Konbu	6	8	2 kg box	6	24	0	5
14	14	Tofu	6	7	40 - 100 g pkgs.	23.25	35	0	0
15	15	Genen Shouyu	6	2	24 - 250 ml bottles	15.5	39	0	5
16	16	Pavlova	7	3	32 - 500 g boxes	17.45	29	0	10
17	17	Alice Mutton	7	6	20 - 1 kg tins	39	0	0	0
18	18	Carnarvon Tigers	7	8	16 kg pkg.	62.5	42	0	0
19	19	Teatime Chocolate Biscuits	8	3	10 boxes x 12 pieces	9.2	25	0	5
20	20	Sir Rodney's Marmalade	8	3	30 gift boxes	81	40	0	0

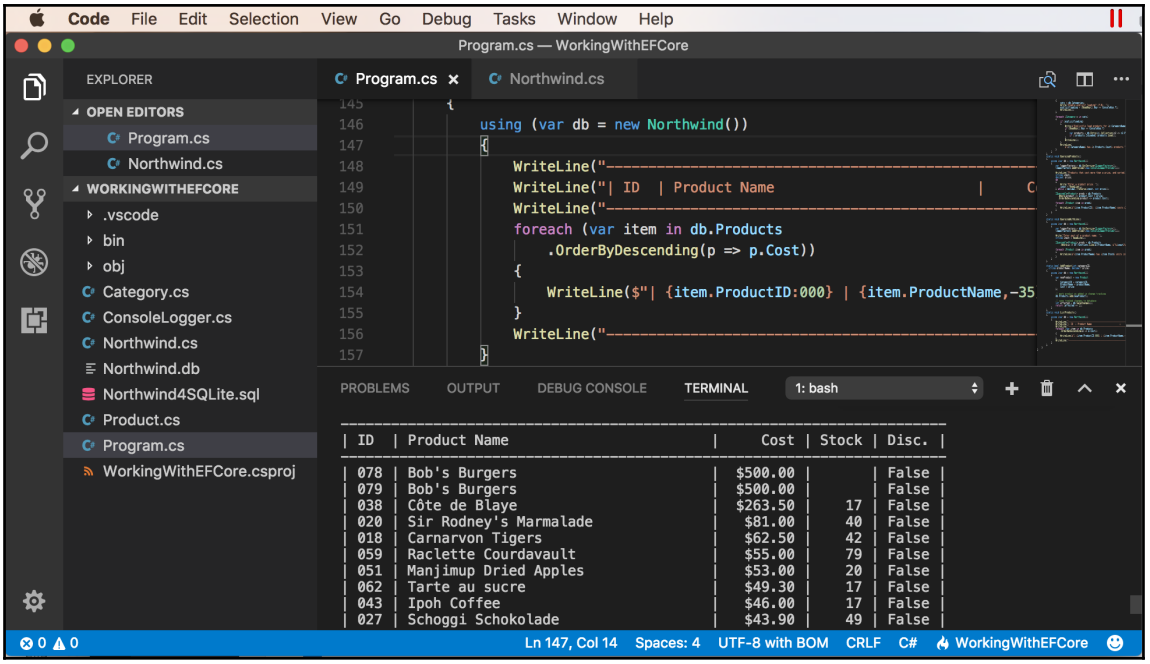



Preview
Review Changes
Visual Studio is about to make changes to this solution. Click OK to proceed with the changes listed below.
WorkingWithEFCore
Installing:
Microsoft.CSharp.4.4.0
Microsoft.EntityFrameworkCore.2.0.0
Microsoft.EntityFrameworkCore.Relational.2.0.0
Microsoft.EntityFrameworkCore.SqlServer.2.0.0
Microsoft.Extensions.Caching.Abstractions.2.0.0
Microsoft.Extensions.Caching.Memory.2.0.0
Microsoft.Extensions.Configuration.Abstractions.2.0.0
Microsoft.Extensions.DependencyInjection.2.0.0
Microsoft.Extensions.DependencyInjection.Abstractions.2.0.0
Microsoft.Extensions.Logging.2.0.0
Microsoft.Extensions.Logging.Abstractions.2.0.0
Microsoft.Extensions.Options.2.0.0
Microsoft.Extensions.Primitives.2.0.0
Microsoft.NETCore.Targets.1.0.1
Microsoft.Win32.Registry.4.4.0
Remotion.Linq.2.1.1
runtime.native.System.Data.SqlClient.sni.4.4.0
Do not show this again
OK
Cancel

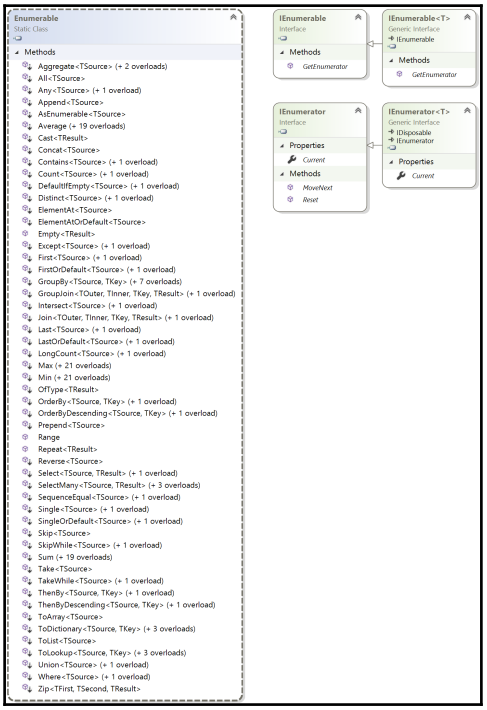

dbo.Categories [Design]
Product.cs
Category.cs
Northwind.cs
Program.cs
Update
Script File: dbo.Categories.sql
Name
Data Type
Allow Nulls
Default
CategoryID
int
CategoryName
nvarchar(15)
Description
ntext
Picture
image
Keys (1)
PK_Categories (Primary Key, Clustered: CategoryID)
Check Constraints (0)
Indexes (1)
CategoryName (CategoryName)
Foreign Keys (0)
Triggers (0)

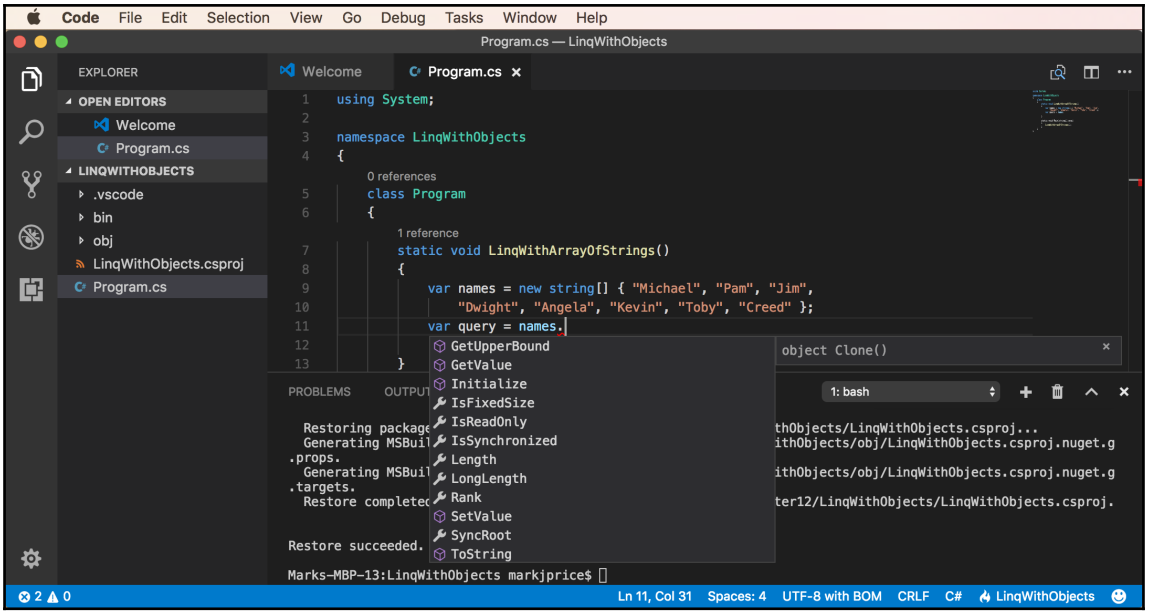

dbo.Products [Design]
Product.cs
Category.cs
Northwind.cs
Program.cs
Update
Script File: dbo.Products.sql
Name
Data Type
Allow Nulls
Default
ProductID int
ProductName nvarchar(40)
SupplierID int
CategoryID int
QuantityPerUnit nvarchar(20)
UnitPrice money ((0))
UnitsInStock smallint ((0))
UnitsOnOrder smallint ((0))
ReorderLevel smallint ((0))
Discontinued bit ((0))
Keys (1)
PK_Products (Primary Key, Clustered: ProductID)
Check Constraints (4)
CK_Products_UnitPrice (UnitPrice)
CK_ReorderLevel (ReorderLevel)
CK_UnitsInStock (UnitsInStock)
CK_UnitsOnOrder (UnitsOnOrder)
Indexes (5)
Foreign Keys (2)
FK_Products_Categories (CategoryID)
FK_Products_Suppliers (SupplierID)
Triggers (0)

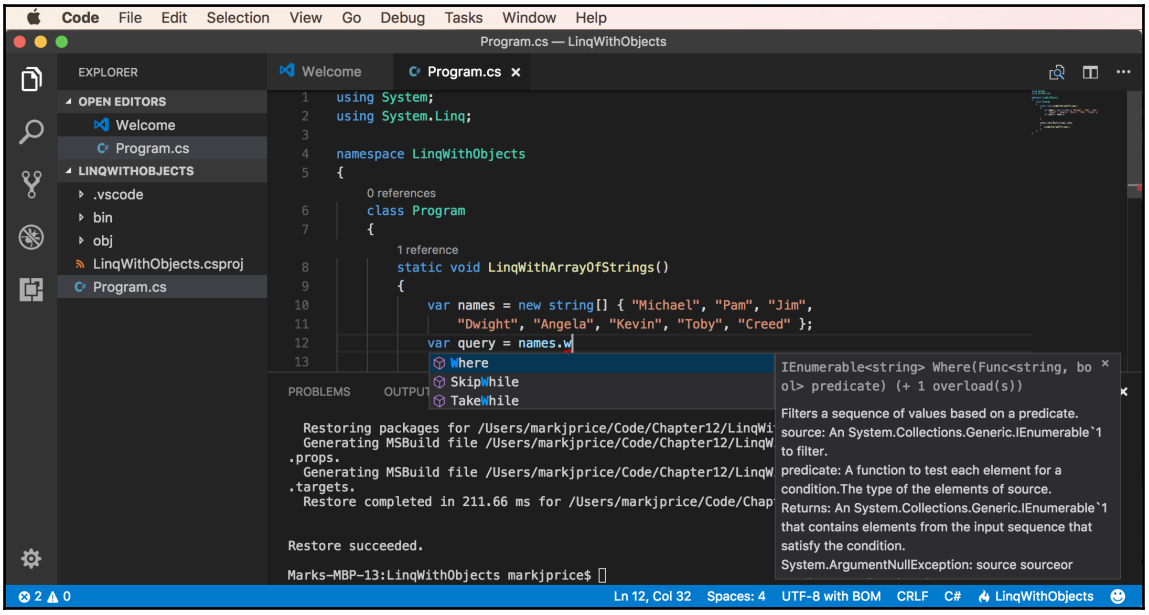

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — WorkingWithEFCore
EXPLORER
OPEN EDITORS
Program.cs
WORKINGWITHEFCORE
.vscode
bin
obj
Category.cs
ConsoleLogger.cs
Northwind.cs
Northwind.db
Northwind4SQLite.sql
Product.cs
Program.cs
WorkingWithEFCore.csproj
Program.cs
1 reference
70 static void QueryingProducts()
71 {
72 using (var db = new Northwind())
73 {
74 var loggerFactory = db.GetService<ILoggerFactory>();
75 loggerFactory.AddProvider(new ConsoleLoggerProvider());
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: bash
Products that cost more than a price, and sorted.
Enter a product price: 50
Level: Debug, Event ID: 200100, Event: Microsoft.EntityFrameworkCore.Database.Command.Comman
uting DbCommand [Parameters=[], CommandType='Text', CommandTimeout='30']
PRAGMA foreign_keys=ON;
Level: Debug, Event ID: 200100, Event: Microsoft.EntityFrameworkCore.Database.Command.Comman
uting DbCommand [Parameters=[@__price_0='?'], CommandType='Text', CommandTimeout='30']
SELECT "product"."ProductID", "product"."CategoryID", "product"."UnitPrice", "product"."Disc
roductName", "product"."UnitsInStock"
FROM "Products" AS "product"
WHERE "product"."UnitPrice" > @__price_0
ORDER BY "product"."UnitPrice" DESC
38: Côte de Blaye costs $263.50 and has 17 units in stock.
29: Thüringer Rostbratwurst costs $123.79 and has 0 units in stock.
9: Mishi Kobe Niku costs $97.00 and has 29 units in stock.
20: Sir Rodney's Marmalade costs $81.00 and has 40 units in stock.
18: Carnarvon Tigers costs $62.50 and has 42 units in stock.
59: Raclette Courdavault costs $55.00 and has 79 units in stock.
51: Manjimup Dried Apples costs $53.00 and has 20 units in stock.
Marks-MacBook-Pro-13:WorkingWithEFCore markjprice$
0 0
Ln 53, Col 45 Spaces: 4 UTF-8 with BOM CRLF C# WorkingWithEFCore

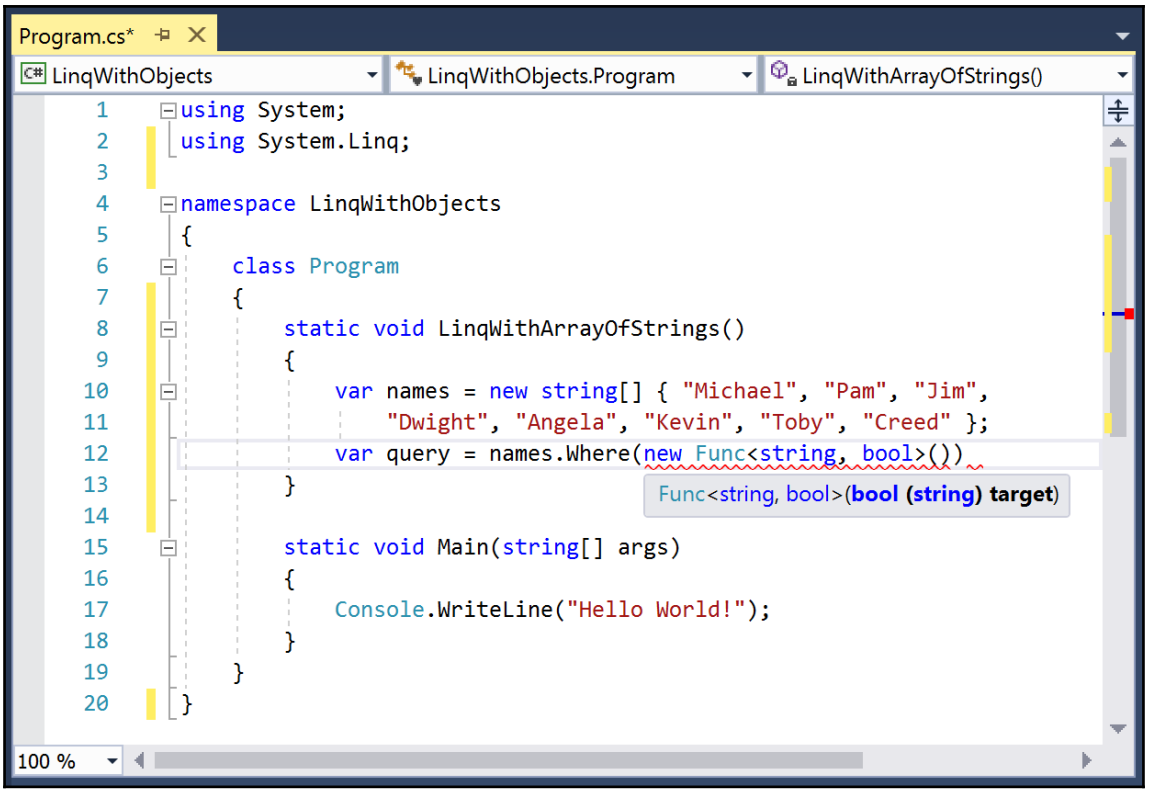

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — WorkingWithEFCore
EXPLORER
OPEN EDITORS
Program.cs
Northwind.cs
WORKINGWITHEFCORE
.vscode
bin
obj
Category.cs
ConsoleLogger.cs
Northwind.cs
Northwind.db
Northwind4SQLite.sql
Product.cs
Program.cs
WorkingWithEFCore.csproj
Program.cs
Northwind.cs
using (var db = new Northwind())
{
WriteLine("
WriteLine("| ID | Product Name |
WriteLine("
foreach (var item in db.Products
.OrderByDescending(p => p.Cost))
{
WriteLine($"| {item.ProductID:000} | {item.ProductName,-35
}
WriteLine("
}
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
1: bash
ID	Product Name	Cost	Stock	Disc.
078	Bob's Burgers	$500.00		False
079	Bob's Burgers	$500.00		False
038	Côte de Blaye	$263.50	17	False
020	Sir Rodney's Marmalade	$81.00	40	False
018	Carnarvon Tigers	$62.50	42	False
059	Raclette Courdavault	$55.00	79	False
051	Manjimup Dried Apples	$53.00	20	False
062	Tarte au sucre	$49.30	17	False
043	Ipoh Coffee	$46.00	17	False
027	Schoggi Schokolade	$43.90	49	False
0 0
Ln 147, Col 14
Spaces: 4
UTF-8 with BOM
CRLF
C#
WorkingWithEFCore

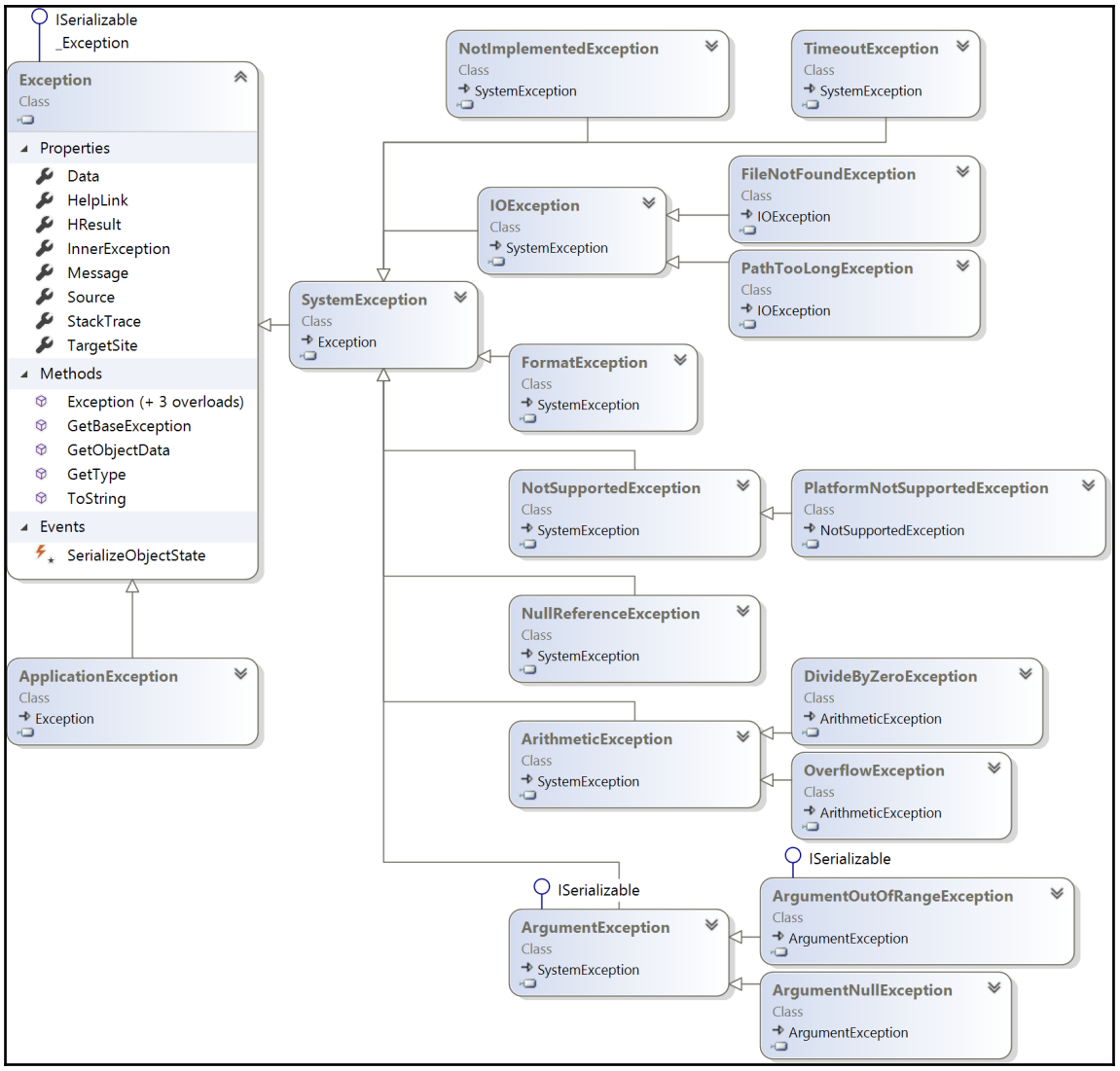
Chapter 12: Querying and Manipulating Data Using LINQ

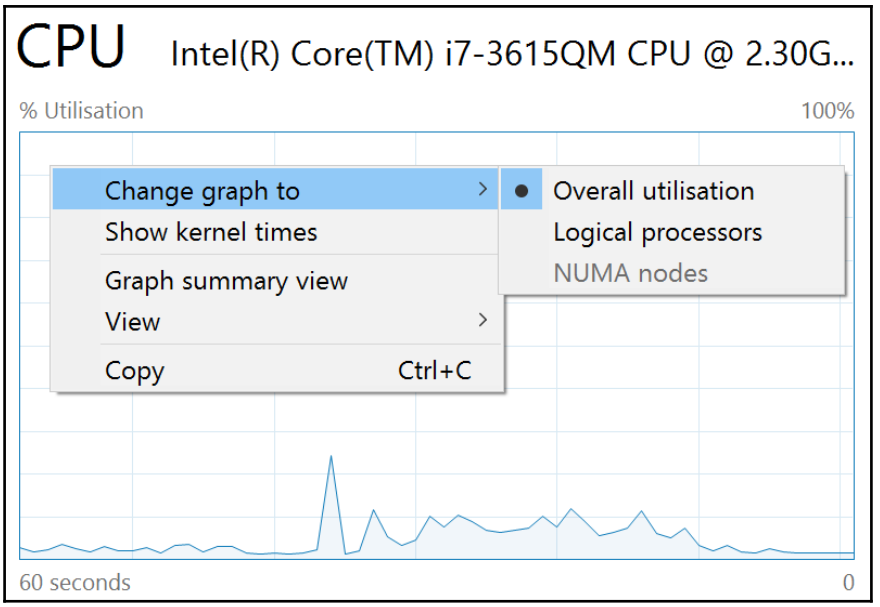


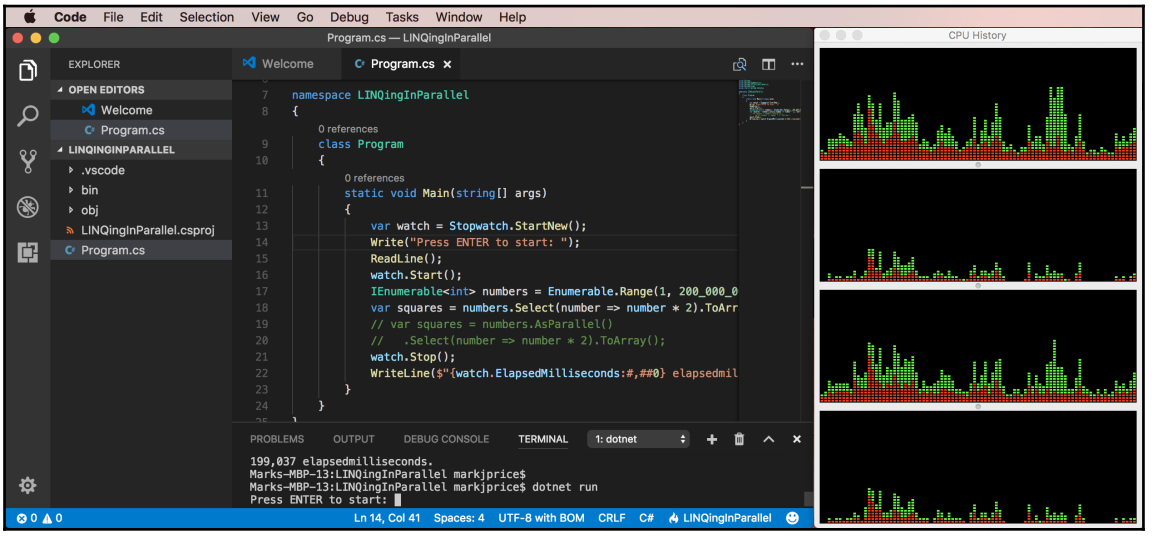

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — LinqWithObjects
EXPLORER
OPEN EDITORS
Welcome
Program.cs
LINQWITHOBJECTS
.vscode
bin
obj
LinqWithObjects.csproj
Program.cs
Welcome
Program.cs
using System;
namespace LinqWithObjects
{
0 references
class Program
{
1 reference
static void LinqWithArrayOfStrings()
{
var names = new string[] { "Michael", "Pam", "Jim",
"Dwight", "Angela", "Kevin", "Toby", "Creed" };
var query = names.
GetUpperBound
GetValue
Initialize
IsFixedSize
IsReadOnly
IsSynchronized
Length
LongLength
Rank
SetValue
SyncRoot
ToString
object Clone()
PROBLEMS
OUTPUT
1: bash
Restoring package
Generating MSBuil
.props.
Generating MSBuil
.targets.
Restore complete
thObjects/LinqWithObjects.csproj...
ithObjects/obj/LinqWithObjects.csproj.nuget.g
ithObjects/obj/LinqWithObjects.csproj.nuget.g
ter12/LinqWithObjects/LinqWithObjects.csproj.
Restore succeeded.
Marks-MBP-13:LinqWithObjects markjprice$
2 0
Ln 11, Col 31
Spaces: 4
UTF-8 with BOM
CRLF
C#
LinqWithObjects

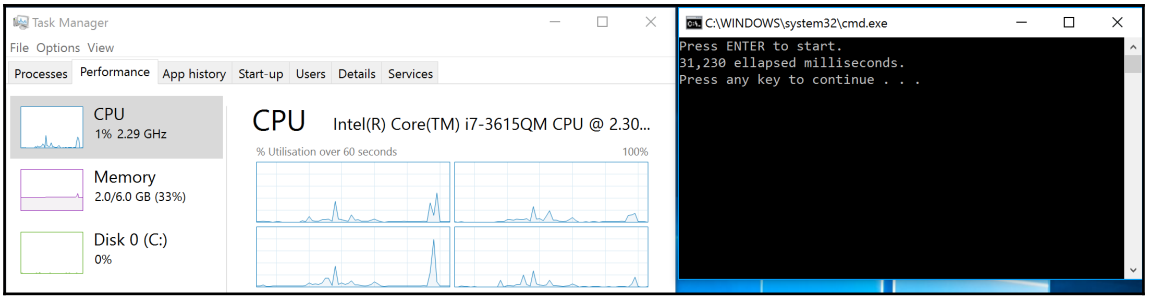

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — LinqWithObjects
EXPLORER
OPEN EDITORS
Welcome
Program.cs
LINQWITHOBJECTS
.vscode
bin
obj
LinqWithObjects.csproj
Program.cs
Welcome
Program.cs
using System;
using System.Linq;
namespace LinqWithObjects
{
0 references
class Program
{
1 reference
static void LinqWithArrayOfStrings()
{
var names = new string[] { "Michael", "Pam", "Jim",
"Dwight", "Angela", "Kevin", "Toby", "Creed" };
var query = names.w
Where
SkipWhile
TakeWhile
IEnumerable<string> Where(Func<string, bo
ol> predicate) (+ 1 overload(s))
Filters a sequence of values based on a predicate.
source: An System.Collections.Generic.IEnumerable`1
to filter.
predicate: A function to test each element for a
condition.The type of the elements of source.
Returns: An System.Collections.Generic.IEnumerable`1
that contains elements from the input sequence that
satisfy the condition.
System.ArgumentNullException: source sourceor
PROBLEMS
OUTPUT
Restoring packages for /Users/markjprice/Code/Chapter12/LinqWi
Generating MSBuild file /Users/markjprice/Code/Chapter12/LinqW
.props.
Generating MSBuild file /Users/markjprice/Code/Chapter12/LinqW
.targets.
Restore completed in 211.66 ms for /Users/markjprice/Code/Chap
Restore succeeded.
Marks-MBP-13:LinqWithObjects markjprice$
2 0
Ln 12, Col 32
Spaces: 4
UTF-8 with BOM
CRLF
C#
LinqWithObjects

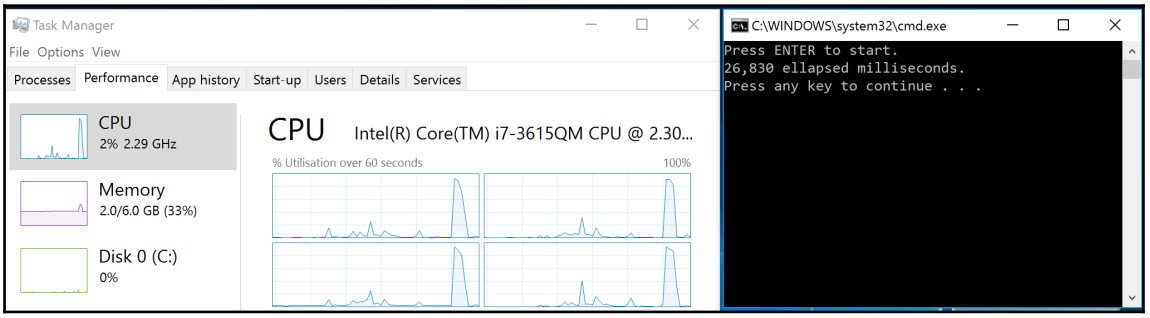

Program.cs*
LinqWithObjects
LinqWithObjects.Program
LinqWithArrayOfStrings()
1 using System;
2 using System.Linq;
3
4 namespace LinqWithObjects
5 {
6 class Program
7 {
8 static void LinqWithArrayOfStrings()
9 {
10 var names = new string[] { "Michael", "Pam", "Jim",
11 "Dwight", "Angela", "Kevin", "Toby", "Creed" };
12 var query = names.Where(new Func<string, bool>())
13 }
Func<string, bool>(bool (string) target)
14
15 static void Main(string[] args)
16 {
17 Console.WriteLine("Hello World!");
18 }
19 }
20 }
100 %

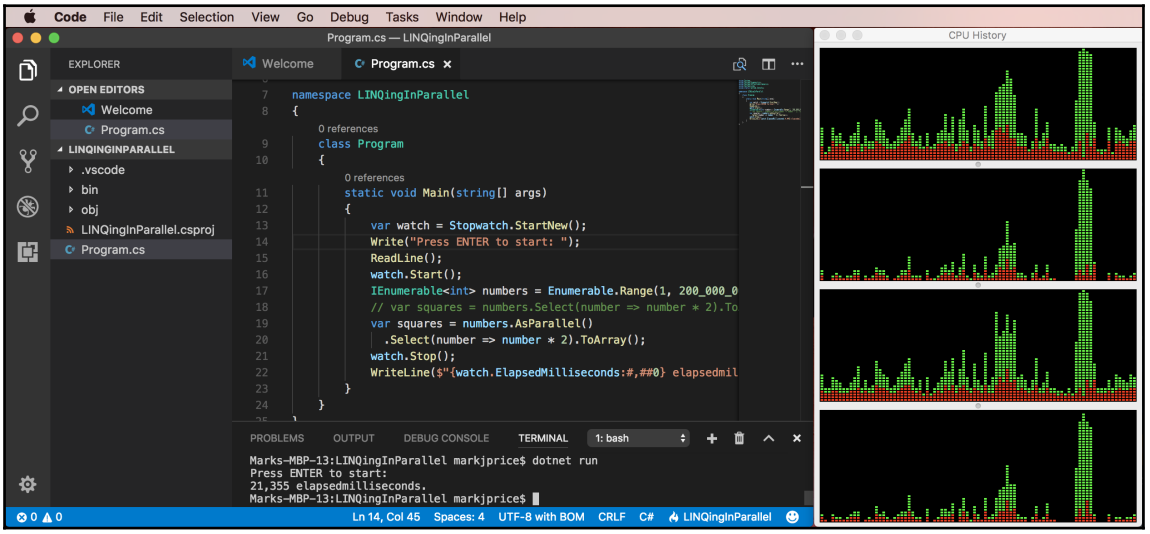

ISerializable
_Exception
Exception
Class
Properties
Data
HelpLink
HResult
InnerException
Message
Source
StackTrace
TargetSite
Methods
Exception (+ 3 overloads)
GetBaseException
GetObjectData
GetType
ToString
Events
SerializeObjectState
ApplicationException
Class
Exception
NotImplementedException
Class
SystemException
TimeoutException
Class
SystemException
IOException
Class
SystemException
FileNotFoundException
Class
IOException
PathTooLongException
Class
IOException
SystemException
Class
Exception
FormatException
Class
SystemException
NotSupportedException
Class
SystemException
PlatformNotSupportedException
Class
NotSupportedException
NullReferenceException
Class
SystemException
DivideByZeroException
Class
ArithmeticException
ArithmeticException
Class
SystemException
OverflowException
Class
ArithmeticException
ISerializable
ISerializable
ArgumentException
Class
SystemException
ArgumentOutOfRangeException
Class
ArgumentException
ArgumentNullException
Class
ArgumentException


CPU
Intel(R) Core(TM) i7-3615QM CPU @ 2.30G...
% Utilisation
100%
Change graph to
Show kernel times
Graph summary view
View
Copy
Ctrl+C
Overall utilisation
Logical processors
NUMA nodes
60 seconds
0

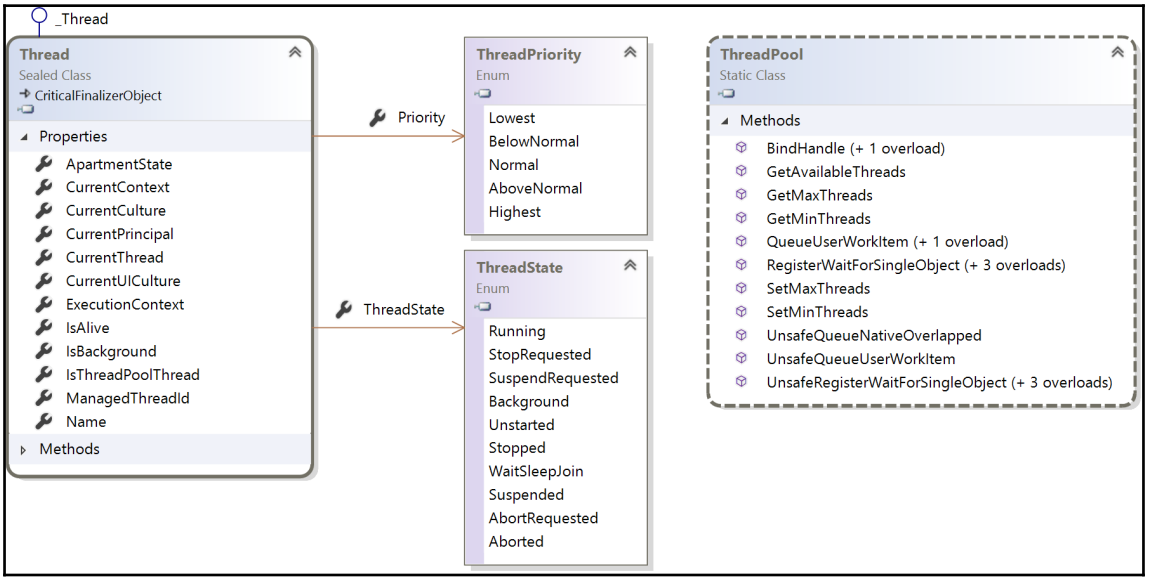

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — LINQingInParallel
EXPLORER
OPEN EDITORS
Welcome
Program.cs
LINQINGINPARALLEL
.vscode
bin
obj
LINQingInParallel.csproj
Program.cs
Welcome
Program.cs
namespace LINQingInParallel
{
0 references
class Program
{
0 references
static void Main(string[] args)
{
var watch = Stopwatch.StartNew();
Write("Press ENTER to start: ");
ReadLine();
watch.Start();
IEnumerable<int> numbers = Enumerable.Range(1, 200_000_0
var squares = numbers.Select(number => number * 2).ToArr
// var squares = numbers.AsParallel()
// .Select(number => number * 2).ToArray();
watch.Stop();
WriteLine($"{watch.ElapsedMilliseconds:#,##0} elapsedmil
}
}
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
1: dotnet
199,037 elapsedmilliseconds.
Marks-MBP-13:LINQingInParallel markjprice$
Marks-MBP-13:LINQingInParallel markjprice$ dotnet run
Press ENTER to start:
Ln 14, Col 41
Spaces: 4
UTF-8 with BOM
CRLF
C#
LINQingInParallel
CPU History

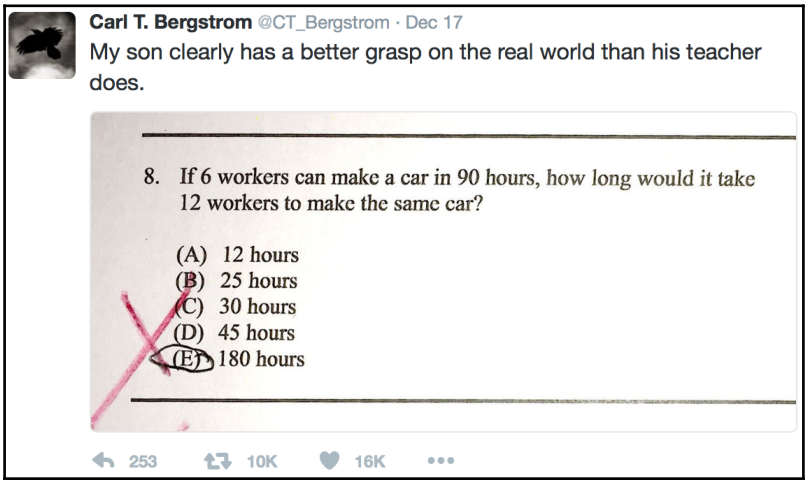

Task Manager
File Options View
Processes Performance App history Start-up Users Details Services
CPU
1% 2.29 GHz
Memory
2.0/6.0 GB (33%)
Disk 0 (C:)
0%
CPU Intel(R) Core(TM) i7-3615QM CPU @ 2.30...
% Utilisation over 60 seconds
100%
C:\WINDOWS\system32\cmd.exe
Press ENTER to start.
31,230 ellapsed milliseconds.
Press any key to continue . . .

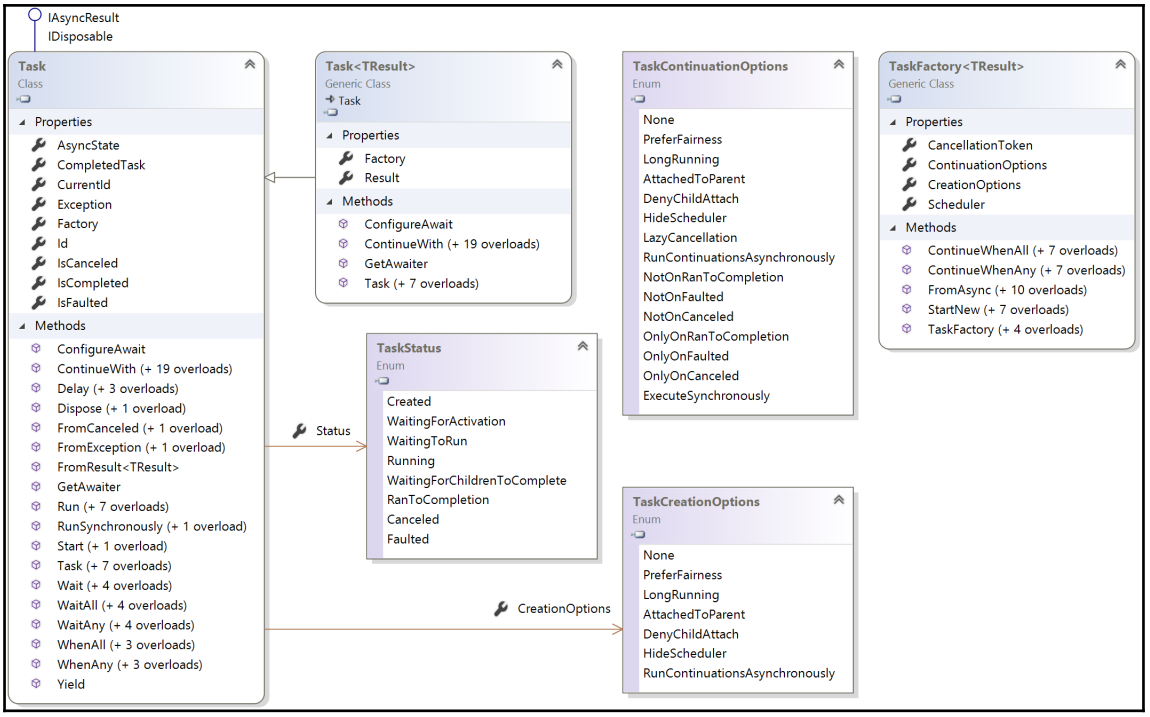

Task Manager
File Options View
Processes Performance App history Start-up Users Details Services
CPU
2% 2.29 GHz
Memory
2.0/6.0 GB (33%)
Disk 0 (C:)
0%
CPU Intel(R) Core(TM) i7-3615QM CPU @ 2.30...
% Utilisation over 60 seconds
100%
C:\WINDOWS\system32\cmd.exe
Press ENTER to start.
26,830 ellapsed milliseconds.
Press any key to continue . . .

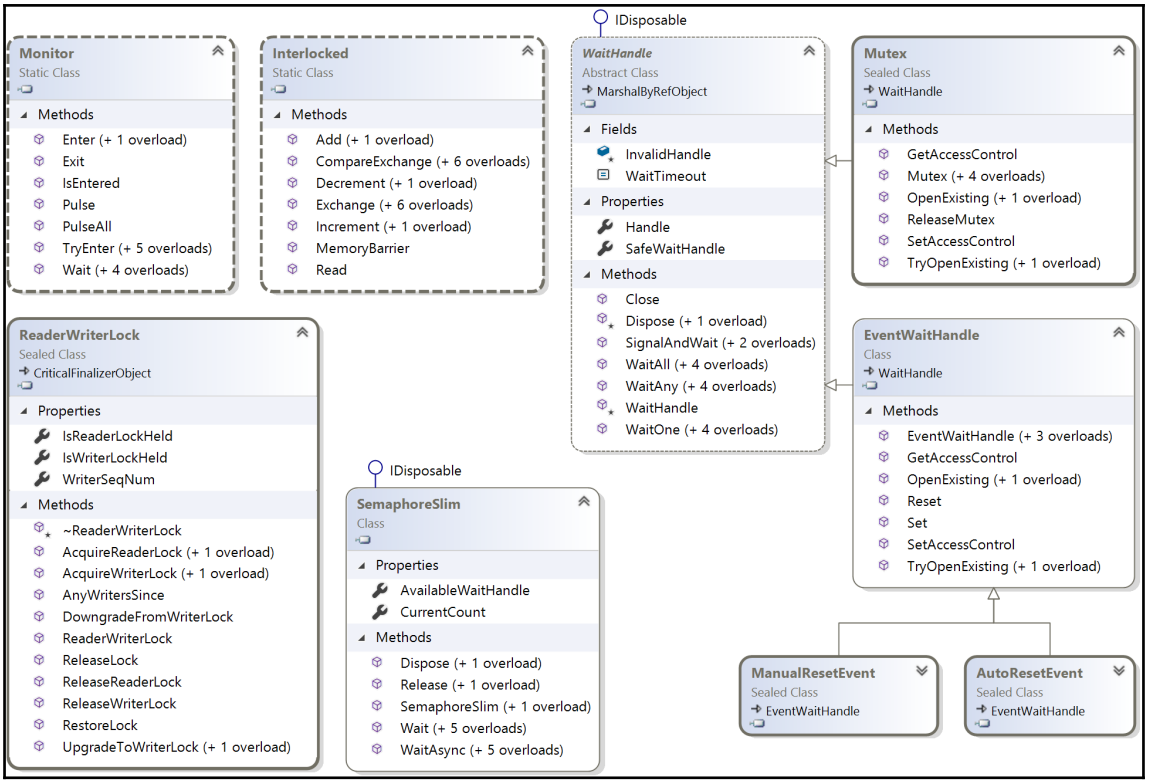

Code File Edit Selection View Go Debug Tasks Window Help
Program.cs — LINQinginParallel
EXPLORER
OPEN EDITORS
Welcome
Program.cs
LINQINGINPARALLEL
.vscode
bin
obj
LINQinginParallel.csproj
Program.cs
Welcome
Program.cs
namespace LINQingInParallel
{
0 references
class Program
{
0 references
static void Main(string[] args)
{
var watch = Stopwatch.StartNew();
Write("Press ENTER to start: ");
ReadLine();
watch.Start();
IEnumerable<int> numbers = Enumerable.Range(1, 200_000_0
// var squares = numbers.Select(number => number * 2).To
var squares = numbers.AsParallel()
.Select(number => number * 2).ToArray();
watch.Stop();
WriteLine($"{watch.ElapsedMilliseconds:#,##0} elapsedmil
}
}
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: bash
Marks-MBP-13:LINQingInParallel markjprice$ dotnet run
Press ENTER to start:
21,355 elapsedmilliseconds.
Marks-MBP-13:LINQingInParallel markjprice$
Ln 14, Col 45 Spaces: 4 UTF-8 with BOM CRLF C# LINQinginParallel
CPU History

Chapter 13: Improving Performance and Scalability Using Multitasking

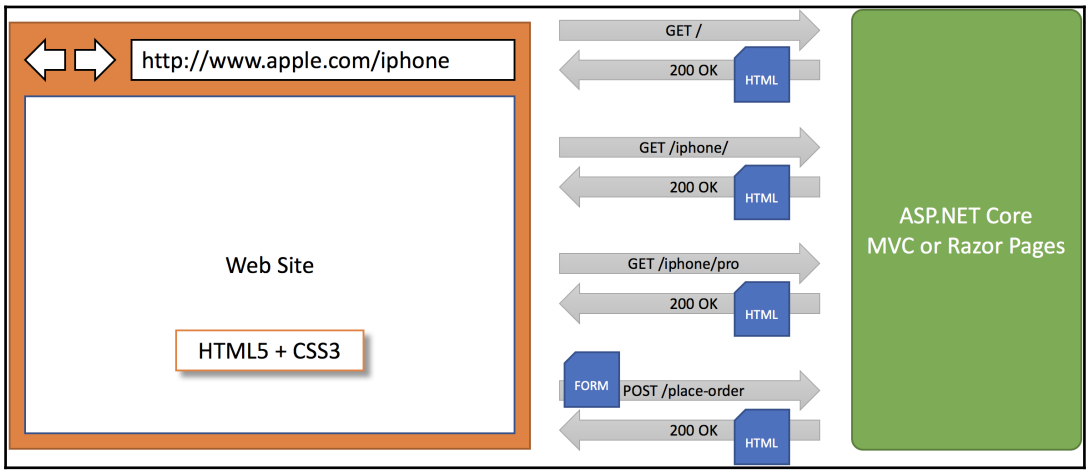


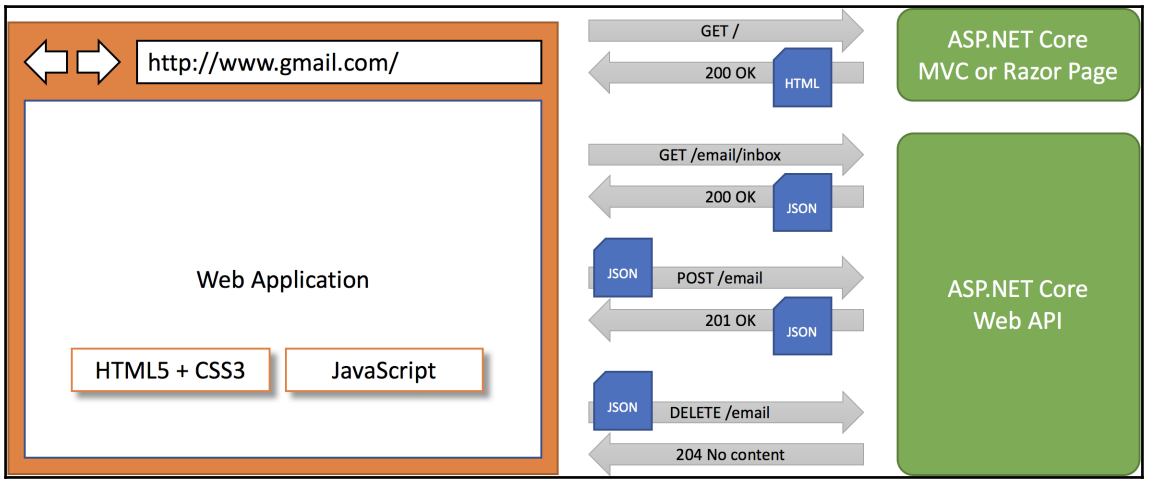


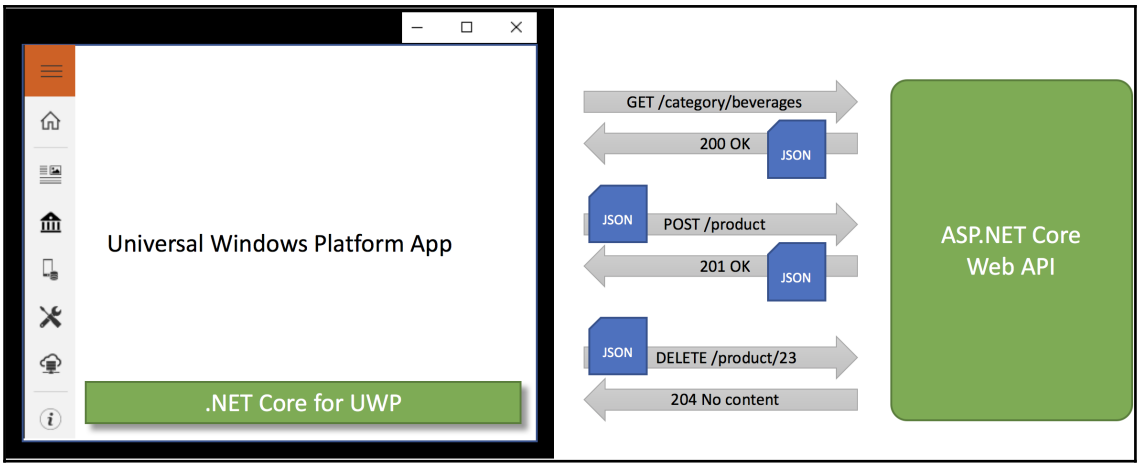

IAsyncResult
IDisposable
Task
Class
Properties
AsyncState
CompletedTask
CurrentId
Exception
Factory
Id
IsCanceled
IsCompleted
IsFaulted
Methods
ConfigureAwait
ContinueWith (+ 19 overloads)
Delay (+ 3 overloads)
Dispose (+ 1 overload)
FromCanceled (+ 1 overload)
FromException (+ 1 overload)
FromResult<TResult>
GetAwaiter
Run (+ 7 overloads)
RunSynchronously (+ 1 overload)
Start (+ 1 overload)
Task (+ 7 overloads)
Wait (+ 4 overloads)
WaitAll (+ 4 overloads)
WaitAny (+ 4 overloads)
WhenAll (+ 3 overloads)
WhenAny (+ 3 overloads)
Yield
Task<TResult>
Generic Class
Task
Properties
Factory
Result
Methods
ConfigureAwait
ContinueWith (+ 19 overloads)
GetAwaiter
Task (+ 7 overloads)
TaskContinuationOptions
Enum
None
PreferFairness
LongRunning
AttachedToParent
DenyChildAttach
HideScheduler
LazyCancellation
RunContinuationsAsynchronously
NotOnRanToCompletion
NotOnFaulted
NotOnCanceled
OnlyOnRanToCompletion
OnlyOnFaulted
OnlyOnCanceled
ExecuteSynchronously
TaskFactory<TResult>
Generic Class
Properties
CancellationToken
ContinuationOptions
CreationOptions
Scheduler
Methods
ContinueWhenAll (+ 7 overloads)
ContinueWhenAny (+ 7 overloads)
FromAsync (+ 10 overloads)
StartNew (+ 7 overloads)
TaskFactory (+ 4 overloads)
Status
TaskStatus
Enum
Created
WaitingForActivation
WaitingToRun
Running
WaitingForChildrenToComplete
RanToCompletion
Canceled
Faulted
CreationOptions
TaskCreationOptions
Enum
None
PreferFairness
LongRunning
AttachedToParent
DenyChildAttach
HideScheduler
RunContinuationsAsynchronously

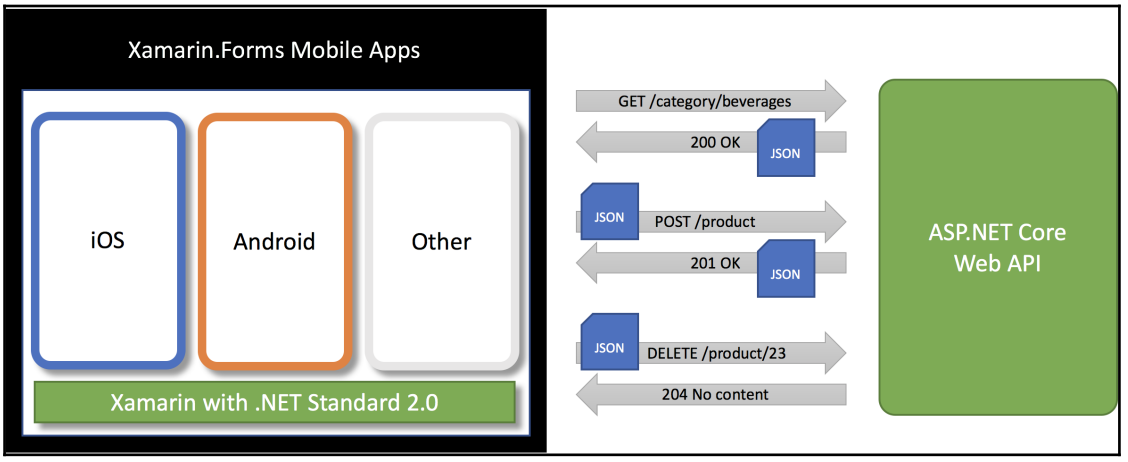

IDisposable
Monitor
Static Class
Methods
Enter (+ 1 overload)
Exit
IsEntered
Pulse
PulseAll
TryEnter (+ 5 overloads)
Wait (+ 4 overloads)
Interlocked
Static Class
Methods
Add (+ 1 overload)
CompareExchange (+ 6 overloads)
Decrement (+ 1 overload)
Exchange (+ 6 overloads)
Increment (+ 1 overload)
MemoryBarrier
Read
WaitHandle
Abstract Class
MarshalByRefObject
Fields
InvalidHandle
WaitTimeout
Properties
Handle
SafeWaitHandle
Methods
Close
Dispose (+ 1 overload)
SignalAndWait (+ 2 overloads)
WaitAll (+ 4 overloads)
WaitAny (+ 4 overloads)
WaitHandle
WaitOne (+ 4 overloads)
Mutex
Sealed Class
WaitHandle
Methods
GetAccessControl
Mutex (+ 4 overloads)
OpenExisting (+ 1 overload)
ReleaseMutex
SetAccessControl
TryOpenExisting (+ 1 overload)
ReaderWriterLock
Sealed Class
CriticalFinalizerObject
Properties
IsReaderLockHeld
IsWriterLockHeld
WriterSeqNum
Methods
~ReaderWriterLock
AcquireReaderLock (+ 1 overload)
AcquireWriterLock (+ 1 overload)
AnyWritersSince
DowngradeFromWriterLock
ReaderWriterLock
ReleaseLock
ReleaseReaderLock
ReleaseWriterLock
RestoreLock
UpgradeToWriterLock (+ 1 overload)
IDisposable
SemaphoreSlim
Class
Properties
AvailableWaitHandle
CurrentCount
Methods
Dispose (+ 1 overload)
Release (+ 1 overload)
SemaphoreSlim (+ 1 overload)
Wait (+ 5 overloads)
WaitAsync (+ 5 overloads)
EventWaitHandle
Class
WaitHandle
Methods
EventWaitHandle (+ 3 overloads)
GetAccessControl
OpenExisting (+ 1 overload)
Reset
Set
SetAccessControl
TryOpenExisting (+ 1 overload)
ManualResetEvent
Sealed Class
EventWaitHandle
AutoResetEvent
Sealed Class
EventWaitHandle

Part 3: App Models

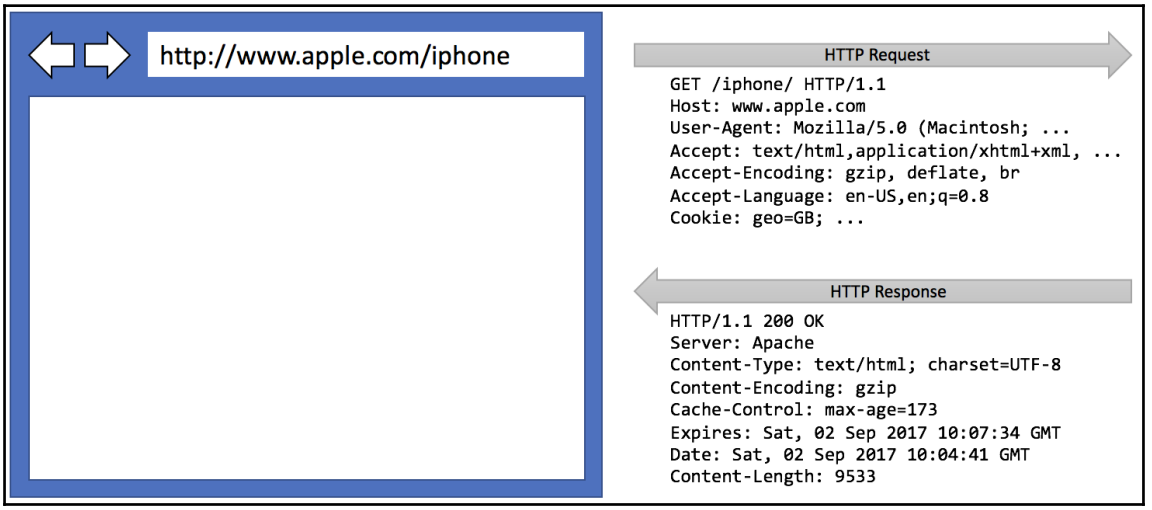


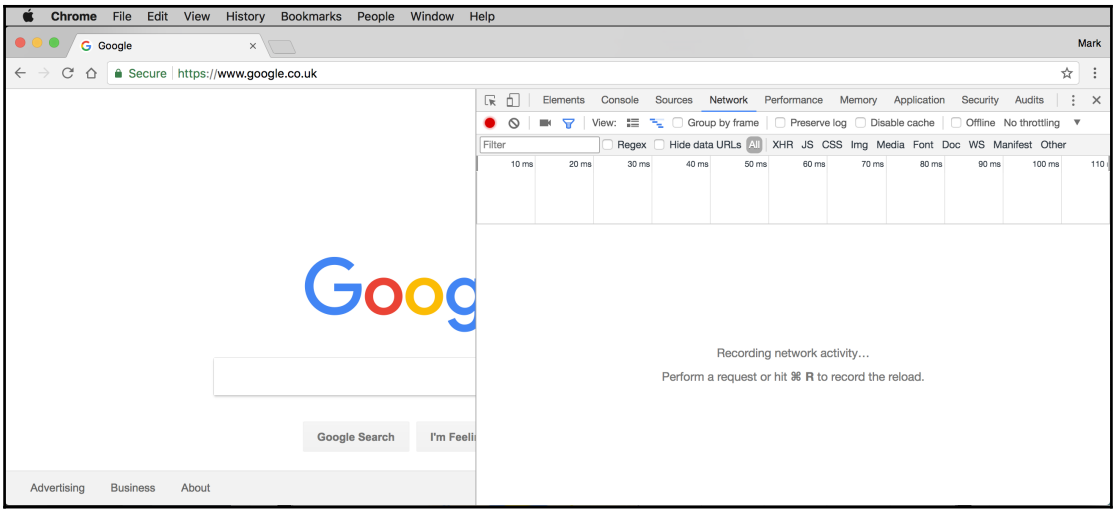


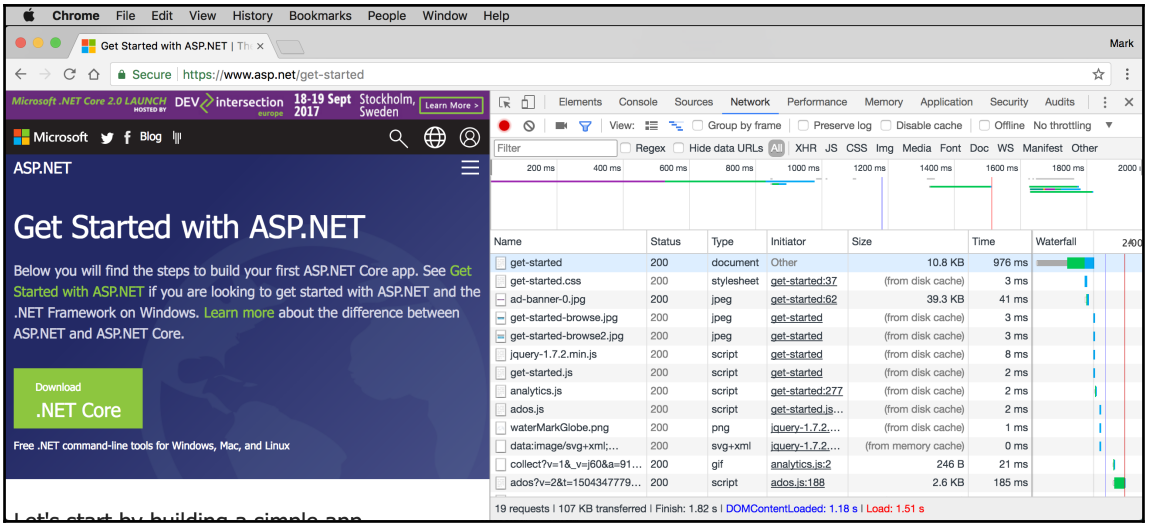

Universal Windows Platform App
.NET Core for UWP
GET /category/beverages
200 OK
JSON
JSON
POST /product
201 OK
JSON
JSON
DELETE /product/23
204 No content
ASP.NET Core
Web API

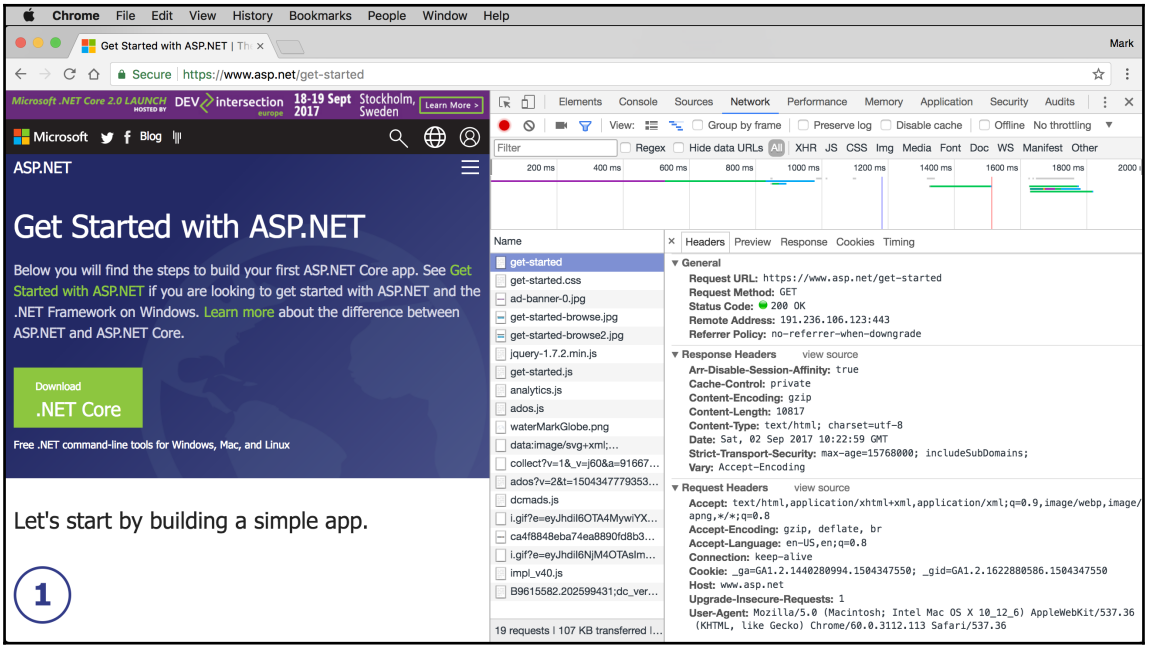

Xamarin.Forms Mobile Apps
iOS
Android
Other
Xamarin with .NET Standard 2.0
GET /category/beverages
200 OK
JSON
JSON
POST /product
201 OK
JSON
JSON
DELETE /product/23
204 No content
ASP.NET Core
Web API

Chapter 14: Building Web Sites Using ASP.NET Core Razor Pages






Chrome File Edit View History Bookmarks People Window Help
Get Started with ASP.NET | Th
Mark
Secure | https://www.asp.net/get-started
Microsoft .NET Core 2.0 LAUNCH HOSTED BY DEV intersection europe 18-19 Sept 2017 Stockholm, Sweden Learn More >
Microsoft Blog
ASP.NET
Get Started with ASP.NET
Below you will find the steps to build your first ASP.NET Core app. See Get Started with ASP.NET if you are looking to get started with ASP.NET and the .NET Framework on Windows. Learn more about the difference between ASP.NET and ASP.NET Core.
Download .NET Core
Free .NET command-line tools for Windows, Mac, and Linux
Let's start by building a simple app.
Elements Console Sources Network Performance Memory Application Security Audits
Name Status Type Initiator Size Time Waterfall
get-started 200 document Other 10.8 KB 976 ms
get-started.css 200 stylesheet get-started:37 (from disk cache) 3 ms
ad-banner-0.jpg 200 jpeg get-started:62 39.3 KB 41 ms
get-started-browse.jpg 200 jpeg get-started (from disk cache) 3 ms
get-started-browse2.jpg 200 jpeg get-started (from disk cache) 3 ms
jquery-1.7.2.min.js 200 script get-started (from disk cache) 8 ms
get-started.js 200 script get-started (from disk cache) 2 ms
analytics.js 200 script get-started:277 (from disk cache) 2 ms
ados.js 200 script get-started.js... (from disk cache) 2 ms
waterMarkGlobe.png 200 png jquery-1.7.2.... (from disk cache) 1 ms
data:image/svg+xml;... 200 svg+xml jquery-1.7.2.... (from memory cache) 0 ms
collect?v=1&_v=j60&a=91... 200 gif analytics.js:2 246 B 21 ms
ados?v=2&t=1504347779... 200 script ados.js:188 2.6 KB 185 ms
19 requests | 107 KB transferred | Finish: 1.82 s | DOMContentLoaded: 1.18 s | Load: 1.51 s


Chrome File Edit View History Bookmarks People Window Help
Get Started with ASP.NET | Th
Mark
Secure | https://www.asp.net/get-started
Microsoft .NET Core 2.0 LAUNCH HOSTED BY DEV intersection europe 18-19 Sept 2017 Stockholm, Sweden Learn More >
Microsoft Blog
ASP.NET
Get Started with ASP.NET
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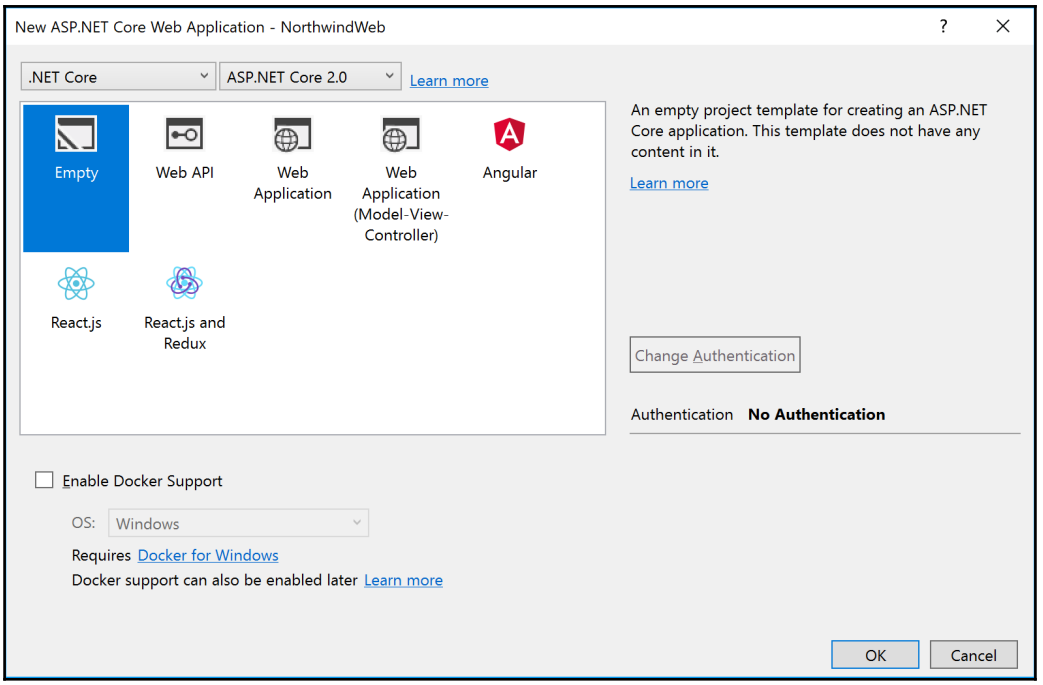
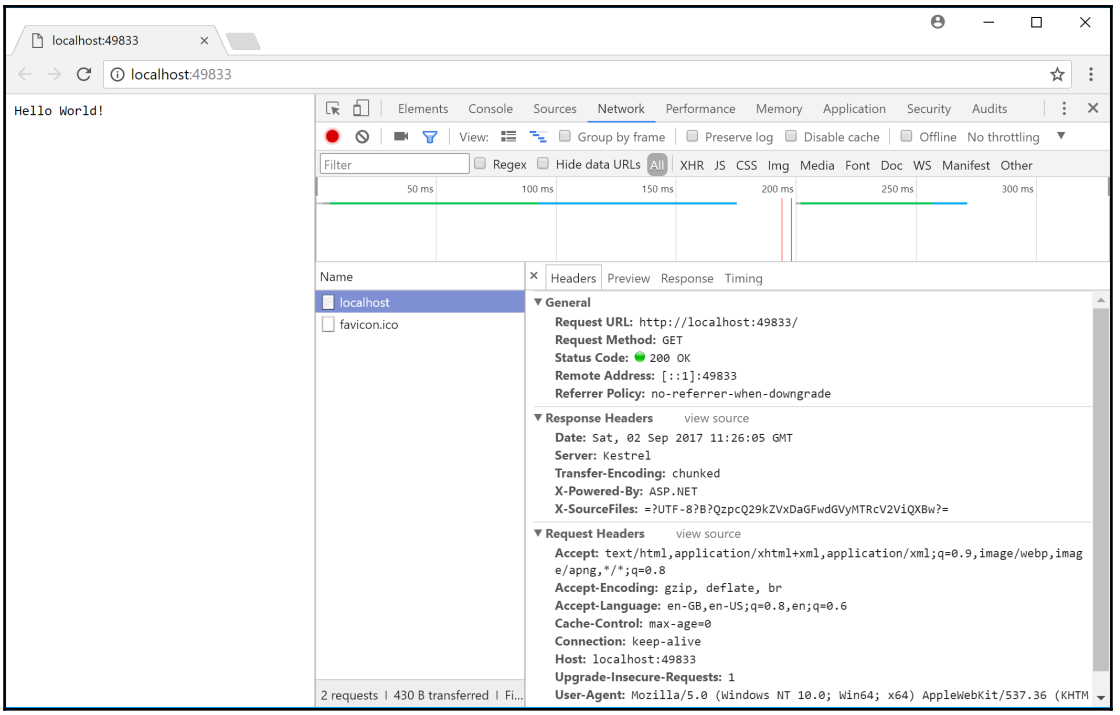
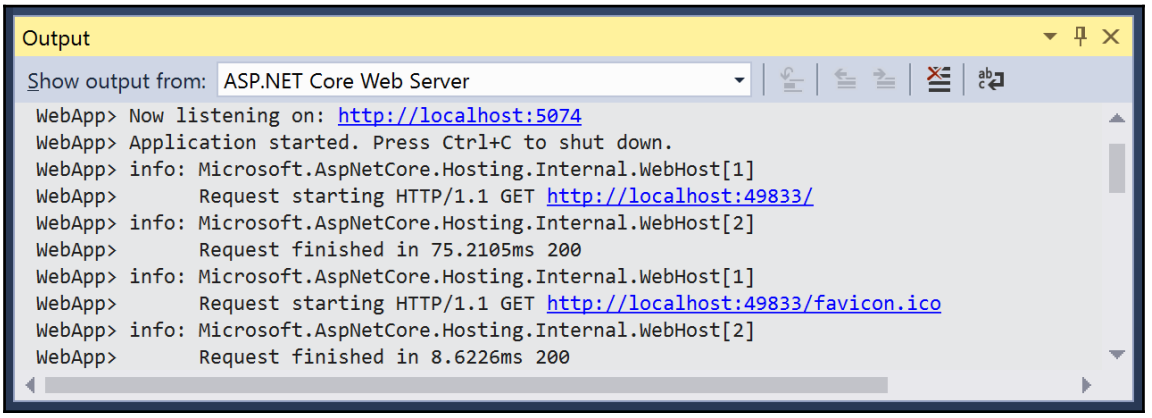
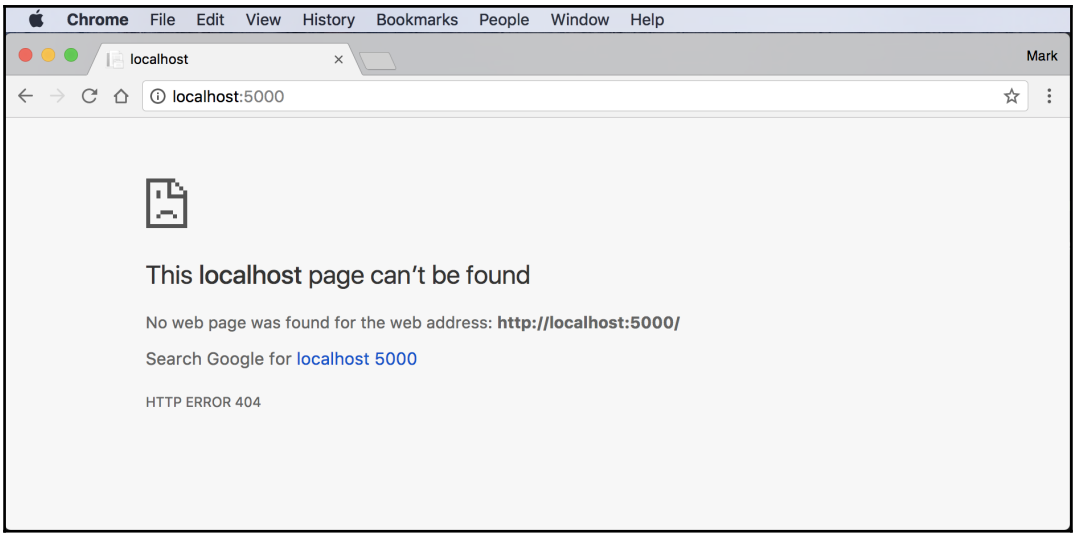
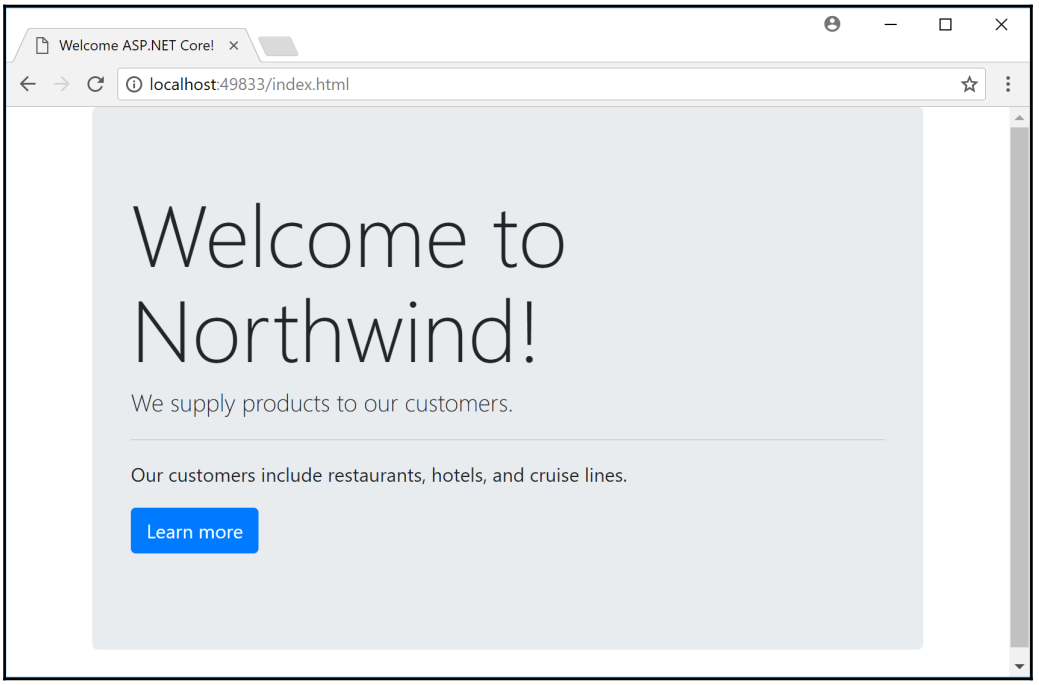
Free .NET command-line tools for Windows, Mac, and Linux
Let's start by building a simple app.
1
Elements Console Sources Network Performance Memory Application Security Audits
Name
get-started
get-started.css
ad-banner-0.jpg
get-started-browse.jpg
get-started-browse2.jpg
jquery-1.7.2.min.js
get-started.js
analytics.js
ados.js
waterMarkGlobe.png
data:image/svg+xml;...
collect?v=1&_v=j60&a=91667...
ados?v=2&t=1504347779353...
dcmads.js
i.gif?e=eyJhdil6OTA4MywiYX...
ca4f8848eba74ea8890fd8b3...
i.gif?e=eyJhdil6NjM4OTAsIm...
impl_v40.js
B9615582.202599431;dc_ver...
19 requests | 107 KB transferred |...
Headers Preview Response Cookies Timing
General
Request URL: https://www.asp.net/get-started
Request Method: GET
Status Code: 200 OK
Remote Address: 191.236.106.123:443
Referrer Policy: no-referrer-when-downgrade
Response Headers view source
Arr-Disable-Session-Affinity: true
Cache-Control: private
Content-Encoding: gzip
Content-Length: 10817
Content-Type: text/html; charset=utf-8
Date: Sat, 02 Sep 2017 10:22:59 GMT
Strict-Transport-Security: max-age=15768000; includeSubDomains;
Vary: Accept-Encoding
Request Headers view source
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/*;q=0.8
Accept-Encoding: gzip, deflate, br
Accept-Language: en-US,en;q=0.8
Connection: keep-alive
Cookie: _ga=GA1.2.1440280994.1504347550; _gid=GA1.2.1622880586.1504347550
Host: www.asp.net
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_12_6) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/60.0.3112.113 Safari/537.36

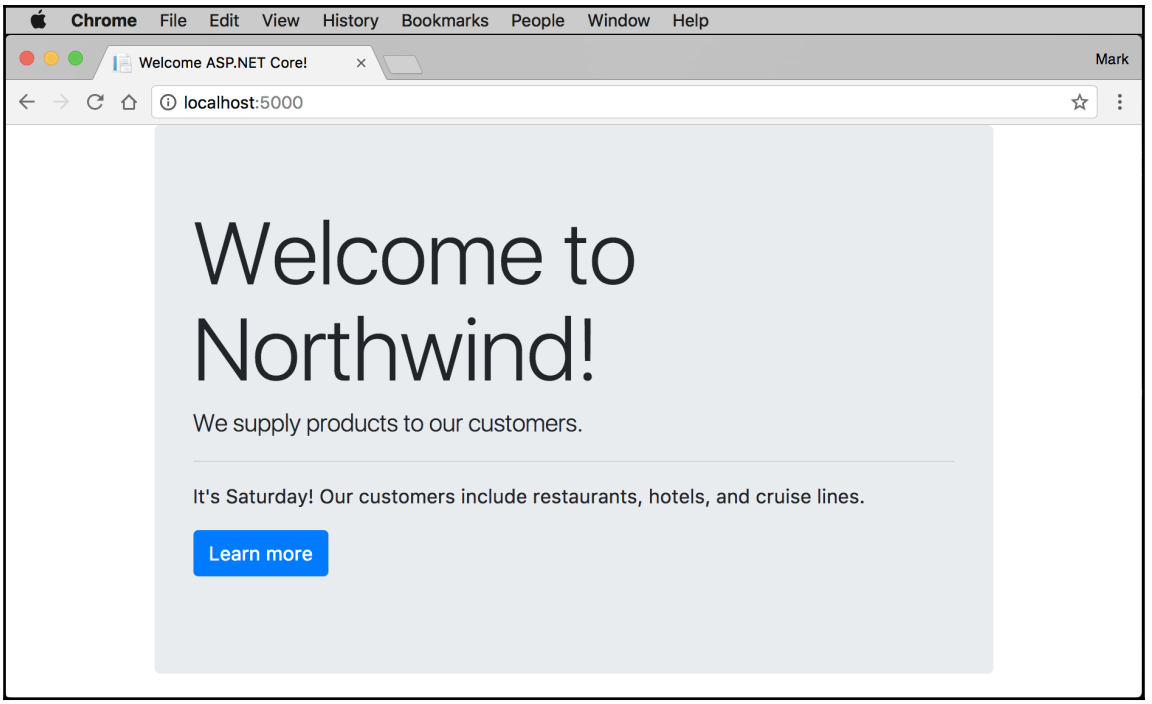

New ASP.NET Core Web Application - NorthwindWeb
.NET Core
ASP.NET Core 2.0
Learn more
Empty
Web API
Web Application
Web Application (Model-View-Controller)
Angular
React.js
React.js and Redux
An empty project template for creating an ASP.NET Core application. This template does not have any content in it.
Learn more
Change Authentication
Authentication No Authentication
Enable Docker Support
OS: Windows
Requires Docker for Windows
Docker support can also be enabled later Learn more
OK
Cancel

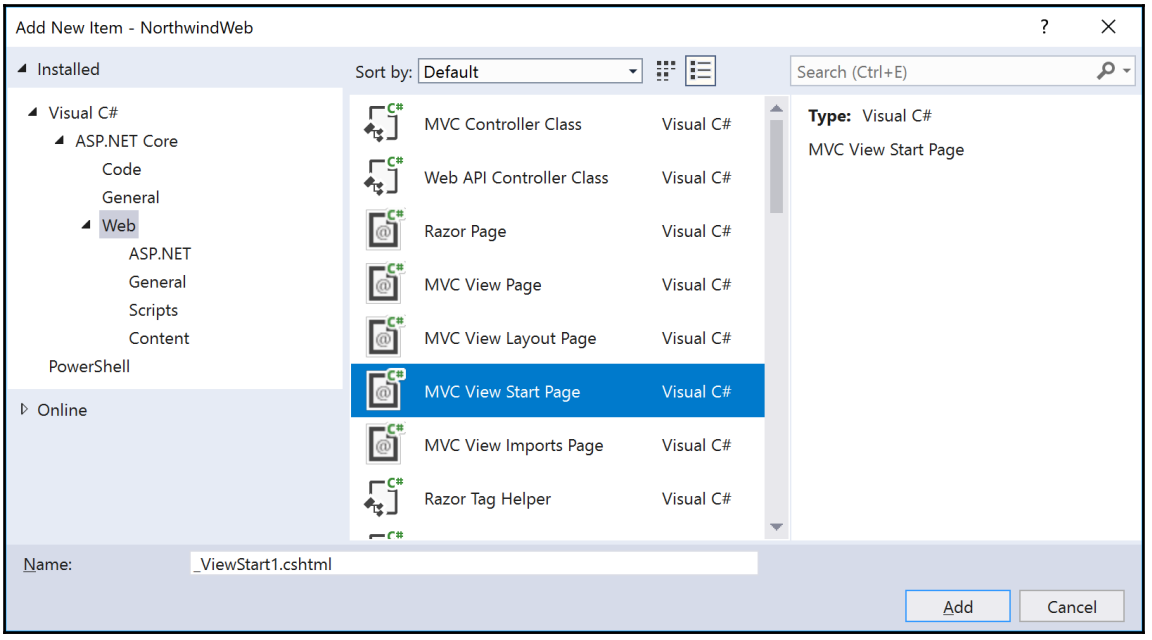

localhost:49833
localhost:49833
Hello World!
Elements
Console
Sources
Network
Performance
Memory
Application
Security
Audits
Name
localhost
favicon.ico
Headers
Preview
Response
Timing
General
Request URL: http://localhost:49833/
Request Method: GET
Status Code: 200 OK
Remote Address: [::1]:49833
Referrer Policy: no-referrer-when-downgrade
Response Headers
Request Headers
2 requests | 430 B transferred

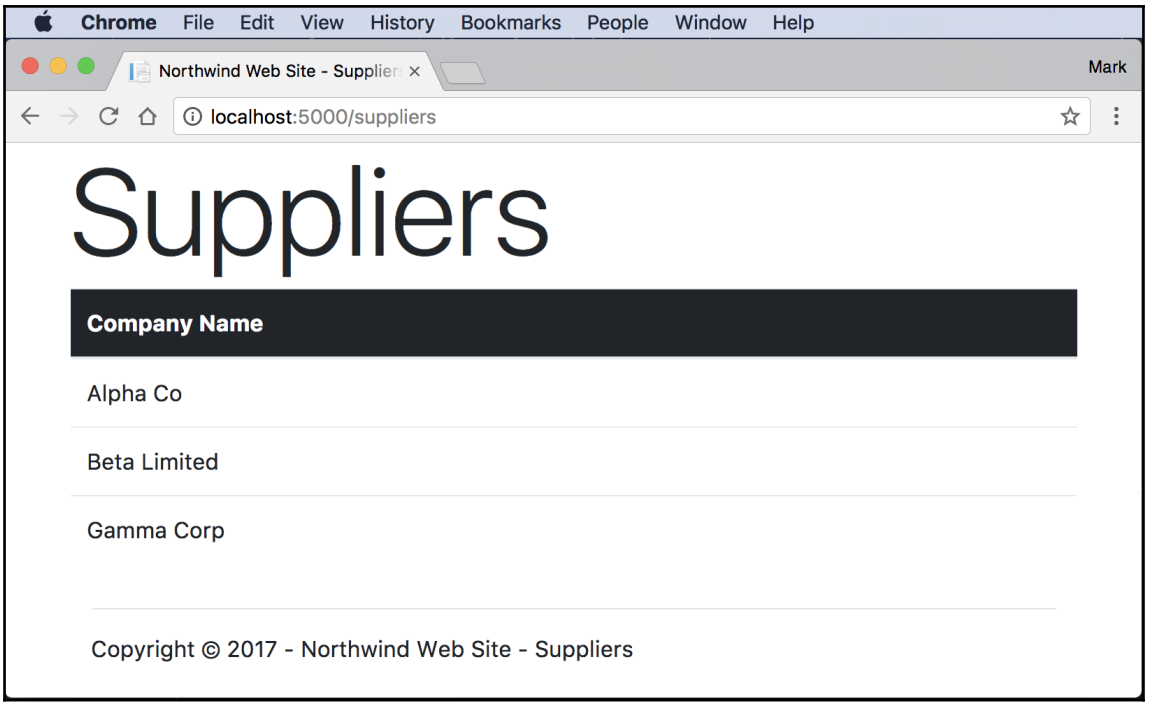

Output
Show output from: ASP.NET Core Web Server
WebApp> Now listening on: http://localhost:5074
WebApp> Application started. Press Ctrl+C to shut down.
WebApp> info: Microsoft.AspNetCore.Hosting.Internal.WebHost[1]
WebApp> Request starting HTTP/1.1 GET http://localhost:49833/
WebApp> info: Microsoft.AspNetCore.Hosting.Internal.WebHost[2]
WebApp> Request finished in 75.2105ms 200
WebApp> info: Microsoft.AspNetCore.Hosting.Internal.WebHost[1]
WebApp> Request starting HTTP/1.1 GET http://localhost:49833/favicon.ico
WebApp> info: Microsoft.AspNetCore.Hosting.Internal.WebHost[2]
WebApp> Request finished in 8.6226ms 200

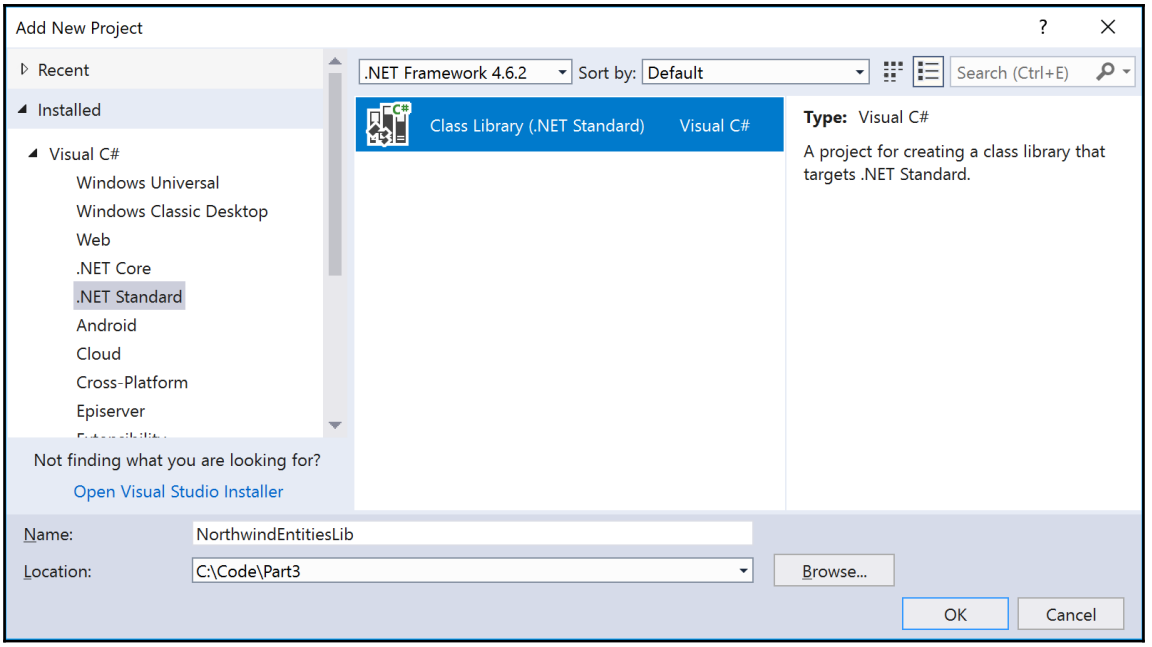

Chrome File Edit View History Bookmarks People Window Help
localhost
Mark
localhost:5000
This localhost page can't be found
No web page was found for the web address: http://localhost:5000/
Search Google for localhost 5000
HTTP ERROR 404

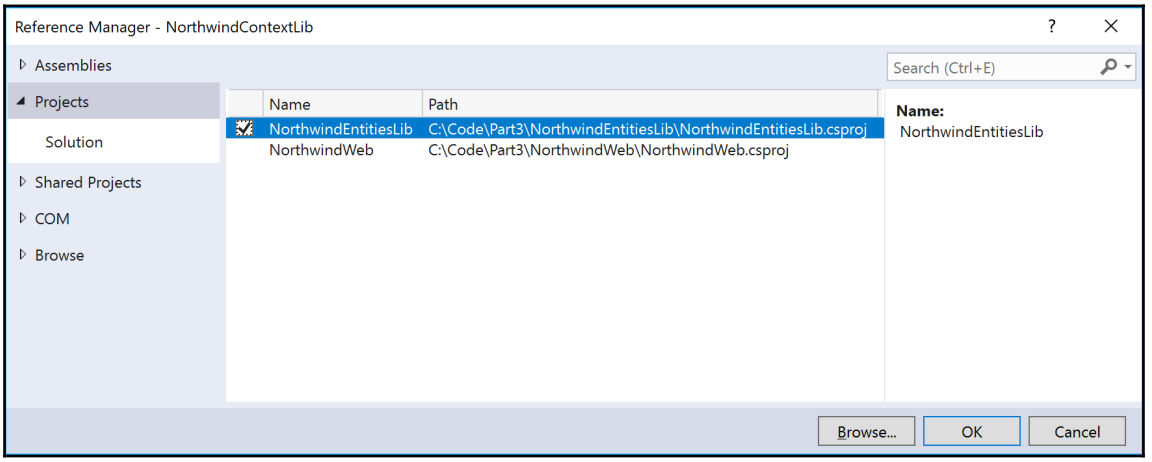

Welcome ASP.NET Core!
localhost:49833/index.html
Welcome to Northwind!
We supply products to our customers.
Our customers include restaurants, hotels, and cruise lines.
Learn more

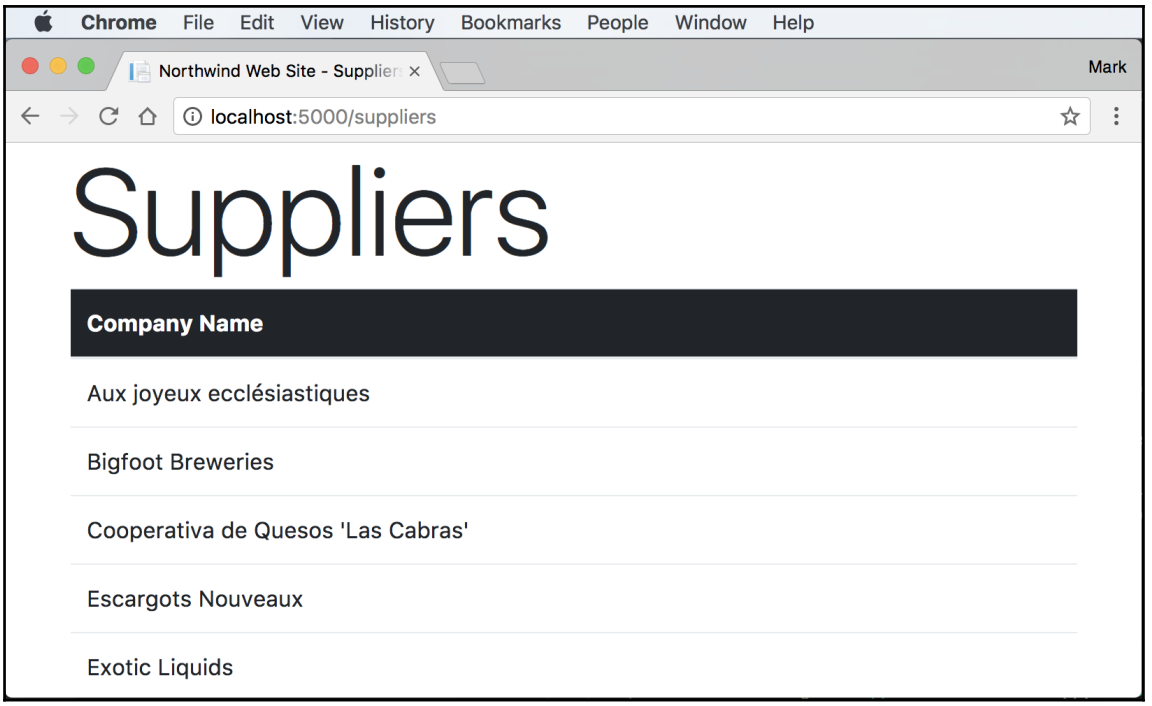

Chrome File Edit View History Bookmarks People Window Help
Welcome ASP.NET Core!
Mark
localhost:5000
Welcome to Northwind!
We supply products to our customers.
It's Saturday! Our customers include restaurants, hotels, and cruise lines.
Learn more

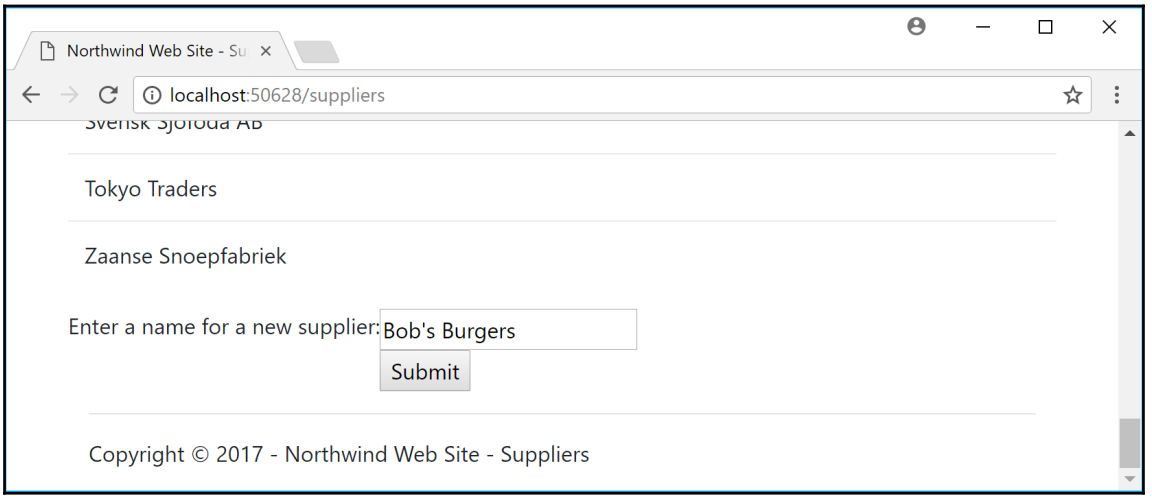

Add New Item - NorthwindWeb
Installed
Visual C#
ASP.NET Core
Code
General
Web
ASP.NET
General
Scripts
Content
PowerShell
Online
Sort by: Default
Search (Ctrl+E)
MVC Controller Class Visual C#
Web API Controller Class Visual C#
Razor Page Visual C#
MVC View Page Visual C#
MVC View Layout Page Visual C#
MVC View Start Page Visual C#
MVC View Imports Page Visual C#
Razor Tag Helper Visual C#
Type: Visual C#
MVC View Start Page
Name: _ViewStart1.cshtml
Add
Cancel

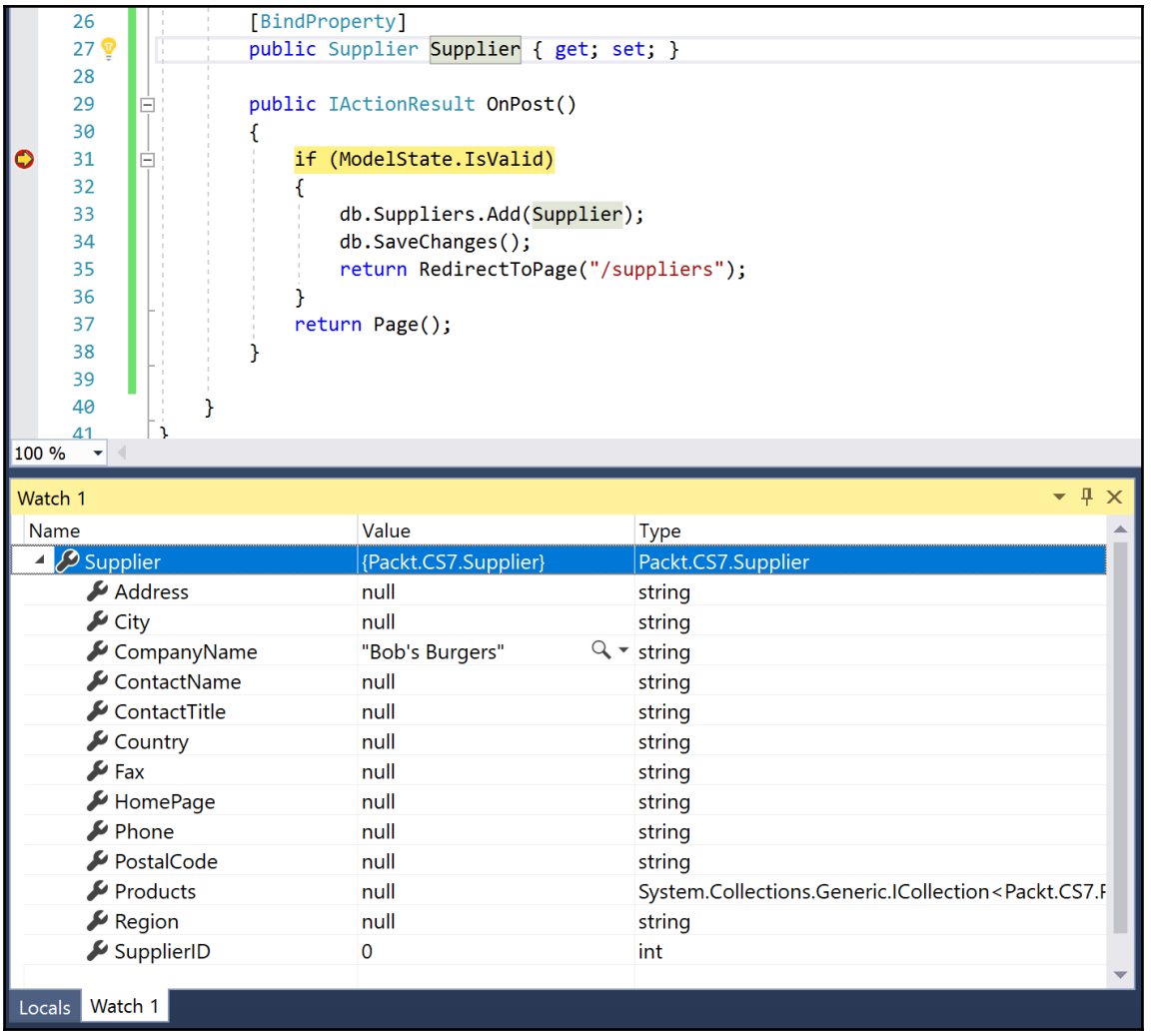

Chrome File Edit View History Bookmarks People Window Help
Northwind Web Site - Supplier
Mark
localhost:5000/suppliers
Suppliers
Company Name
Alpha Co
Beta Limited
Gamma Corp
Copyright © 2017 - Northwind Web Site - Suppliers

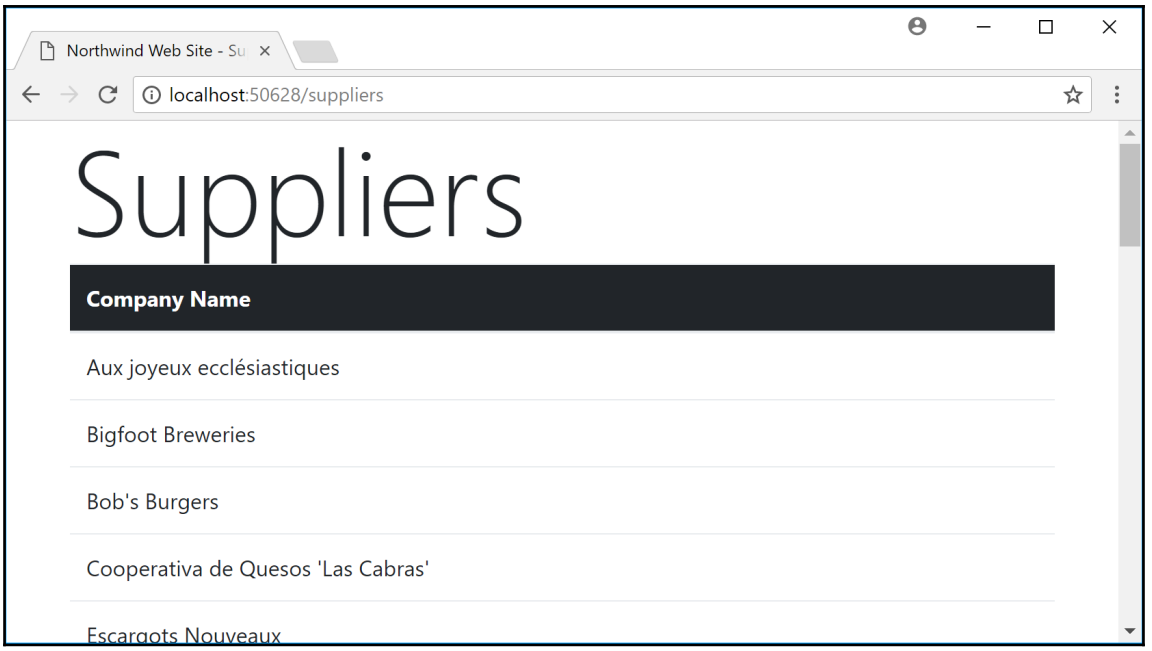

Add New Project
Recent
Installed
Visual C#
Windows Universal
Windows Classic Desktop
Web
.NET Core
.NET Standard
Android
Cloud
Cross-Platform
Episerver
Not finding what you are looking for?
Open Visual Studio Installer
.NET Framework 4.6.2
Sort by:
Default
Search (Ctrl+E)
Class Library (.NET Standard)
Visual C#
Type: Visual C#
A project for creating a class library that targets .NET Standard.
Name:
NorthwindEntitiesLib
Location:
C:\Code\Part3
Browse...
OK
Cancel


Reference Manager - NorthwindContextLib
Assemblies
Projects
Solution
Shared Projects
COM
Browse
Search (Ctrl+E)
Name
Path
NorthwindEntitiesLib
C:\Code\Part3\NorthwindEntitiesLib\NorthwindEntitiesLib.csproj
NorthwindWeb
C:\Code\Part3\NorthwindWeb\NorthwindWeb.csproj
Name:
NorthwindEntitiesLib
Browse...
OK
Cancel

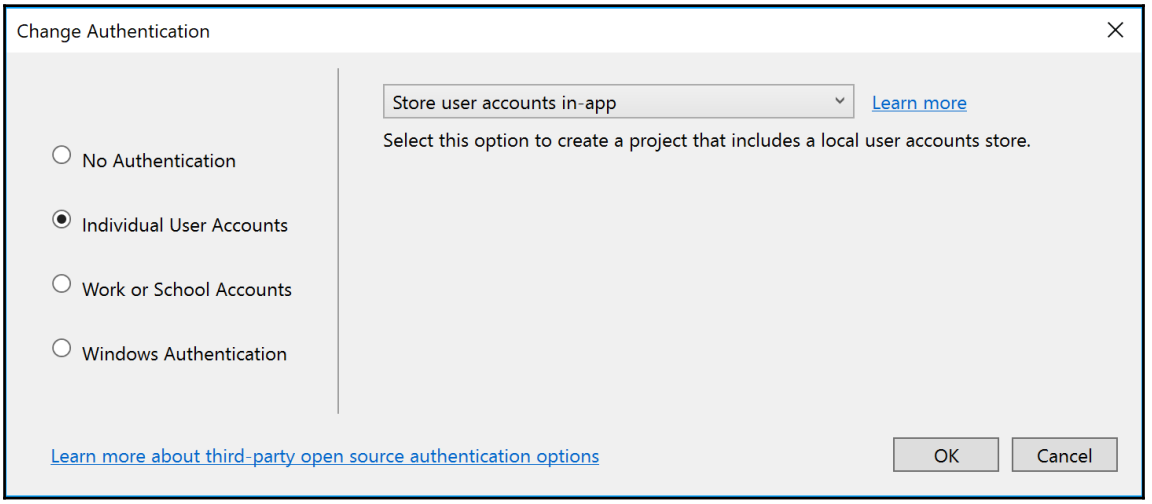

Chrome File Edit View History Bookmarks People Window Help
Northwind Web Site - Supplier
Mark
localhost:5000/suppliers
Suppliers
Company Name
Aux joyeux ecclésiastiques
Bigfoot Breweries
Cooperativa de Quesos 'Las Cabras'
Escargots Nouveaux
Exotic Liquids

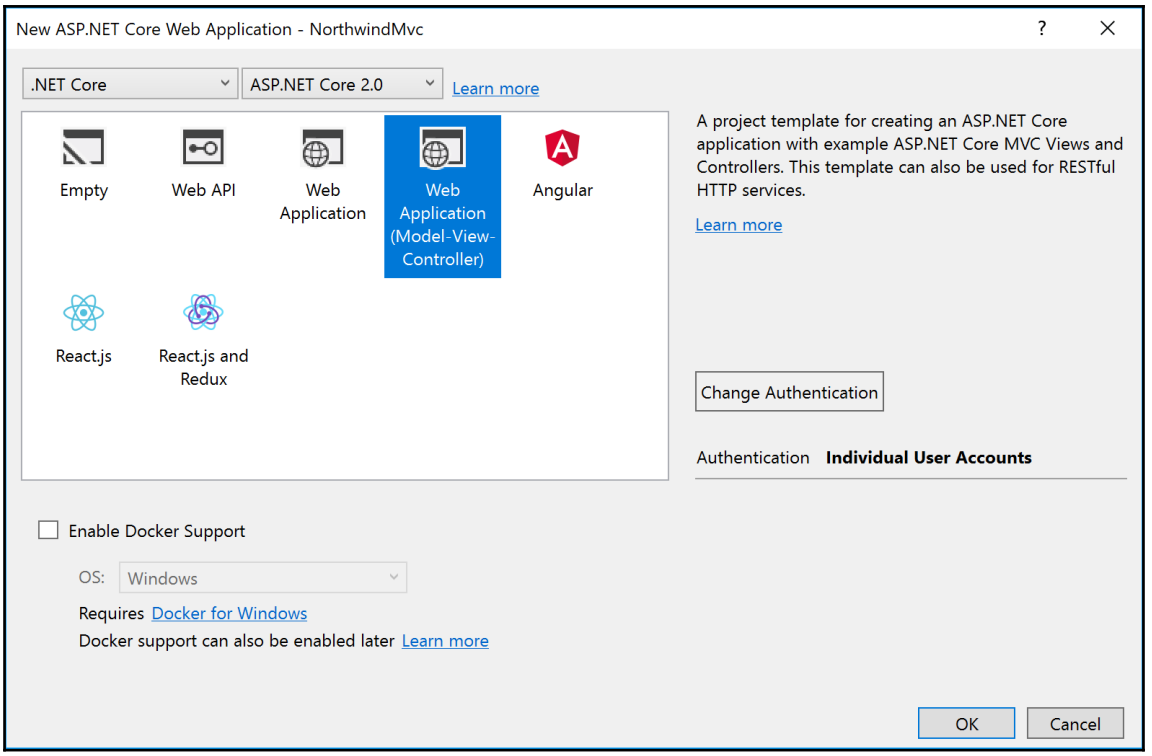

Northwind Web Site - Su
localhost:50628/suppliers
Svensk Sjöföda AB
Tokyo Traders
Zaanse Snoepfabriek
Enter a name for a new supplier:
Bob's Burgers
Submit
Copyright © 2017 - Northwind Web Site - Suppliers

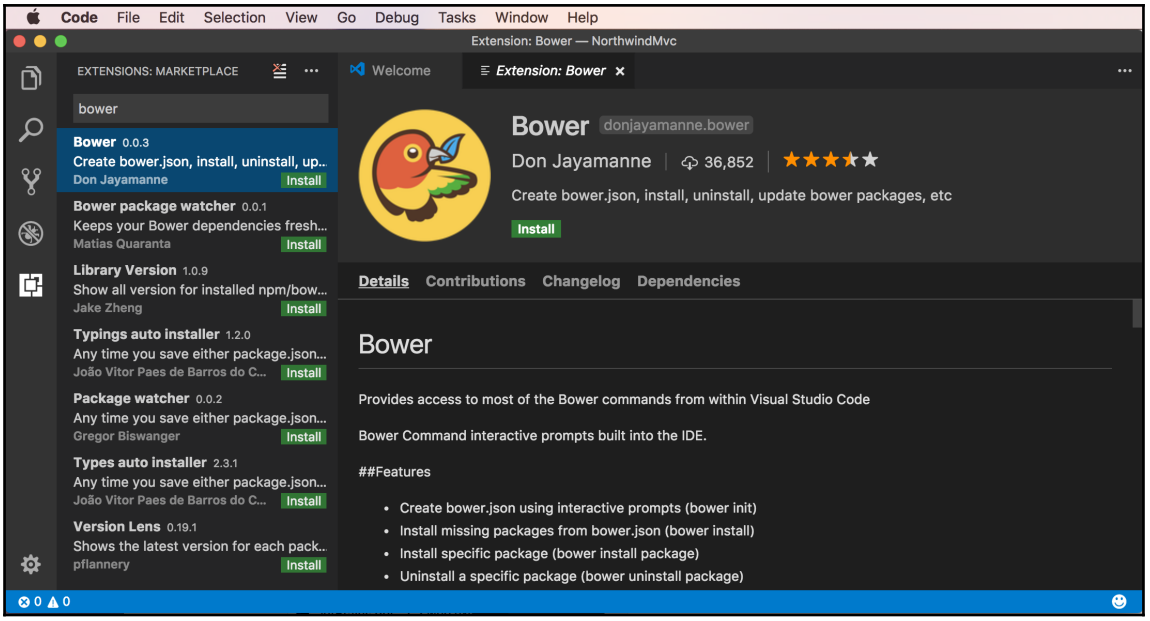

26 [BindProperty]
27 public Supplier Supplier { get; set; }
28
29 public IActionResult OnPost()
30 {
31 if (ModelState.IsValid)
32 {
33 db.Suppliers.Add(Supplier);
34 db.SaveChanges();
35 return RedirectToPage("/suppliers");
36 }
37 return Page();
38 }
39
40 }
41 }
100 %
Watch 1
Name
Value
Type
Supplier
{Packt.CS7.Supplier}
Packt.CS7.Supplier
Address
null
string
City
null
string
CompanyName
"Bob's Burgers"
string
ContactName
null
string
ContactTitle
null
string
Country
null
string
Fax
null
string
HomePage
null
string
Phone
null
string
PostalCode
null
string
Products
null
System.Collections.Generic.ICollection<Packt.CS7.F
Region
null
string
SupplierID
0
int
Locals
Watch 1

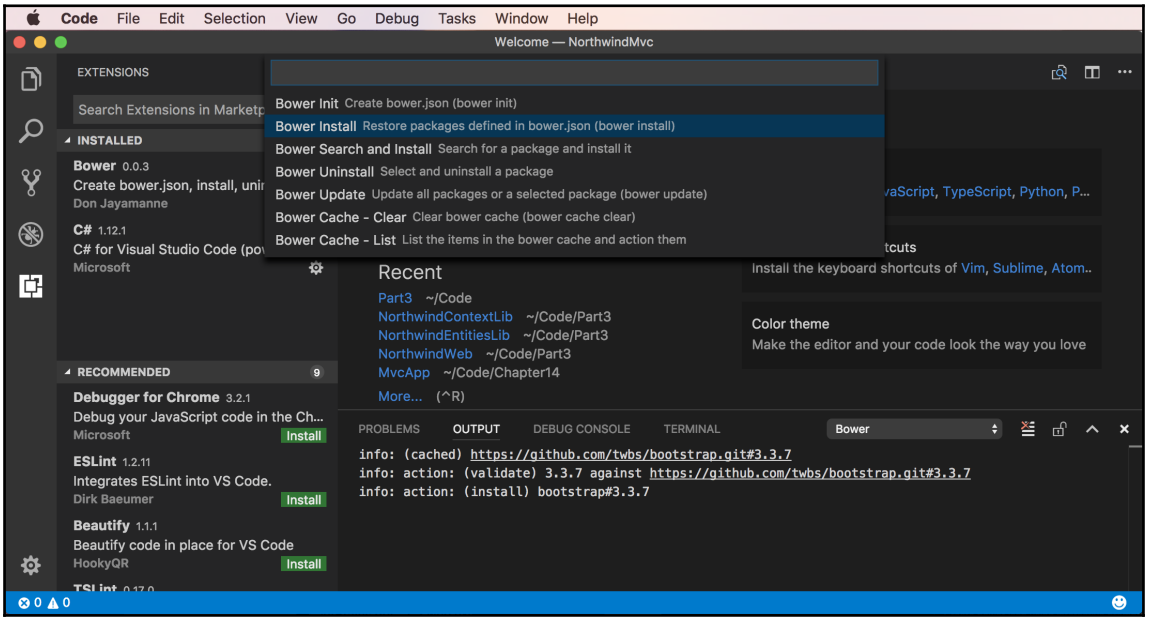

Northwind Web Site - Su
localhost:50628/suppliers
Suppliers
Company Name
Aux joyeux ecclésiastiques
Bigfoot Breweries
Bob's Burgers
Cooperativa de Quesos 'Las Cabras'
Escargots Nouveaux

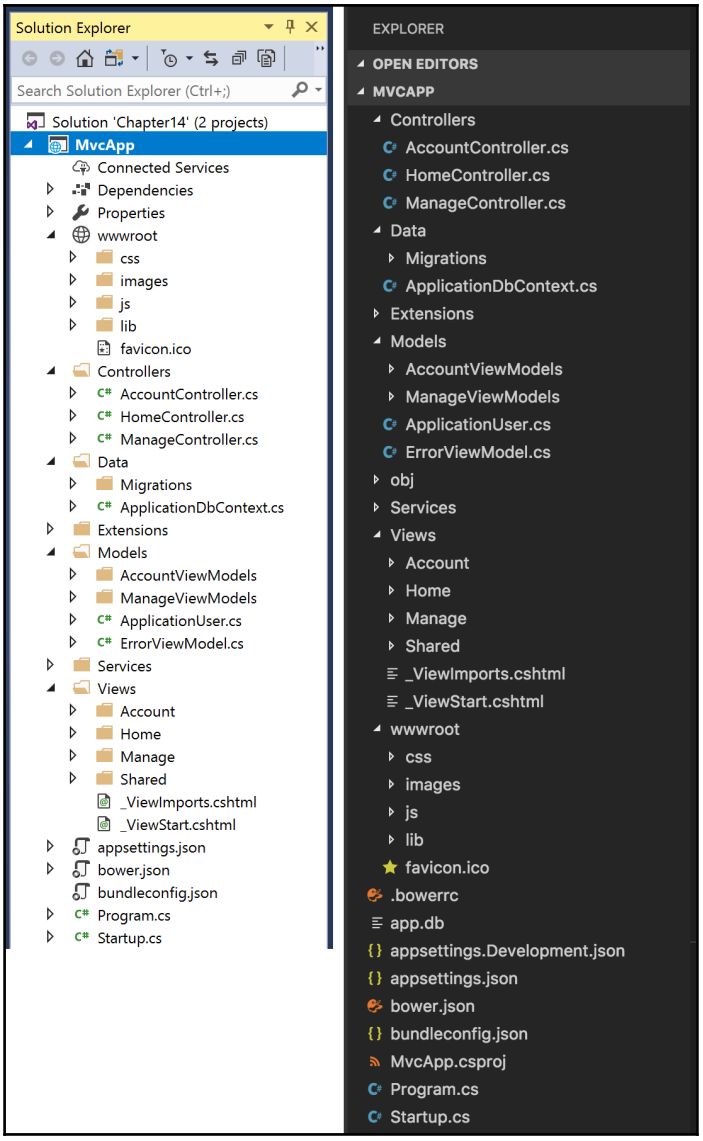
Chapter 15: Building Web Sites Using ASP.NET Core MVC

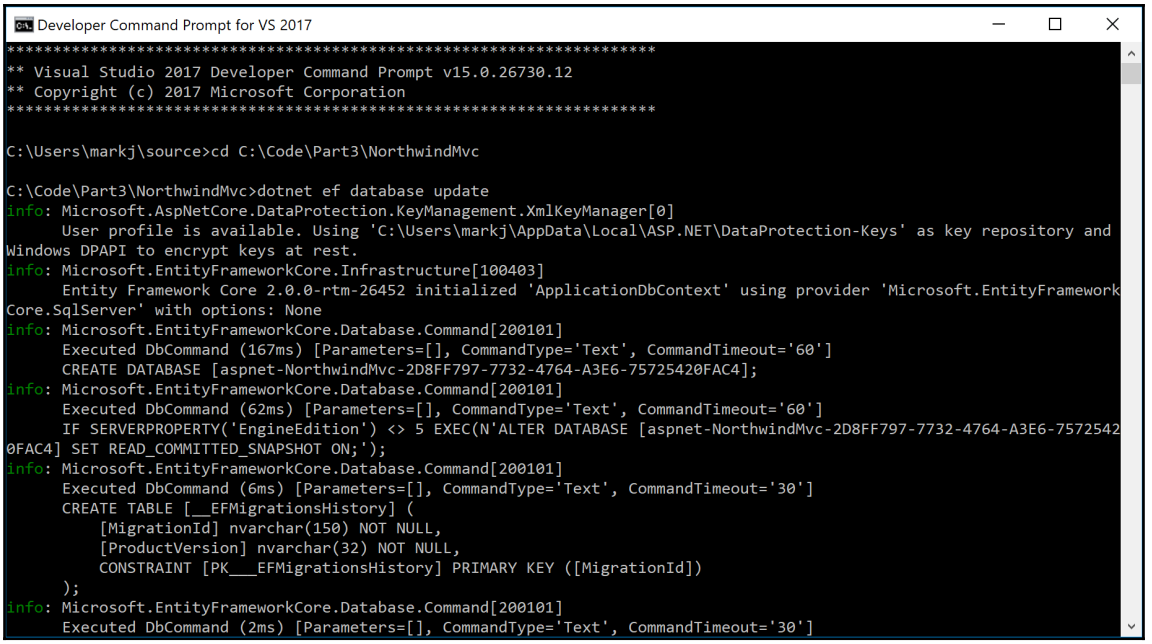


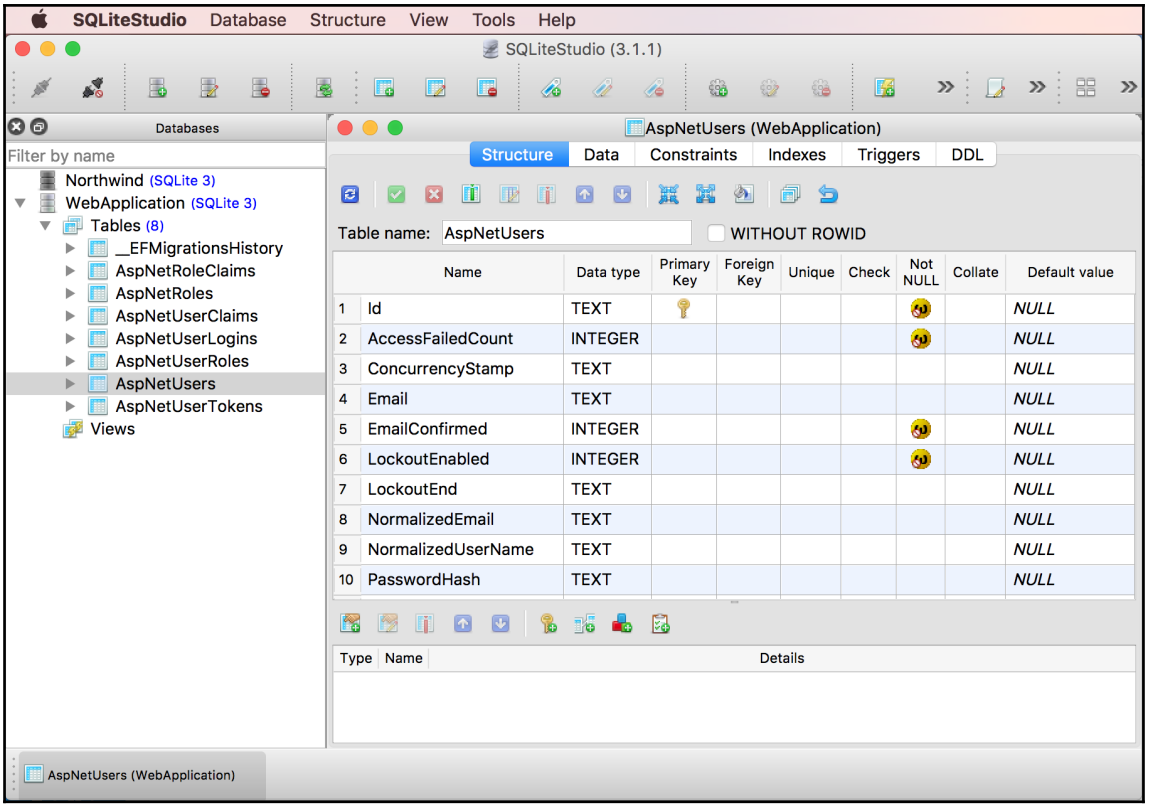

New ASP.NET Core Web Application - NorthwindMvc
.NET Core
ASP.NET Core 2.0
Learn more
Empty
Web API
Web Application
Web Application (Model-View-Controller)
Angular
React.js
React.js and Redux
A project template for creating an ASP.NET Core application with example ASP.NET Core MVC Views and Controllers. This template can also be used for RESTful HTTP services.
Learn more
Change Authentication
Authentication Individual User Accounts
Enable Docker Support
OS: Windows
Requires Docker for Windows
Docker support can also be enabled later Learn more
OK
Cancel

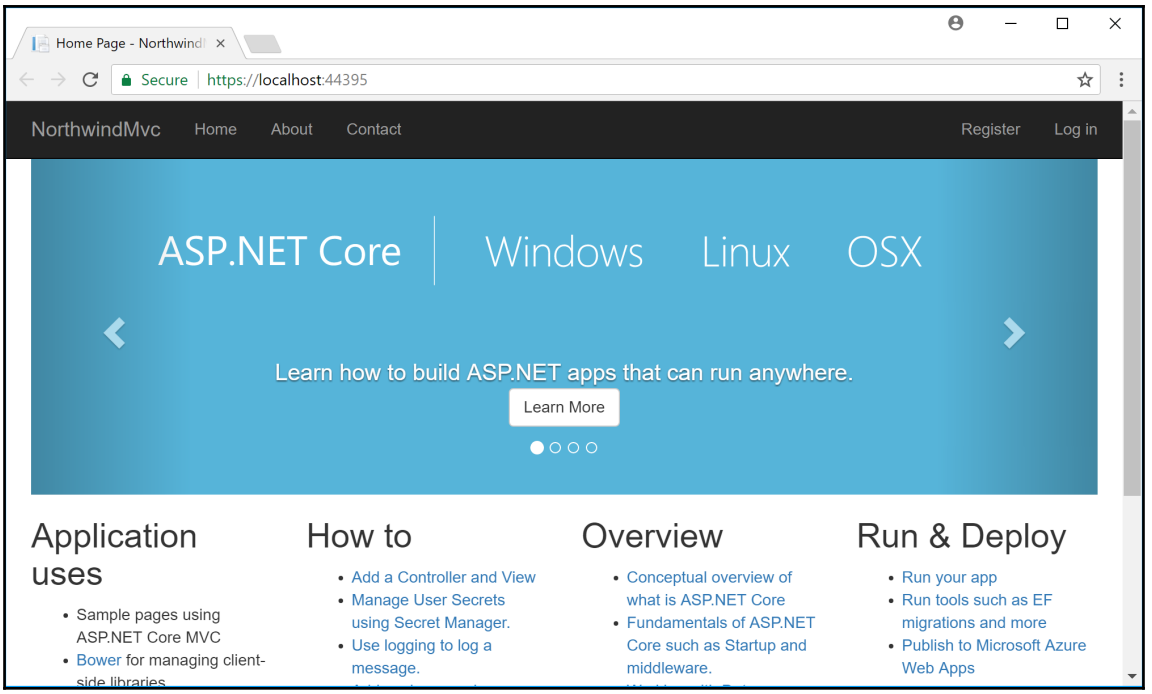

Code File Edit Selection View Go Debug Tasks Window Help
Extension: Bower — NorthwindMvc
EXTENSIONS: MARKETPLACE
bower
Bower 0.0.3
Create bower.json, install, uninstall, up...
Don Jayamanne Install
Bower package watcher 0.0.1
Keeps your Bower dependencies fresh...
Matias Quaranta Install
Library Version 1.0.9
Show all version for installed npm/bow...
Jake Zheng Install
Typings auto installer 1.2.0
Any time you save either package.json...
João Vitor Paes de Barros do C... Install
Package watcher 0.0.2
Any time you save either package.json...
Gregor Biswanger Install
Types auto installer 2.3.1
Any time you save either package.json...
João Vitor Paes de Barros do C... Install
Version Lens 0.19.1
Shows the latest version for each pack...
pflannery Install
Welcome
Extension: Bower
Bower donjayamanne.bower
Don Jayamanne 36,852
Create bower.json, install, uninstall, update bower packages, etc
Install
Details Contributions Changelog Dependencies
Bower
Provides access to most of the Bower commands from within Visual Studio Code
Bower Command interactive prompts built into the IDE.
##Features
Create bower.json using interactive prompts (bower init)
Install missing packages from bower.json (bower install)
Install specific package (bower install package)
Uninstall a specific package (bower uninstall package)

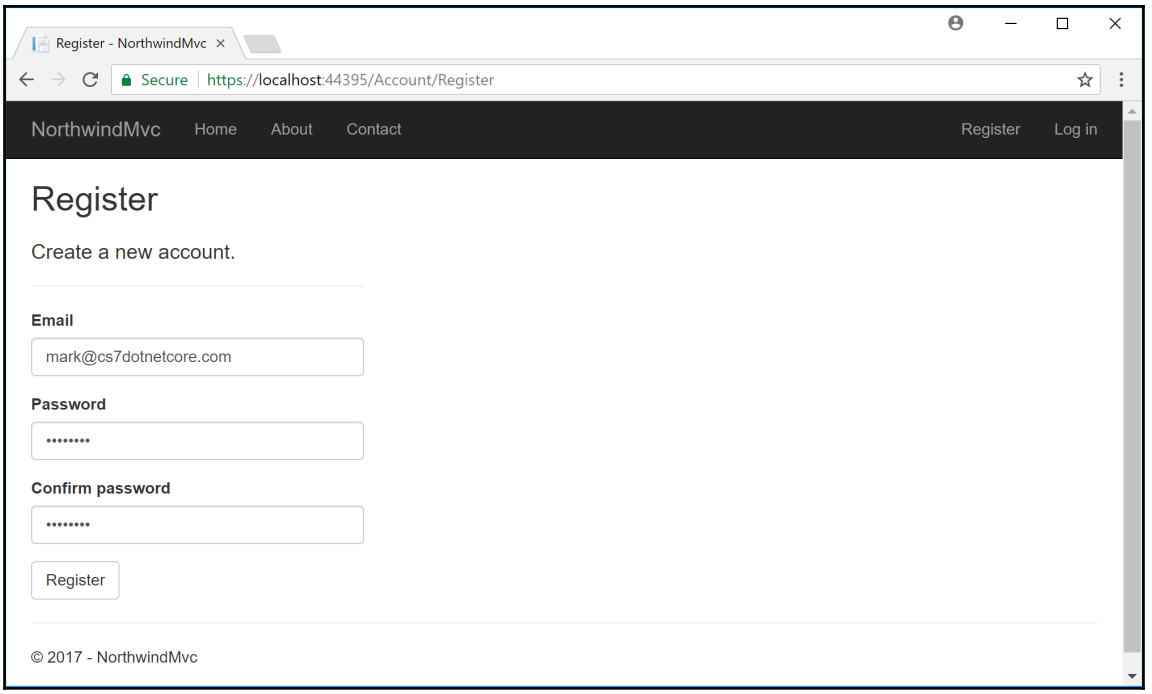

Code File Edit Selection View Go Debug Tasks Window Help
Welcome — NorthwindMvc
EXTENSIONS
Search Extensions in Marketp
INSTALLED
Bower 0.0.3
Create bower.json, install, uni
Don Jayamanne
C# 1.12.1
C# for Visual Studio Code (pov
Microsoft
RECOMMENDED 9
Debugger for Chrome 3.2.1
Debug your JavaScript code in the Ch...
Microsoft Install
ESLint 1.2.11
Integrates ESLint into VS Code.
Dirk Baeumer Install
Beautify 1.1.1
Beautify code in place for VS Code
HookyQR Install
Bower Init Create bower.json (bower init)
Bower Install Restore packages defined in bower.json (bower install)
Bower Search and Install Search for a package and install it
Bower Uninstall Select and uninstall a package
Bower Update Update all packages or a selected package (bower update)
Bower Cache - Clear Clear bower cache (bower cache clear)
Bower Cache - List List the items in the bower cache and action them
Recent
Part3 ~/Code
NorthwindContextLib ~/Code/Part3
NorthwindEntitiesLib ~/Code/Part3
NorthwindWeb ~/Code/Part3
MvcApp ~/Code/Chapter14
More... (^R)
Color theme
Make the editor and your code look the way you love
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Bower
info: (cached) https://github.com/twbs/bootstrap.git#3.3.7
info: action: (validate) 3.3.7 against https://github.com/twbs/bootstrap.git#3.3.7
info: action: (install) bootstrap#3.3.7


Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Chapter14' (2 projects)
MvcApp
Connected Services
Dependencies
Properties
wwwroot
css
images
js
lib
favicon.ico
Controllers
AccountController.cs
HomeController.cs
ManageController.cs
Data
Migrations
ApplicationDbContext.cs
Extensions
Models
AccountViewModels
ManageViewModels
ApplicationUser.cs
ErrorViewModel.cs
Services
Views
Account
Home
Manage
Shared
_ViewImports.cshtml
_ViewStart.cshtml
appsettings.json
bower.json
bundleconfig.json
Program.cs
Startup.cs
EXPLORER
OPEN EDITORS
MVCAPP
Controllers
AccountController.cs
HomeController.cs
ManageController.cs
Data
Migrations
ApplicationDbContext.cs
Extensions
Models
AccountViewModels
ManageViewModels
ApplicationUser.cs
ErrorViewModel.cs
obj
Services
Views
Account
Home
Manage
Shared
_ViewImports.cshtml
_ViewStart.cshtml
wwwroot
css
images
js
lib
favicon.ico
.bowerrc
app.db
appsettings.Development.json
appsettings.json
bower.json
bundleconfig.json
MvcApp.csproj
Program.cs
Startup.cs

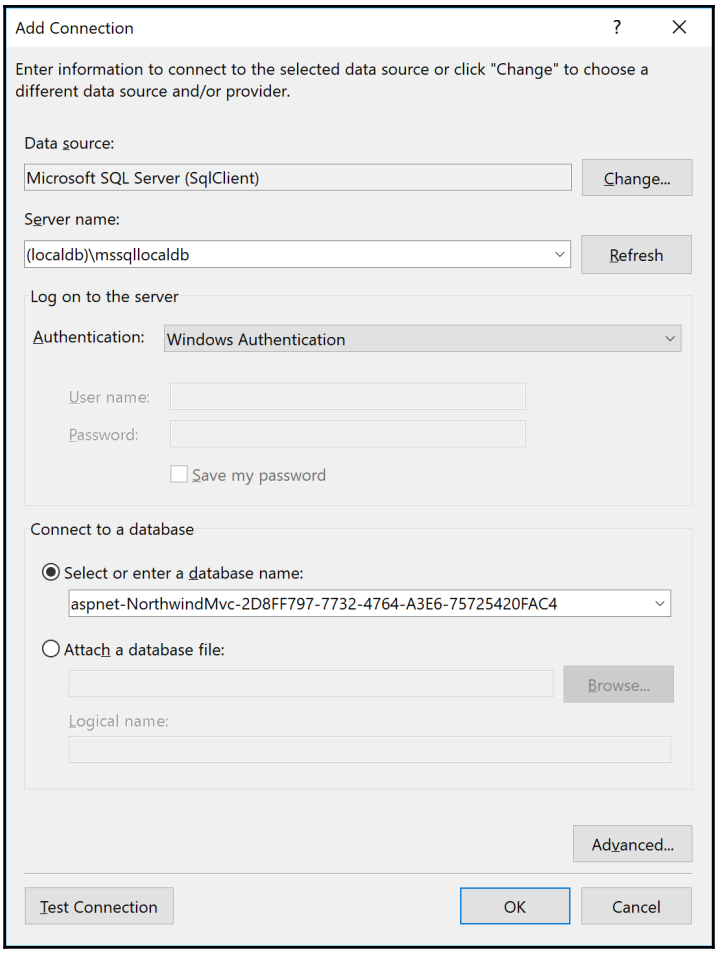

Developer Command Prompt for VS 2017
****
** Visual Studio 2017 Developer Command Prompt v15.0.26730.12
** Copyright (c) 2017 Microsoft Corporation
****
C:\Users\markj\source>cd C:\Code\Part3\NorthwindMvc
C:\Code\Part3\NorthwindMvc>dotnet ef database update
info: Microsoft.AspNetCore.DataProtection.KeyManagement.XmlKeyManager[0]
User profile is available. Using 'C:\Users\markj\AppData\Local\ASP.NET\DataProtection-Keys' as key repository and
Windows DPAPI to encrypt keys at rest.
info: Microsoft.EntityFrameworkCore.Infrastructure[100403]
Entity Framework Core 2.0.0-rtm-26452 initialized 'ApplicationDbContext' using provider 'Microsoft.EntityFramework
Core.SqlServer' with options: None
info: Microsoft.EntityFrameworkCore.Database.Command[200101]
Executed DbCommand (167ms) [Parameters=[], CommandType='Text', CommandTimeout='60']
CREATE DATABASE [aspnet-NorthwindMvc-2D8FF797-7732-4764-A3E6-75725420FAC4];
info: Microsoft.EntityFrameworkCore.Database.Command[200101]
Executed DbCommand (62ms) [Parameters=[], CommandType='Text', CommandTimeout='60']
IF SERVERPROPERTY('EngineEdition') <> 5 EXEC(N'ALTER DATABASE [aspnet-NorthwindMvc-2D8FF797-7732-4764-A3E6-7572542
0FAC4] SET READ_COMMITTED_SNAPSHOT ON;');
info: Microsoft.EntityFrameworkCore.Database.Command[200101]
Executed DbCommand (6ms) [Parameters=[], CommandType='Text', CommandTimeout='30']
CREATE TABLE [__EFMigrationsHistory] (
[MigrationId] nvarchar(150) NOT NULL,
[ProductVersion] nvarchar(32) NOT NULL,
CONSTRAINT [PK___EFMigrationsHistory] PRIMARY KEY ([MigrationId])
);
info: Microsoft.EntityFrameworkCore.Database.Command[200101]
Executed DbCommand (2ms) [Parameters=[], CommandType='Text', CommandTimeout='30']

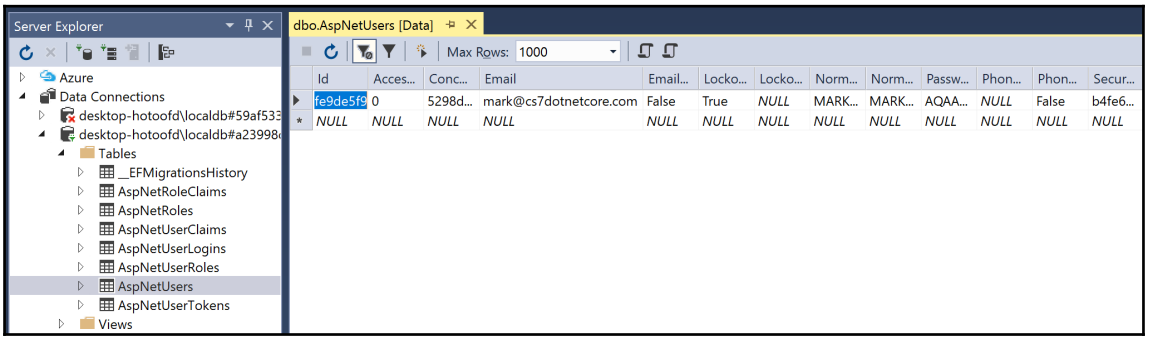

SQLiteStudio Database Structure View Tools Help
SQLiteStudio (3.1.1)
Databases
Filter by name
Northwind (SQLite 3)
WebApplication (SQLite 3)
Tables (8)
__EFMigrationsHistory
AspNetRoleClaims
AspNetRoles
AspNetUserClaims
AspNetUserLogins
AspNetUserRoles
AspNetUsers
AspNetUserTokens
Views
AspNetUsers (WebApplication)
Structure
Data
Constraints
Indexes
Triggers
DDL
Table name: AspNetUsers
WITHOUT ROWID
Name
Data type
Primary Key
Foreign Key
Unique
Check
Not NULL
Collate
Default value
1 Id TEXT NULL
2 AccessFailedCount INTEGER NULL
3 ConcurrencyStamp TEXT NULL
4 Email TEXT NULL
5 EmailConfirmed INTEGER NULL
6 LockoutEnabled INTEGER NULL
7 LockoutEnd TEXT NULL
8 NormalizedEmail TEXT NULL
9 NormalizedUserName TEXT NULL
10 PasswordHash TEXT NULL
Type
Name
Details
AspNetUsers (WebApplication)

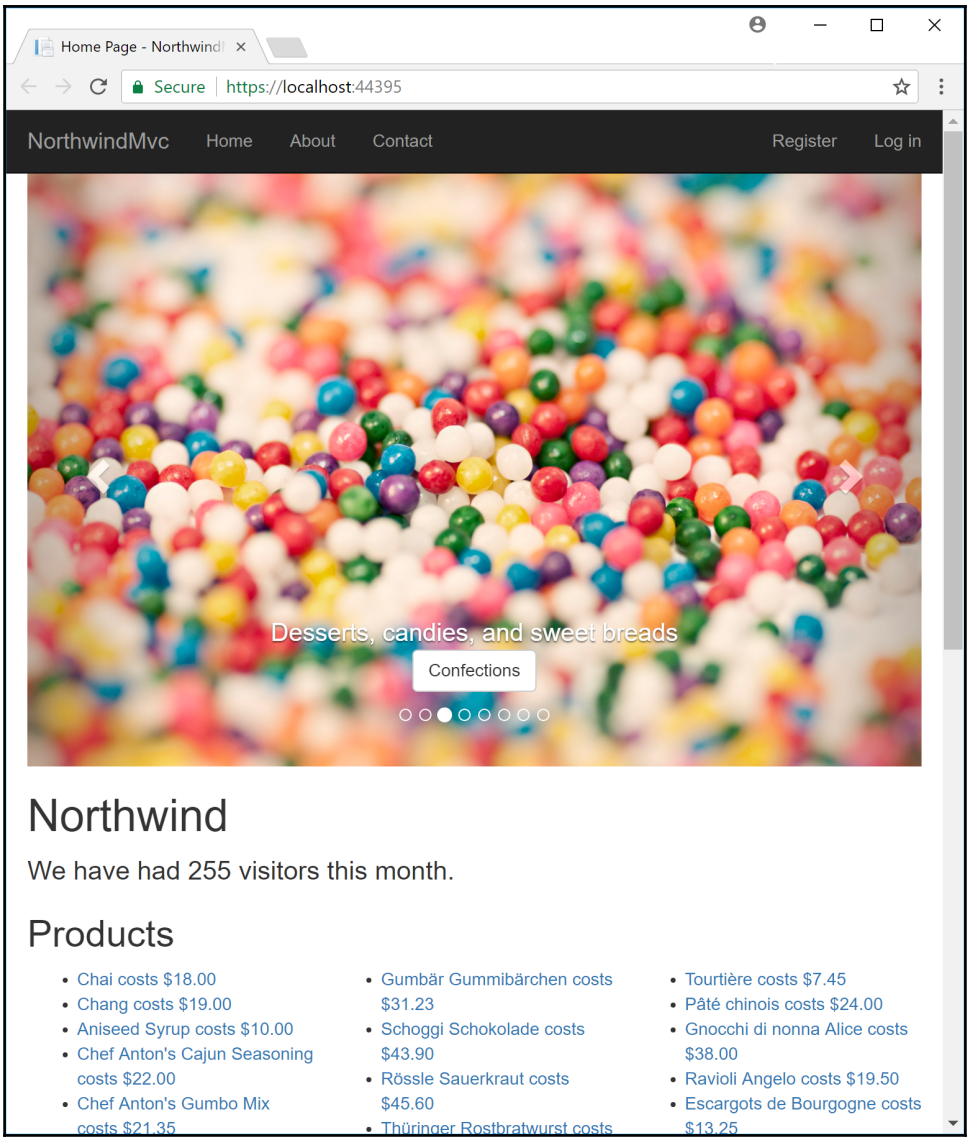

Home Page - Northwind
Secure
https://localhost:44395
NorthwindMvc
Home
About
Contact
Register
Log in
ASP.NET Core
Windows
Linux
OSX
Learn how to build ASP.NET apps that can run anywhere.
Learn More
Application uses
Sample pages using ASP.NET Core MVC
Bower for managing client-side libraries
How to
Add a Controller and View
Manage User Secrets using Secret Manager.
Use logging to log a message.
Overview
Conceptual overview of what is ASP.NET Core
Fundamentals of ASP.NET Core such as Startup and middleware.
Run & Deploy
Run your app
Run tools such as EF migrations and more
Publish to Microsoft Azure Web Apps

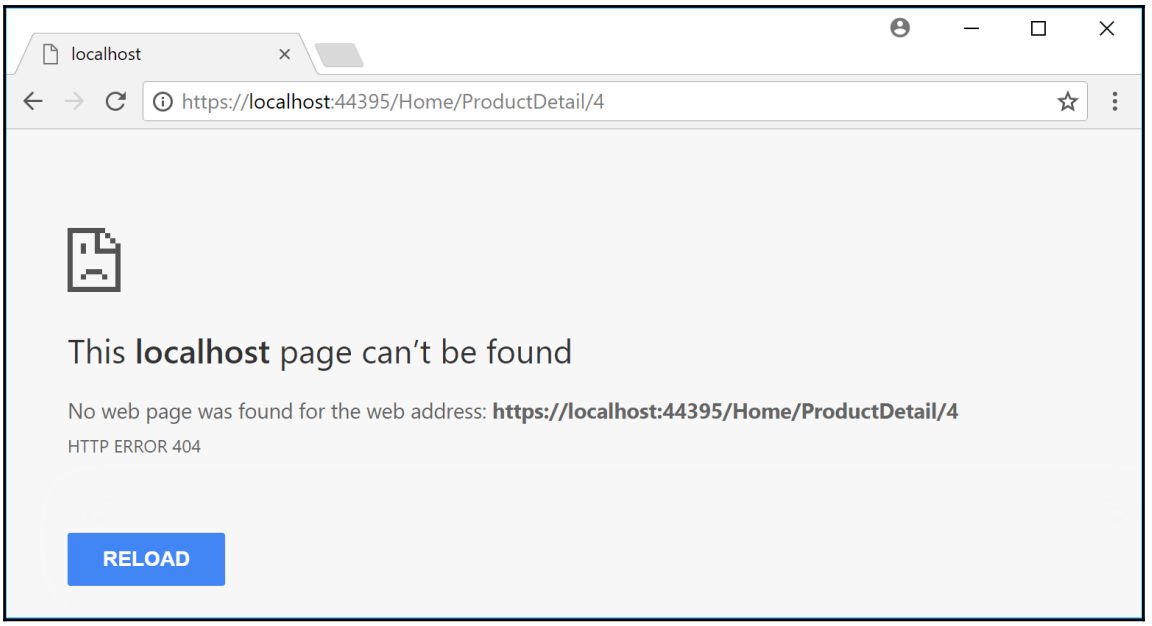

Register - NorthwindMvc
Secure
https://localhost:44395/Account/Register
NorthwindMvc
Home
About
Contact
Register
Log in
Register
Create a new account.
Email
mark@cs7dotnetcore.com
Password
Confirm password
Register
© 2017 - NorthwindMvc

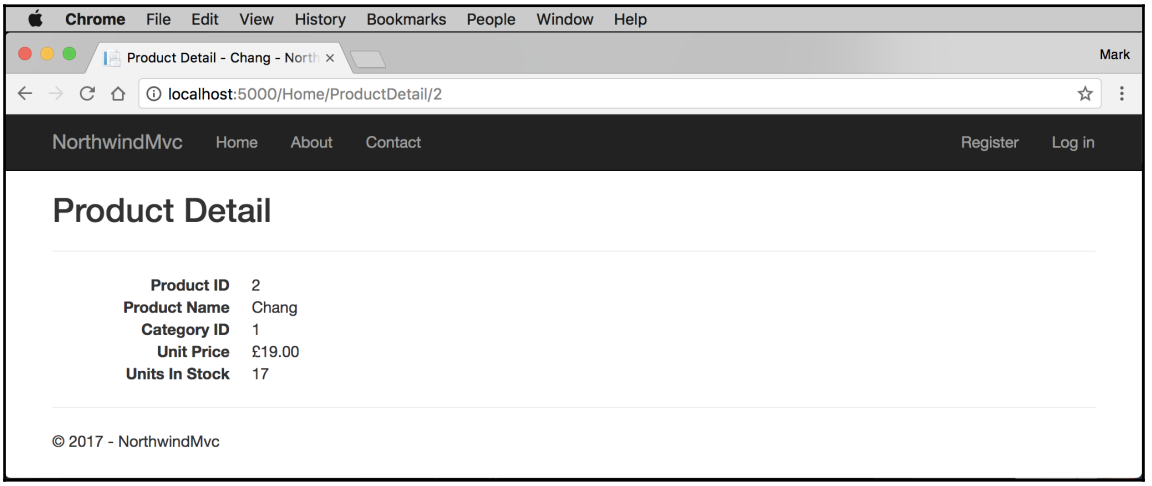

Home Page - Northwind
Secure
https://localhost:44395
NorthwindMvc
Home
About
Contact
Hello mark@cs7dotnetcore.com!
Log out

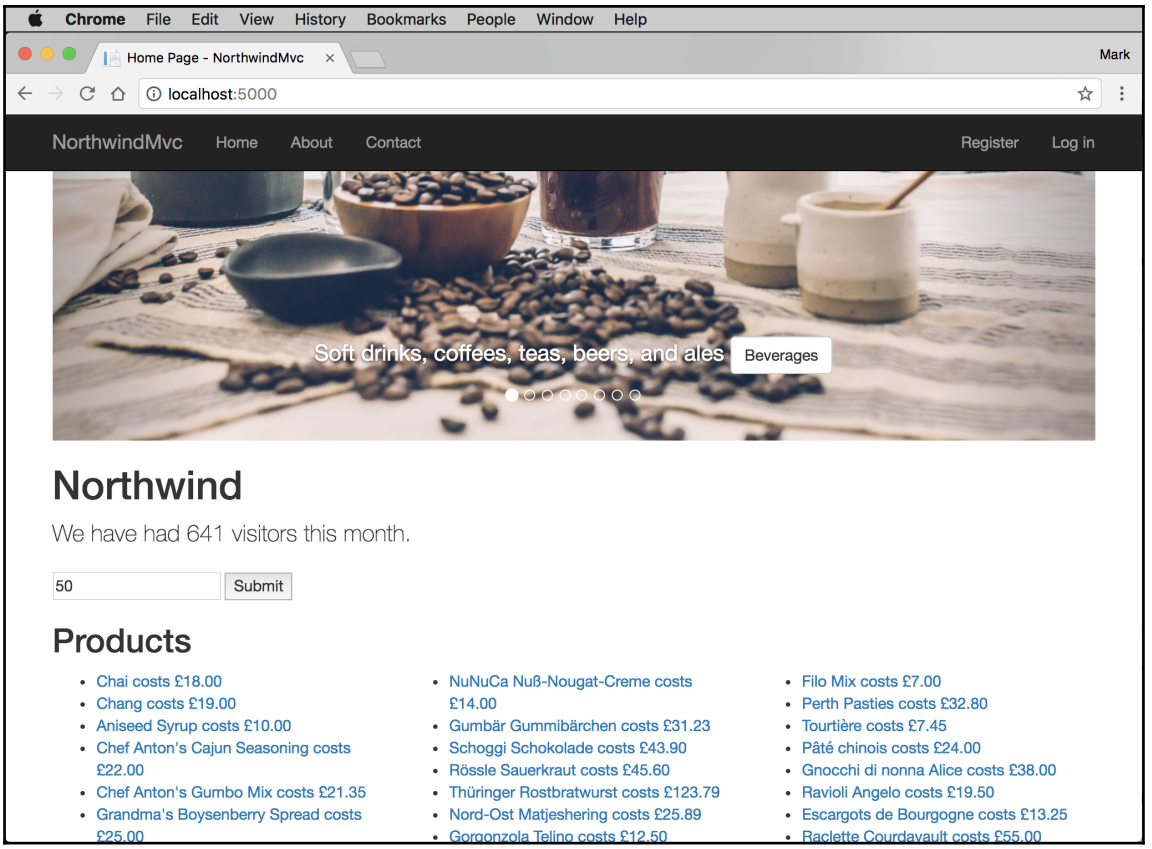

Add Connection
Enter information to connect to the selected data source or click "Change" to choose a different data source and/or provider.
Data source:
Microsoft SQL Server (SqlClient)
Change...
Server name:
(localdb)\mssqllocaldb
Refresh
Log on to the server
Authentication:
Windows Authentication
User name:
Password:
Save my password
Connect to a database
Select or enter a database name:
aspnet-NorthwindMvc-2D8FF797-7732-4764-A3E6-75725420FAC4
Attach a database file:
Browse...
Logical name:
Advanced...
Test Connection
OK
Cancel

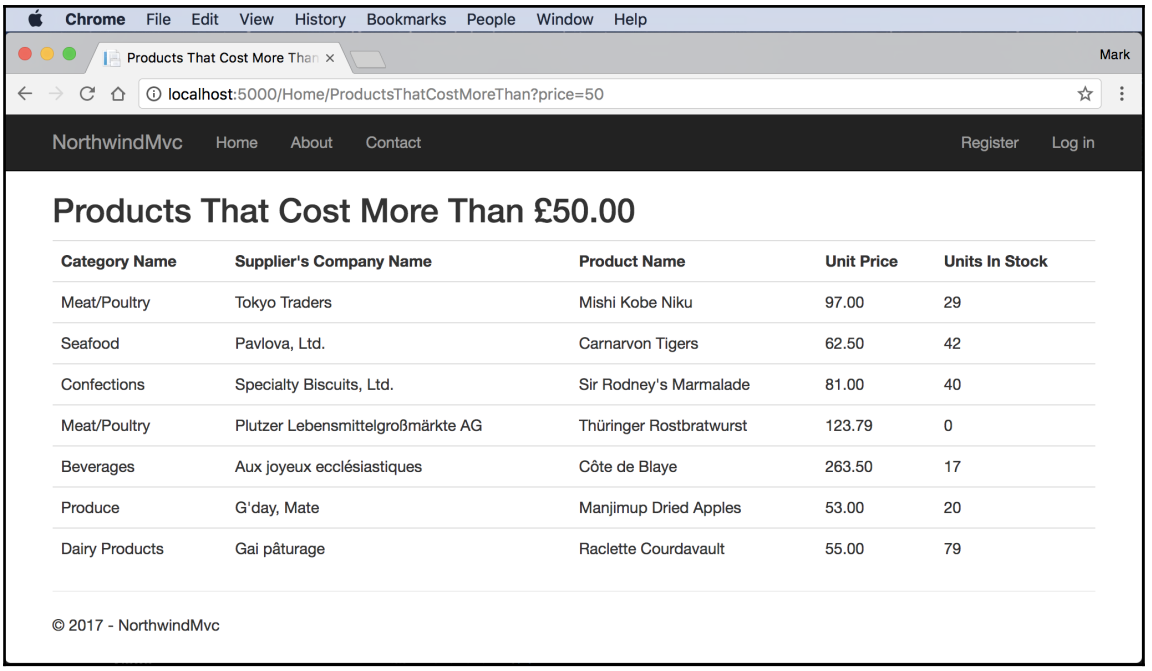

Server Explorer
Azure
Data Connections
desktop-hotoofd\localdb#59af533
desktop-hotoofd\localdb#a23998
Tables
__EFMigrationsHistory
AspNetRoleClaims
AspNetRoles
AspNetUserClaims
AspNetUserLogins
AspNetUserRoles
AspNetUsers
AspNetUserTokens
Views
dbo.AspNetUsers [Data]
Max Rows: 1000
Id
Acces...
Conc...
Email
Email...
Locko...
Locko...
Norm...
Norm...
Passw...
Phon...
Phon...
Secur...
fe9de5f9
0
5298d...
mark@cs7dotnetcore.com
False
True
NULL
MARK...
MARK...
AQAA...
NULL
False
b4fe6...
NULL


Home Page - Northwind
Secure
https://localhost:44395
NorthwindMvc
Home
About
Contact
Register
Log in
Desserts, candies, and sweet breads
Confections
Northwind
We have had 255 visitors this month.
Products
Chai costs $18.00
Chang costs $19.00
Aniseed Syrup costs $10.00
Chef Anton's Cajun Seasoning costs $22.00
Chef Anton's Gumbo Mix costs $21.35
Gumbär Gummibärchen costs $31.23
Schoggi Schokolade costs $43.90
Rössle Sauerkraut costs $45.60
Thüringer Rostbratwurst costs
Tourtière costs $7.45
Pâté chinois costs $24.00
Gnocchi di nonna Alice costs $38.00
Ravioli Angelo costs $19.50
Escargots de Bourgogne costs $13.25

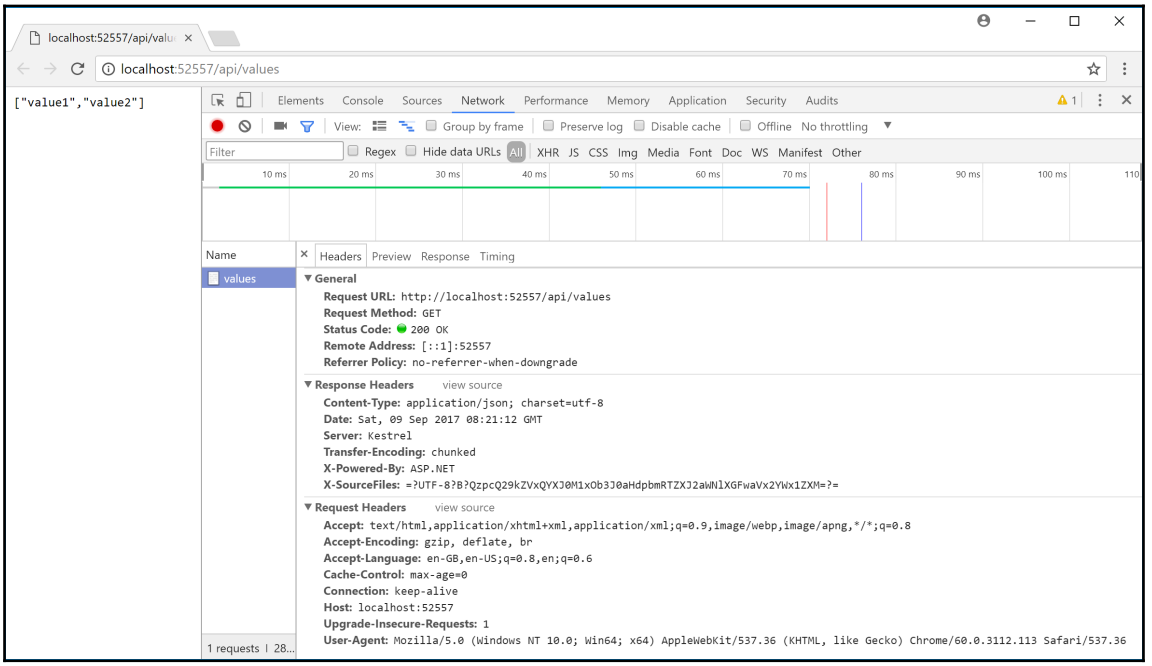

localhost
https://localhost:44395/Home/ProductDetail/4
This localhost page can't be found
No web page was found for the web address: https://localhost:44395/Home/ProductDetail/4
HTTP ERROR 404
RELOAD

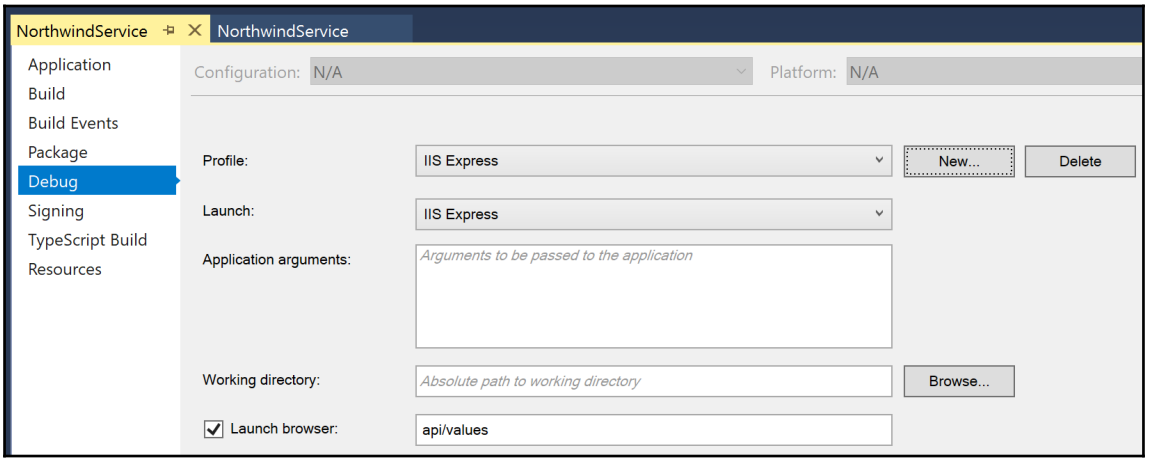

Chrome File Edit View History Bookmarks People Window Help
Product Detail - Chang - North
Mark
localhost:5000/Home/ProductDetail/2
NorthwindMvc Home About Contact Register Log in
Product Detail
Product ID 2
Product Name Chang
Category ID 1
Unit Price £19.00
Units In Stock 17
© 2017 - NorthwindMvc

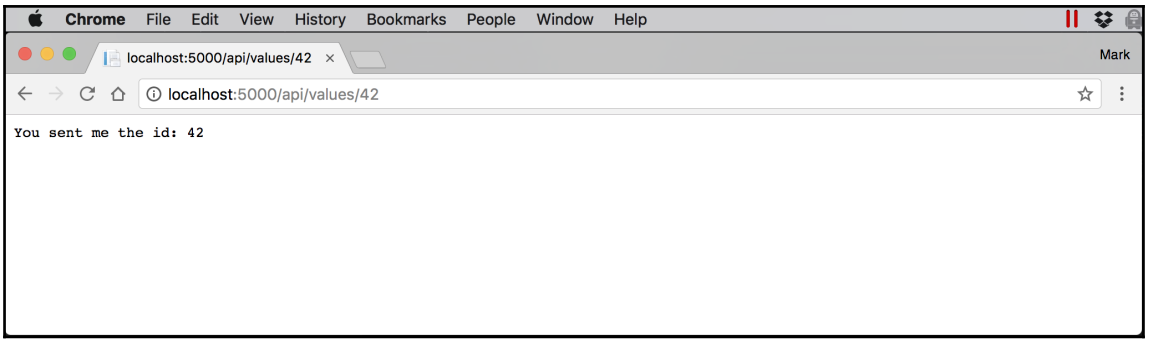

Chrome File Edit View History Bookmarks People Window Help
Home Page - NorthwindMvc
Mark
localhost:5000
NorthwindMvc Home About Contact Register Log in
Soft drinks, coffees, teas, beers, and ales
Beverages
Northwind
We have had 641 visitors this month.
50
Submit
Products
Chai costs £18.00
Chang costs £19.00
Aniseed Syrup costs £10.00
Chef Anton's Cajun Seasoning costs £22.00
Chef Anton's Gumbo Mix costs £21.35
Grandma's Boysenberry Spread costs £25.00
NuNuCa Nuß-Nougat-Creme costs £14.00
Gumbär Gummibärchen costs £31.23
Schoggi Schokolade costs £43.90
Rössle Sauerkraut costs £45.60
Thüringer Rostbratwurst costs £123.79
Nord-Ost Matjeshering costs £25.89
Gorgonzola Telino costs £12.50
Filo Mix costs £7.00
Perth Pasties costs £32.80
Tourtière costs £7.45
Pâté chinois costs £24.00
Gnocchi di nonna Alice costs £38.00
Ravioli Angelo costs £19.50
Escargots de Bourgogne costs £13.25
Raclette Courdavault costs £55.00

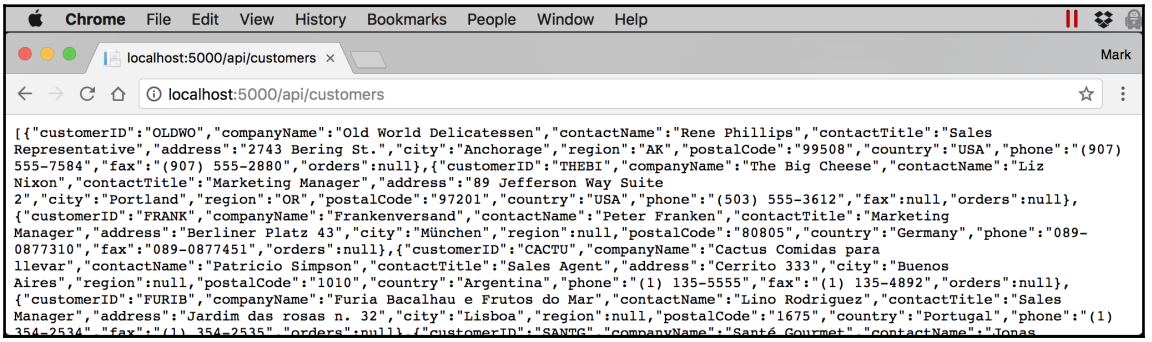

Chrome File Edit View History Bookmarks People Window Help
Products That Cost More Than
Mark
localhost:5000/Home/ProductsThatCostMoreThan?price=50
NorthwindMvc
Home
About
Contact
Register
Log in
Products That Cost More Than £50.00
Category Name
Supplier's Company Name
Product Name
Unit Price
Units In Stock
Meat/Poultry
Tokyo Traders
Mishi Kobe Niku
97.00
29
Seafood
Pavlova, Ltd.
Carnarvon Tigers
62.50
42
Confections
Specialty Biscuits, Ltd.
Sir Rodney's Marmalade
81.00
40
Meat/Poultry
Plutzer Lebensmittelgroßmärkte AG
Thüringer Rostbratwurst
123.79
0
Beverages
Aux joyeux ecclésiastiques
Côte de Blaye
263.50
17
Produce
G'day, Mate
Manjimup Dried Apples
53.00
20
Dairy Products
Gai pâturage
Raclette Courdavault
55.00
79
© 2017 - NorthwindMvc

Chapter 16: Building Web Services and Applications Using ASP.NET Core



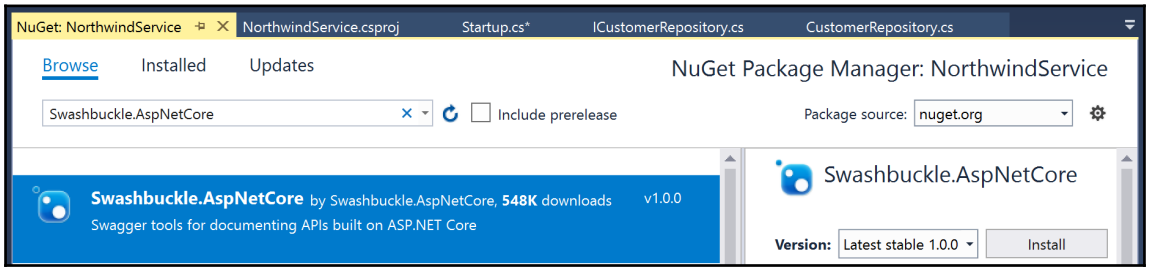


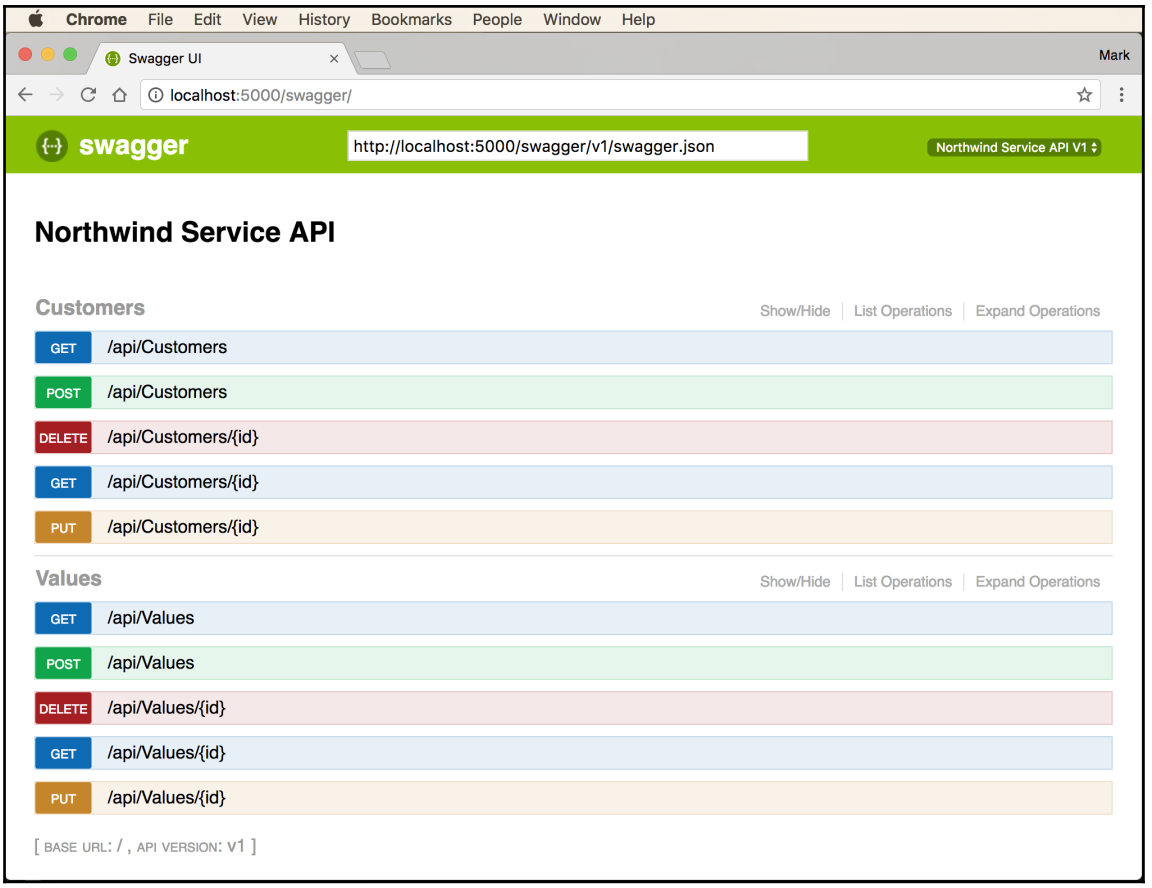

Chrome File Edit View History Bookmarks People Window Help
localhost:5000/api/values/42
Mark
localhost:5000/api/values/42
You sent me the id: 42

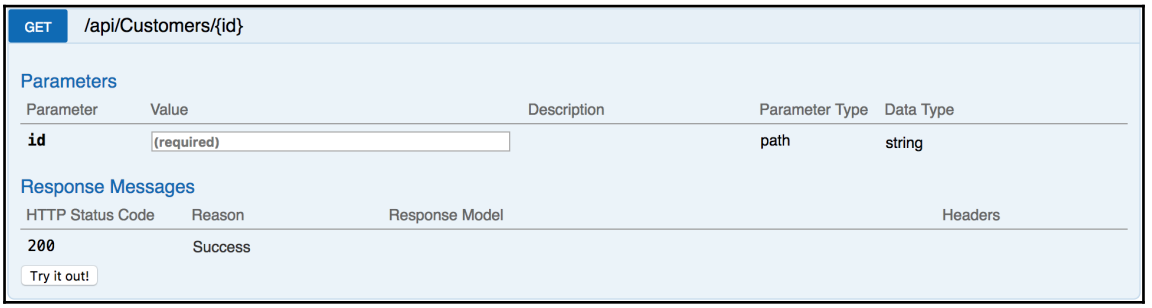

Chrome File Edit View History Bookmarks People Window Help
localhost:5000/api/customers
Mark
localhost:5000/api/customers
[{"customerID":"OLDWO","companyName":"Old World Delicatessen","contactName":"Rene Phillips","contactTitle":"Sales Representative","address":"2743 Bering St.","city":"Anchorage","region":"AK","postalCode":"99508","country":"USA","phone":"(907) 555-7584","fax":"(907) 555-2880","orders":null},{"customerID":"THEBI","companyName":"The Big Cheese","contactName":"Liz Nixon","contactTitle":"Marketing Manager","address":"89 Jefferson Way Suite 2","city":"Portland","region":"OR","postalCode":"97201","country":"USA","phone":"(503) 555-3612","fax":null,"orders":null},{"customerID":"FRANK","companyName":"Frankenversand","contactName":"Peter Franken","contactTitle":"Marketing Manager","address":"Berliner Platz 43","city":"München","region":null,"postalCode":"80805","country":"Germany","phone":"089-0877310","fax":"089-0877451","orders":null},{"customerID":"CACTU","companyName":"Cactus Comidas para llevar","contactName":"Patricio Simpson","contactTitle":"Sales Agent","address":"Cerrito 333","city":"Buenos Aires","region":null,"postalCode":"1010","country":"Argentina","phone":"(1) 135-5555","fax":"(1) 135-4892","orders":null},{"customerID":"FURIB","companyName":"Furia Bacalhau e Frutos do Mar","contactName":"Lino Rodriguez","contactTitle":"Sales Manager","address":"Jardim das rosas n. 32","city":"Lisboa","region":null,"postalCode":"1675","country":"Portugal","phone":"(1) 354-2534","fax":"(1) 354-2535","orders":null},{"customerID":"SANTG","companyName":"Santé Gourmet","contactName":"Jonas

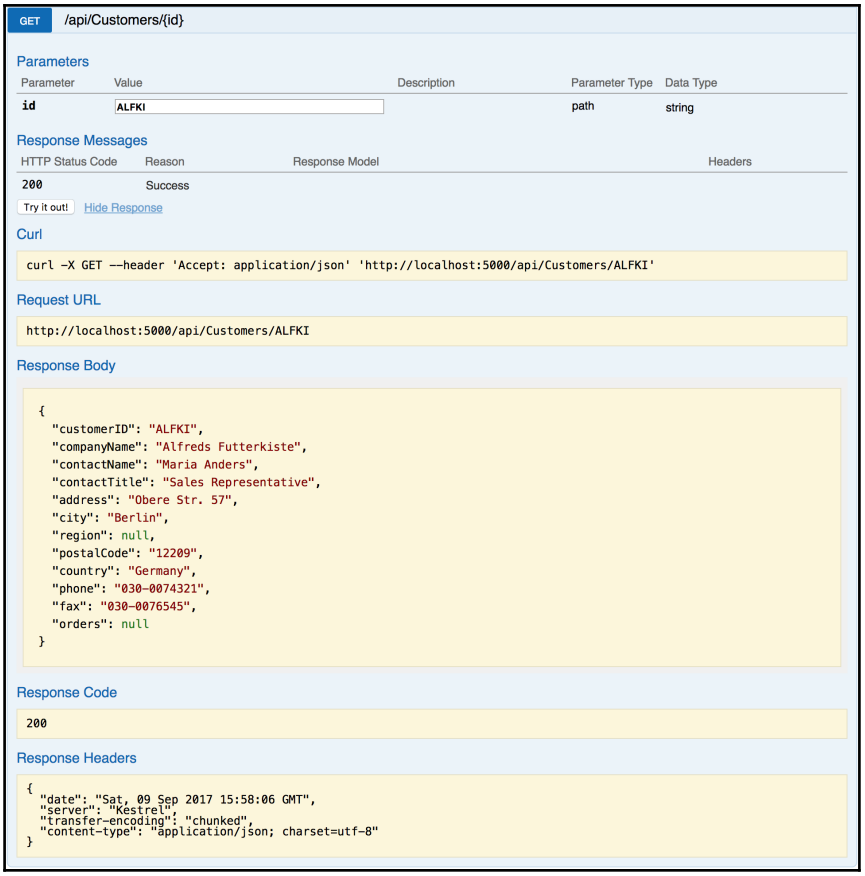

localhost:52557/api/cust
localhost:52557/api/customers/alfki
{"customerID":"ALFKI","companyName":"Alfreds Futterkiste","contactName":"Maria Anders","contactTitle":"Sales Representative","address":"Obere Str. 57","city":"Berlin","region":null,"postalCode":"12209","country":"Germany","phone":"030-0074321","fax":"030-0076545","orders":null}

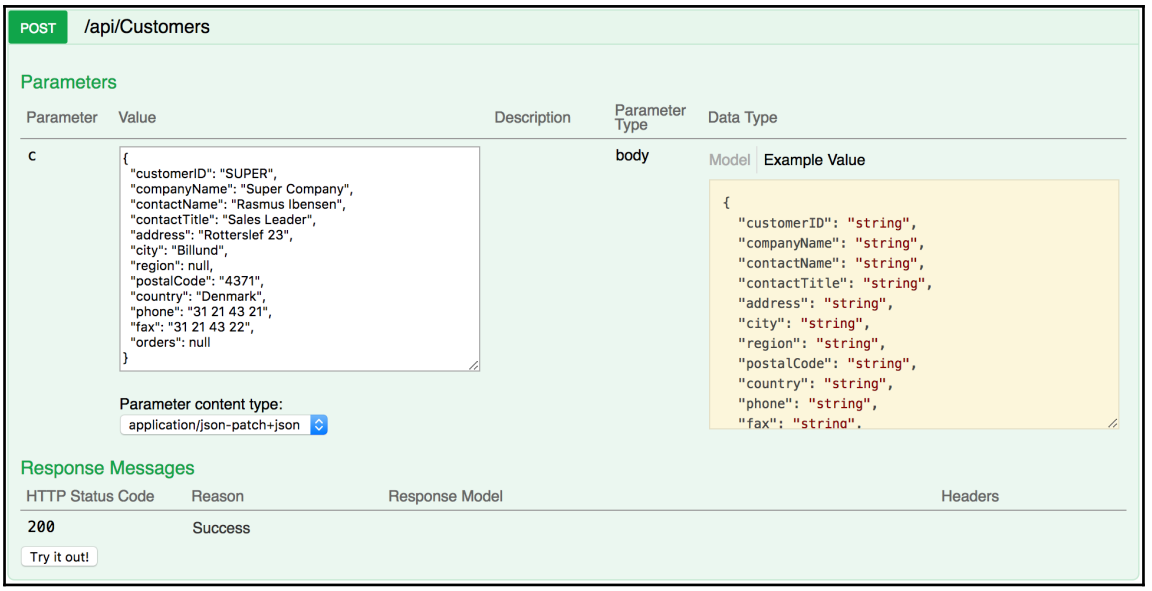

localhost:52557/api/cust
localhost:52557/api/customers?country=Germany
[{"customerID":"BLAUS","companyName":"Blauer See Delikatessen","contactName":"Hanna Moos","contactTitle":"Sales Representative","address":"Forsterstr.
57","city":"Mannheim","region":null,"postalCode":"68306","country":"Germany","phone":"0621-08460","fax":"0621-08924","orders":null},
{"customerID":"WANDK","companyName":"Die Wandernde Kuh","contactName":"Rita Müller","contactTitle":"Sales Representative","address":"Adenauerallee
900","city":"Stuttgart","region":null,"postalCode":"70563","country":"Germany","phone":"0711-020361","fax":"0711-035428","orders":null},
{"customerID":"FRANK","companyName":"Frankenversand","contactName":"Peter Franken","contactTitle":"Marketing Manager","address":"Berliner Platz
43","city":"München","region":null,"postalCode":"80805","country":"Germany","phone":"089-0877310","fax":"089-0877451","orders":null},
{"customerID":"ALFKI","companyName":"Alfreds Futterkiste","contactName":"Maria Anders","contactTitle":"Sales Representative","address":"Obere Str.
57","city":"Berlin","region":null,"postalCode":"12209","country":"Germany","phone":"030-0074321","fax":"030-0076545","orders":null},
{"customerID":"KOENE","companyName":"Königlich Essen","contactName":"Philip Cramer","contactTitle":"Sales Associate","address":"Maubelstr.
90","city":"Brandenburg","region":null,"postalCode":"14776","country":"Germany","phone":"0555-09876","fax":null,"orders":null},
{"customerID":"QUICK","companyName":"QUICK-Stop","contactName":"Horst Kloss","contactTitle":"Accounting Manager","address":"Taucherstraße
10","city":"Cunewalde","region":null,"postalCode":"01307","country":"Germany","phone":"0372-035188","fax":null,"orders":null},
{"customerID":"OTTIK","companyName":"Ottilies Käseladen","contactName":"Henriette Pfalzheim","contactTitle":"Owner","address":"Mehrheimerstr.
369","city":"Köln","region":null,"postalCode":"50739","country":"Germany","phone":"0221-0644327","fax":"0221-0765721","orders":null},
{"customerID":"TOMSP","companyName":"Toms Spezialitäten","contactName":"Karin Josephs","contactTitle":"Marketing Manager","address":"Luisenstr.
48","city":"Münster","region":null,"postalCode":"44087","country":"Germany","phone":"0251-031259","fax":"0251-035695","orders":null},
{"customerID":"DRACD","companyName":"Drachenblut Delikatessen","contactName":"Sven Ottlieb","contactTitle":"Order Administrator","address":"Walserweg
21","city":"Aachen","region":null,"postalCode":"52066","country":"Germany","phone":"0241-039123","fax":"0241-059428","orders":null},
{"customerID":"LEHMS","companyName":"Lehmanns Marktstand","contactName":"Renate Messner","contactTitle":"Sales Representative","address":"Magazinweg
7","city":"Frankfurt a.M.","region":null,"postalCode":"60528","country":"Germany","phone":"069-0245984","fax":"069-0245874","orders":null},
{"customerID":"MORGK","companyName":"Morgenstern Gesundkost","contactName":"Alexander Feuer","contactTitle":"Marketing Assistant","address":"Heerstr.
22","city":"Leipzig","region":null,"postalCode":"04179","country":"Germany","phone":"0342-023176","fax":null,"orders":null}]


NuGet: NorthwindService
NorthwindService.csproj
Startup.cs*
ICustomerRepository.cs
CustomerRepository.cs
Browse
Installed
Updates
NuGet Package Manager: NorthwindService
Swashbuckle.AspNetCore
Include prerelease
Package source:
nuget.org
Swashbuckle.AspNetCore by Swashbuckle.AspNetCore, 548K downloads
v1.0.0
Swagger tools for documenting APIs built on ASP.NET Core
Swashbuckle.AspNetCore
Version:
Latest stable 1.0.0
Install


Chrome File Edit View History Bookmarks People Window Help
Swagger UI
Mark
localhost:5000/swagger/
swagger
http://localhost:5000/swagger/v1/swagger.json
Northwind Service API V1
Northwind Service API
Customers
Show/Hide | List Operations | Expand Operations
GET /api/Customers
POST /api/Customers
DELETE /api/Customers/{id}
GET /api/Customers/{id}
PUT /api/Customers/{id}
Values
Show/Hide | List Operations | Expand Operations
GET /api/Values
POST /api/Values
DELETE /api/Values/{id}
GET /api/Values/{id}
PUT /api/Values/{id}
[BASE URL: / , API VERSION: v1]


GET /api/Customers/{id}
Parameters
Parameter Value Description Parameter Type Data Type
id (required) path string
Response Messages
HTTP Status Code Reason Response Model Headers
200 Success
Try it out!


GET
/api/Customers/{id}
Parameters
Parameter
Value
Description
Parameter Type
Data Type
id
ALFKI
path
string
Response Messages
HTTP Status Code
Reason
Response Model
Headers
200
Success
Try it out!
Hide Response
Curl
curl -X GET --header 'Accept: application/json' 'http://localhost:5000/api/Customers/ALFKI'
Request URL
http://localhost:5000/api/Customers/ALFKI
Response Body
{
"customerID": "ALFKI",
"companyName": "Alfreds Futterkiste",
"contactName": "Maria Anders",
"contactTitle": "Sales Representative",
"address": "Obere Str. 57",
"city": "Berlin",
"region": null,
"postalCode": "12209",
"country": "Germany",
"phone": "030-0074321",
"fax": "030-0076545",
"orders": null
}
Response Code
200
Response Headers
{
"date": "Sat, 09 Sep 2017 15:58:06 GMT",
"server": "Kestrel",
"transfer-encoding": "chunked",
"content-type": "application/json; charset=utf-8"
}


POST
/api/Customers
Parameters
Parameter
Value
Description
Parameter Type
Data Type
c
{
"customerID": "SUPER",
"companyName": "Super Company",
"contactName": "Rasmus Ibensen",
"contactTitle": "Sales Leader",
"address": "Rotterslef 23",
"city": "Billund",
"region": null,
"postalCode": "4371",
"country": "Denmark",
"phone": "31 21 43 21",
"fax": "31 21 43 22",
"orders": null
}
body
Model
Example Value
{
"customerID": "string",
"companyName": "string",
"contactName": "string",
"contactTitle": "string",
"address": "string",
"city": "string",
"region": "string",
"postalCode": "string",
"country": "string",
"phone": "string",
"fax": "string",
Parameter content type:
application/json-patch+json
Response Messages
HTTP Status Code
Reason
Response Model
Headers
200
Success
Try it out!

Request URL

```
http://localhost:5000/api/Customers
```

Response Body


```
{
  "customerID": "SUPER",
  "companyName": "Super Company",
  "contactName": "Rasmus Ibensen",
  "contactTitle": "Sales Leader",
  "address": "Rotterslef 23",
  "city": "Billund",
  "region": null,
  "postalCode": "4371",
  "country": "Denmark",
  "phone": "31 21 43 21",
  "fax": "31 21 43 22",
  "orders": null
}
```


Response Code

```
201
```

Response Headers


```
{
  "location": "http://localhost:5000/api/Customers/super",
  "date": "Sat, 09 Sep 2017 16:10:19 GMT",
  "server": "Kestrel",
  "transfer-encoding": "chunked",
  "content-type": "application/json; charset=utf-8"
}
```

Parameters

Parameter	Value	Description	Parameter Type	Data Type
country	Denmark		query	string

Try it out! Hide Response

Curl

```
curl -X GET --header 'Accept: application/json' 'http://localhost:5000/api/Customers?country=Denmark'
```

Request URL

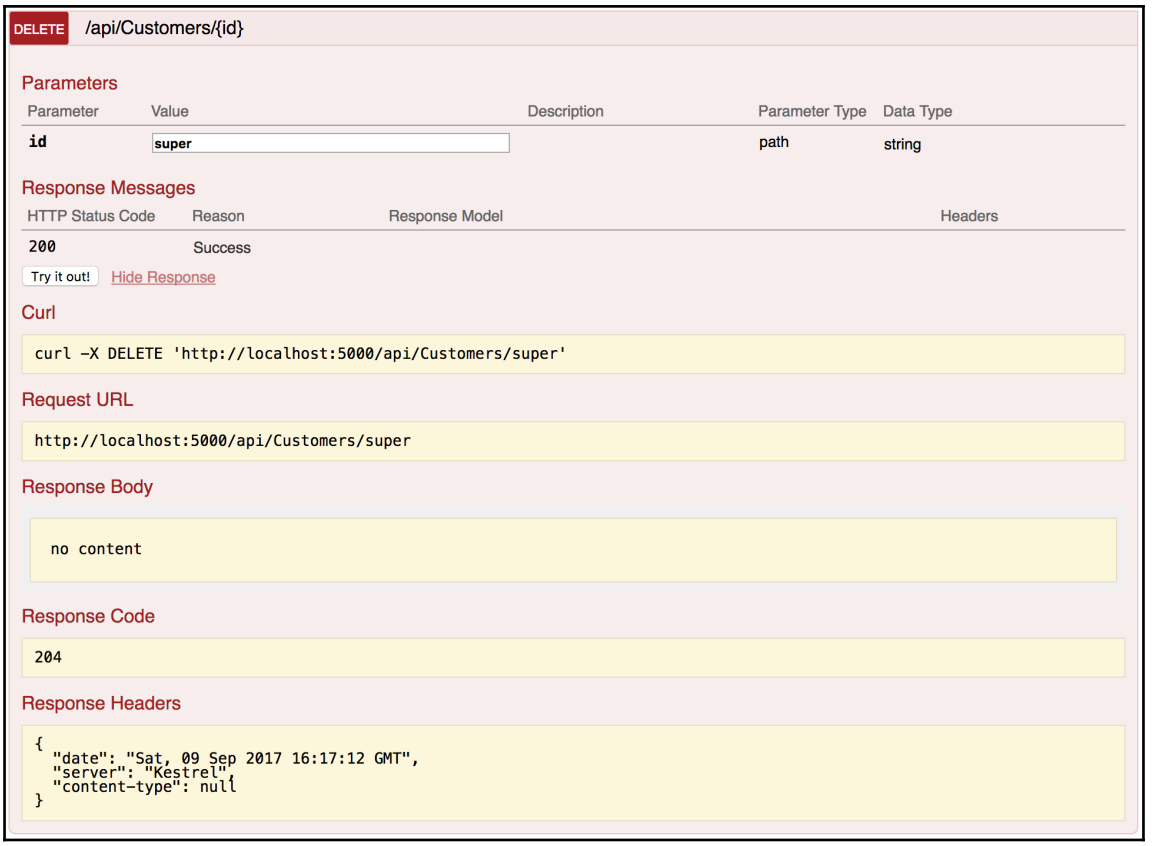
```
http://localhost:5000/api/Customers?country=Denmark
```

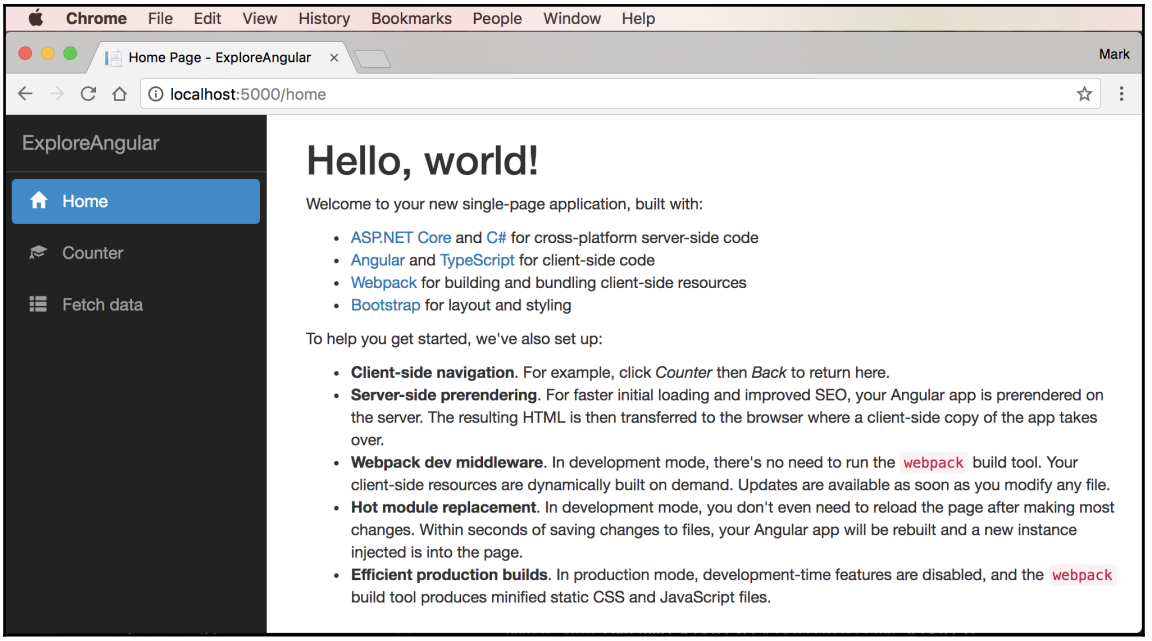
Response Body

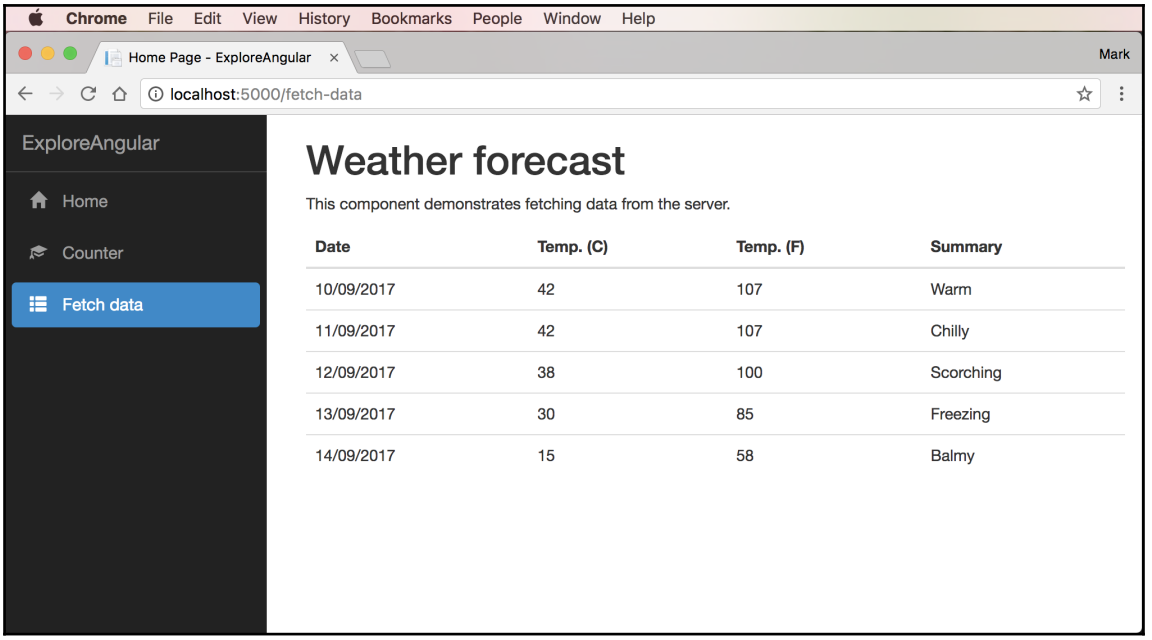

```
    "country": "Denmark",
    "phone": "86 21 32 43",
    "fax": "86 22 33 44",
    "orders": null
  },
  {
    "customerID": "SUPER",
    "companyName": "Super Company",
    "contactName": "Rasmus Ibensen",
    "contactTitle": "Sales Leader",
    "address": "Rotterslef 23",
    "city": "Billund",
    "region": null,
    "postalCode": "4371",
    "country": "Denmark",
    "phone": "31 21 43 21",
    "fax": "31 21 43 22",
    "orders": null
  }
]
```

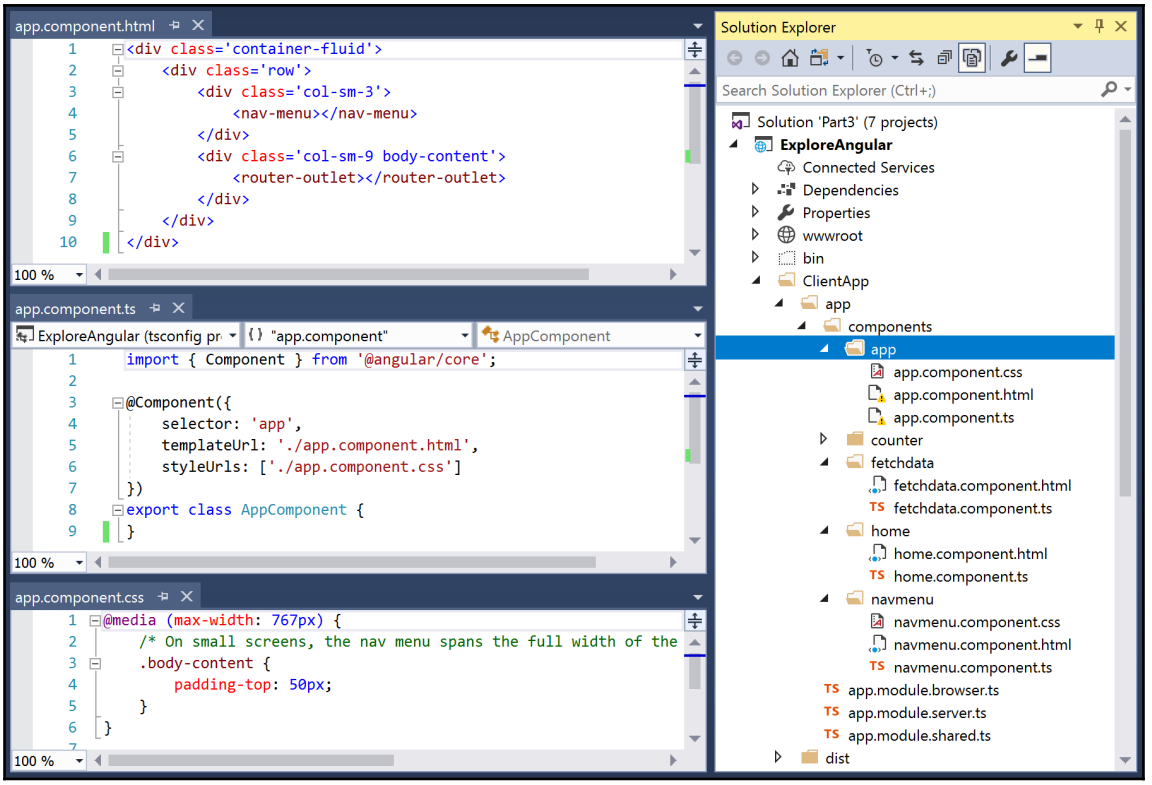

Response Code

```
200
```


DELETE
/api/Customers/{id}
Parameters
Parameter
Value
Description
Parameter Type
Data Type
id
super
path
string
Response Messages
HTTP Status Code
Reason
Response Model
Headers
200
Success
Try it out!
Hide Response
Curl
curl -X DELETE 'http://localhost:5000/api/Customers/super'
Request URL
http://localhost:5000/api/Customers/super
Response Body
no content
Response Code
204
Response Headers
{
"date": "Sat, 09 Sep 2017 16:17:12 GMT",
"server": "Kestrel",
"content-type": null
}


Chrome File Edit View History Bookmarks People Window Help
Home Page - ExploreAngular
Mark
localhost:5000/home
ExploreAngular
Home
Counter
Fetch data
Hello, world!
Welcome to your new single-page application, built with:
ASP.NET Core and C# for cross-platform server-side code
Angular and TypeScript for client-side code
Webpack for building and bundling client-side resources
Bootstrap for layout and styling
To help you get started, we've also set up:
Client-side navigation. For example, click Counter then Back to return here.
Server-side prerendering. For faster initial loading and improved SEO, your Angular app is prerendered on the server. The resulting HTML is then transferred to the browser where a client-side copy of the app takes over.
Webpack dev middleware. In development mode, there's no need to run the webpack build tool. Your client-side resources are dynamically built on demand. Updates are available as soon as you modify any file.
Hot module replacement. In development mode, you don't even need to reload the page after making most changes. Within seconds of saving changes to files, your Angular app will be rebuilt and a new instance injected is into the page.
Efficient production builds. In production mode, development-time features are disabled, and the webpack build tool produces minified static CSS and JavaScript files.

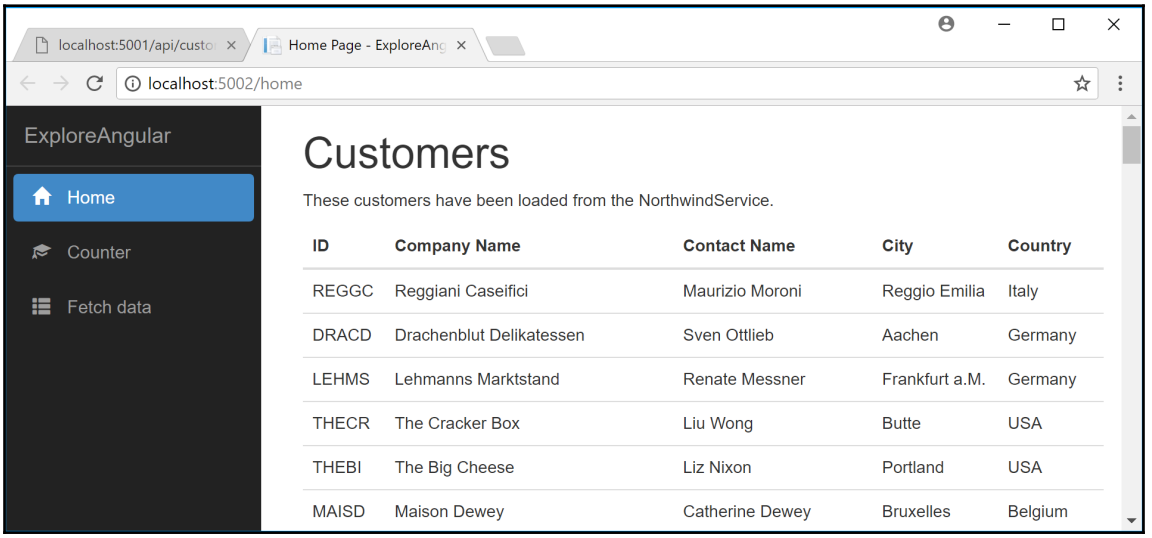

Chrome File Edit View History Bookmarks People Window Help
Home Page - ExploreAngular
Mark
localhost:5000/fetch-data
ExploreAngular
Home
Counter
Fetch data
Weather forecast
This component demonstrates fetching data from the server.
Date
Temp. (C)
Temp. (F)
Summary
10/09/2017
42
107
Warm
11/09/2017
42
107
Chilly
12/09/2017
38
100
Scorching
13/09/2017
30
85
Freezing
14/09/2017
15
58
Balmy

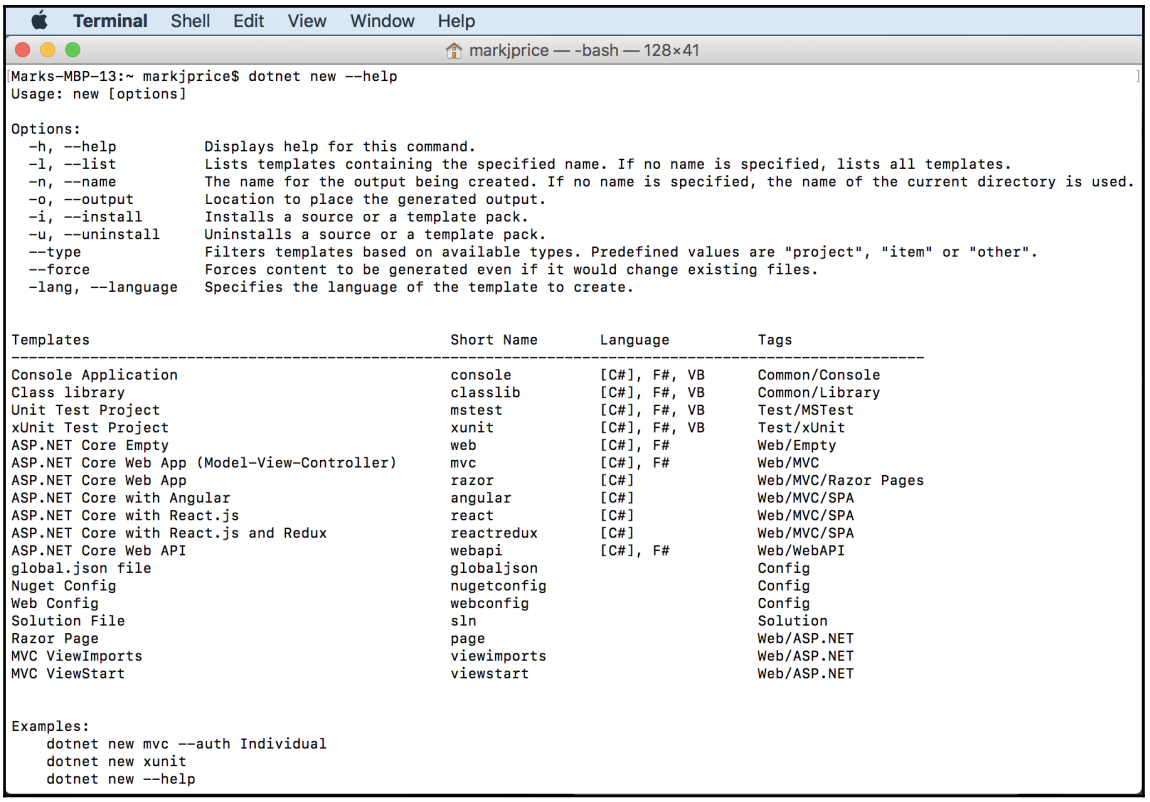

app.component.html

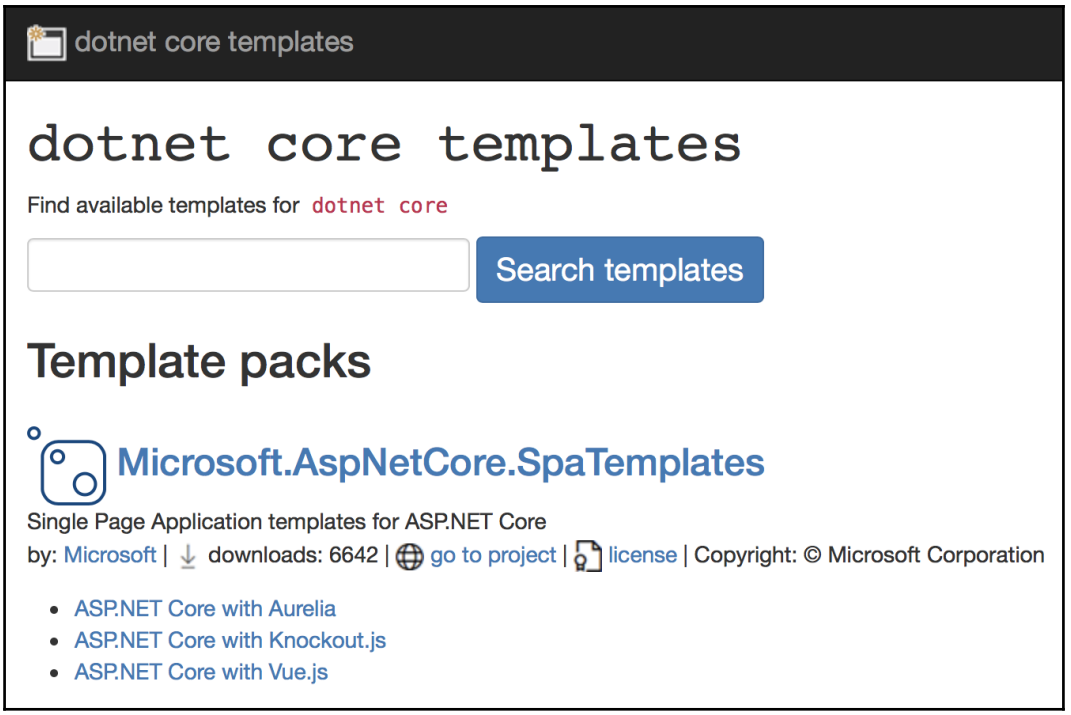
<nav-menu></nav-menu>

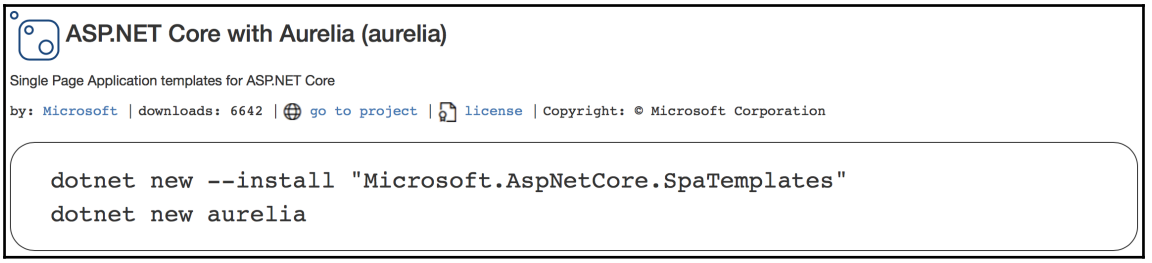
<router-outlet></router-outlet>

100 %
app.component.ts
ExploreAngular (tsconfig pr
"app.component"
AppComponent
import { Component } from '@angular/core';
@Component({
selector: 'app',
templateUrl: './app.component.html',
styleUrls: ['./app.component.css']
})
export class AppComponent {
}
100 %
app.component.css
@media (max-width: 767px) {
/* On small screens, the nav menu spans the full width of the
.body-content {
padding-top: 50px;
}
}
100 %
Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Part3' (7 projects)
ExploreAngular
Connected Services
Dependencies
Properties
wwwroot
bin
ClientApp
app
components
app
app.component.css
app.component.html
app.component.ts
counter
fetchdata
fetchdata.component.html
fetchdata.component.ts
home
home.component.html
home.component.ts
navmenu
navmenu.component.css
navmenu.component.html
navmenu.component.ts
app.module.browser.ts
app.module.server.ts
app.module.shared.ts
dist

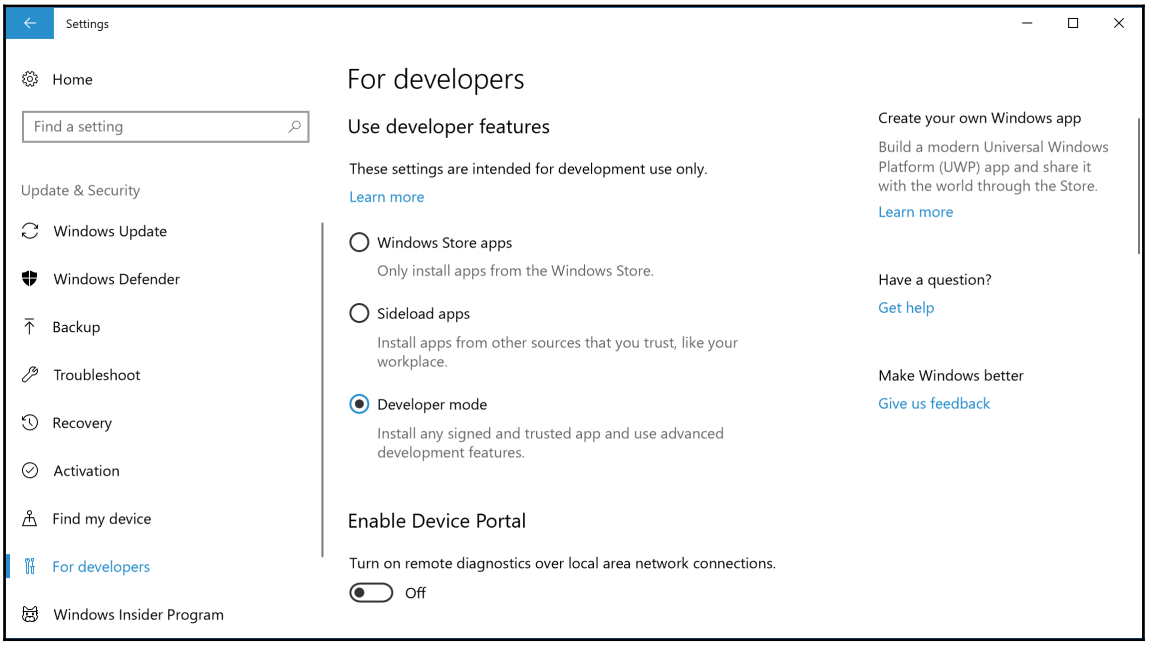

localhost:5001/api/custo
Home Page - ExploreAng
localhost:5002/home
ExploreAngular
Home
Counter
Fetch data
Customers
These customers have been loaded from the NorthwindService.
ID
Company Name
Contact Name
City
Country
REGGC
Reggiani Caseifici
Maurizio Moroni
Reggio Emilia
Italy
DRACD
Drachenblut Delikatessen
Sven Ottlieb
Aachen
Germany
LEHMS
Lehmanns Marktstand
Renate Messner
Frankfurt a.M.
Germany
THECR
The Cracker Box
Liu Wong
Butte
USA
THEBI
The Big Cheese
Liz Nixon
Portland
USA
MAISD
Maison Dewey
Catherine Dewey
Bruxelles
Belgium

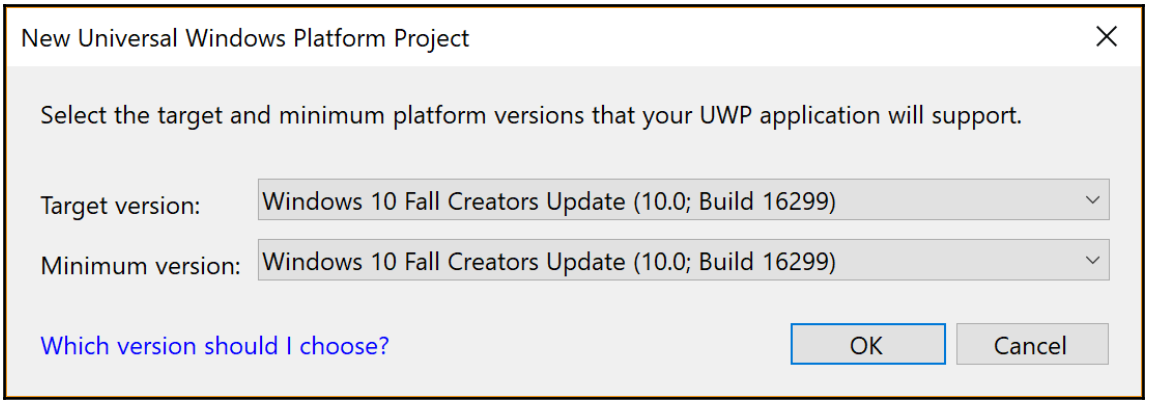

Terminal Shell Edit View Window Help
markjprice — -bash — 128×41
Marks-MBP-13:~ markjprice$ dotnet new --help
Usage: new [options]
Options:
-h, --help Displays help for this command.
-l, --list Lists templates containing the specified name. If no name is specified, lists all templates.
-n, --name The name for the output being created. If no name is specified, the name of the current directory is used.
-o, --output Location to place the generated output.
-i, --install Installs a source or a template pack.
-u, --uninstall Uninstalls a source or a template pack.
--type Filters templates based on available types. Predefined values are "project", "item" or "other".
--force Forces content to be generated even if it would change existing files.
-lang, --language Specifies the language of the template to create.
Templates Short Name Language Tags
Console Application console [C#], F#, VB Common/Console
Class library classlib [C#], F#, VB Common/Library
Unit Test Project mstest [C#], F#, VB Test/MSTest
xUnit Test Project xunit [C#], F#, VB Test/xUnit
ASP.NET Core Empty web [C#], F# Web/Empty
ASP.NET Core Web App (Model-View-Controller) mvc [C#], F# Web/MVC
ASP.NET Core Web App razor [C#] Web/MVC/Razor Pages
ASP.NET Core with Angular angular [C#] Web/MVC/SPA
ASP.NET Core with React.js react [C#] Web/MVC/SPA
ASP.NET Core with React.js and Redux reactredux [C#] Web/MVC/SPA
ASP.NET Core Web API webapi [C#], F# Web/WebAPI
global.json file globaljson Config
Nuget Config nugetconfig Config
Web Config webconfig Config
Solution File sln Solution
Razor Page page Web/ASP.NET
MVC ViewImports viewimports Web/ASP.NET
MVC ViewStart viewstart Web/ASP.NET
Examples:
dotnet new mvc --auth Individual
dotnet new xunit
dotnet new --help

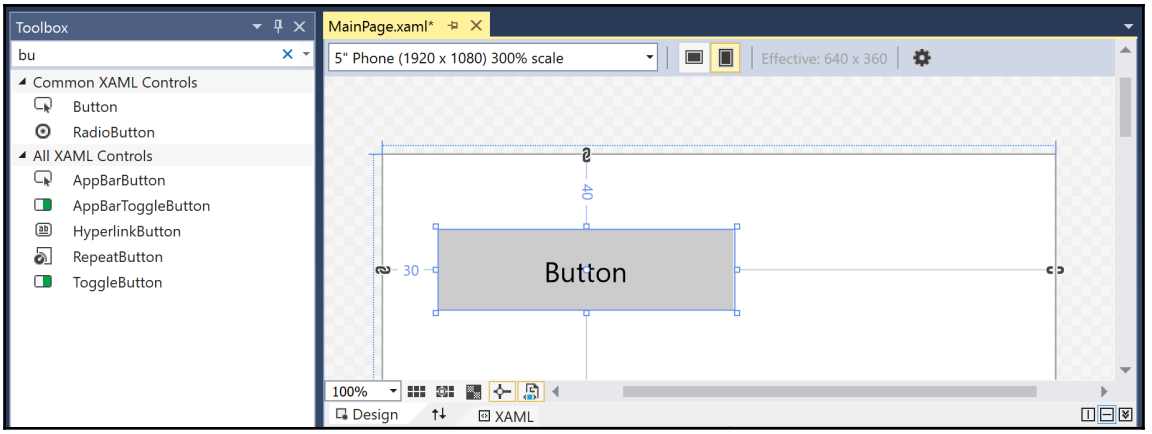

dotnet core templates
dotnet core templates
Find available templates for dotnet core
Search templates
Template packs
Microsoft.AspNetCore.SpaTemplates
Single Page Application templates for ASP.NET Core
by: Microsoft | downloads: 6642 | go to project | license | Copyright: © Microsoft Corporation
ASP.NET Core with Aurelia
ASP.NET Core with Knockout.js
ASP.NET Core with Vue.js

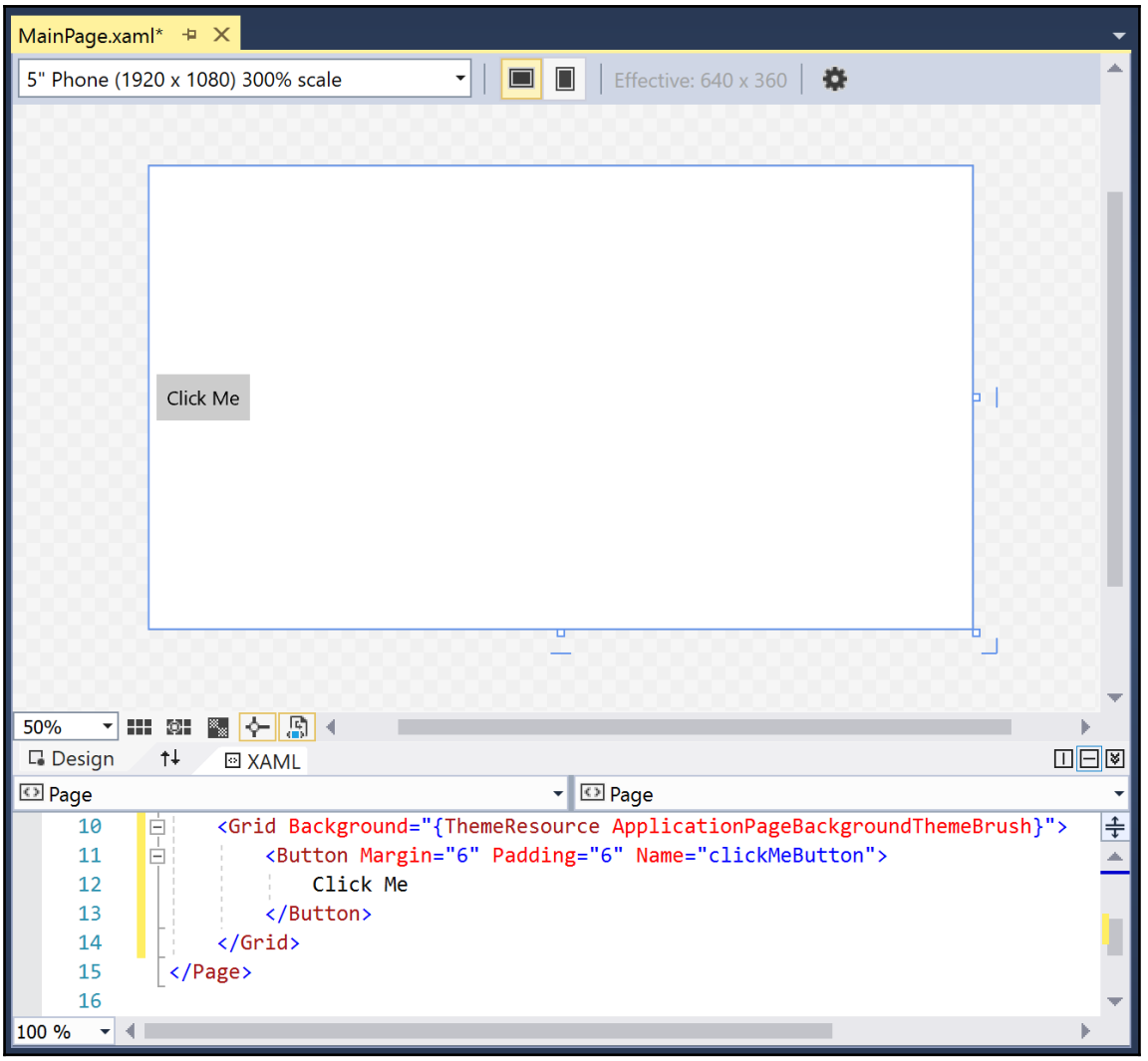

ASP.NET Core with Aurelia (aurelia)
Single Page Application templates for ASP.NET Core
by: Microsoft | downloads: 6642 | go to project | license | Copyright: © Microsoft Corporation
dotnet new --install "Microsoft.AspNetCore.SpaTemplates"
dotnet new aurelia

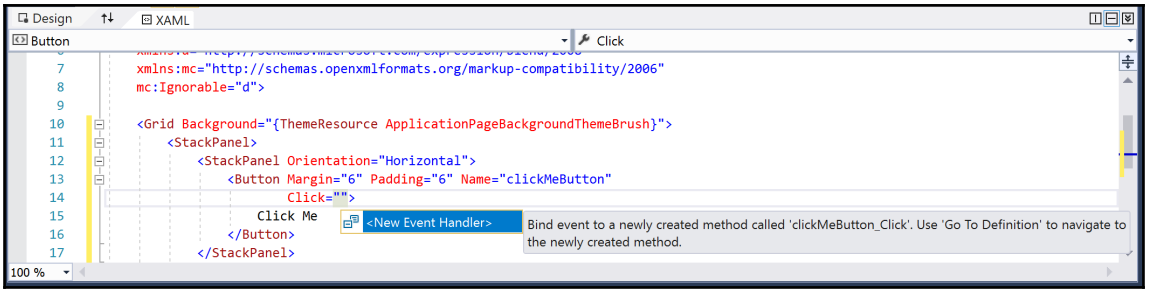
Chapter 17: Building Windows Apps Using XAML and Fluent Design

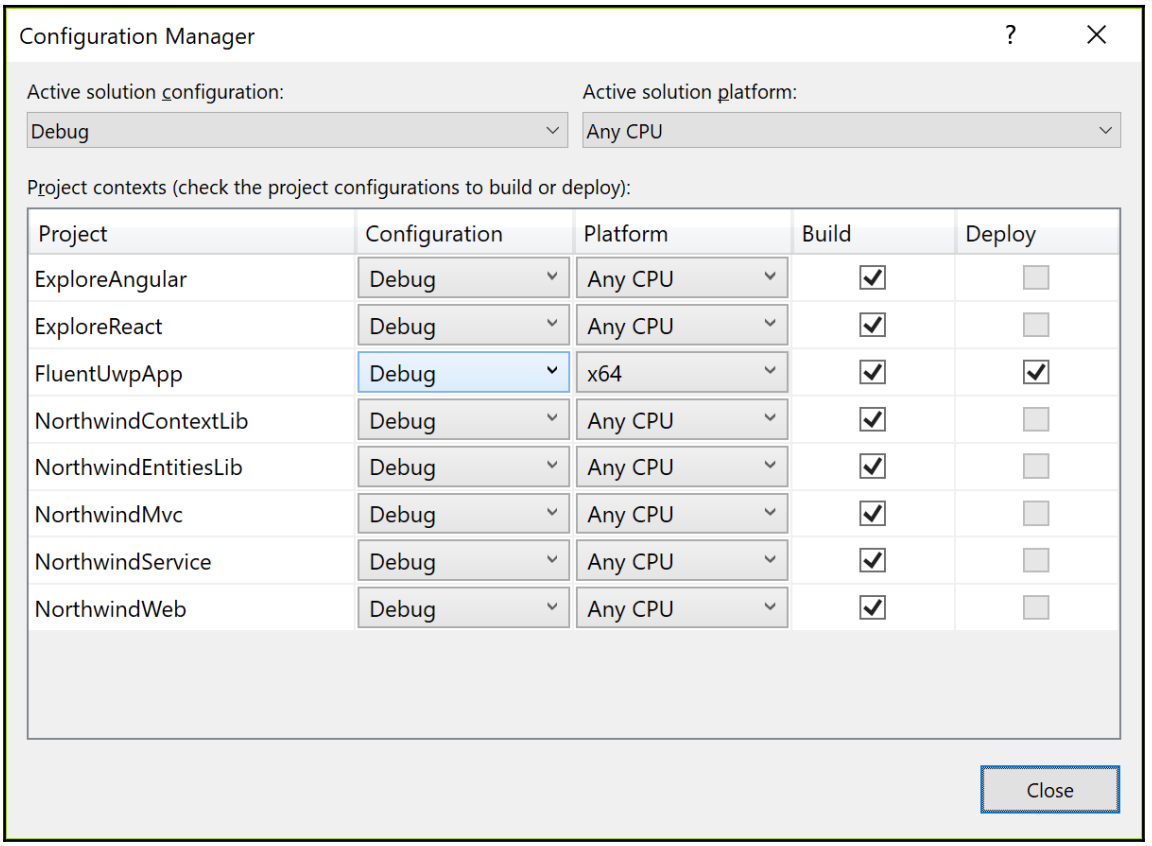


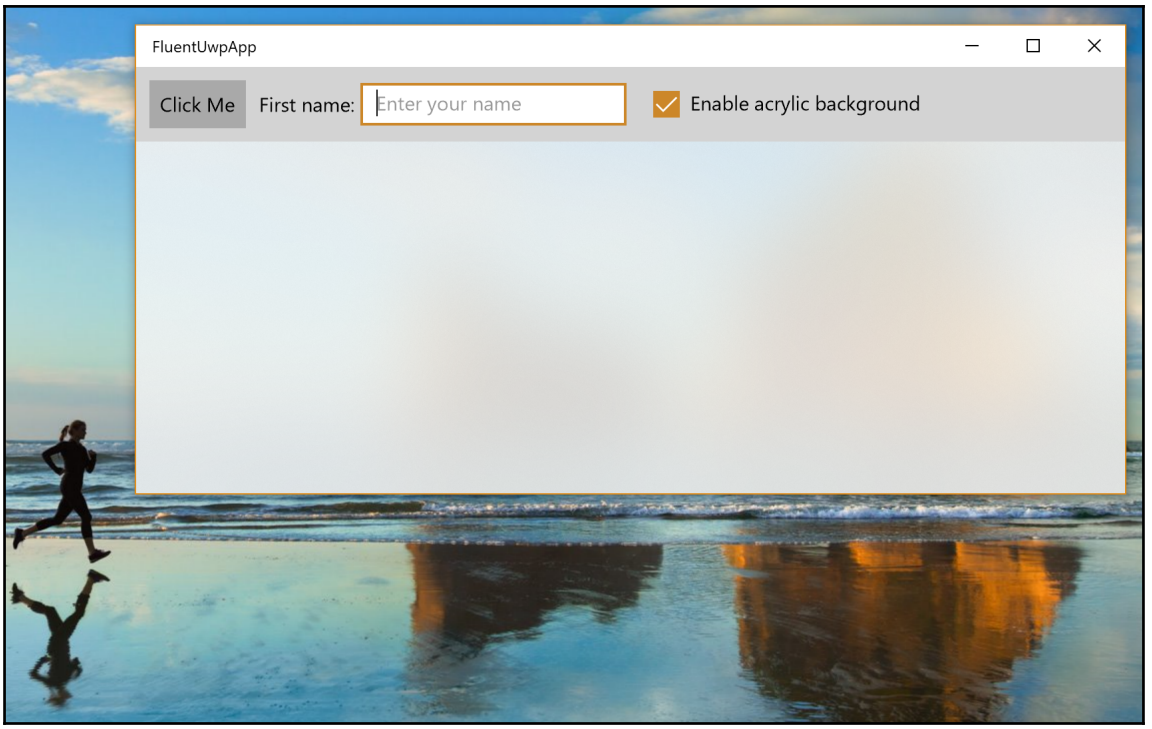


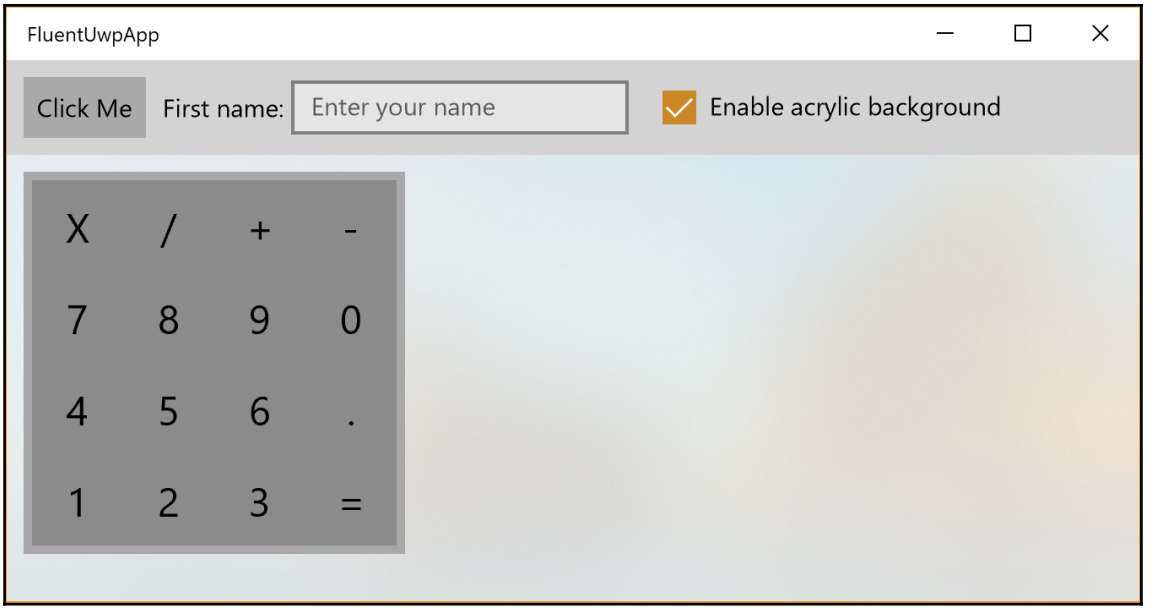

Toolbox
bu
Common XAML Controls
Button
RadioButton
All XAML Controls
AppBarButton
AppBarToggleButton
HyperlinkButton
RepeatButton
ToggleButton
MainPage.xaml*
5" Phone (1920 x 1080) 300% scale
Effective: 640 x 360
40
30
Button
100%
Design
XAML

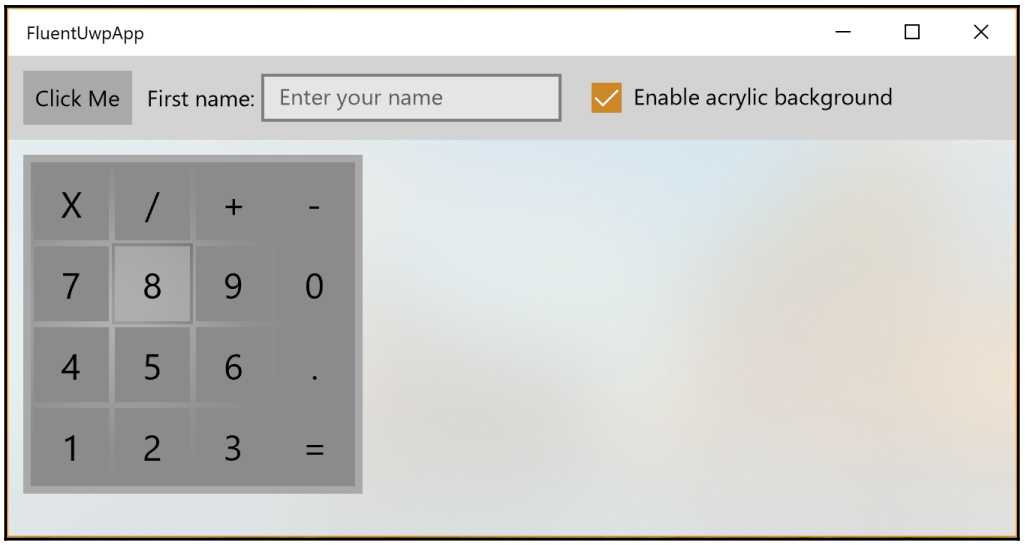

MainPage.xaml*
5" Phone (1920 x 1080) 300% scale
Effective: 640 x 360
Click Me
50%
Design
XAML
Page
Page
10 <Grid Background="{ThemeResource ApplicationPageBackgroundThemeBrush}">
11 <Button Margin="6" Padding="6" Name="clickMeButton">
12 Click Me
13 </Button>
14 </Grid>
15 </Page>
16
100 %

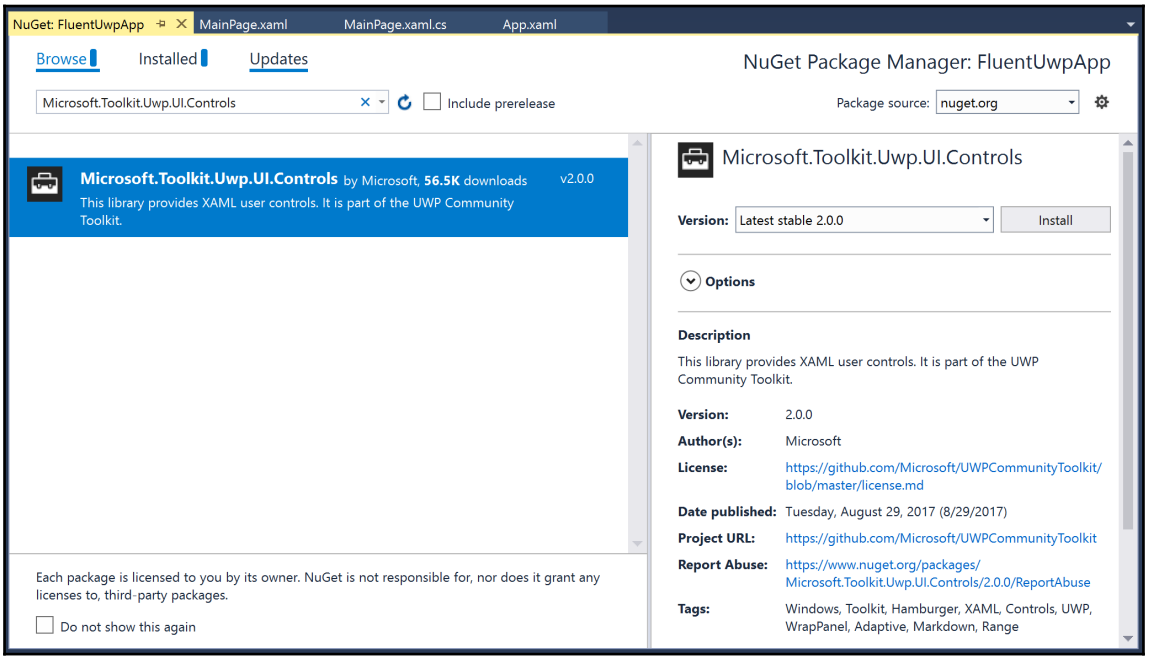

Design
XAML
Button
Click
xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
mc:Ignorable="d">
<Grid Background="{ThemeResource ApplicationPageBackgroundThemeBrush}">
<StackPanel>
<StackPanel Orientation="Horizontal">
<Button Margin="6" Padding="6" Name="clickMeButton"
Click="">
Click Me
</Button>
</StackPanel>
<New Event Handler>
Bind event to a newly created method called 'clickMeButton_Click'. Use 'Go To Definition' to navigate to the newly created method.
100 %

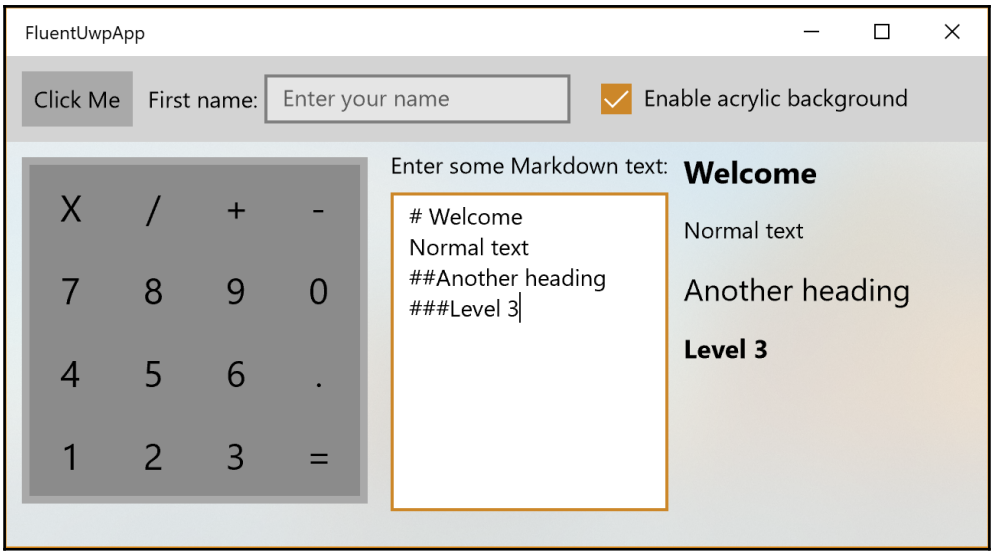

Configuration Manager
Active solution configuration:
Debug
Active solution platform:
Any CPU
Project contexts (check the project configurations to build or deploy):
Project
Configuration
Platform
Build
Deploy
ExploreAngular
Debug
Any CPU
ExploreReact
Debug
Any CPU
FluentUwpApp
Debug
x64
NorthwindContextLib
Debug
Any CPU
NorthwindEntitiesLib
Debug
Any CPU
NorthwindMvc
Debug
Any CPU
NorthwindService
Debug
Any CPU
NorthwindWeb
Debug
Any CPU
Close

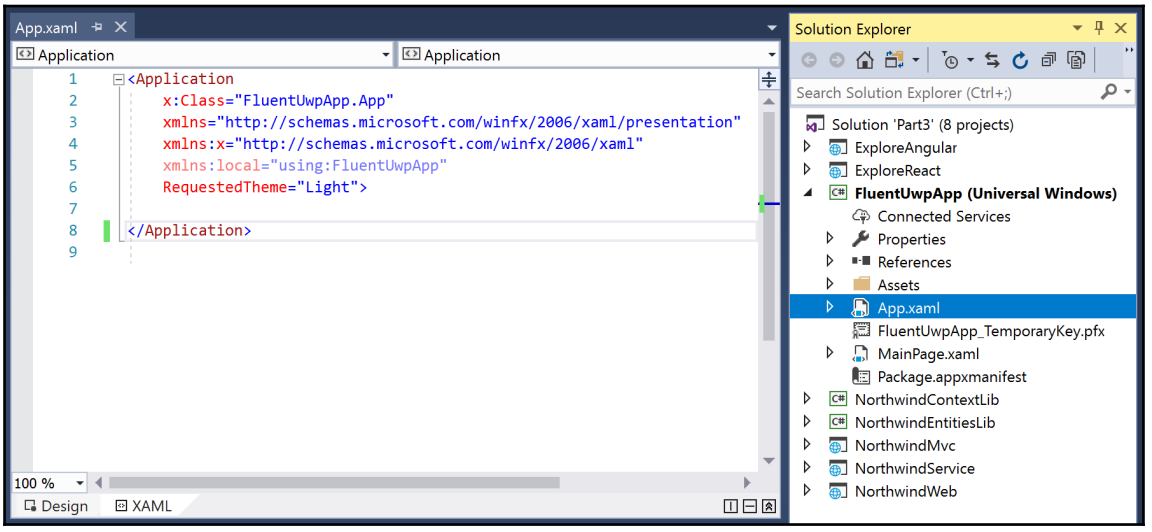

FluentUwpApp
Click Me
First name:
Enter your name
Enable acrylic background

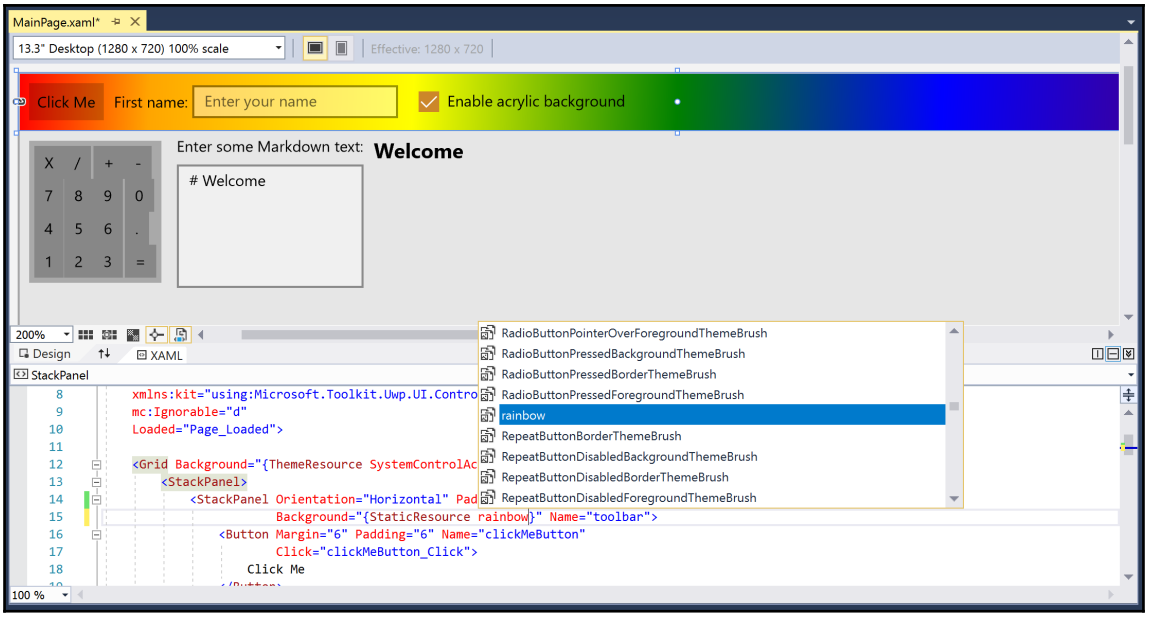

FluentUwpApp
Click Me
First name:
Enter your name
Enable acrylic background
X
/
+
-
7
8
9
0
4
5
6
.
1
2
3
=

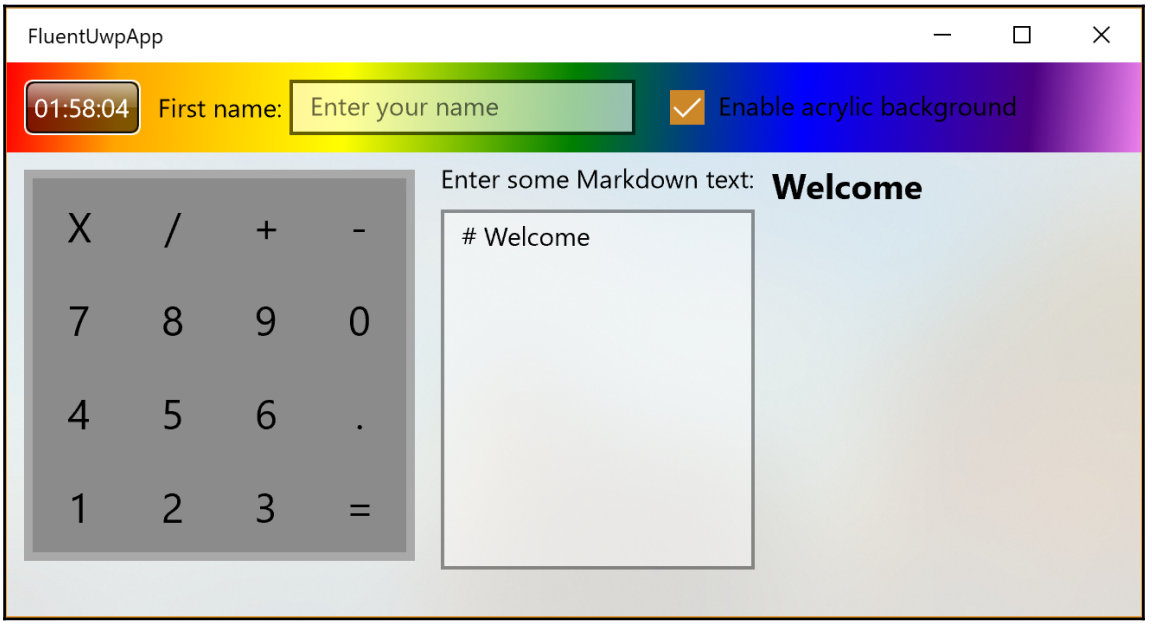

FluentUwpApp
Click Me
First name:
Enter your name
Enable acrylic background
X
/
+
-
7
8
9
0
4
5
6
.
1
2
3
=

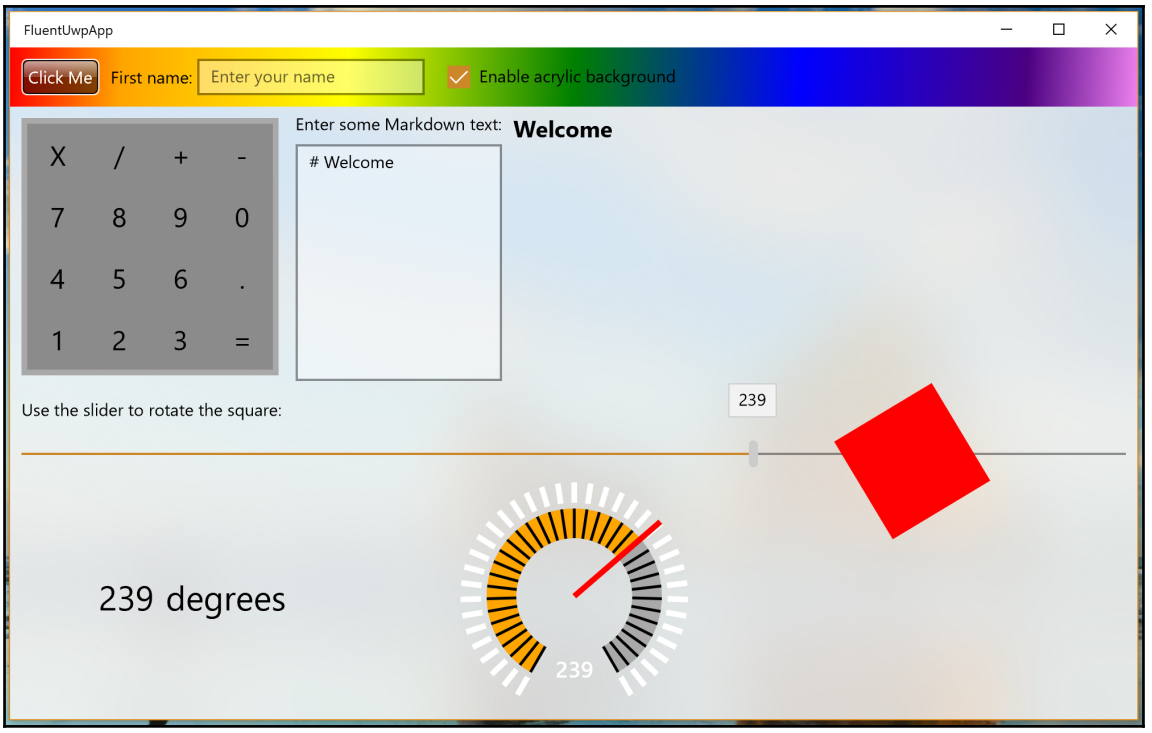

NuGet: FluentUwpApp
MainPage.xaml
MainPage.xaml.cs
App.xaml
Browse
Installed
Updates
NuGet Package Manager: FluentUwpApp
Microsoft.Toolkit.Uwp.UI.Controls
Include prerelease
Package source:
nuget.org
Microsoft.Toolkit.Uwp.UI.Controls by Microsoft, 56.5K downloads
v2.0.0
This library provides XAML user controls. It is part of the UWP Community Toolkit.
Microsoft.Toolkit.Uwp.UI.Controls
Version:
Latest stable 2.0.0
Install
Options
Description
This library provides XAML user controls. It is part of the UWP Community Toolkit.
Version: 2.0.0
Author(s): Microsoft
License: https://github.com/Microsoft/UWPCommunityToolkit/blob/master/license.md
Date published: Tuesday, August 29, 2017 (8/29/2017)
Project URL: https://github.com/Microsoft/UWPCommunityToolkit
Report Abuse: https://www.nuget.org/packages/Microsoft.Toolkit.Uwp.UI.Controls/2.0.0/ReportAbuse
Tags: Windows, Toolkit, Hamburger, XAML, Controls, UWP, WrapPanel, Adaptive, Markdown, Range
Each package is licensed to you by its owner. NuGet is not responsible for, nor does it grant any licenses to, third-party packages.
Do not show this again

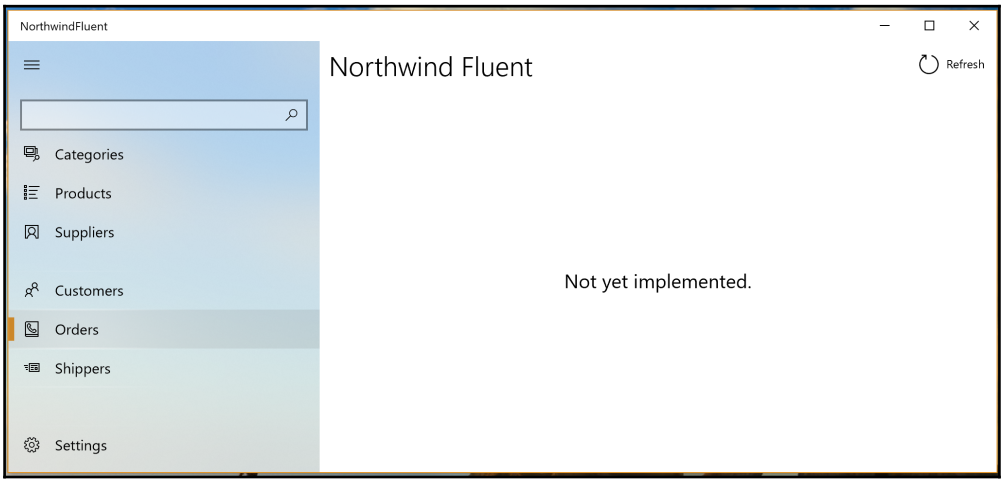

FluentUwpApp
Click Me
First name:
Enter your name
Enable acrylic background
X / + -
7 8 9 0
4 5 6 .
1 2 3 =
Enter some Markdown text:
Welcome
Normal text
##Another heading
###Level 3
Welcome
Normal text
Another heading
Level 3

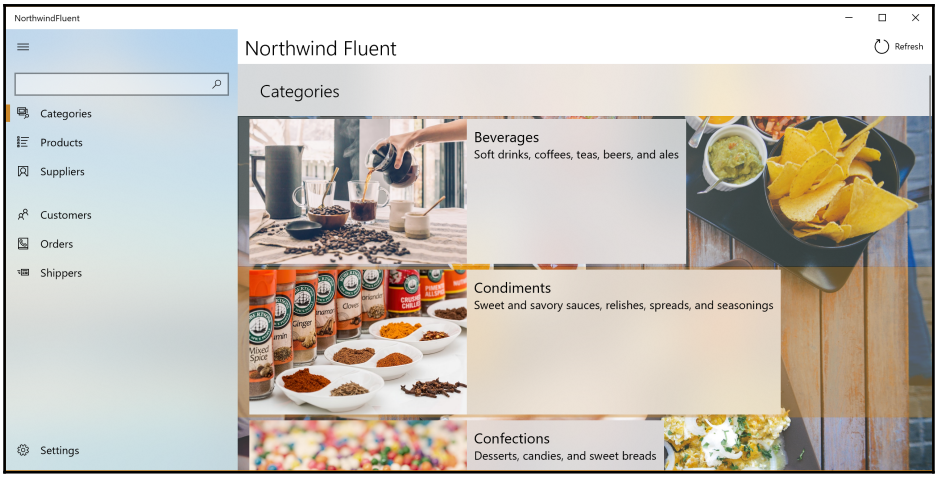

App.xaml
Application
Application
<Application
x:Class="FluentUwpApp.App"
xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
xmlns:local="using:FluentUwpApp"
RequestedTheme="Light">
</Application>
100 %
Design
XAML
Solution Explorer
Search Solution Explorer (Ctrl+;)
Solution 'Part3' (8 projects)
ExploreAngular
ExploreReact
FluentUwpApp (Universal Windows)
Connected Services
Properties
References
Assets
App.xaml
FluentUwpApp_TemporaryKey.pfx
MainPage.xaml
Package.appxmanifest
NorthwindContextLib
NorthwindEntitiesLib
NorthwindMvc
NorthwindService
NorthwindWeb

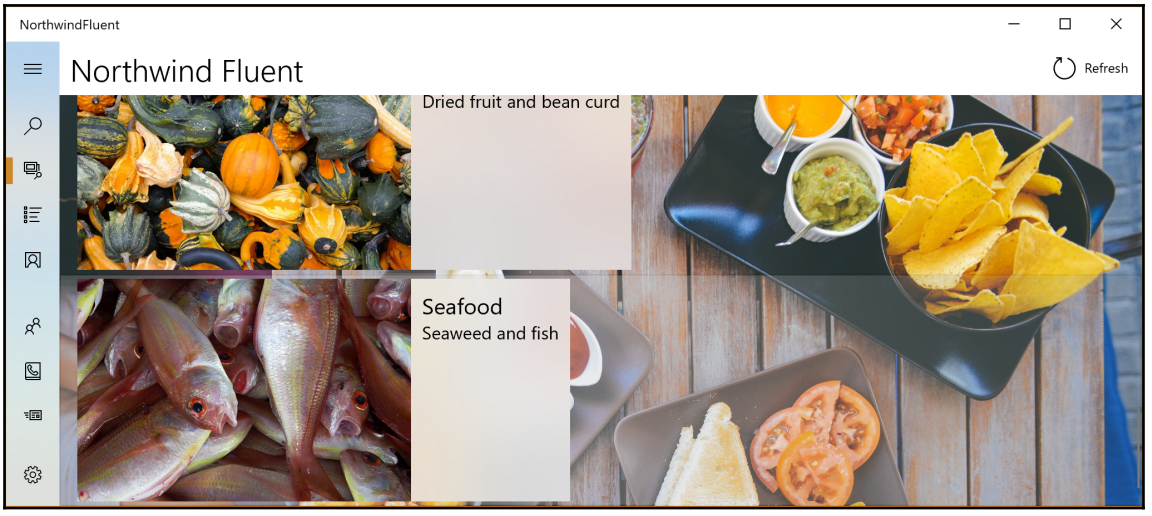

MainPage.xaml*
13.3" Desktop (1280 x 720) 100% scale
Effective: 1280 x 720
Click Me
First name:
Enter your name
Enable acrylic background
Enter some Markdown text:
Welcome
Welcome
X / + -
7 8 9 0
4 5 6 .
1 2 3 =
200%
Design
XAML
StackPanel
RadioButtonPointerOverForegroundThemeBrush
RadioButtonPressedBackgroundThemeBrush
RadioButtonPressedBorderThemeBrush
RadioButtonPressedForegroundThemeBrush
rainbow
RepeatButtonBorderThemeBrush
RepeatButtonDisabledBackgroundThemeBrush
RepeatButtonDisabledBorderThemeBrush
RepeatButtonDisabledForegroundThemeBrush
xmlns:kit="using:Microsoft.Toolkit.Uwp.UI.Contro
mc:Ignorable="d"
Loaded="Page_Loaded">
<Grid Background="{ThemeResource SystemControlAc
<StackPanel>
<StackPanel Orientation="Horizontal" Pad
Background="{StaticResource rainbow}" Name="toolbar">
<Button Margin="6" Padding="6" Name="clickMeButton"
Click="clickMeButton_Click">
Click Me
100 %

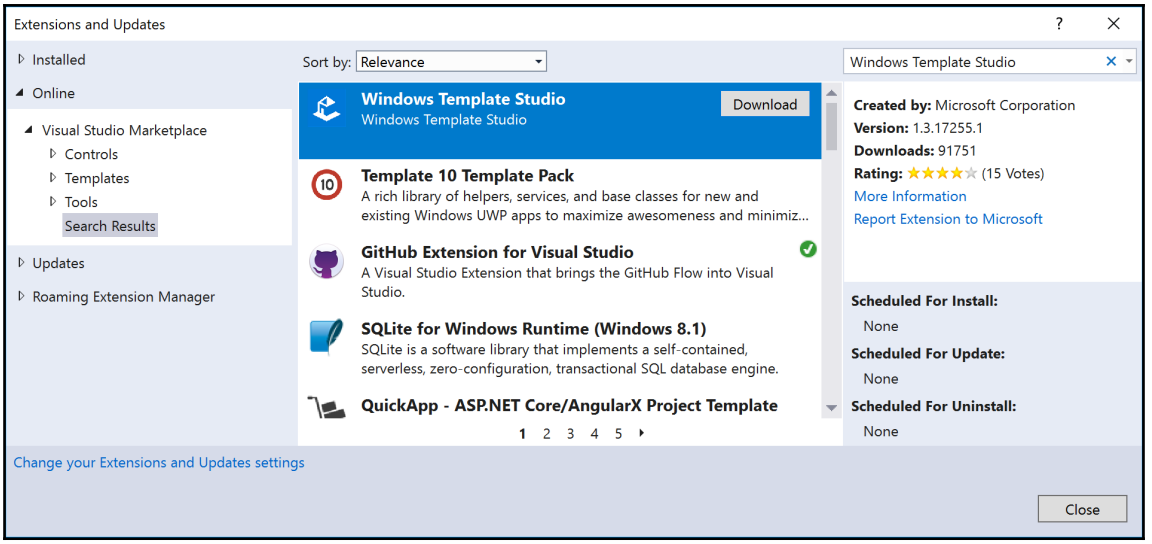

FluentUwpApp
01:58:04
First name:
Enter your name
Enable acrylic background
X / + -
7 8 9 0
4 5 6 .
1 2 3 =
Enter some Markdown text:
Welcome
Welcome

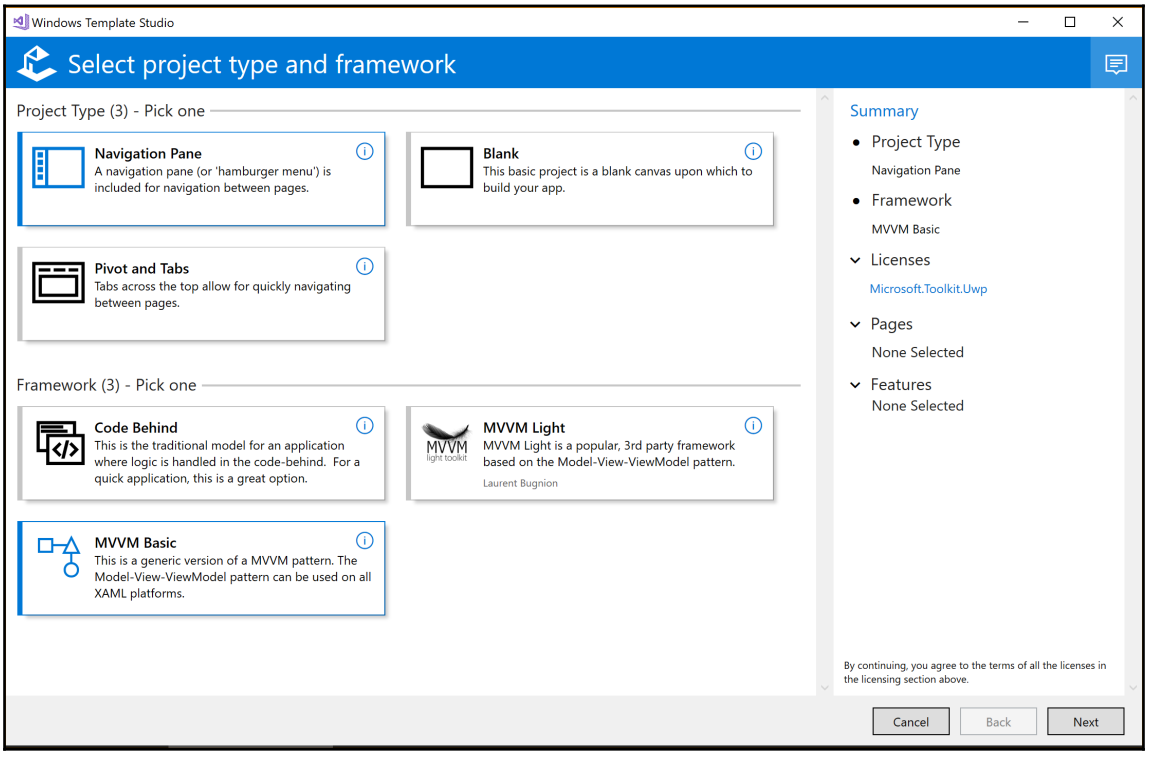

FluentUwpApp
Click Me
First name:
Enter your name
Enable acrylic background
X / + -
7 8 9 0
4 5 6 .
1 2 3 =
Enter some Markdown text:
Welcome
Welcome
Use the slider to rotate the square:
239
239 degrees
239

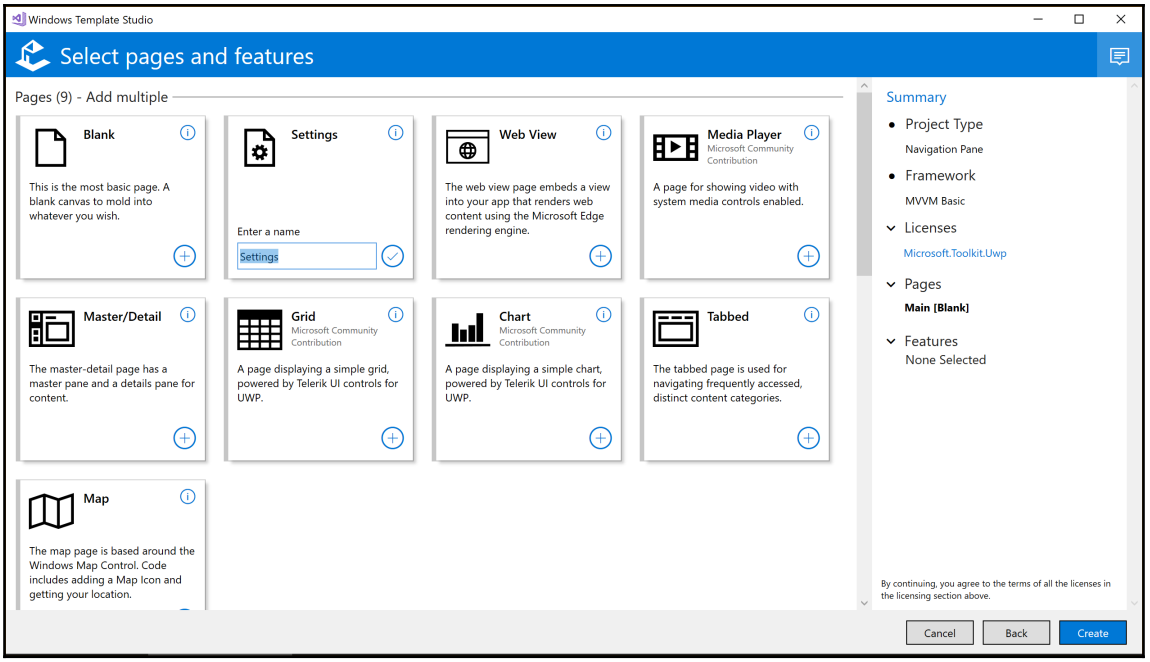

NorthwindFluent
Northwind Fluent
Refresh
Categories
Products
Suppliers
Customers
Orders
Shippers
Settings
Not yet implemented.

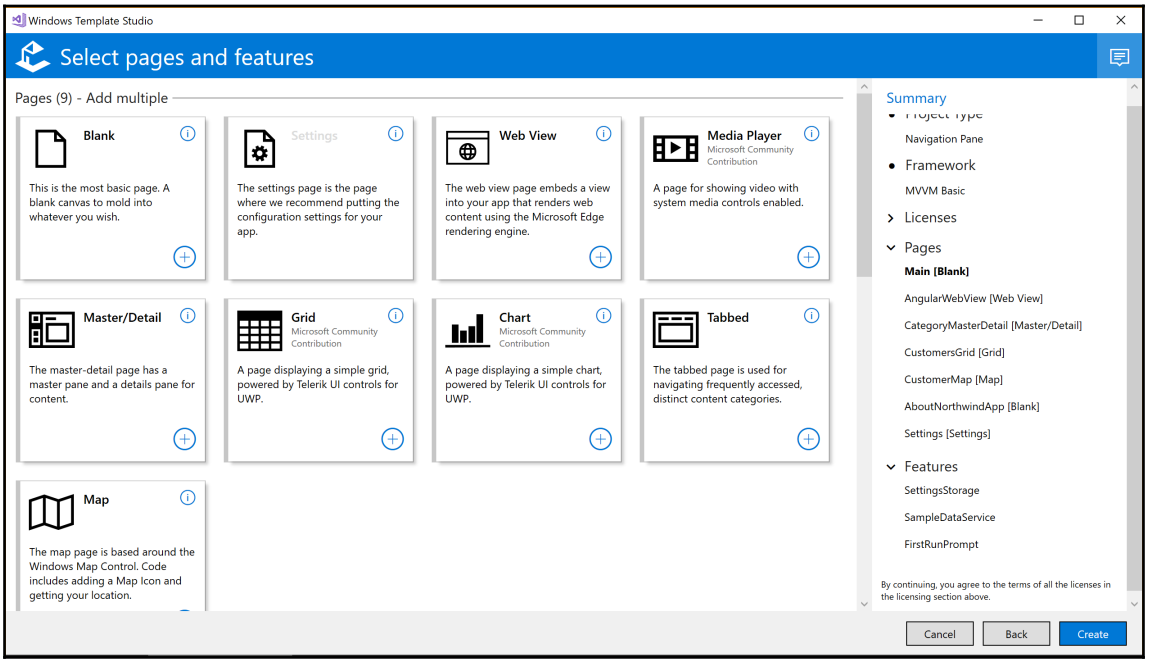

NorthwindFluent
Northwind Fluent
Refresh
Categories
Products
Suppliers
Customers
Orders
Shippers
Settings
Categories
Beverages
Soft drinks, coffees, teas, beers, and ales
Condiments
Sweet and savory sauces, relishes, spreads, and seasonings
Confections
Desserts, candies, and sweet breads

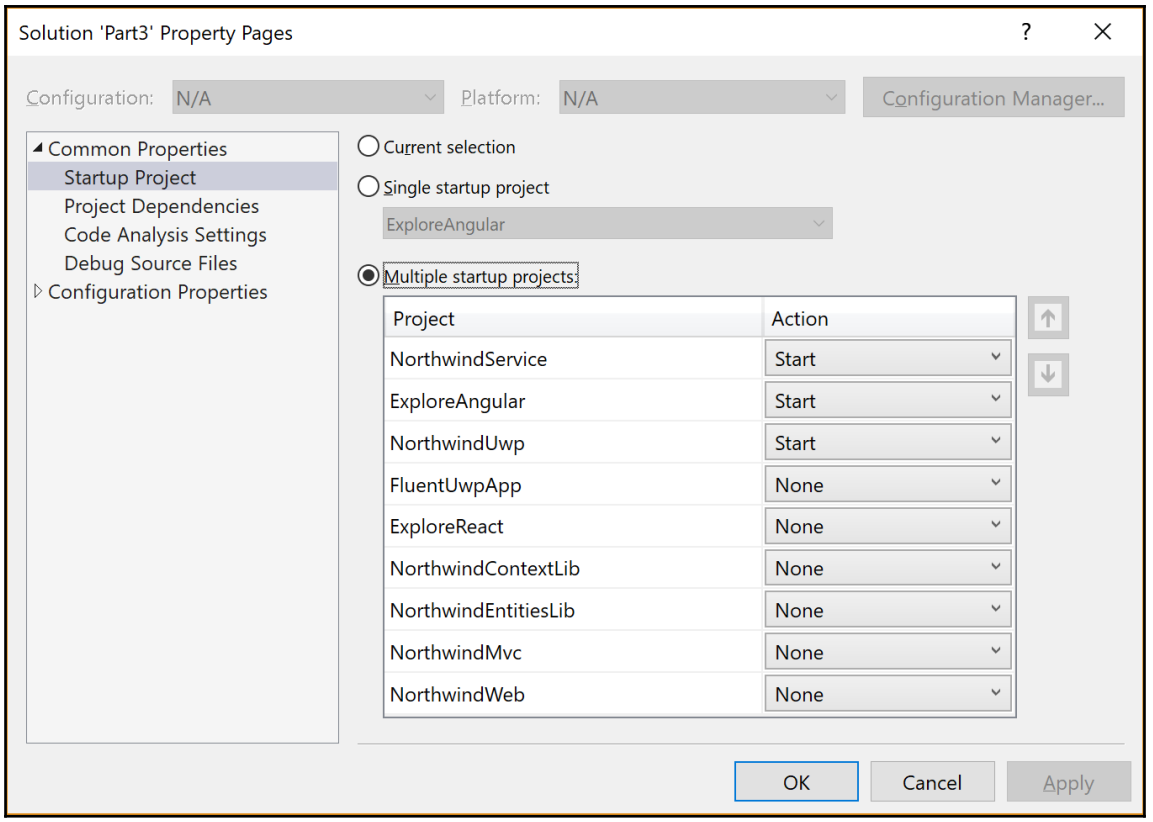

NorthwindFluent
Northwind Fluent
Refresh
Dried fruit and bean curd
Seafood
Seaweed and fish

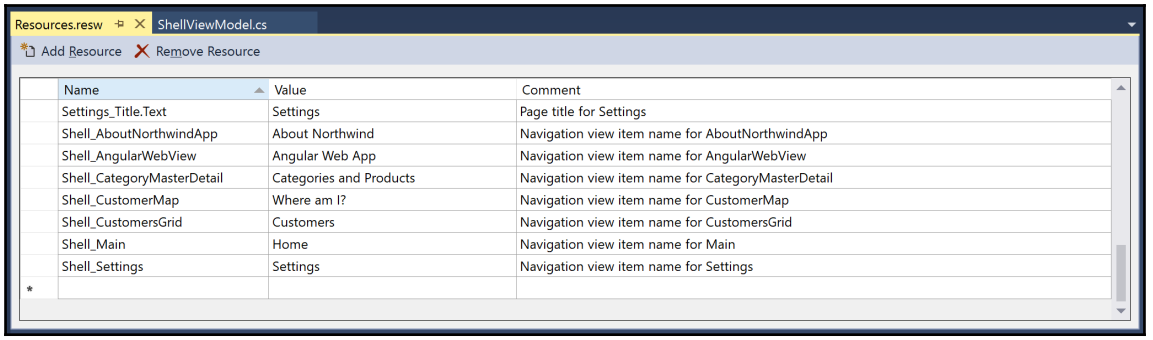

Extensions and Updates
Installed
Online
Visual Studio Marketplace
Controls
Templates
Tools
Search Results
Updates
Roaming Extension Manager
Sort by: Relevance
Windows Template Studio
Windows Template Studio
Windows Template Studio
Download
Template 10 Template Pack
A rich library of helpers, services, and base classes for new and existing Windows UWP apps to maximize awesomeness and minimiz...
GitHub Extension for Visual Studio
A Visual Studio Extension that brings the GitHub Flow into Visual Studio.
SQLite for Windows Runtime (Windows 8.1)
SQLite is a software library that implements a self-contained, serverless, zero-configuration, transactional SQL database engine.
QuickApp - ASP.NET Core/AngularX Project Template
1 2 3 4 5
Created by: Microsoft Corporation
Version: 1.3.17255.1
Downloads: 91751
Rating: (15 Votes)
More Information
Report Extension to Microsoft
Scheduled For Install:
None
Scheduled For Update:
None
Scheduled For Uninstall:
None
Change your Extensions and Updates settings
Close

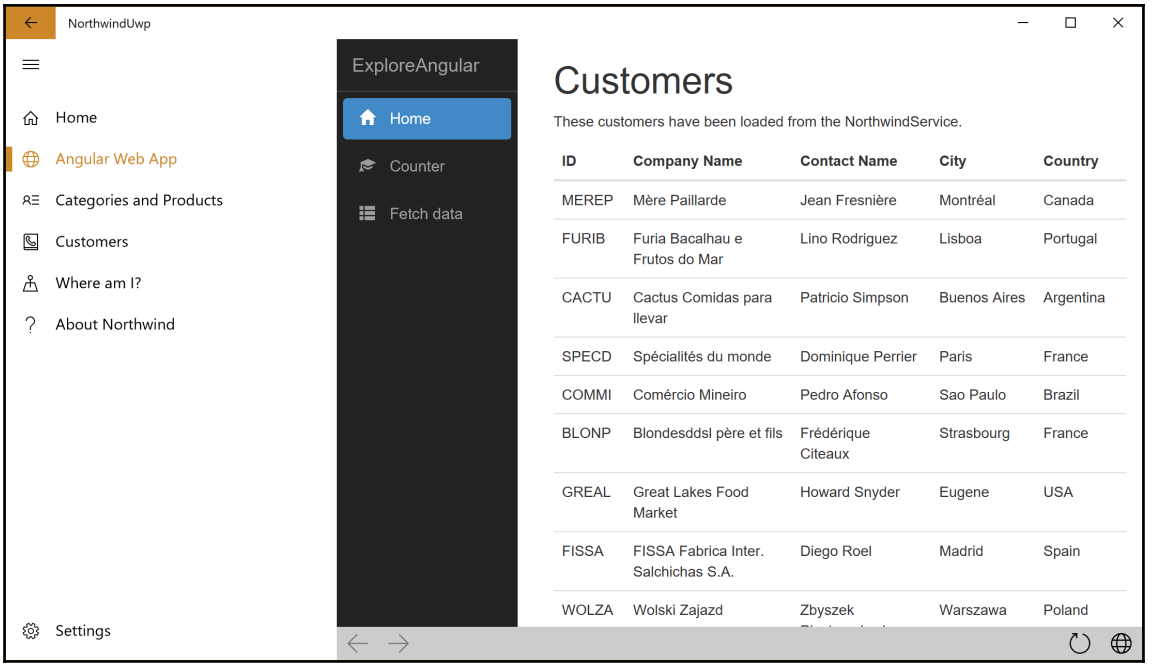

Windows Template Studio
Select project type and framework
Project Type (3) - Pick one
Navigation Pane
A navigation pane (or 'hamburger menu') is included for navigation between pages.
Blank
This basic project is a blank canvas upon which to build your app.
Pivot and Tabs
Tabs across the top allow for quickly navigating between pages.
Framework (3) - Pick one
Code Behind
This is the traditional model for an application where logic is handled in the code-behind. For a quick application, this is a great option.
MVVM Light
MVVM Light is a popular, 3rd party framework based on the Model-View-ViewModel pattern.
Laurent Bugnion
MVVM Basic
This is a generic version of a MVVM pattern. The Model-View-ViewModel pattern can be used on all XAML platforms.
Summary
Project Type
Navigation Pane
Framework
MVVM Basic
Licenses
Microsoft.Toolkit.Uwp
Pages
None Selected
Features
None Selected
By continuing, you agree to the terms of all the licenses in the licensing section above.
Cancel
Back
Next

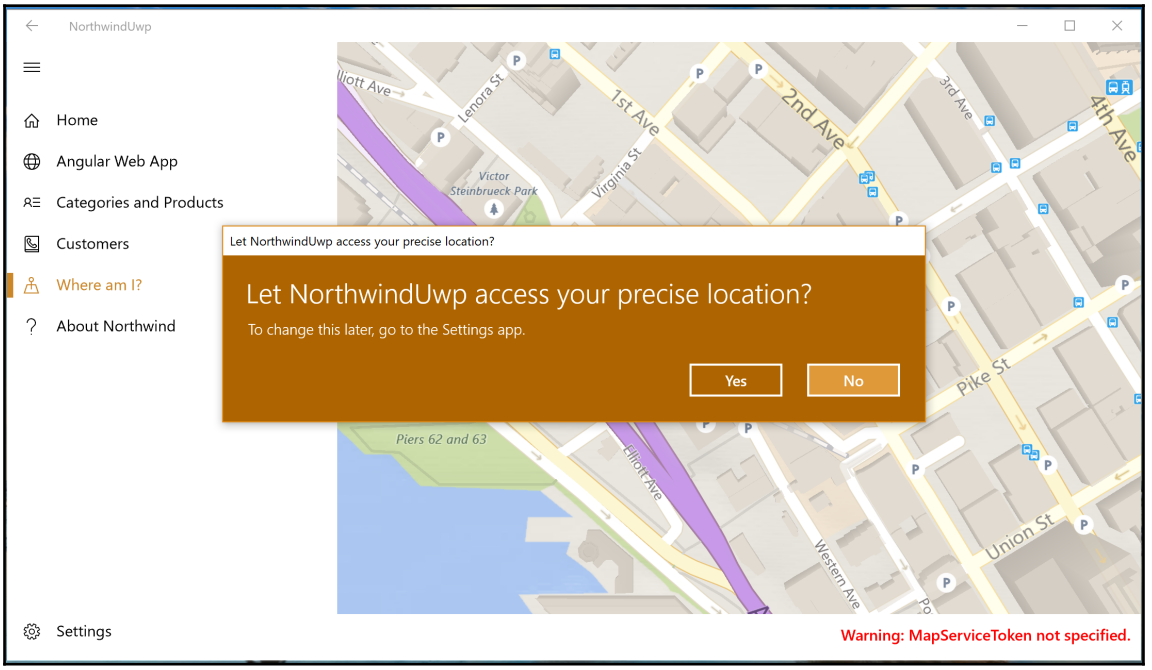

Windows Template Studio
Select pages and features
Pages (9) - Add multiple
Blank
This is the most basic page. A blank canvas to mold into whatever you wish.
Settings
Enter a name
Settings
Web View
The web view page embeds a view into your app that renders web content using the Microsoft Edge rendering engine.
Media Player
Microsoft Community Contribution
A page for showing video with system media controls enabled.
Master/Detail
The master-detail page has a master pane and a details pane for content.
Grid
Microsoft Community Contribution
A page displaying a simple grid, powered by Telerik UI controls for UWP.
Chart
Microsoft Community Contribution
A page displaying a simple chart, powered by Telerik UI controls for UWP.
Tabbed
The tabbed page is used for navigating frequently accessed, distinct content categories.
Map
The map page is based around the Windows Map Control. Code includes adding a Map Icon and getting your location.
Summary
Project Type
Navigation Pane
Framework
MVVM Basic
Licenses
Microsoft.Toolkit.Uwp
Pages
Main [Blank]
Features
None Selected
By continuing, you agree to the terms of all the licenses in the licensing section above.
Cancel
Back
Create


Windows Template Studio
Select pages and features
Pages (9) - Add multiple
Blank
This is the most basic page. A blank canvas to mold into whatever you wish.
Settings
The settings page is the page where we recommend putting the configuration settings for your app.
Web View
The web view page embeds a view into your app that renders web content using the Microsoft Edge rendering engine.
Media Player
Microsoft Community Contribution
A page for showing video with system media controls enabled.
Master/Detail
The master-detail page has a master pane and a details pane for content.
Grid
Microsoft Community Contribution
A page displaying a simple grid, powered by Telerik UI controls for UWP.
Chart
Microsoft Community Contribution
A page displaying a simple chart, powered by Telerik UI controls for UWP.
Tabbed
The tabbed page is used for navigating frequently accessed, distinct content categories.
Map
The map page is based around the Windows Map Control. Code includes adding a Map Icon and getting your location.
Summary
Navigation Pane
Framework
MVVM Basic
Licenses
Pages
Main [Blank]
AngularWebView [Web View]
CategoryMasterDetail [Master/Detail]
CustomersGrid [Grid]
CustomerMap [Map]
AboutNorthwindApp [Blank]
Settings [Settings]
Features
SettingsStorage
SampleDataService
FirstRunPrompt
By continuing, you agree to the terms of all the licenses in the licensing section above.
Cancel
Back
Create

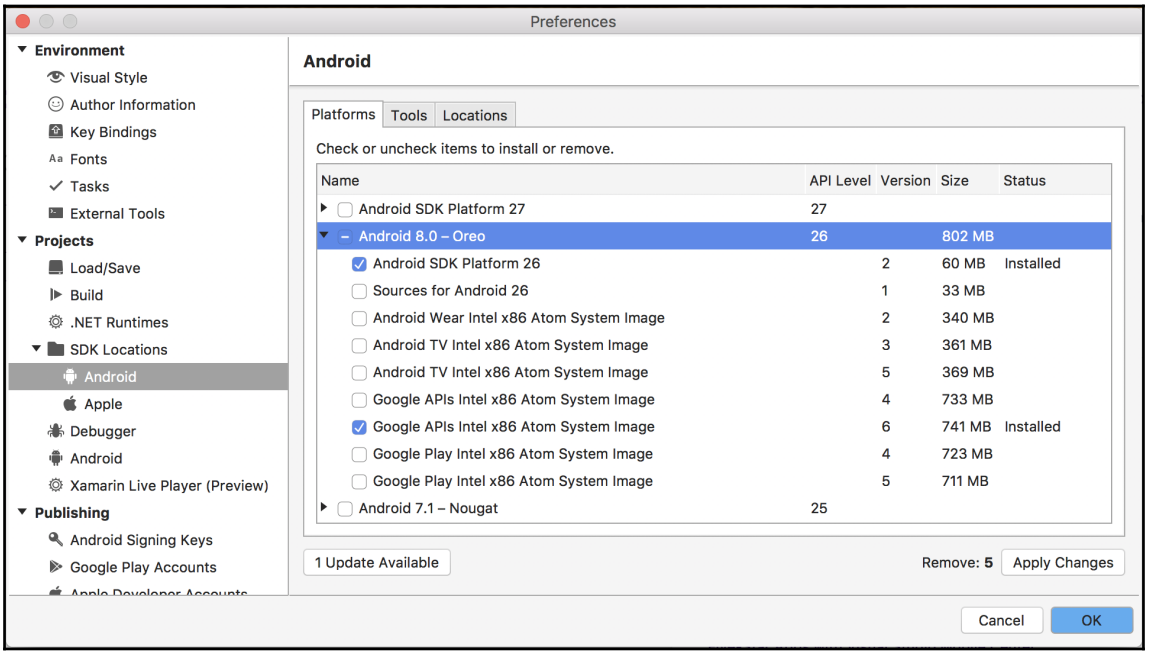

Solution 'Part3' Property Pages
Configuration: N/A
Platform: N/A
Configuration Manager...
Common Properties
Startup Project
Project Dependencies
Code Analysis Settings
Debug Source Files
Configuration Properties
Current selection
Single startup project
ExploreAngular
Multiple startup projects:
Project
Action
NorthwindService
Start
ExploreAngular
Start
NorthwindUwp
Start
FluentUwpApp
None
ExploreReact
None
NorthwindContextLib
None
NorthwindEntitiesLib
None
NorthwindMvc
None
NorthwindWeb
None
OK
Cancel
Apply

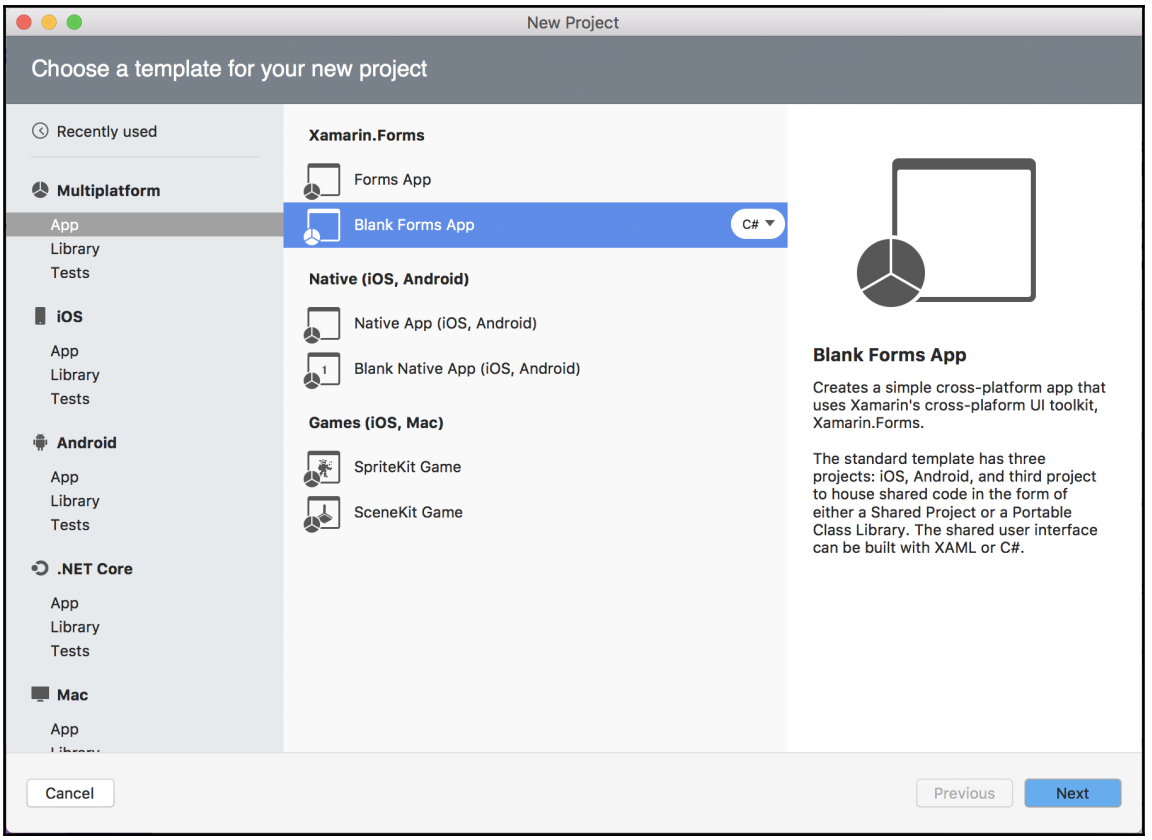

Resources.resw
ShellViewModel.cs
Add Resource
Remove Resource
Name
Value
Comment
Settings_Title.Text
Settings
Page title for Settings
Shell_AboutNorthwindApp
About Northwind
Navigation view item name for AboutNorthwindApp
Shell_AngularWebView
Angular Web App
Navigation view item name for AngularWebView
Shell_CategoryMasterDetail
Categories and Products
Navigation view item name for CategoryMasterDetail
Shell_CustomerMap
Where am I?
Navigation view item name for CustomerMap
Shell_CustomersGrid
Customers
Navigation view item name for CustomersGrid
Shell_Main
Home
Navigation view item name for Main
Shell_Settings
Settings
Navigation view item name for Settings

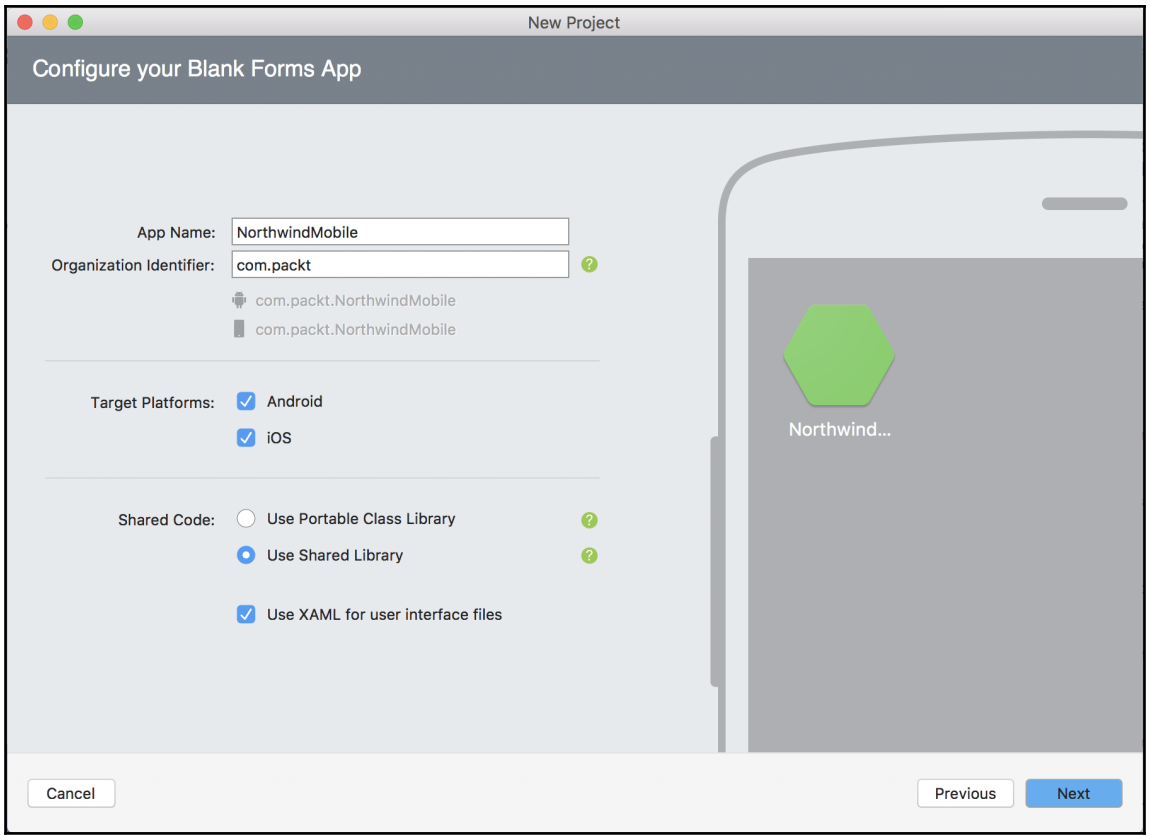

NorthwindUwp
Home
Angular Web App
Categories and Products
Customers
Where am I?
About Northwind
Settings
ExploreAngular
Home
Counter
Fetch data
Customers
These customers have been loaded from the NorthwindService.
ID
Company Name
Contact Name
City
Country
MEREP
Mère Paillarde
Jean Fresnière
Montréal
Canada
FURIB
Furia Bacalhau e Frutos do Mar
Lino Rodriguez
Lisboa
Portugal
CACTU
Cactus Comidas para llevar
Patricio Simpson
Buenos Aires
Argentina
SPECD
Spécialités du monde
Dominique Perrier
Paris
France
COMMI
Comércio Mineiro
Pedro Afonso
Sao Paulo
Brazil
BLONP
Blondesddsl père et fils
Frédérique Citeaux
Strasbourg
France
GREAL
Great Lakes Food Market
Howard Snyder
Eugene
USA
FISSA
FISSA Fabrica Inter. Salchichas S.A.
Diego Roel
Madrid
Spain
WOLZA
Wolski Zajazd
Zbyszek
Warszawa
Poland

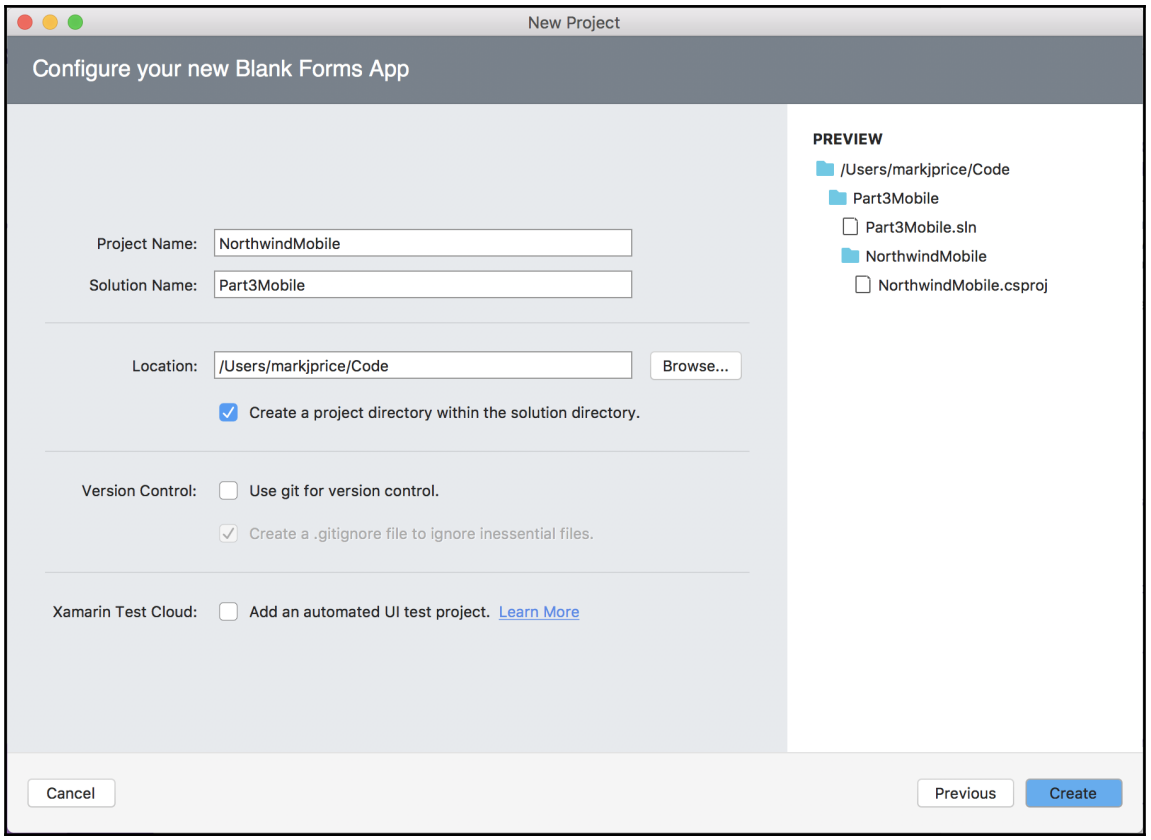

NorthwindUwp
Home
Angular Web App
Categories and Products
Customers
Where am I?
About Northwind
Settings
Let NorthwindUwp access your precise location?
Let NorthwindUwp access your precise location?
To change this later, go to the Settings app.
Yes
No
Lenora St
1st Ave
2nd Ave
3rd Ave
4th Ave
Virginia St
Victor Steinbrueck Park
Pike St
Union St
Piers 62 and 63
Elliott Ave
Western Ave
Warning: MapServiceToken not specified.

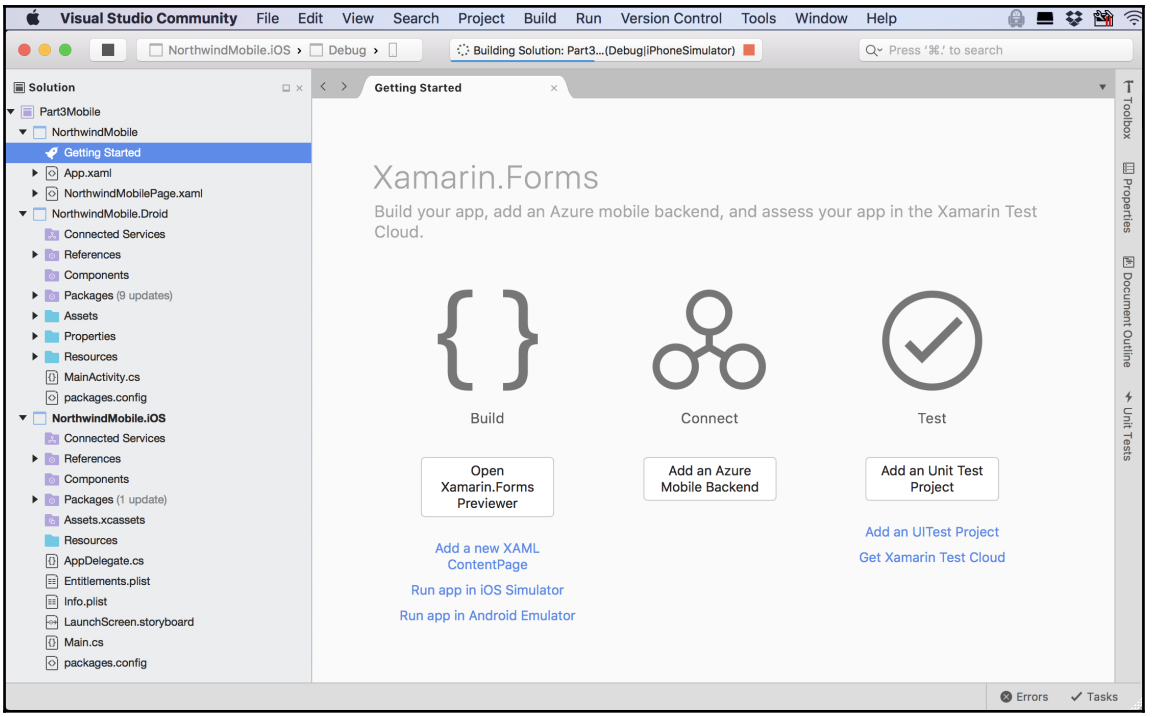
Chapter 18: Building Mobile Apps Using XAML and Xamarin.Forms

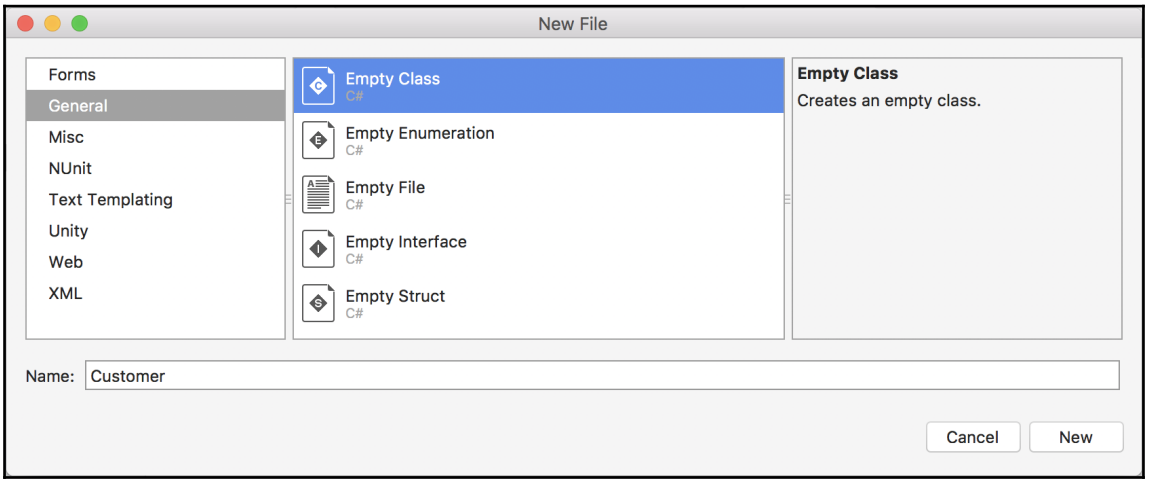


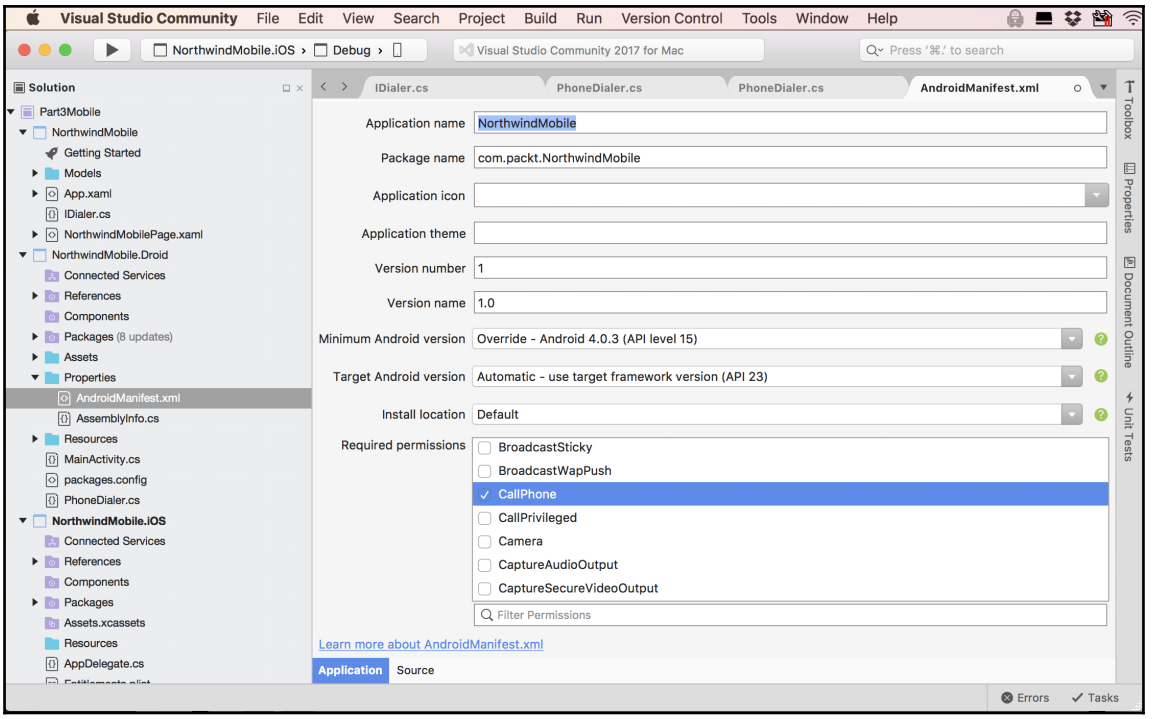

New Project
Choose a template for your new project
Recently used
Multiplatform
App
Library
Tests
iOS
App
Library
Tests
Android
App
Library
Tests
.NET Core
App
Library
Tests
Mac
App
Xamarin.Forms
Forms App
Blank Forms App
C#
Native (iOS, Android)
Native App (iOS, Android)
Blank Native App (iOS, Android)
Games (iOS, Mac)
SpriteKit Game
SceneKit Game
Blank Forms App
Creates a simple cross-platform app that uses Xamarin's cross-plaform UI toolkit, Xamarin.Forms.
The standard template has three projects: iOS, Android, and third project to house shared code in the form of either a Shared Project or a Portable Class Library. The shared user interface can be built with XAML or C#.
Cancel
Previous
Next

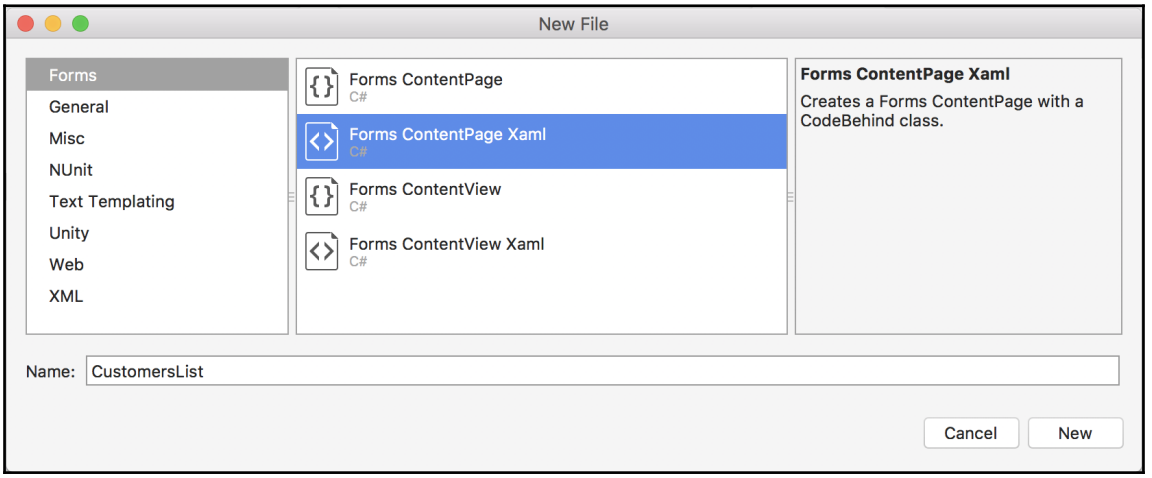

New Project
Configure your Blank Forms App
App Name:
NorthwindMobile
Organization Identifier:
com.packt
com.packt.NorthwindMobile
com.packt.NorthwindMobile
Target Platforms:
Android
iOS
Shared Code:
Use Portable Class Library
Use Shared Library
Use XAML for user interface files
Northwind...
Cancel
Previous
Next

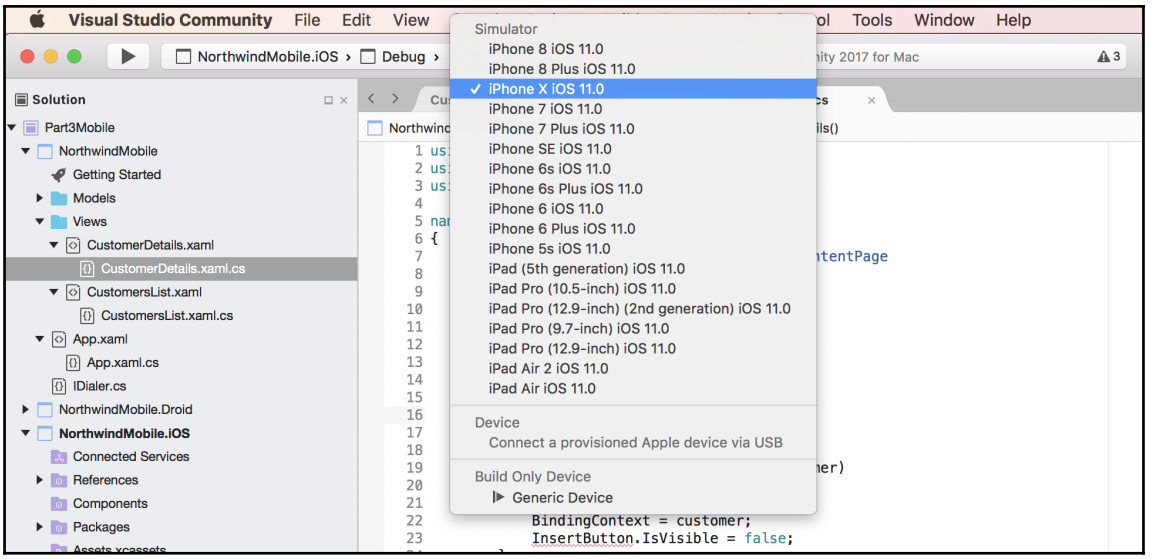

New Project
Configure your new Blank Forms App
Project Name:
NorthwindMobile
Solution Name:
Part3Mobile
Location:
/Users/markjprice/Code
Browse...
Create a project directory within the solution directory.
Version Control:
Use git for version control.
Create a .gitignore file to ignore inessential files.
Xamarin Test Cloud:
Add an automated UI test project.
Learn More
PREVIEW
/Users/markjprice/Code
Part3Mobile
Part3Mobile.sln
NorthwindMobile
NorthwindMobile.csproj
Cancel
Previous
Create

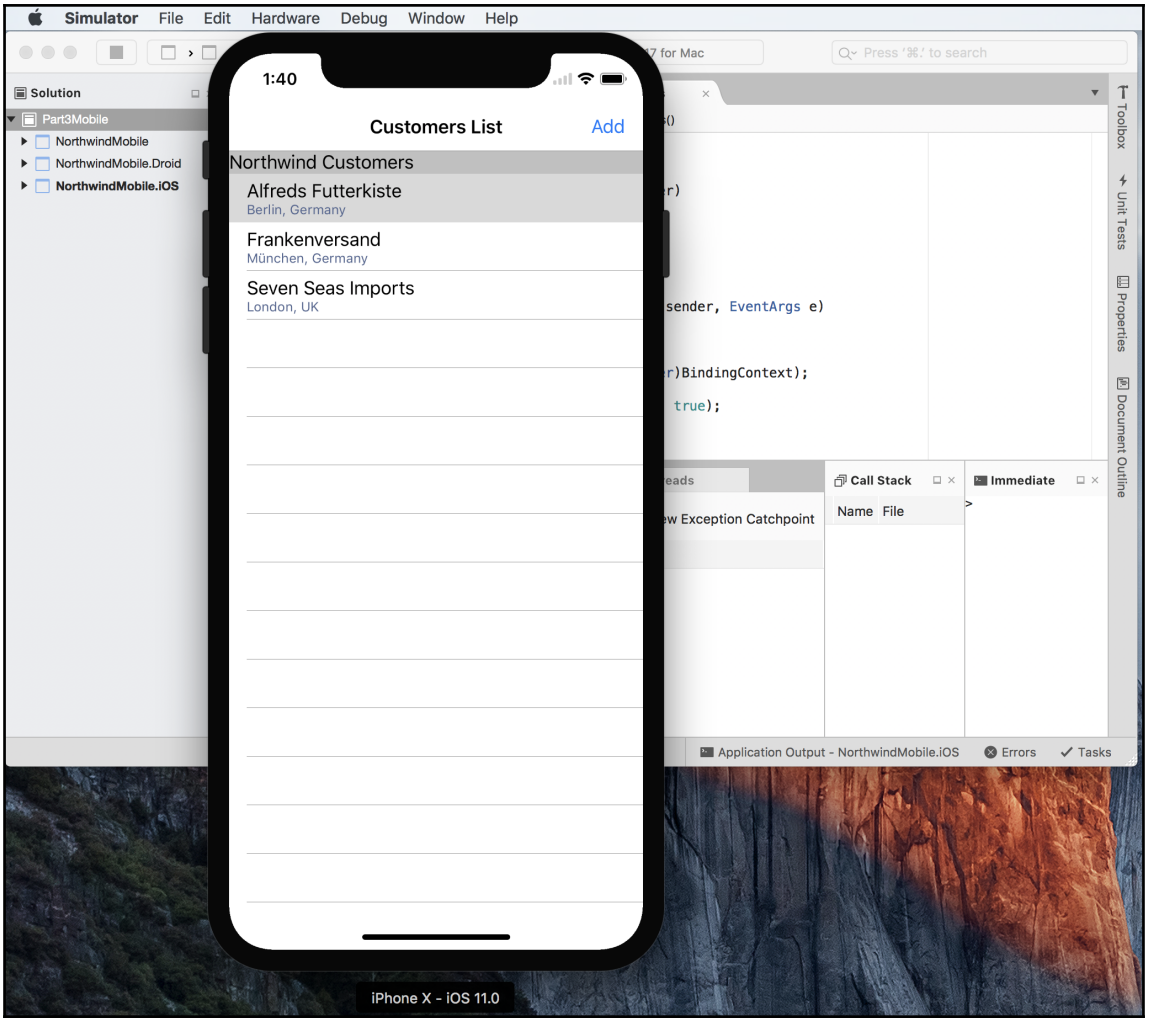

Visual Studio Community
File
Edit
View
Search
Project
Build
Run
Version Control
Tools
Window
Help
NorthwindMobile.iOS › Debug ›
Building Solution: Part3...(Debug|iPhoneSimulator)
Press '⌘.' to search
Solution
Part3Mobile
NorthwindMobile
Getting Started
App.xaml
NorthwindMobilePage.xaml
NorthwindMobile.Droid
Connected Services
References
Components
Packages (9 updates)
Assets
Properties
Resources
MainActivity.cs
packages.config
NorthwindMobile.iOS
Connected Services
References
Components
Packages (1 update)
Assets.xcassets
Resources
AppDelegate.cs
Entitlements.plist
Info.plist
LaunchScreen.storyboard
Main.cs
packages.config
Getting Started
Xamarin.Forms
Build your app, add an Azure mobile backend, and assess your app in the Xamarin Test Cloud.
Build
Connect
Test
Open Xamarin.Forms Previewer
Add an Azure Mobile Backend
Add an Unit Test Project
Add a new XAML ContentPage
Run app in iOS Simulator
Run app in Android Emulator
Add an UITest Project
Get Xamarin Test Cloud
Toolbox
Properties
Document Outline
Unit Tests
Errors
Tasks

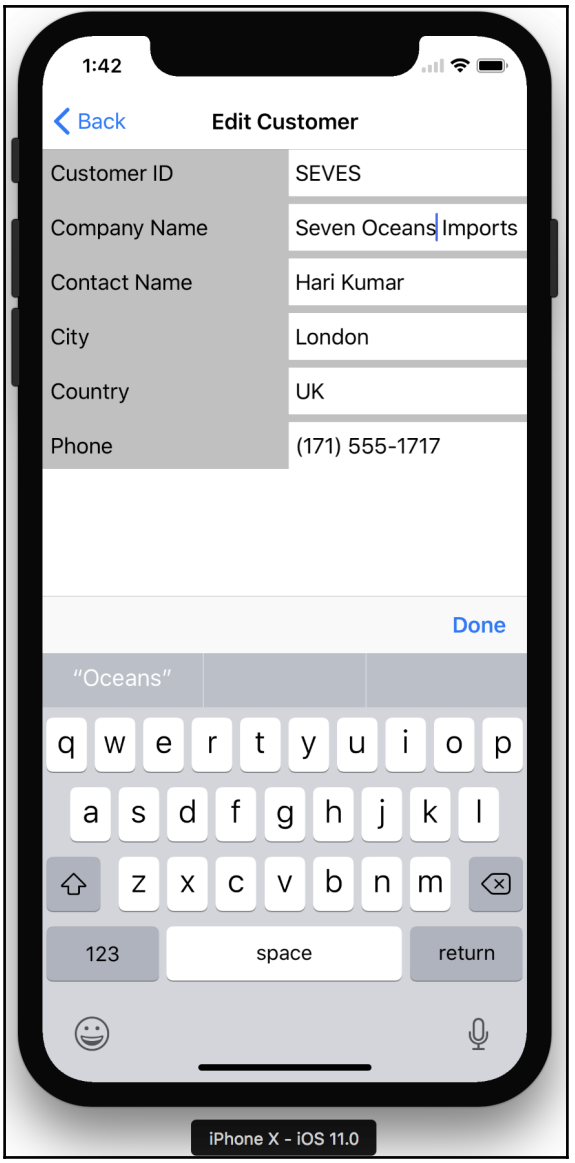

New File
Forms
General
Misc
NUnit
Text Templating
Unity
Web
XML
Empty Class
C#
Empty Enumeration
C#
Empty File
C#
Empty Interface
C#
Empty Struct
C#
Empty Class
Creates an empty class.
Name:
Customer
Cancel
New

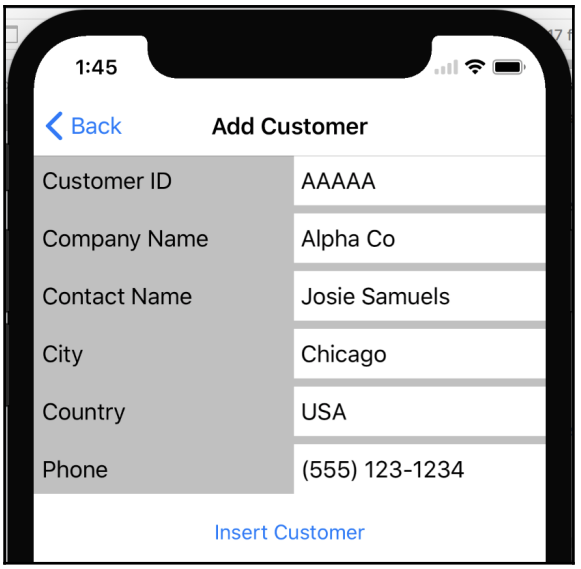

Visual Studio Community
File
Edit
View
Search
Project
Build
Run
Version Control
Tools
Window
Help
NorthwindMobile.iOS › Debug ›
Visual Studio Community 2017 for Mac
Press '⌘.' to search
Solution
Part3Mobile
NorthwindMobile
Getting Started
Models
App.xaml
IDialer.cs
NorthwindMobilePage.xaml
NorthwindMobile.Droid
Connected Services
References
Components
Packages (8 updates)
Assets
Properties
AndroidManifest.xml
AssemblyInfo.cs
Resources
MainActivity.cs
packages.config
PhoneDialer.cs
NorthwindMobile.iOS
Connected Services
References
Components
Packages
Assets.xcassets
Resources
AppDelegate.cs
IDialer.cs
PhoneDialer.cs
PhoneDialer.cs
AndroidManifest.xml
Application name
NorthwindMobile
Package name
com.packt.NorthwindMobile
Application icon
Application theme
Version number
1
Version name
1.0
Minimum Android version
Override - Android 4.0.3 (API level 15)
Target Android version
Automatic - use target framework version (API 23)
Install location
Default
Required permissions
BroadcastSticky
BroadcastWapPush
CallPhone
CallPrivileged
Camera
CaptureAudioOutput
CaptureSecureVideoOutput
Filter Permissions
Learn more about AndroidManifest.xml
Application
Source
Errors
Tasks
Toolbox
Properties
Document Outline
Unit Tests

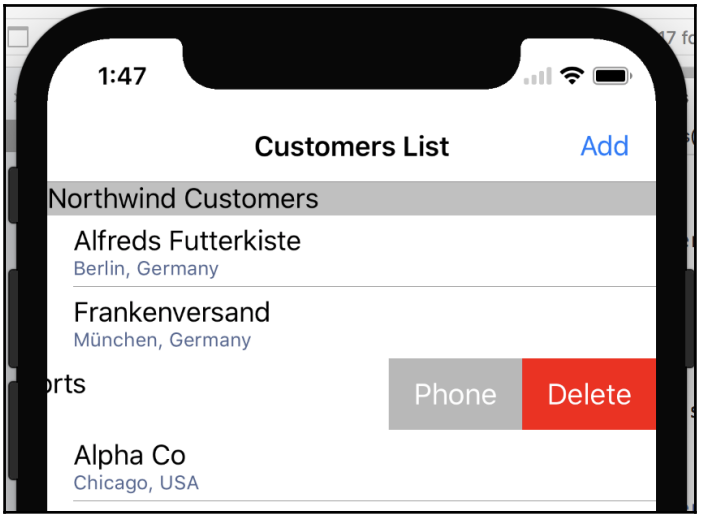

New File
Forms
General
Misc
NUnit
Text Templating
Unity
Web
XML
Forms ContentPage
C#
Forms ContentPage Xaml
C#
Forms ContentView
C#
Forms ContentView Xaml
C#
Forms ContentPage Xaml
Creates a Forms ContentPage with a CodeBehind class.
Name:
CustomersList
Cancel
New

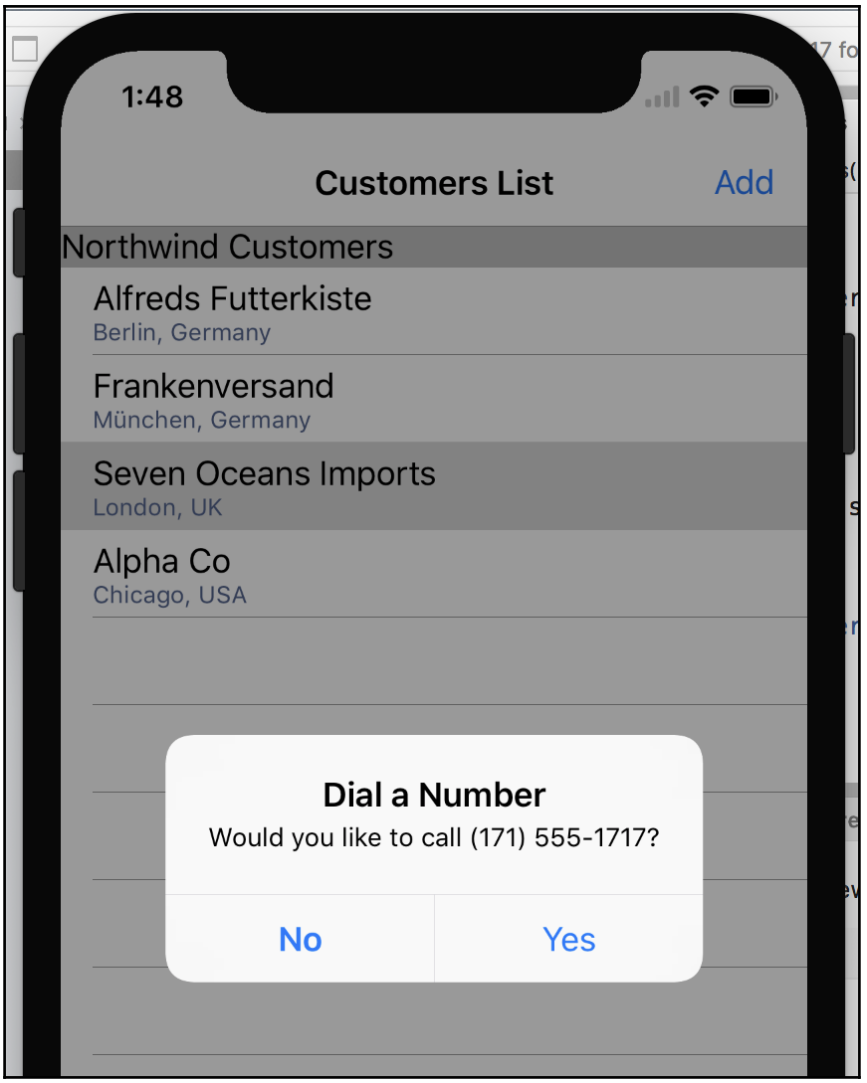

Visual Studio Community
File
Edit
View
Tools
Window
Help
NorthwindMobile.iOS › Debug ›
Solution
Part3Mobile
NorthwindMobile
Getting Started
Models
Views
CustomerDetails.xaml
CustomerDetails.xaml.cs
CustomersList.xaml
CustomersList.xaml.cs
App.xaml
App.xaml.cs
IDialer.cs
NorthwindMobile.Droid
NorthwindMobile.iOS
Connected Services
References
Components
Packages
Simulator
iPhone 8 iOS 11.0
iPhone 8 Plus iOS 11.0
iPhone X iOS 11.0
iPhone 7 iOS 11.0
iPhone 7 Plus iOS 11.0
iPhone SE iOS 11.0
iPhone 6s iOS 11.0
iPhone 6s Plus iOS 11.0
iPhone 6 iOS 11.0
iPhone 6 Plus iOS 11.0
iPhone 5s iOS 11.0
iPad (5th generation) iOS 11.0
iPad Pro (10.5-inch) iOS 11.0
iPad Pro (12.9-inch) (2nd generation) iOS 11.0
iPad Pro (9.7-inch) iOS 11.0
iPad Pro (12.9-inch) iOS 11.0
iPad Air 2 iOS 11.0
iPad Air iOS 11.0
Device
Connect a provisioned Apple device via USB
Build Only Device
Generic Device
BindingContext = customer;
InsertButton.IsVisible = false;

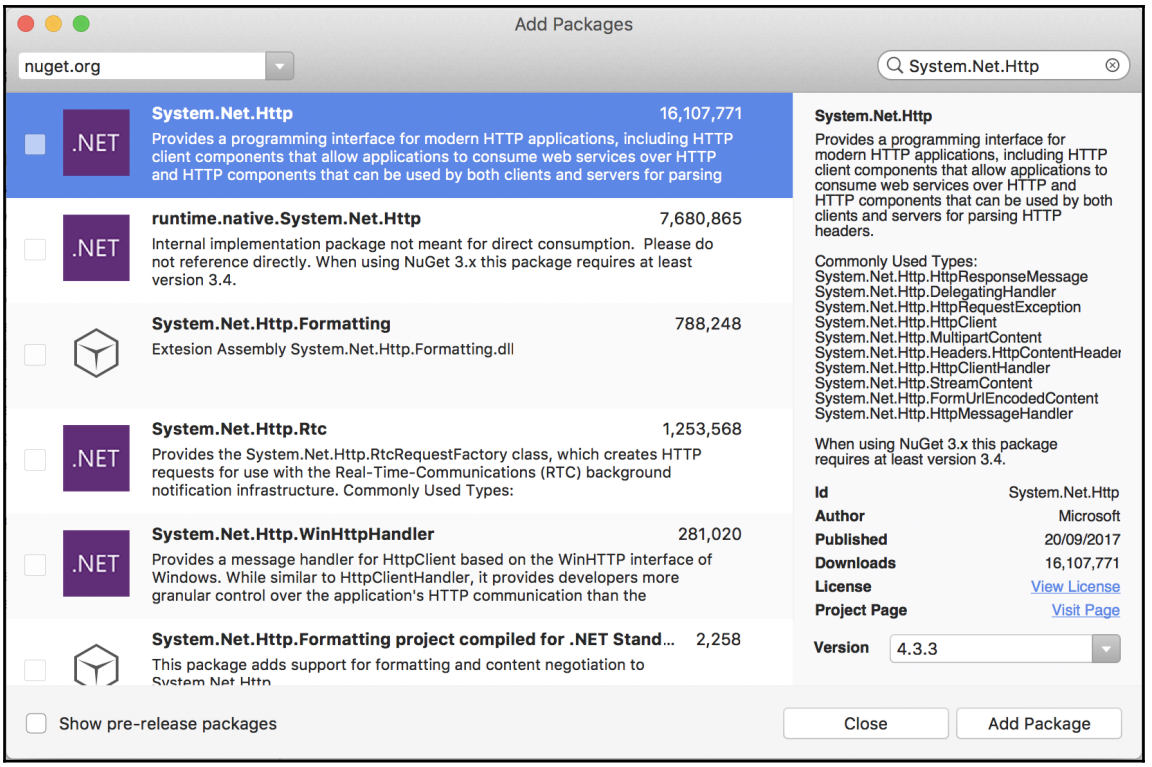

Simulator File Edit Hardware Debug Window Help
1:40
Customers List
Add
Northwind Customers
Alfreds Futterkiste
Berlin, Germany
Frankenversand
München, Germany
Seven Seas Imports
London, UK
Solution
Part3Mobile
NorthwindMobile
NorthwindMobile.Droid
NorthwindMobile.iOS
Call Stack
Immediate
Name File
Application Output - NorthwindMobile.iOS
Errors
Tasks
Toolbox
Unit Tests
Properties
Document Outline
iPhone X - iOS 11.0

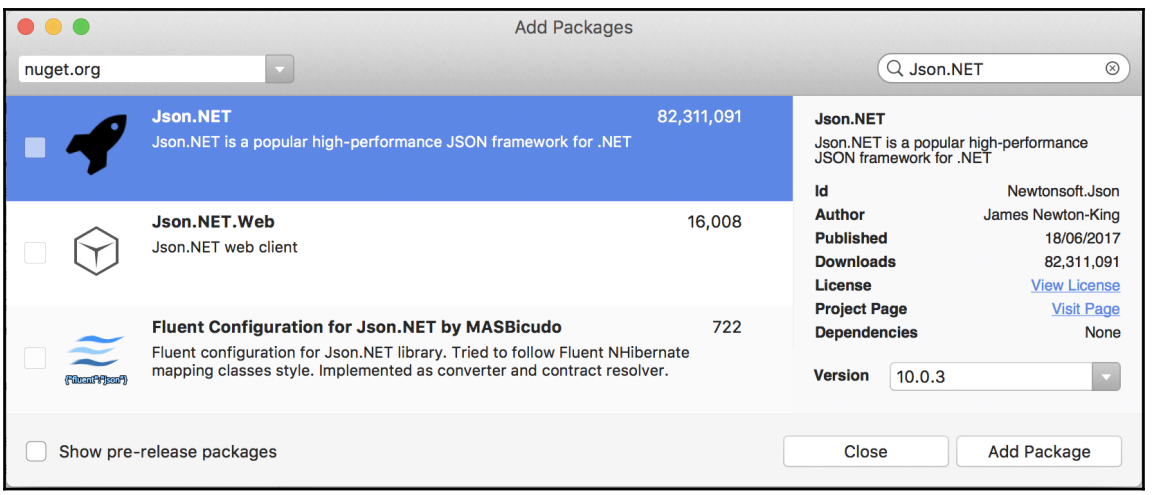

1:42
Back
Edit Customer
Customer ID
SEVES
Company Name
Seven Oceans Imports
Contact Name
Hari Kumar
City
London
Country
UK
Phone
(171) 555-1717
Done
"Oceans"
q w e r t y u i o p
a s d f g h j k l
z x c v b n m
123
space
return
iPhone X - iOS 11.0

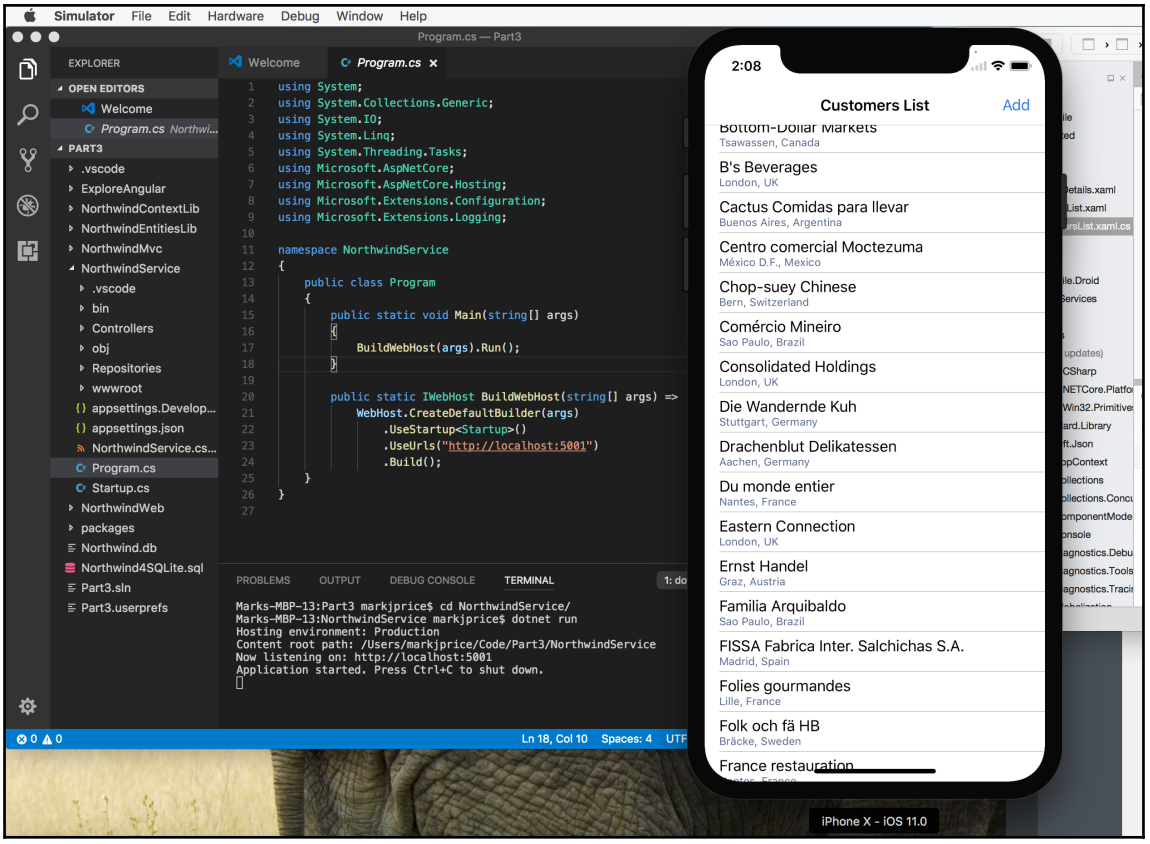

1:45
Back
Add Customer
Customer ID
AAAAA
Company Name
Alpha Co
Contact Name
Josie Samuels
City
Chicago
Country
USA
Phone
(555) 123-1234
Insert Customer


1:47
Customers List
Add
Northwind Customers
Alfreds Futterkiste
Berlin, Germany
Frankenversand
München, Germany
Phone
Delete
Alpha Co
Chicago, USA


1:48
Customers List
Add
Northwind Customers
Alfreds Futterkiste
Berlin, Germany
Frankenversand
München, Germany
Seven Oceans Imports
London, UK
Alpha Co
Chicago, USA
Dial a Number
Would you like to call (171) 555-1717?
No
Yes


Add Packages
nuget.org
System.Net.Http
System.Net.Http
16,107,771
Provides a programming interface for modern HTTP applications, including HTTP client components that allow applications to consume web services over HTTP and HTTP components that can be used by both clients and servers for parsing
runtime.native.System.Net.Http
7,680,865
Internal implementation package not meant for direct consumption. Please do not reference directly. When using NuGet 3.x this package requires at least version 3.4.
System.Net.Http.Formatting
788,248
Extesion Assembly System.Net.Http.Formatting.dll
System.Net.Http.Rtc
1,253,568
Provides the System.Net.Http.RtcRequestFactory class, which creates HTTP requests for use with the Real-Time-Communications (RTC) background notification infrastructure. Commonly Used Types:
System.Net.Http.WinHttpHandler
281,020
Provides a message handler for HttpClient based on the WinHTTP interface of Windows. While similar to HttpClientHandler, it provides developers more granular control over the application's HTTP communication than the
System.Net.Http.Formatting project compiled for .NET Stand...
2,258
This package adds support for formatting and content negotiation to
System.Net.Http
Provides a programming interface for modern HTTP applications, including HTTP client components that allow applications to consume web services over HTTP and HTTP components that can be used by both clients and servers for parsing HTTP headers.
Commonly Used Types:
System.Net.Http.HttpResponseMessage
System.Net.Http.DelegatingHandler
System.Net.Http.HttpRequestException
System.Net.Http.HttpClient
System.Net.Http.MultipartContent
System.Net.Http.Headers.HttpContentHeader
System.Net.Http.HttpClientHandler
System.Net.Http.StreamContent
System.Net.Http.FormUrlEncodedContent
System.Net.Http.HttpMessageHandler
When using NuGet 3.x this package requires at least version 3.4.
Id
System.Net.Http
Author
Microsoft
Published
20/09/2017
Downloads
16,107,771
License
View License
Project Page
Visit Page
Version
4.3.3
Show pre-release packages
Close
Add Package


Add Packages
nuget.org
Json.NET
Json.NET
82,311,091
Json.NET is a popular high-performance JSON framework for .NET
Json.NET.Web
16,008
Json.NET web client
Fluent Configuration for Json.NET by MASBicudo
722
Fluent configuration for Json.NET library. Tried to follow Fluent NHibernate mapping classes style. Implemented as converter and contract resolver.
Json.NET
Json.NET is a popular high-performance JSON framework for .NET
Id
Newtonsoft.Json
Author
James Newton-King
Published
18/06/2017
Downloads
82,311,091
License
View License
Project Page
Visit Page
Dependencies
None
Version
10.0.3
Show pre-release packages
Close
Add Package


Simulator File Edit Hardware Debug Window Help
Program.cs — Part3
EXPLORER
OPEN EDITORS
Welcome
Program.cs
PART3
.vscode
ExploreAngular
NorthwindContextLib
NorthwindEntitiesLib
NorthwindMvc
NorthwindService
.vscode
bin
Controllers
obj
Repositories
wwwroot
appsettings.Develop...
appsettings.json
NorthwindService.cs...
Program.cs
Startup.cs
NorthwindWeb
packages
Northwind.db
Northwind4SQLite.sql
Part3.sln
Part3.userprefs
Welcome
Program.cs
using System;
using System.Collections.Generic;
using System.IO;
using System.Linq;
using System.Threading.Tasks;
using Microsoft.AspNetCore;
using Microsoft.AspNetCore.Hosting;
using Microsoft.Extensions.Configuration;
using Microsoft.Extensions.Logging;
namespace NorthwindService
{
public class Program
{
public static void Main(string[] args)
{
BuildWebHost(args).Run();
}
public static IWebHost BuildWebHost(string[] args) =>
WebHost.CreateDefaultBuilder(args)
.UseStartup<Startup>()
.UseUrls("http://localhost:5001")
.Build();
}
}
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Marks-MBP-13:Part3 markjprice$ cd NorthwindService/
Marks-MBP-13:NorthwindService markjprice$ dotnet run
Hosting environment: Production
Content root path: /Users/markjprice/Code/Part3/NorthwindService
Now listening on: http://localhost:5001
Application started. Press Ctrl+C to shut down.
Ln 18, Col 10 Spaces: 4
2:08
Customers List
Add
Tsawassen, Canada
B's Beverages
London, UK
Cactus Comidas para llevar
Buenos Aires, Argentina
Centro comercial Moctezuma
México D.F., Mexico
Chop-suey Chinese
Bern, Switzerland
Comércio Mineiro
Sao Paulo, Brazil
Consolidated Holdings
London, UK
Die Wandernde Kuh
Stuttgart, Germany
Drachenblut Delikatessen
Aachen, Germany
Du monde entier
Nantes, France
Eastern Connection
London, UK
Ernst Handel
Graz, Austria
Familia Arquibaldo
Sao Paulo, Brazil
FISSA Fabrica Inter. Salchichas S.A.
Madrid, Spain
Folies gourmandes
Lille, France
Folk och fä HB
Bräcke, Sweden
France restauration
iPhone X - iOS 11.0