






Add a new project


Recent project templates


-  Windows Forms App (.NET Framework) C#
-  ASP.NET Web Application (.NET Framework) C#
-  WCF Service Library C#
-  SQL Server Database Project Query Language


× ▼ [Clear all](#)


C# ▼ Windows ▼ Web ▼

 **Console App**
A project for creating a command-line application that can run on .NET Core on Windows, Linux and macOS
C# Linux macOS Windows **Console**

 **Console App**
A project for creating a command-line application that can run on .NET Core on Windows, Linux and macOS
Visual Basic Linux macOS Windows **Console**

 **Console App (.NET Framework)**
A project for creating a command-line application
C# Windows **Console**

 **Console App (.NET Framework)**
A project for creating a command-line application
Visual Basic Windows **Console**

 **Console App**
A project for creating a command-line application that can run on .NET Core on Windows, Linux and macOS

Next



Configure your new project

Console App (.NET Framework) C# Windows Console

Project name

OwinSelfHostProductsAPI

Location

E:\SOC\ProductsAPI

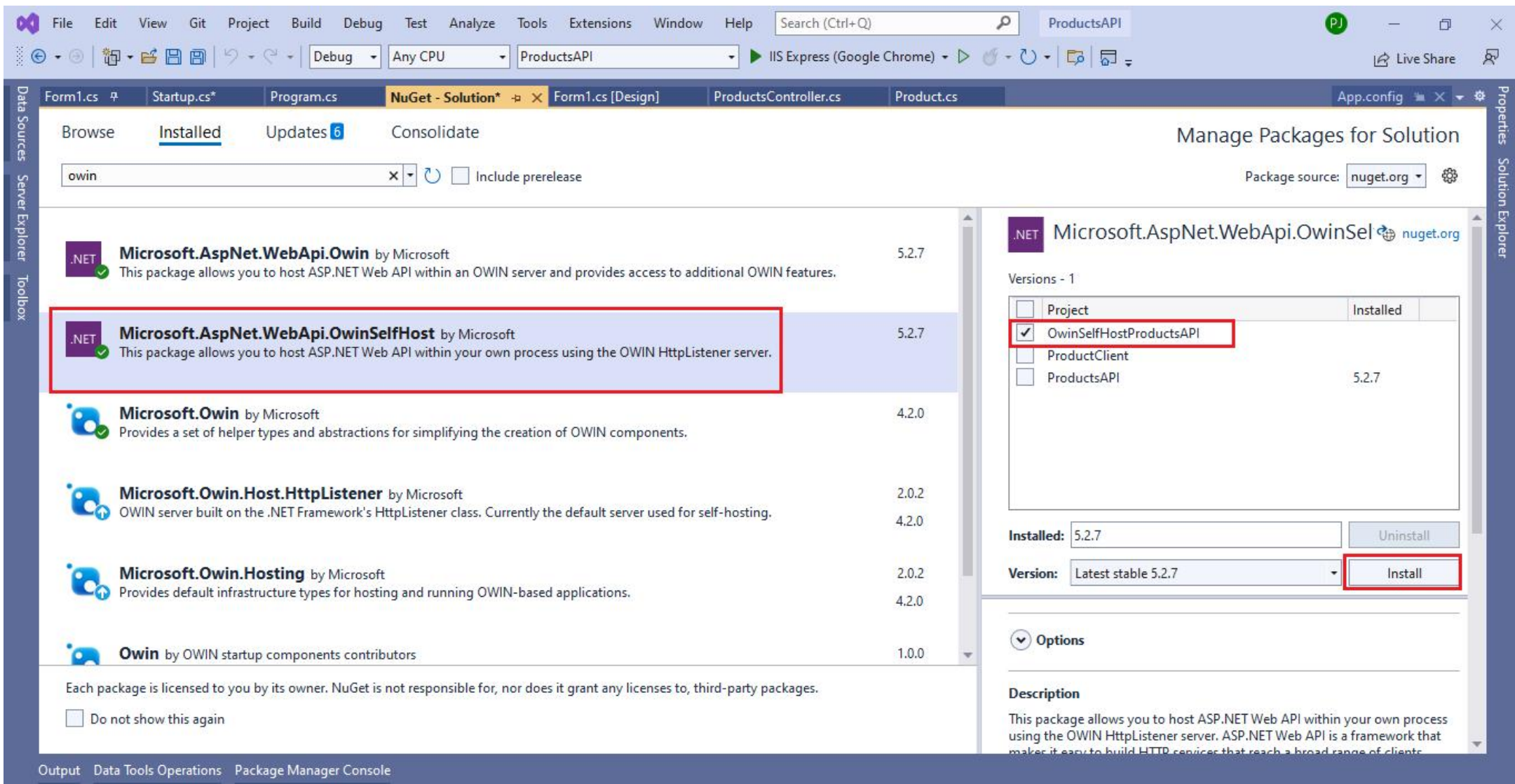
...

Framework

.NET Framework 4.7.2

Back

Create



License Acceptance



The following package(s) require that you accept their license terms before installing.

Microsoft.Owin.Host.HttpListener Author(s): Microsoft

[View License](#)

Microsoft.AspNet.WebApi.OwinSelfHost Author(s): Microsoft

[View License](#)

Microsoft.Owin.Hosting Author(s): Microsoft

[View License](#)

Microsoft.AspNet.WebApi.Owin Author(s): Microsoft

[View License](#)

Microsoft.Owin Author(s): Microsoft

[View License](#)

Microsoft.AspNet.WebApi.Client Author(s): Microsoft

[View License](#)

Microsoft.AspNet.WebApi.Core Author(s): Microsoft

[View License](#)

By clicking "I Accept," you agree to the license terms for the package(s) listed above. If you do not agree to the license terms, click "I Decline."

I Accept

I Decline

Add New Item - OwinSelfHostProductsAPI



Installed

Sort by: Default



Search (Ctrl+E)



Visual C# Items

- Code
- Data
- General
- Web
 - Windows Forms
 - WPF
- ASP.NET Core
 - SQL Server

Online

	Class	Visual C# Items
	Interface	Visual C# Items
	Form (Windows Forms)	Visual C# Items
	User Control (Windows Forms)	Visual C# Items
	Component Class	Visual C# Items
	User Control (WPF)	Visual C# Items
	About Box (Windows Forms)	Visual C# Items
	ADO.NET Entity Data Model	Visual C# Items
	Application Configuration File	Visual C# Items
	Application Manifest File (Windows Only)	Visual C# Items
	Assembly Information File	Visual C# Items
	Bitmap File	Visual C# Items

Type: Visual C# Items
An empty class definition

Name:

Startup

Add

Cancel

File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help Search (Ctrl+Q)

Debug Any CPU ProductsAPI IIS Express (Google Chrome)

Form1.cs App.config ProductsController.cs* Startup.cs* Program.cs Form1.cs [Design] ProductsController.cs

OwinSelfHostProductsAPI OwinSelfHostProductsAPI.Startup Configurati

```
6 using Owin;
7 using System.Web.Http;
8
9 namespace OwinSelfHostProductsAPI
10 {
11     1 reference
12     public class Startup
13     {
14         // This code configures Web API. The Startup class is specified as a type
15         // parameter in the WebApp.Start method.
16         0 references
17         public void Configuration(IAppBuilder appBuilder)
18         {
19             // Configure Web API for self-host.
20             HttpConfiguration config = new HttpConfiguration();
21             config.Routes.MapHttpRoute(
22                 name: "DefaultApi",
23                 routeTemplate: "api/{controller}/{id}",
24                 defaults: new { id = RouteParameter.Optional }
25             );
26             appBuilder.UseWebApi(config);
27         }
28     }
29 }
```

100 % No issues found

Output Data Tools Operations Error List Package Manager Console

Ready

```
4 using System.Collections.Generic;
5 using System.Linq;
6 using System.Web.Http;
7
8 namespace OwinSelfHostProductsAPI
9 {
10     public class ProductsController : ApiController
11     {
12         Product[] products = new Product[]
13         {
14             new Product { prodId = 1, prodName = "Rice", prodCategory = "Groceries", prodPrice = 1400 },
15             new Product { prodId = 2, prodName = "Speaker", prodCategory = "Electronics", prodPrice = 1800},
16             new Product { prodId = 3, prodName = "Juice", prodCategory = "Groceries", prodPrice = 150},
17             new Product { prodId = 4, prodName = "Butter", prodCategory = "Dairy Products", prodPrice = 370},
18             new Product { prodId = 5, prodName = "Milk", prodCategory = "Dairy Products", prodPrice = 60}
19         };
20         public IEnumerable<Product> GetAllProducts()
21         {
22             return products;
23         }
24         public IHttpActionResult GetProduct(int id)
25     {
```



```
24 public IHttpActionResult GetProduct(int id)
25 {
26     var prod = products.FirstOrDefault((p) => p.prodId == id);
27     if (prod == null)
28     {
29         return NotFound();
30     }
31     return Ok(prod);
32 }
33 }
34 public class Product
35 {
36     public int prodId { get; set; }
37     public string prodName { get; set; }
38     public string prodCategory { get; set; }
39     public Decimal prodPrice { get; set; }
40 }
41 }
42 }
```




















Data Sources Server Explorer Toolbox

Form1.cs App.config ProductsController.cs* Startup.cs* Program.cs Form1.cs [Design]

C# OwinSelfHostProductsAPI OwinSelfHostProductsAPI.Program

```
7 using Microsoft.Owin.Hosting;
8
9 namespace OwinSelfHostProductsAPI
10 {
11     internal class Program
12     {
13         static void Main(string[] args)
14         {
15             string baseAddress = "http://localhost:9000/";
16
17             // Start OWIN host
18             using (WebApp.Start<Startup>(url: baseAddress))
19             {
20                 Console.ReadLine();
21             }
22         }
23     }
24 }
```

al Disk (E:) > SOC > ProductsAPI > OwinSelfHostProductsAPI > bin > Debug

Name	Date modified	Type ^	Size
 OwinSelfHostProductsAPI.exe	12-03-2022 01:08 PM	Application	9 KB
 Microsoft.Owin.dll	07-11-2013 08:52 PM	Application exten...	92 KB
 Microsoft.Owin.Host.HttpListener.dll	07-11-2013 08:52 PM	Application exten...	99 KB
 Microsoft.Owin.Hosting.dll	07-11-2013 08:52 PM	Application exten...	63 KB
 Newtonsoft.Json.dll	04-08-2014 02:03 AM	Application exten...	491 KB
 Owin.dll	13-11-2012 05:49 PM	Application exten...	5 KB
 System.Net.Http.Formatting.dll	28-11-2018 01:00 PM	Application exten...	175 KB
 System.Web.Http.dll	28-11-2018 01:01 PM	Application exten...	445 KB
 System.Web.Http.Owin.dll	28-11-2018 06:31 PM	Application exten...	61 KB
 OwinSelfHostProductsAPI.pdb	12-03-2022 01:08 PM	Program Debug D...	28 KB
 OwinSelfHostProductsAPI.exe.config	12-03-2022 12:53 PM	XML Configuratio...	1 KB
 Microsoft.Owin.Host.HttpListener.xml	07-11-2013 08:52 PM	XML Document	9 KB
 Microsoft.Owin.Hosting.xml	07-11-2013 08:52 PM	XML Document	48 KB
 Microsoft.Owin.xml	07-11-2013 08:52 PM	XML Document	147 KB
 Newtonsoft.Json.xml	04-08-2014 02:03 AM	XML Document	468 KB
 System.Net.Http.Formatting.xml	28-11-2018 01:00 PM	XML Document	189 KB
 System.Web.Http.Owin.xml	28-11-2018 06:31 PM	XML Document	16 KB
 System.Web.Http.xml	28-11-2018 01:01 PM	XML Document	528 KB

← → ↻ ⓘ localhost:9000/api/products

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
▼<ArrayOfProduct xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://schemas.datacontract.org/2004/07/OwinSelfHostProductsAPI">
  ▼<Product>
    <prodCategory>Groceries</prodCategory>
    <prodId>1</prodId>
    <prodName>Rice</prodName>
    <prodPrice>1400</prodPrice>
  </Product>
  ▼<Product>
    <prodCategory>Electronics</prodCategory>
    <prodId>2</prodId>
    <prodName>Speaker</prodName>
    <prodPrice>1800</prodPrice>
  </Product>
  ▼<Product>
    <prodCategory>Groceries</prodCategory>
    <prodId>3</prodId>
    <prodName>Juice</prodName>
    <prodPrice>150</prodPrice>
  </Product>
  ▼<Product>
    <prodCategory>Dairy Products</prodCategory>
    <prodId>4</prodId>
    <prodName>Butter</prodName>
    <prodPrice>370</prodPrice>
  </Product>
  ▼<Product>
    <prodCategory>Dairy Products</prodCategory>
    <prodId>5</prodId>
    <prodName>Milk</prodName>
    <prodPrice>60</prodPrice>
  </Product>
</ArrayOfProduct>
```

Recent



WebAPIHello



Webapi_Selfho



WebApiRoute



XMLProcessing

Open

Run as administrator

Unpin from taskbar

Properties



Visual Studio 2015



Unpin from taskbar



ProductsController.cs

WebAPIHello.Helpers.BasicAuthenticationAttribute

OnAuthorization

;

ionAttribute : AuthorizationFilterAttribute











thorization(HttpContext actionContext)

uest.Headers.Authorization == null
ponse = actionContext.Request.Cr

Solution Explorer

Search Solution Explorer (Ctrl+;)

Solution 'WebAPIHello' (2 projects)

-  Build Solution Ctrl+Shift+B
- Rebuild Solution
- Clean Solution
- Analyze ▶
- Batch Build...
- Configuration Manager...
-  Manage NuGet Packages for Solution...
-  Restore NuGet Packages
-  New Solution Explorer View
- Calculate Code Metrics
- Project Dependencies...
- Project Build Order...
- Add ▶**
-  Set StartUp Projects...
-  Add Solution to Source Control...
-  Paste Ctrl+V
-  Rename
-  Open Folder in File Explorer
-  Properties Alt+Enter

New Project...


Existing Project...

New Web Site...

Existing Web Site...

 New Item... Ctrl+Shift+A

 Existing Item... Shift+Alt+A

 New Solution Folder

Add New Project

Recent

Installed

Business Intelligence

Visual C#

Windows

Web

.NET Core

Android

Cloud

Extensibility

iOS

Silverlight

Test

WCF

Workflow

Visual Basic

Visual F#

Online

.NET Framework 4.5.2

Sort by: Default

Search Installed Templates (Ctrl+E)



Windows Forms Application

Visual C#



WPF Application

Visual C#



Console Application

Visual C#



Shared Project

Visual C#



Class Library (Portable for iOS, Android and Windows)

Visual C#



Class Library

Visual C#



Class Library (Portable)

Visual C#

Type: Visual C#

A project for creating a command-line application

[Click here to go online and find templates.](#)

Name: Webapi_Selfhost

Location: C:\Users\LENOVO\Documents\Visual Studio 2015\Projects\WebAPI\WebAPIHello

Browse...

OK

Cancel

ProductsController.cs

am

Main(string[] args)

Solution Explorer



Search Solution Explorer (Ctrl+;)

Restoring packages (1 project)

Output Settings

Solution 'WebAPIHello' (3 projects)

Webapi_Selfhost

Properties

References (Restoring...)

Program.cs

project.json

WebAPIClient

WebAPIHello

- Build
 - Rebuild
 - Clean
- Publish...
- Scope to This
- New Solution Explorer View
- Build Dependencies
- Add
- Manage NuGet Packages...**
 - Restore Packages Ctrl+Shift+K, Ctrl+Shift+R
 - Manage Bower Packages...
 - Manage User Secrets
- Set as StartUp Project
- Debug
- Source Control
- Cut Ctrl+X
- Remove Del
- Rename
- Unload Project
- Open Folder in File Explorer
- Properties Alt+Enter

Solution Explorer Team Explorer Class View Notifications Tabular Model Explorer







↑ Publish

NuGet: Webapi_SelfhostProgram.csProductsController.cs

BrowseInstalledUpdates1

NuGet Package Manager: Webapi_Selfhost

selfhostxInclude prereleasePackage source: nuget.org

	Ninject.Web.WebApi.SelfHost by Remo Gloor, Ninject Contributors, 17.2K downloads Extension for Ninject providing integration with ASP.NET MVC WebAPI 2 self host	v3.3.0
	Auth0.NancyFx.SelfHost by Jerrie Pelser, Jan Fellien, 2.24K downloads Auth0 Provider for NancyFx self hosted Applications	v2.0.0
	Microsoft.AspNet.WebApi.SelfHost by Microsoft, 954K downloads This is a legacy package for hosting ASP.NET Web API within your own process (outside of IIS).	v5.2.4
	Microsoft.AspNet.WebApi.SelfHost.zh-Hans by Microsoft, 6.01K downloads Microsoft.AspNet.WebApi.SelfHost 程序包的简体中文资源	v5.2.4
	Microsoft.AspNet.WebApi.SelfHost.zh-Hant by Microsoft, 4.76K downloads Microsoft.AspNet.WebApi.SelfHost 套件的 繁體中文 資源	v5.2.4
	Microsoft.AspNet.WebApi.SelfHost.ru by Microsoft, 4.76K downloads Русские ресурсы для пакета Microsoft.AspNet.WebApi.SelfHost	v5.2.4

Preview



Review Changes

Visual Studio is about to make changes to this solution. Click OK to proceed with the changes listed below.

Webapi_Selfhost

Installing:

- Newtonsoft.Json.6.0.4
- Microsoft.AspNet.WebApi.Client.5.2.4
- Microsoft.AspNet.WebApi.Core.5.2.4
- Microsoft.AspNet.WebApi.SelfHost.5.2.4

☐ Do not show this again

OK

Cancel

License Acceptance



License Acceptance

The following package(s) require that you accept their license terms before installing.

Microsoft.AspNet.WebApi.Client Author(s): Microsoft

[View License](#)

Microsoft.AspNet.WebApi.Core Author(s): Microsoft

[View License](#)

Microsoft.AspNet.WebApi.SelfHost Author(s): Microsoft

[View License](#)

By clicking "I Accept," you agree to the license terms for the package(s) listed above. If you do not agree to the license terms, click "I Decline."

I Accept

I Decline

Program.cs* X BasicAuthenticationAttribute.cs APISecurity.cs WebApiConfig.cs ProductsController.cs

Webapi_Selfhost Webapi_Selfhost.Program Main(string[] args)

```
5 using System.Threading.Tasks;
6 using System.Web.Http.SelfHost;
7 using System.Web.Http;
8
9 namespace Webapi_Selfhost
10 {
11     class Program
12     {
13         static void Main(string[] args)
14         {
15             var config = new HttpSelfHostConfiguration(new Uri("http://localhost:12345"));
16             config.Routes.MapHttpRoute(
17                 name: "DefaultApi",
18                 routeTemplate: "api/{controller}/{id}",
19                 defaults: new { id = RouteParameter.Optional });
20             var host = new HttpSelfHostServer(config);
21             host.OpenAsync().Wait();
22             Console.WriteLine("Press any key to exit");
23             Console.ReadKey();
24             host.CloseAsync().Wait();
25         }
26     }
27 }
```

- Refresh
- Build
 - Rebuild
 - Clean
 - View
 - Analyze
- Publish...
- Publish as Azure WebJob...
- Scope to This
- New Solution Explorer View
- Build Dependencies
- Add**
- Manage NuGet Packages...
- Manage Bower Packages...
- Set as StartUp Project
- Debug
- Initialize Interactive with Project
- Source Control
- Cut Ctrl+X
- Paste Ctrl+V
- Remove Del
- Rename
- Unload Project
- Open Folder in File Explorer
- Properties Alt+Enter

Solution Explorer

Search Solution Explorer (Ctrl+;)

Solution 'WebAPIHello' (3 projects)

- C# Webapi_Selfhost
 - Properties
 - References
 - App.config
 - packages.config
 - C# Program.cs
- C# WebAPIClient
- WebAPIHello

- New Item... Ctrl+Shift+A
- Existing Item... Shift+Alt+A
- New Folder
- REST API Client...
- Reference...
- Service Reference...
- Connected Service...
- Analyzer...
- Windows Form...
- User Control...
- Component...
- Class...**

↑ Publish

Add New Item - Webapi_Selfhost

Installed

Visual C# Items

- Code
- Data
- General
- Web
- Windows Forms
- WPF
- SQL Server
- Storm Items
- Workflow

Online

Sort by: Default



Class

Visual C# Items



Class for U-SQL

Visual C# Items



Interface

Visual C# Items



Windows Form

Visual C# Items



User Control

Visual C# Items



Component Class

Visual C# Items



User Control (WPF)

Visual C# Items



About Box

Visual C# Items



ADO.NET Entity Data Model

Visual C# Items

[Click here to go online and find templates.](#)

Search Installed Templates (Ctrl+E)



Type: Visual C# Items

An empty class definition

Name:

ProductController.cs

Add

Cancel

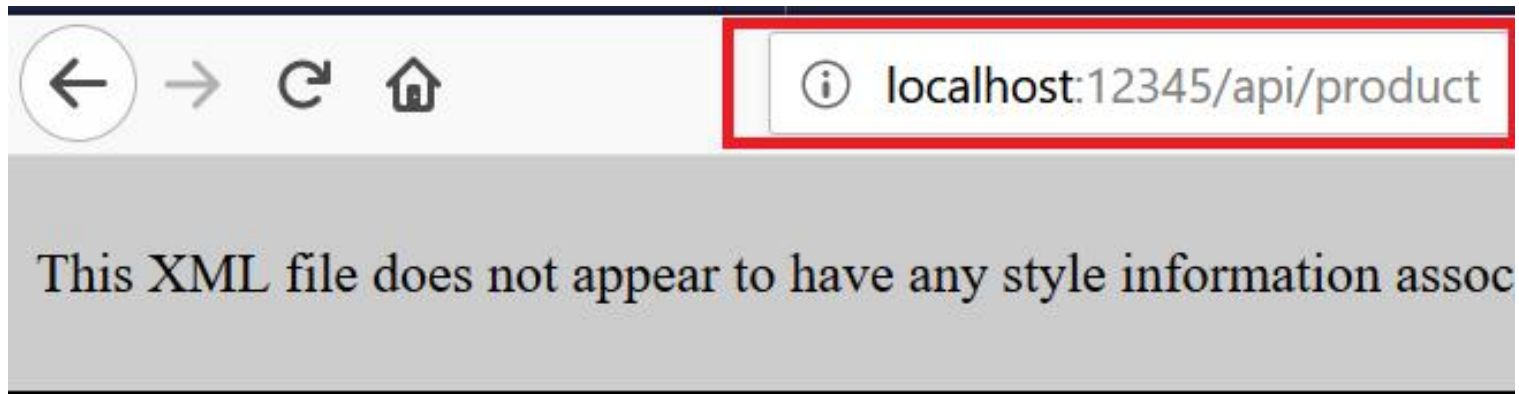
```
using System.Threading.Tasks;
using System.Web.Http;
```

```
namespace Webapi_Selfhost
```

```
{
```

```
public class ProductController : ApiController {
    static List<Product> products = new List<Product> {
        new Product() { ProductId=1, ProductName="Monitor",      ProductPrice=10000 },
        new Product() { ProductId=2, ProductName="Keyboard",    ProductPrice=1500 },
        new Product() { ProductId=3, ProductName="Mouse",       ProductPrice=400 }
    };
    public IEnumerable<Product> GetProducts() {
        return products;
    }
}

public class Product
{
    public int      ProductId { get; set; }
    public string   ProductName { get; set; }
    public decimal  ProductPrice { get; set; }
}
}
```



```
- <ArrayOfProduct>
  - <Product>
    <ProductId>1</ProductId>
    <ProductName>Monitor</ProductName>
    <ProductPrice>10000</ProductPrice>
  </Product>
- <Product>
  <ProductId>2</ProductId>
  <ProductName>Keyboard</ProductName>
  <ProductPrice>1500</ProductPrice>
</Product>
- <Product>
  <ProductId>3</ProductId>
  <ProductName>Mouse</ProductName>
  <ProductPrice>400</ProductPrice>
</Product>
</ArrayOfProduct>
```