

AzureFunctions: How to create a new Azure Function with only with Commands

Creating an Azure Function in C# with Visual Studio Code involves a few steps.

Make sure you have the necessary tools installed, such as the Azure Functions Core Tools and the Azure Functions extension for Visual Studio Code.

Here's a step-by-step guide:

1. Install Prerequisites:

Install .NET SDK (if not already installed): <https://dotnet.microsoft.com/es-es/download/dotnet/8.0>

Install Azure Functions Core Tools: <https://learn.microsoft.com/en-us/azure/azure-functions/functions-run-local>

Install Azure Functions Extension for VSCode.

2. Open Visual Studio Code and install extension.

Go to the Extensions view (you can press Ctrl + Shift + X), and search for "Azure Functions"

Install the extension published by Microsoft.

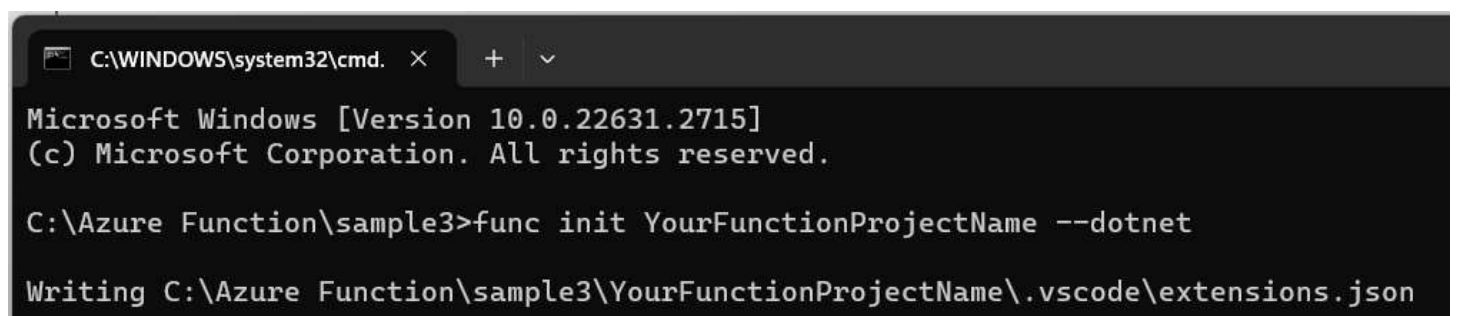
3. Create a new Azure Functions Project:

Open a terminal in Visual Studio Code.

Run the following command to create a new Azure Functions project:

```
func init YourFunctionProjectName --dotnet
```

Replace YourFunctionProjectName with the desired name for your project.



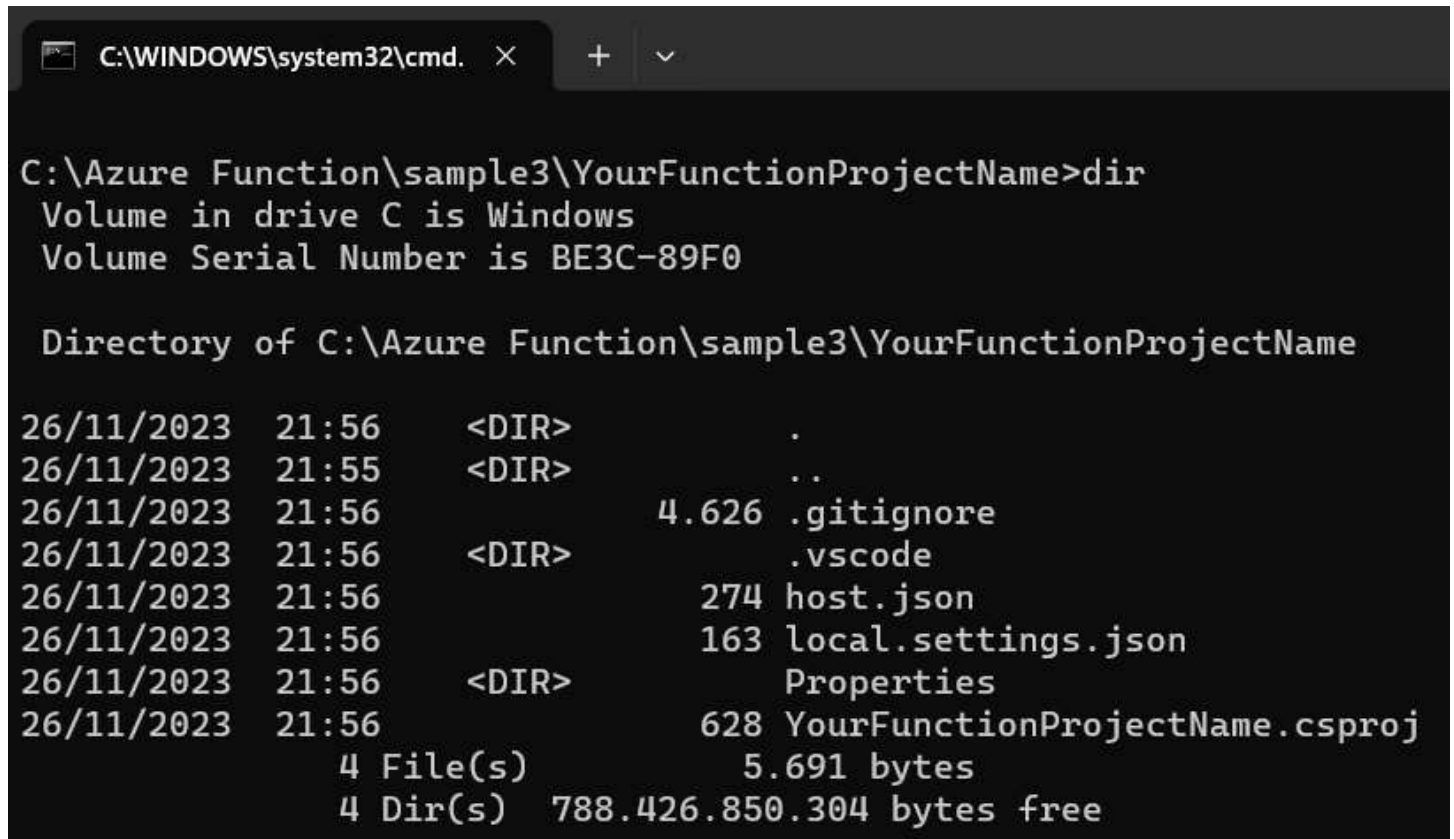
```
C:\WINDOWS\system32\cmd. x + v
Microsoft Windows [Version 10.0.22631.2715]
(c) Microsoft Corporation. All rights reserved.

C:\Azure Function\sample3>func init YourFunctionProjectName --dotnet

Writing C:\Azure Function\sample3\YourFunctionProjectName\.vscode\extensions.json
```

Navigate to the Project Directory:

```
cd YourFunctionProjectName
```



```
C:\WINDOWS\system32\cmd. X + v

C:\Azure Function\sample3\YourFunctionProjectName>dir
Volume in drive C is Windows
Volume Serial Number is BE3C-89F0

Directory of C:\Azure Function\sample3\YourFunctionProjectName

26/11/2023  21:56    <DIR>          .
26/11/2023  21:55    <DIR>          ..
26/11/2023  21:56             4.626 .gitignore
26/11/2023  21:56    <DIR>          .vscode
26/11/2023  21:56             274 host.json
26/11/2023  21:56             163 local.settings.json
26/11/2023  21:56    <DIR>          Properties
26/11/2023  21:56             628 YourFunctionProjectName.csproj
                4 File(s)              5.691 bytes
                4 Dir(s)  788.426.850.304 bytes free
```

Create a New Azure Function:

Run the following command to create a new Azure Function:

```
func new
```

Follow the prompts to select the template. Choose "HTTP trigger" for a simple example.

```
C:\Azure Function\sample3\YourFunctionProjectName>func new
Use the up/down arrow keys to select a template:
QueueTrigger
HttpTrigger
BlobTrigger
TimerTrigger
KafkaTrigger
KafkaOutput
DurableFunctionsOrchestration
SendGrid
EventHubTrigger
ServiceBusQueueTrigger
ServiceBusTopicTrigger
EventGridTrigger
CosmosDBTrigger
IotHubTrigger
DaprPublishOutputBinding
DaprServiceInvocationTrigger
DaprTopicTrigger
```

We set the new Azure Function name:

```
C:\Azure Function\sample3\YourFunctionProjectName>func new
Use the up/down arrow keys to select a template:Function name: myNewFunction
```

```
C:\Azure Function\sample3\YourFunctionProjectName>func new
Use the up/down arrow keys to select a template:Function name: myNewFunction
myNewFunction

Creating dotnet function...
The function "myNewFunction" was created successfully from the "HttpTrigger" template.

C:\Azure Function\sample3\YourFunctionProjectName>
```

```

C:\Azure Function\sample3\YourFunctionProjectName>dir
Volume in drive C is Windows
Volume Serial Number is BE3C-89F0

Directory of C:\Azure Function\sample3\YourFunctionProjectName

26/11/2023  22:00    <DIR>          .
26/11/2023  21:55    <DIR>          ..
26/11/2023  21:56             4.626 .gitignore
26/11/2023  21:56    <DIR>          .vscode
26/11/2023  21:56             274 host.json
26/11/2023  21:56             163 local.settings.json
26/11/2023  22:00             1.315 myNewFunction.cs
26/11/2023  21:56    <DIR>          Properties
26/11/2023  21:56             628 YourFunctionProjectName.csproj
                5 File(s)              7.006 bytes
                4 Dir(s)  788.419.620.864 bytes free

```

We also can set in the commands: the Azure **FunctionName**, the **template**, the **authorization level**, and the **runtime**.

```

func init YourFunctionProjectName --dotnet
cd YourFunctionProjectName
func new --name MyNewFunction --template "HTTP trigger" --authlevel "anonymous" --runtime dotn

```

4. Azure Function C# source code.

```

using System;
using System.IO;
using System.Threading.Tasks;
using Microsoft.AspNetCore.Mvc;
using Microsoft.Azure.WebJobs;
using Microsoft.Azure.WebJobs.Extensions.Http;
using Microsoft.AspNetCore.Http;
using Microsoft.Extensions.Logging;
using Newtonsoft.Json;

namespace YourFunctionProjectName
{
    public static class myNewFunction
    {
        [FunctionName("myNewFunction")]
        public static async Task<ActionResult> Run(
            [HttpTrigger(AuthorizationLevel.Function, "get", "post", Route = null)] HttpRequest req,
            ILogger log)
        {

```

```
log.LogInformation("C# HTTP trigger function processed a request.");

string name = req.Query["name"];

string requestBody = await new StreamReader(req.Body).ReadToEndAsync();
dynamic data = JsonConvert.DeserializeObject(requestBody);
name = name ?? data?.name;

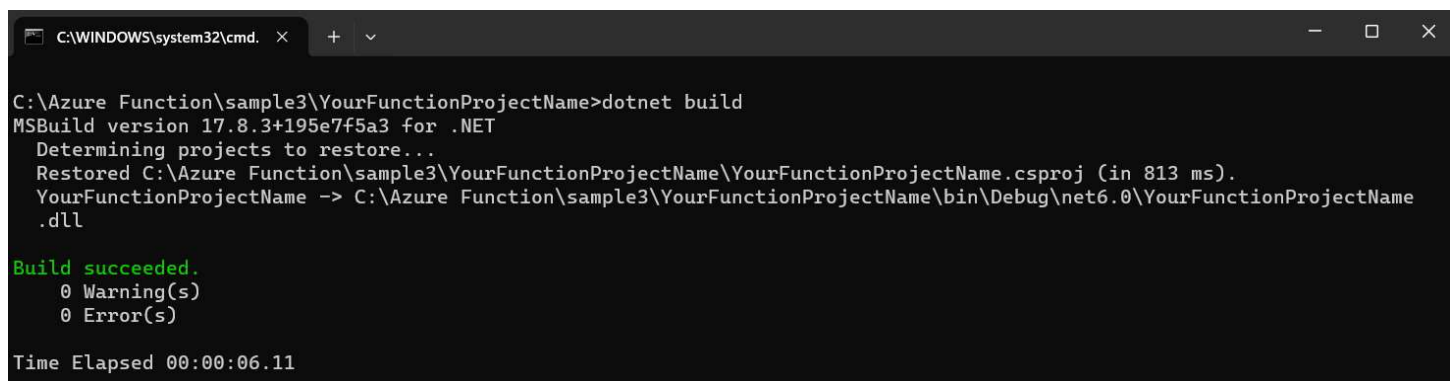
string responseMessage = string.IsNullOrEmpty(name)
    ? "This HTTP triggered function executed successfully. Pass a name in the query string."
    : $"Hello, {name}. This HTTP triggered function executed successfully.";

return new OkObjectResult(responseMessage);
}
}
}
```

5. Build the Project.

Run the following command to build the project:

```
dotnet build
```



```
C:\WINDOWS\system32\cmd. x + v
C:\Azure Function\sample3\YourFunctionProjectName>dotnet build
MSBuild version 17.8.3+195e7f5a3 for .NET
Determining projects to restore...
Restored C:\Azure Function\sample3\YourFunctionProjectName\YourFunctionProjectName.csproj (in 813 ms).
YourFunctionProjectName -> C:\Azure Function\sample3\YourFunctionProjectName\bin\Debug\net6.0\YourFunctionProjectName.dll
Build succeeded.
    0 Warning(s)
    0 Error(s)
Time Elapsed 00:00:06.11
```

6. Run the Function Locally:

Run the following command to start the function locally:

```
func start
```

This will start a local development server.


```
C:\WINDOWS\system32\cmd. x + v
C:\Azure Function\sample3\YourFunctionProjectName>func start
MSBuild version 17.8.3+195e7f5a3 for .NET
Determining projects to restore...
All projects are up-to-date for restore.
YourFunctionProjectName -> C:\Azure Function\sample3\YourFunctionProjectName\bin\output\YourFunctionProjectName.dll

Build succeeded.
0 Warning(s)
0 Error(s)

Time Elapsed 00:00:03.64

Azure Functions Core Tools
Core Tools Version: 4.0.5455 Commit hash: N/A (64-bit)
Function Runtime Version: 4.27.5.21554

[2023-11-26T21:02:03.438Z] Found C:\Azure Function\sample3\YourFunctionProjectName\YourFunctionProjectName.csproj. Using
for user secrets file configuration.

Functions:

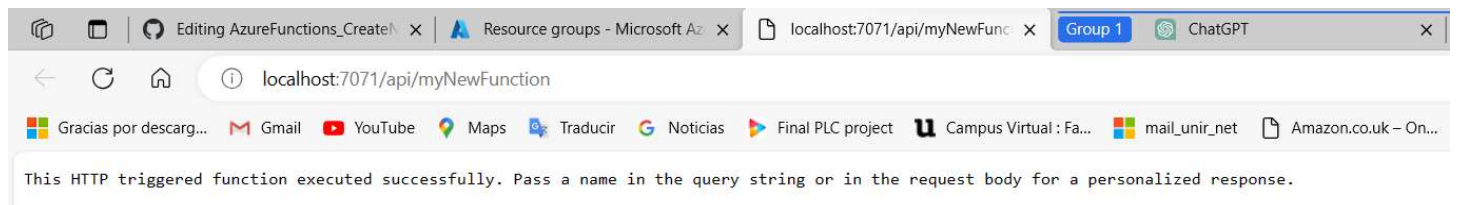
    myNewFunction: [GET,POST] http://localhost:7071/api/myNewFunction

For detailed output, run func with --verbose flag.
```

7. Test the Function:

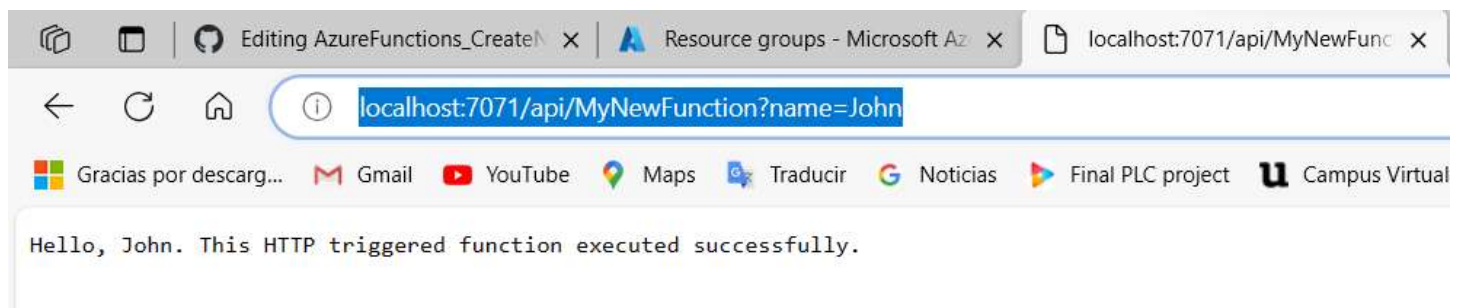
Open a web browser or a tool like Postman and send a request to the locally running function.

The URL will be displayed in the terminal.



We can also invoke the Azure Function setting the parameter "name"

<http://localhost:7071/api/MyNewFunction?name=John>



8. Publish to Azure (Optional):

Make sure you have an Azure Function App created in the Azure portal.

If not, you'll need to create one.

The name you provide here is what you'll use in the `func azure functionapp publish` command.

For creating a new Azure Function open this service in Azure Portal and press on the "Create Function App" button:

The screenshot shows the Microsoft Azure Portal interface for managing Function Apps. The top navigation bar includes the Microsoft Azure logo and a search bar. The left sidebar contains a navigation menu with icons for various services. The main content area is titled 'Function App' and shows a list of function apps. The list is currently empty, displaying the message 'No function apps match your filters'. Above the list, there are filters for 'Subscription equals all', 'Resource group equals all', and 'Location equals all'. Below the list, there are buttons for 'Create Function App' and 'Clear filters', along with a link to 'Learn more about App Service'.

The set the input data requested for creating the new Azure Function:

← ↻ 🏠 🔒 https://portal.azure.com/#create/Microsoft.FunctionApp

Gracias por descarg... Gmail YouTube Maps Traducir Noticias Final PLC project Campus Virtua

Microsoft Azure 🔍 Search resources, services, and docs (G+)

>> Home > Function App >

+

🏠

📊

☰

★

📱

🚀

🌐

⚡

SQL

📡

🖥️

💡

📄

🔗

💎

🕒

Create Function App

Basics Storage Networking Monitoring Deployment Tags Review + create

Create a function app, which lets you group functions as a logical unit for easier management, deployment and sharing of resources. Functions lets you execute your code in a serverless environment without having to first create a VM or publish a web application.

Project Details

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Azure subscription 1 ▼

Resource Group * ⓘ

myNewRgName ▼

Create new

Instance Details

Function App name *

MyFirstAzureFunctionFromCommandPrompt ✓

.azurewebsites.net

Do you want to deploy code or container image? *

☒ Code ☐ Container Image

Runtime stack *

Select a runtime stack ▼

Microsoft Azure

Search resources, services, and docs (G+)

Home > Function App >

Create Function App

Do you want to deploy code or container image? ☒ Code ☐ Container Image

Runtime stack

Version

Region

Operating system

The Operating System has been recommended for you based on your selection of runtime stack.

Operating System ☐ Linux ☒ Windows

Hosting

The plan you choose dictates how your app scales, what features are enabled, and how it is priced. [Learn more](#)

Hosting options and plans

- ☒ Consumption (Serverless)
Optimized for serverless and event-driven workloads.
- ☐ Functions Premium
Event based scaling and network isolation, ideal for workloads running continuously.
- ☐ App service plan
Fully isolated and dedicated environment suitable for workloads that need large SKUs or need to co-locate Web Apps and Functions.

[Review + create](#) [< Previous](#) [Next : Storage >](#)

Then press the button "Review + create"

Then press the button "Create"

The screenshot shows the 'Create Function App' wizard in the Microsoft Azure portal, specifically the 'Review + create' step. The browser address bar shows the URL <https://portal.azure.com/#create/Microsoft.FunctionApp>. The page header includes the Microsoft Azure logo and a search bar. The left sidebar contains navigation icons for various Azure services. The main content area displays the wizard progress: Basics, Storage, Networking, Monitoring, Deployment, Tags, and Review + create (which is underlined). Below the progress bar, the 'Function App by Microsoft' logo is shown. The 'Details' section lists the following information:

Subscription	846901e6-da09-45c8-98ca-7cca2353ff0e
Resource Group	myNewRgName
Name	MyFirstAzureFunctionFromCommandPrompt
Runtime stack	.NET 8 (LTS) Isolated (Early Access)

The 'Hosting' section is also visible, followed by the 'Storage' section (Storage account) and the 'Plan (New)' section. The 'Plan (New)' section lists the following information:

Hosting options and plans	Consumption (Serverless)
Name	ASP-myNewRgName-bbcc
Operating System	Windows
Region	West Europe
SKU	Dynamic

At the bottom of the wizard, there are three buttons: 'Create' (highlighted in blue), '< Previous', and 'Next >'. To the right of these buttons is a link: 'Download a template for automation'.

Now the new Azure Function deployment is in progress

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo and a search bar. The left sidebar contains a navigation menu with options like Home, Overview, Inputs, Outputs, and Template. The main content area displays the title "Microsoft.Web-FunctionApp-Portal-ffc091e5-b132 | Overview" and a "Deployment" section. The deployment status is "Deployment is in progress". The deployment details show the name "Microsoft.Web-FunctionApp-Portal-ffc091e5-b...", subscription "Azure subscription 1", and resource group "myNewRgName". The start time is "11/26/2023, 10:16:07 PM" and the correlation ID is "40ee730e-4b6c-46a4-91ed-0803f9ac58fb". A table with columns "Resource", "Type", "Status", and "Operation details" is shown, but it contains "No results.".

Microsoft Azure

Home >

Microsoft.Web-FunctionApp-Portal-ffc091e5-b132 | Overview

Deployment

Search

Delete Cancel Redeploy Download Refresh

Deployment is in progress

Deployment name: Microsoft.Web-FunctionApp-Portal-ffc091e5-b... Start time: 11/26/2023, 10:16:07 PM
Subscription: Azure subscription 1 Correlation ID: 40ee730e-4b6c-46a4-91ed-0803f9ac58fb
Resource group: myNewRgName

Deployment details

Resource	Type	Status	Operation details
No results.			

Give feedback

Tell us about your experience with deployment

When the deployment is finished you can navigate to the new resource, press the "Go to resource" button:

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo and a search bar. The left sidebar contains a navigation menu with options like Home, Overview, Inputs, Outputs, and Template. The main content area displays the title "Microsoft.Web-FunctionApp-Portal-ffc091e5-b132 | Overview" and a "Deployment" section. The deployment status is "Your deployment is complete". The deployment details show the name "Microsoft.Web-FunctionApp-Portal-ffc091e5-b...", subscription "Azure subscription 1", and resource group "myNewRgName". The start time is "11/26/2023, 10:16:07 PM" and the correlation ID is "40ee730e-4b6c-46a4-91ed-0803f9ac58fb". A "Next steps" section includes "Create a function. Recommended" and "Manage deployments for your app. Recommended". A "Go to resource" button is highlighted with a red box.

Microsoft Azure

Home >

Microsoft.Web-FunctionApp-Portal-ffc091e5-b132 | Overview

Deployment

Search

Delete Cancel Redeploy Download Refresh

Your deployment is complete

Deployment name: Microsoft.Web-FunctionApp-Portal-ffc091e5-b... Start time: 11/26/2023, 10:16:07 PM
Subscription: Azure subscription 1 Correlation ID: 40ee730e-4b6c-46a4-91ed-0803f9ac58fb
Resource group: myNewRgName

Deployment details

Next steps

Create a function. Recommended

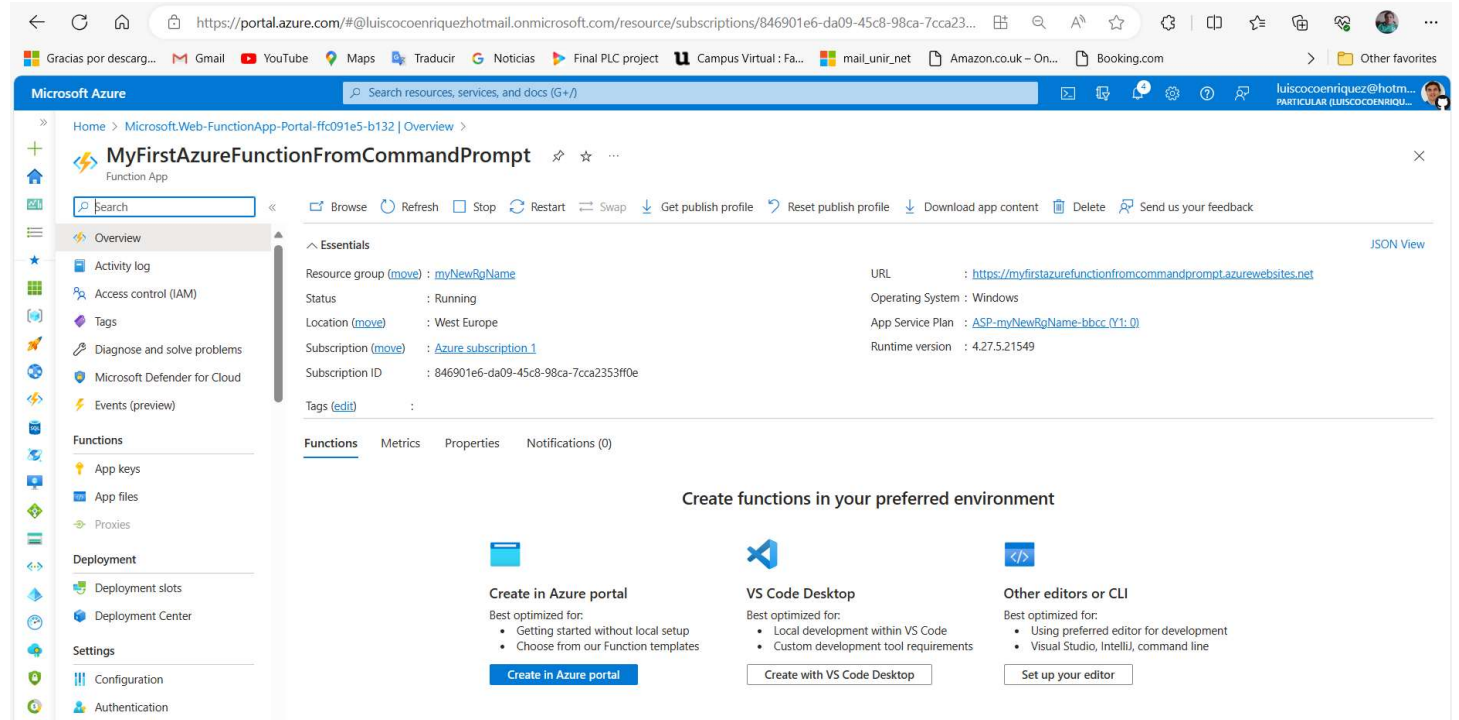
Manage deployments for your app. Recommended

Go to resource

Go to resource

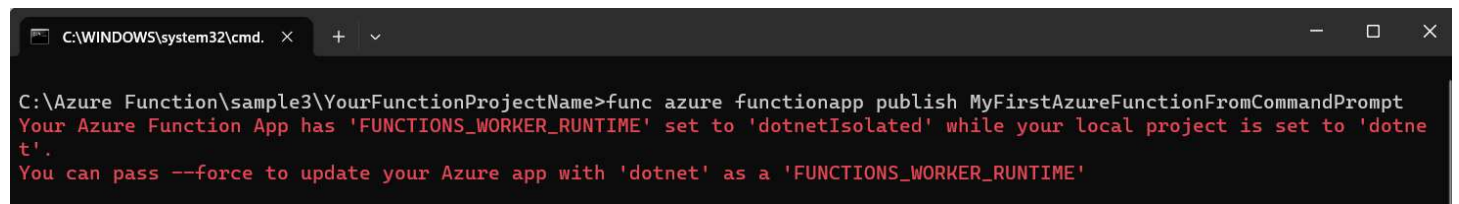
Give feedback

Tell us about your experience with deployment



If you want to deploy your function to Azure, you can run the following command:

```
func azure functionapp publish MyFirstAzureFunctionFromCommandPrompt
```



This error is telling you that there is a mismatch between the **FUNCTIONS_WORKER_RUNTIME** setting in your Azure Function App and your local project.

In Azure, the app is set to use **dotnetIsolated**, while your local project is set to **dotnet**.

To resolve this, you have a couple of options:

Update Local Project to Use dotnetIsolated:

Open your YourFunctionProjectName.csproj file.

Change the element to **net6.0-isolated** (or the version you are using).

Save the file.

Example:

```
<Project Sdk="Microsoft.NET.Sdk">

  <PropertyGroup>
```



```

    <OutputType>Exe</OutputType>
    <TargetFramework>net6.0-isolated</TargetFramework>
  </PropertyGroup>

</Project>

```

Pass --force to Update Azure App:

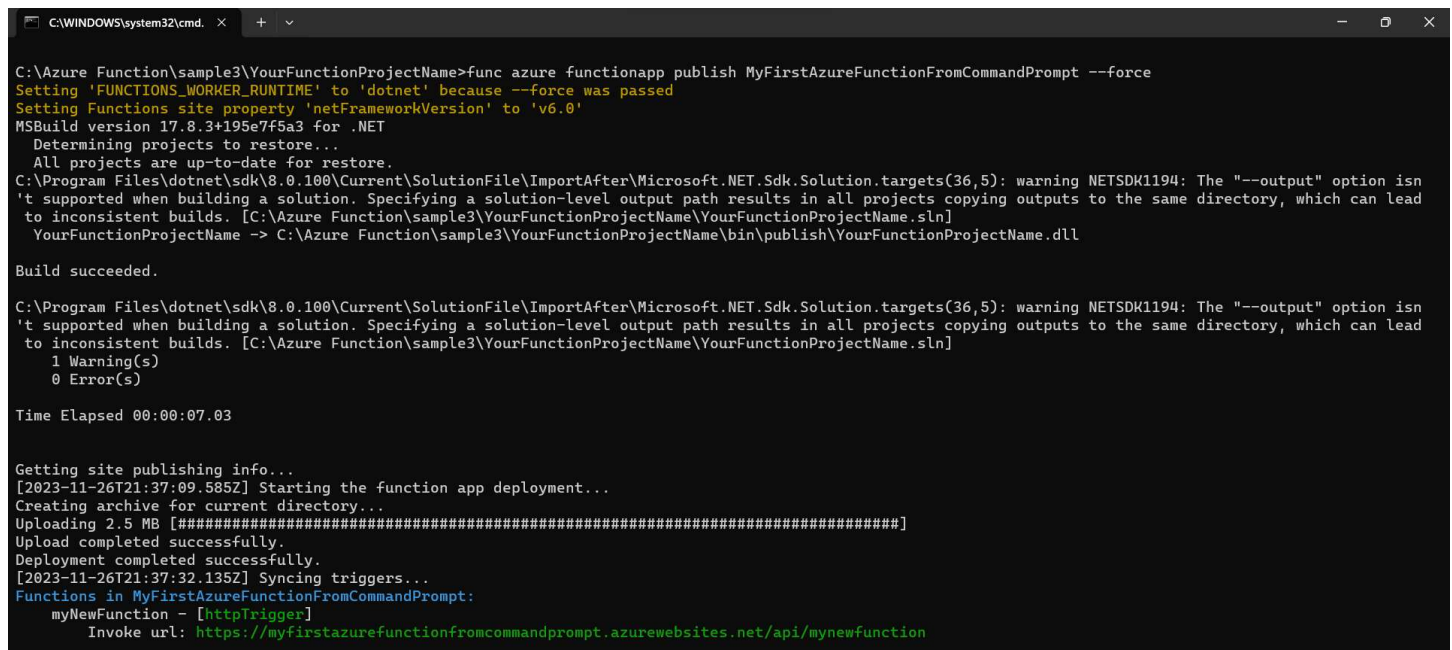
Run the following command, passing the **--force** option:

```
func azure functionapp publish MyFirstAzureFunctionFromCommandPrompt --force
```

This will update your Azure Function App to use dotnet as the FUNCTIONS_WORKER_RUNTIME.

Choose the option that best fits your requirements.

If you're using the isolated process model locally (net6.0-isolated), it's a good idea to update your Azure Function App to match.



```

C:\Azure Function\sample3\YourFunctionProjectName>func azure functionapp publish MyFirstAzureFunctionFromCommandPrompt --force
Setting 'FUNCTIONS_WORKER_RUNTIME' to 'dotnet' because --force was passed
Setting Functions site property 'netFrameworkVersion' to 'v6.0'
MSBuild version 17.8.3+195e7f5a3 for .NET
Determining projects to restore...
All projects are up-to-date for restore.
C:\Program Files\dotnet\sdk\8.0.100\Current\SolutionFile\ImportAfter\Microsoft.NET.Sdk.Solution.targets(36,5): warning NETSDK1194: The "--output" option isn
't supported when building a solution. Specifying a solution-level output path results in all projects copying outputs to the same directory, which can lead
to inconsistent builds. [C:\Azure Function\sample3\YourFunctionProjectName\YourFunctionProjectName.sln]
YourFunctionProjectName -> C:\Azure Function\sample3\YourFunctionProjectName\bin\publish\YourFunctionProjectName.dll

Build succeeded.

C:\Program Files\dotnet\sdk\8.0.100\Current\SolutionFile\ImportAfter\Microsoft.NET.Sdk.Solution.targets(36,5): warning NETSDK1194: The "--output" option isn
't supported when building a solution. Specifying a solution-level output path results in all projects copying outputs to the same directory, which can lead
to inconsistent builds. [C:\Azure Function\sample3\YourFunctionProjectName\YourFunctionProjectName.sln]
    1 Warning(s)
    0 Error(s)

Time Elapsed 00:00:07.03

Getting site publishing info...
[2023-11-26T21:37:09.585Z] Starting the function app deployment...
Creating archive for current directory...
Uploading 2.5 MB [#####]
Upload completed successfully.
Deployment completed successfully.
[2023-11-26T21:37:32.135Z] Syncing triggers...
Functions in MyFirstAzureFunctionFromCommandPrompt:
myNewFunction - [httpTrigger]
Invoke url: https://myfirstazurefunctionfromcommandprompt.azurewebsites.net/api/mynewfunction

```

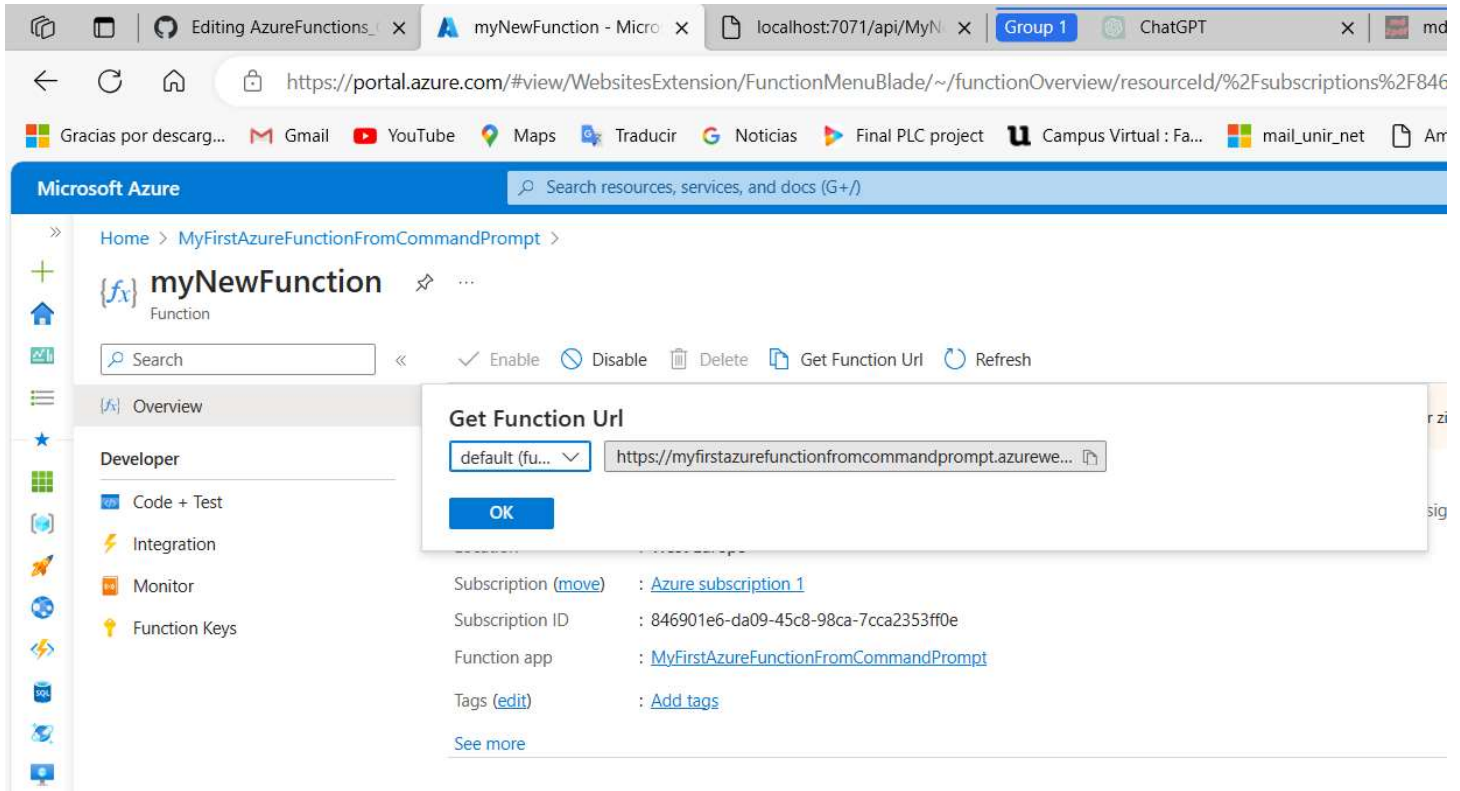
After the deployment go to Azure portal and navigate to the new Azure Function

The screenshot shows the Azure Portal interface for a Function App. The left sidebar contains navigation options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Microsoft Defender for Cloud, Events (preview), Functions, App keys, App files, Proxies, Deployment, Deployment slots, and Deployment Center. The main area displays the 'Essentials' section for the Function App 'MyFirstAzureFunctionFromCommandPrompt'. Key details include: Resource group (move) : myNewRgName, Status : Running, Location (move) : West Europe, Subscription (move) : Azure subscription 1, Subscription ID : 846901e6-da09-45c8-98ca-7cca2353ff0e, URL : https://myfirstazurefunctionfromcommandprompt.azurewebsites.net, Operating System : Windows, App Service Plan : ASP-myNewRgName-bbcc(Y1:0), and Runtime version : 4.27.5.21549. Below this, there is a table with columns Name, Trigger, Status, and Monitor. The table contains one entry: 'myNewFunction' with Trigger 'HTTP', Status 'Enabled', and Monitor 'Invocations and more'.

Now we press in the "Get Function Url" option

The screenshot shows the Azure Portal interface for a specific function named 'myNewFunction'. The left sidebar shows navigation options like Overview, Developer, Code + Test, Integration, Monitor, and Function Keys. The main area displays the 'Essentials' section for the function. Key details include: Resource group (move) : myNewRgName, Location : West Europe, Subscription (move) : Azure subscription 1, Subscription ID : 846901e6-da09-45c8-98ca-7cca2353ff0e, Function app : MyFirstAzureFunctionFromCommandPrompt, and Tags (edit) : Add tags. A red box highlights the 'Get Function Url' button in the top right corner of the Essentials section. A tooltip for the button says 'Get Function Url'. Below the button, a warning message states: 'Your app is currently in read only mode because you are running from a package file. To make any change'.

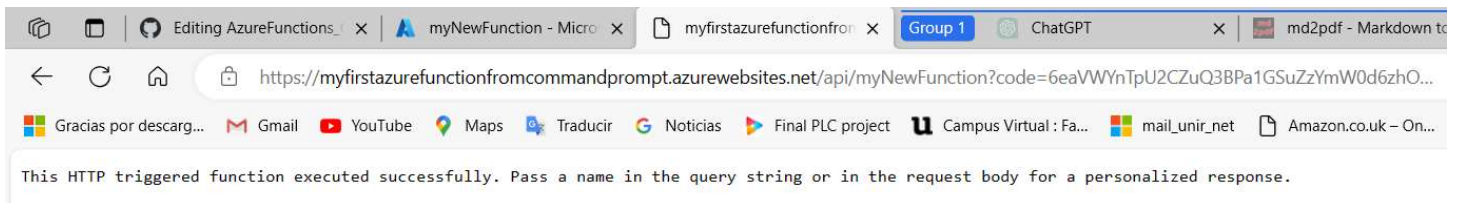
Then we copy and paste the Azure Function Url in the internet web browser:



The screenshot shows the Azure Portal interface for a function named 'myNewFunction'. The left sidebar contains navigation options like 'Overview', 'Developer', 'Code + Test', 'Integration', 'Monitor', and 'Function Keys'. The main area displays the function's overview, including a search bar, status controls (Enable, Disable, Delete), and a 'Get Function Url' button. A modal dialog titled 'Get Function Url' is open, showing the function's URL and other details:

- Subscription (move): [Azure subscription 1](#)
- Subscription ID: 846901e6-da09-45c8-98ca-7cca2353ff0e
- Function app: [MyFirstAzureFunctionFromCommandPrompt](#)
- Tags (edit): [Add tags](#)
- [See more](#)

We check the output



The screenshot shows a web browser displaying the output of the Azure Function. The URL is <https://myfirstazurefunctionfromcommandprompt.azurewebsites.net/api/myNewFunction?code=6eaVWYnTpU2CZuQ3BPpa1GSuZzYmW0d6zhO...>. The response text is:

This HTTP triggered function executed successfully. Pass a name in the query string or in the request body for a personalized response.