

WebAPI2CLI

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WebAPI2CLI

Execute ASP.NET Core WebAPI from Command Line



Why

What if, instead of running the WebAPI (or just the site) and waiting for commands from the user, you want also to execute from the command line some

controllers actions ?

This project let's you do that by enabling the command line with

```
< myexe >.exe --CLI_ENABLED=1 --CLI_Commands=" ... "
```

The command names are in a *cli.txt* file that can be generated with

```
< myexe >.exe --CLI_ENABLED=1 --CLI_HELP=1
```

How to use (for .NET Core 3.1)

Step 0 : install into your ASP.NET Core Web

Install the package <https://www.nuget.org/packages/ExtensionNetCore3>

Modify your ASP.NET Core as below:

```
public void ConfigureServices(IServiceCollection services)
{
    services.AddCLI();
    //your code omitted
}
public void Configure(IApplicationBuilder app, IWebHostEnvironment env)
{
    app.UseCLI();
    //your code omitted
}
```

And that is all modifications that you need to do for the source code.

Step 1 - find and save the definition of the commands, i.e. WebAPI endpoints

First, you must generate the definition of the commands. For this, we take the OPEN API (swagger) approach.

For this, after you compile the project, you will run your .exe program with arguments:

```
< myexe >.exe --CLI_ENABLED=1 --CLI_HELP=1
```

(or make this from *Visual Studio, Project, Properties, Debug*)

This will generate a *cli.txt* file with all definitions of the WebAPI. (if your API does not appear, check if you have *ApiController* defined)

Open your *cli.txt* file and modify the names of the commands as you wish (also , the arguments)

Copy this *cli.txt* in your solution and be sure that is copied with the exe (in Visual Studio right click the file, properties, Build Action = Content, CopyToOutputDirectory = Copy if newer)

Step 2 - run the commands

Ensure that the file is near your exe WebAPI.

Run the exe with the following:

```
< myexe >.exe --CLI_ENABLED=1 --CLI_Commands="your first command,your second command, and enumerate all commands"
```

The program will run the commands and output the result.

More details here(including a demo)

<https://ignatandrei.github.io/WebAPI2CLI/>

If you want a demo

If you have Win10 x64

Go to https://dev.azure.com/ignatandrei0674/WebAPI2CLI/_build?definitionId=7&_a=summary

Click on the latest job.

Click on artifacts.

See drop1 . In the right of drop1 , you can download the drop1 folder.

Unzip the drop1 (you will need the cli.txt that contains the WebAPI definitions)

Inside drop1 , you will find TestWebAPISite.exe

Run TestWebAPISite.exe and browse to <http://localhost:5000/swagger>

Close TestWebAPISite.exe command prompt.

Now run

```
TestWebAPISite.exe --CLI_Enabled=1 --CLI_COMMANDS="GetMathId_Http,WeatherGet"
```

(ensure the cli.txt is near to TestWebAPISite.exe)

If you have another operating system than Win10-x64 and want a demo

It is easy to make a demo for you. Modify the .csproj and the yml file in azure. Or make an issue at <https://github.com/ignatandrei/webAPI2CLI/issues> and I will do it for you.

F.A.Q.

Will my WebAPI work as before?

The software takes care about

`--CLI_ENABLED=1`

If you do not have this command, your website runs as before

I want to run as a CLI and then use the WebAPI as before. Could I do that?

Yes. Use

```
< myexe >.exe --CLI_ENABLED=1 --CLI_Commands="your first com-  
mand,your second command" --CLI_STAY=1
```

I found a bug / I need a feature . Where can I report ?

All code source is at <https://github.com/ignatandrei/WebAPI2CLI/>

You can report problems at <https://github.com/ignatandrei/WebAPI2CLI/issues>

Where can I download this document ?

There is a PDF at <https://ignatandrei.github.io/WebAPI2CLI/Web2CLI.pdf>