Devon4Net Templetes:

Overview:

In this guide it will be explained how to generate a new WebApi project from an OpenAPI 3.0.0 specification. It means that we are going to use a “contract first” strategy. It is going to be possible due to this type of files that contains all the information about entities, operations, etc…​

In order to make it works we are using Cobigen (<https://github.com/devonfw/tools-cobigen>) that is a powerful tool for generating source code. Cobigen allows users to generate all the structure and code of the components, helping to save a lot of time waisted in repetitive tasks.

Getting thing ready

Devonfw Distribution:

The Devonfw distributions can be obtained from the TeamForge releases library and are packaged in a *zip* file that includes all the needed tools, software and configurations. ( <https://coconet.capgemini.com/sf/frs/do/listReleases/projects.apps2_devon/frs.devon_distribution>)

It is not necessary to install nor configure anything. Just extracting the *zip* content is enough to have a fully functional *Devonfw*. The only thing you have to do is run “create-or-update-workspace.bat” and then “update-all-workspaces.bat” to set up all the needed tools.

Cobigen Templates:

**Importing Cobigen templates**

In order to use Cobigen we will run “eclipse-main.bat” that we can find in the root page of Devonfw distribution.

At this point we need to import the CobiGen\_Templates from the main workspace. To do so, we only need to use the Eclipse’s menu File > Import > Existing Projects into Workspace and browse to select the workspaces/main/CobiGen\_Templates directory. Then click Finish button and you should have the CobiGen\_Templates as a new project in Eclipse’s workspace.

#### Cobigen Health Check

Devon4Net Template

We are going to use the template of devon4Net as base to generate all the code, so what we have to do now is to download that template.

Fist of all you have to set up all the environment for .NET, you can do this by following this(<https://devon4net.github.io/environment.html>).

At this point we are going to create a new folder where we want to have the WebAPI project, and we are going to open the terminal there.

Type the following:

dotnet new -i Devon4Net.Application.WebAPI

and then:

dotnet new Devon4Net.Application.WebAPI

OpenAPI File

At this point we are going to make some modifications to our OpenAPI file in order to let Cobigen generate all the files.

It is obligatory to put the "x-component" tags for each component.

As well the global variable “x-rootpackage” to indicate where Cobigen will place the files generated.

You can read more information about how to configure your OpenAPI file, as well as a full example here.

Generating files:

The first step is to import our basic Devon4Net WebAPI Project into Eclipse so, we open the file “eclipse-main.bat” that is located in the Devon distribution folder. Ones we are inside of Eclipse we go to File > Import > Existing Projects into Workspace and browse the folder where you have created the project.

Now we copy our OpenAPI file into the root folder of the project, and then we right click on OpenAPI file and then select Cobigen>Generate… It will display a window like this:

FOTOOOO

Here we have to choose “CRUD DEVON4NET Server” to automatically select all the sections. You can also select only those that interest you.

FOTOOO

Ones you select all the files that you want to generate, click on the “Finish” button to generate all the source code.

After that point, we open a terminal in the Devon4Net.Application.WebAPI and then type:

dotnet run

It will deploy our application in our localhost with the port 8081, so if we go to our browser and type the following we can see in swagger all the services and the data model:

localhost:8081/swagger