# Project Setup

Follow **net-commands.txt** file in the root to setup the project and also for the dotnet general commands

The following pic shows the folder structure:

A screenshot of a computer program

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# Updating

## Application URLs

Go to Properties 🡺launhsettings.json

### Remove section

,

    "https": {

      "commandName": "Project",

      "dotnetRunMessages": true,

      "launchBrowser": true,

      "launchUrl": "swagger",

      "applicationUrl": "https://localhost:5217;http://localhost:5218",

      "environmentVariables": {

        "ASPNETCORE\_ENVIRONMENT": "Development"

      }

    }

### Update section

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Description automatically generated

## Appsettings.development.json

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# Running the Application

* Navigate to the OAuth2.WebApi folder
* Issue command
  + dotnet build
  + dotnet run or dotnet watch run
  + User CTRL + C to stop
* Then go to <https://localhost:5217/swagger> or <http://localhost:5218/swagger> to execute

If problem running https then run command prompt as an administrator and issue

* dotnet dev-certs https --clean
* dotnet dev-certs https --trust

# VS Code Extensions

Install following extensions

1. C# Dev Kit – Microsoft
   1. This will also bring in C# - Base language support for C#
   2. .net Install tool for extension authors – Microsoft
   3. IntelliCode for C# Dev Kit - Microsoft
2. Material icon theme – Philip Kief
3. C# Extensions – JosKreativ [not needed due to C# Dev Kit]
4. NuGet Gallery v0.0.24
5. SQLite - alexcvzz

# VS Code Troubleshooting

When intelisence is not working or other issues then press CTRL+SHIFT+P and type Developer: reload window

# Disabling Warning for Non-nullable Property

To disable the following warning

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Open the project file OAuth2.WebApo.csproj and change

|  |  |
| --- | --- |
| From | To |
|  |  |

# Disable ImplicitUsings

## Impact

When ImplicitUsing is change to “disable” in the OAuth2.Webapi.csproj file then program.cs file will start throwing error(s).

|  |  |
| --- | --- |
| From | To |
|  |  |

You’ll need to add the using statement to fix it.

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So here is the updated program.cs file code.

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## What to do?

I have enabled ImplicitUsings in my code to make it easier to build items.

You decide for yourself.

# Entity Framework (EF)

1. An Object Relational Mapper (ORM)
2. Translates our code into SQL commands that update our tables in the database
3. We get a DbContext class with EF
   1. Create a class that derives from DbContext class
   2. This class acts as a bridge between the entity classes and database
4. EF works with database provide. For this project will work with SQLite, for development only
   1. SQLite Provider or Database Provider is responsible for converting LINQ queries to SQL commands

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## EF Features

* Querying
* Change Tracking
* Saving
* Concurrency
* Transactions
* Caching
* Built-in conventions
* Configurations
* Migrations

# Adding Packages

NuGet Gallery v0.0.24 is already installed [above](#_VS_Code_Extensions).

## Open NuGet Gallery

Press CTRL+SHFT+P to go to command pallet

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## Microsoft.EntityFrameworkCore.Sqlite

Search for it (do not pick Microsoft.EntityFrameworkCore.Sqlite.Core).

Select the project and then click install

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## Microsoft.EntityFrameworkCore.Design

Select the project and then click install

## System.IdentityModel.Tokens.Jwt

Search for System.IdentityModel.Token.Jwt by Microsoft

Select the project and then click install

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## Microsoft.AspNetCore.Authentication.JwtBearer

Search for Microsoft.AspNetCore.Authentication.JwtBearer by Microsoft

Select the project and then click install

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## AutoMapper.Extensions.Microsoft.DependencyInjection

Search for AutoMapper.Extensions.Microsoft.DependencyInjection by Jimmy Bogard

Select the project and then click install

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## Microsoft.AspNetCore.Identity.EntityFrameworkCore

Microsoft.AspNetCore.Identity.EntityFrameworkCore by Microsoft

Select the project and then click install

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## dotnet-ef

This package is not available on NuGet Gallery so search for it and then pick the command.

<https://www.nuget.org/packages/dotnet-ef/>

> dotnet tool install --global dotnet-ef --version 7.0.10

If you get into an error regarding tool already installed then check it

> dotnet tool list -g

Package Id Version Commands

--------------------------------------

dotnet-ef 6.0.6 dotnet-ef

**Update Tool**

> dotnet tool update --global dotnet-ef --version 7.0.10

Tool 'dotnet-ef' was successfully updated from version '6.0.6' to version '7.0.10'.

Commands related to dotnet tool: <https://learn.microsoft.com/en-us/dotnet/core/tools/dotnet-tool-install>

# EditorConfig

Create a file .editorconfig in the root and add following content into it.

[\*.{cs,vb}]

dotnet\_naming\_rule.private\_members\_with\_underscore.symbols  = private\_fields

dotnet\_naming\_rule.private\_members\_with\_underscore.style    = prefix\_underscore

dotnet\_naming\_rule.private\_members\_with\_underscore.severity = suggestion

dotnet\_naming\_symbols.private\_fields.applicable\_kinds           = field

dotnet\_naming\_symbols.private\_fields.applicable\_accessibilities = private\_fields

dotnet\_naming\_style.prefix\_underscore.capitalization    = camel\_case

dotnet\_naming\_style.prefix\_underscore.required\_prefix   = \_

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# Adding GlobalJson

Add globaljson file in the root by issuing command

> dotnet new globaljson

It will tell which version of the api to use

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# Disabling Hot Reload

>dotnet watch run

* Makes hot reload enabled.
* There are time where this doesn’t work

It could be turned off by updating Properties/launchSettings.json and updating with following key.

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Sometimes this may not work as well. Better option would be

>dotnet watch –no-hot-reload