Postman = Swagger

One solution has several projects.

ServiceCenter:

* SC.Api is **Console Application** .NET Core 3.1
* SC.Client is **Window Application** .NET Framework 4.7.2 (View, ViewModel)
* SC.DevelopmentSettings is Class Library .NET 5.0
* SC.DevelopmentSettingsFrame is Class Library .NET Framework 4.7.2
* SC.Library is **Class Library** .NET Framework 4.7.2 (Model)
* SC.ServerWay is **Class Library** .NET 5.0
* SC.ServerWayFrame is **Class Library** .NET Framework 4.7.2 (Cashe)
* SC.TrainingsDisplay is Window Application .NET Framework 4.7.2
* SC.Updater is Window Application .NET Framework 4.7.2

# ASP.NET Core Web API .NET 6 2022

<https://www.youtube.com/watch?v=_8nLSsK5NDo&list=PL82C6-O4XrHdiS10BLh23x71ve9mQCln0&ab_channel=TeddySmith>

<https://github.com/teddysmithdev/pokemon-review-api>

<https://www.youtube.com/watch?v=8pH5Lv4d5-g&ab_channel=PatrickGod>

https://github.com/patrickgod/SuperHeroAPI-DotNet7/tree/master

## 1. Create Project & Quick Tips

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Swagger (Postman) 

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**launchSettings.json – keeps the settings when the app launches.**

**appsettings.json – keen the settings when the app has run. These settings are used during the execution of the program.**

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## 4. Installing Entity Framework

1. create database in mssql
2. install: Microsoft.EntityFrameworkCore Microsoft.EntityFrameworkCore.SqlServer
3. Connect from Visual Studio with MSSql

Server name: PG-SUPPORT-22\SQLEXPRESS (localdb)\MyLocal

Login: sa Password: data#123

CRUD\_DB BookStories Films

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1. Create ApiDbContext and OnModelCreating

OnModelCreating

https://www.pragimtech.com/blog/blazor/asp.net-core-rest-api-dbcontext/

This method is called by the framework when your context is first created to build the model and its mappings in memory.

OnModelCreating is called by the framework when it is created the first time to make the models and map into memory. It provides you a way to configure the model class using fluent API. So you make changes in the model class and then add migration and update the database. The generated Snapshot gives you the exact details about the database. It does not get called during the program execution.

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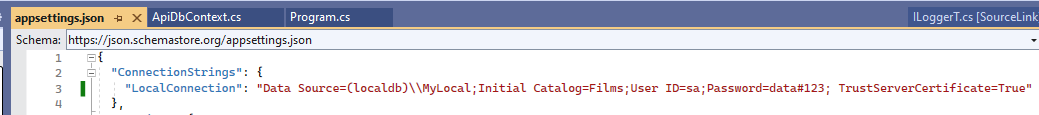
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1. Settings in Program.cs

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1. In appsettings.json



"LocalConnection": "Data Source=(localdb)\\MyLocal;Initial Catalog=Films;User ID=sa;Password=data#123; TrustServerCertificate=True",

1. Migration Microsoft.EntityFrameworkCore.Tools

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PM**> Add-Migration InitialCreate** Add-Migration \_\_name migration\_\_

PM**> Remove-Migration**

PM**> Add-Migration AddingColumn**

PM> **Update-database**

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1. Seeddata

// create instance for each component

//builder.Services.AddTransient<IAuthorService, AuthorService>();

// create single instance for all components

//builder.Services.AddSingleton<IAuthorService, AuthorService\_Version2>();

// create single instance for all components, but it is updated when refresh the page

//builder.Services.AddScoped<IAuthorService, AuthorService>();

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1. Settings in Program.cs

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Description automatically generatedor **dotnet run seeddata**

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## 5. Repository Pattern & Dependency Injection Explained

Interface

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Repository

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Controller

The main difference between the Controller and ControllerBase classes in C# ASP.NET Core is that Controller is a higher-level class that inherits from ControllerBase. The Controller class includes additional functionality such as render views, JSON helpers, and action filters.

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Program.cs

Swagger

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## 6. GET & Read Methods [PART 1]

### The DTO Pattern (Data Transfer Object)

### https://www.codeproject.com/Articles/1050468/Data-Transfer-Object-Design-Pattern-in-Csharp#:~:text=DTO%20(Data%20Transfer%20objects)%20is,have%20simple%20setters%20and%20getters.

DTO (Data Transfer objects) is a data container for moving data between layers. They are also termed as transfer objects. DTO is only used to pass data and does not contain any business logic. They only have simple setters and getters.

* [Scenario 1 :- Improve performance](https://www.codeproject.com/Articles/1050468/Data-Transfer-Object-Design-Pattern-in-Csharp#Scenario1:-Improveperformance)

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* [Scenario 2:- Flatten object hierarchy](https://www.codeproject.com/Articles/1050468/Data-Transfer-Object-Design-Pattern-in-Csharp#Scenario2:-Flattenobjecthierarchy)
* [Scenario 3:- Exclude properties](https://www.codeproject.com/Articles/1050468/Data-Transfer-Object-Design-Pattern-in-Csharp#Scenario3:-Excludeproperties)

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### AutoMapper in C#

The AutoMapper in C# is a mapper between two objects. That is AutoMapper is an Object-Object Mapper. It maps the properties of two different objects by transforming the input object of one type to the output object of another type.

**Mapping Object in Traditional Approach in C#**

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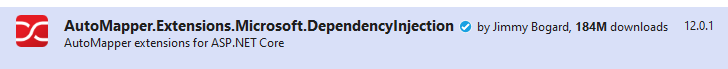
**Using AutoMapper in C#:**

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AutoMapper AutoMapper.Extensions.Microsoft.DependencyInjection

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Program.cs



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## 9. POST & Create Methods

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# ASP.Net Core Web API Using HttpClient in Console App

IIS Express (Internet Information Services Express) is a lightweight version of Microsoft's IIS web server that's designed to be used during development and testing of web applications. IIS Express supports various modes and configurations, including HTTPS settings.

<https://www.youtube.com/watch?v=qb3o_PIwVUk&ab_channel=Hacked>

https://www.youtube.com/watch?v=Bz5S86jmXQQ&ab\_channel=Hacked

1. Add ASP.Net Core Web API

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A screenshot of a computer

Description automatically generatedTest

1. Add Console App

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1. Settings

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1. Run Server and Client. We must wait when Server launches, then We press any key

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# ASP.Net Core Web API Using HttpClient in WPF

1. Add ASP.Net Core Web API

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1. Add WPF App

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1. Settings

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1. Run Server and Client. We must wait when Server launches, then We press any key

1-Server API asp.net, 2-WPF, 3-Console App

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# ASP.Net Core Web API Using HttpClient in Blazor

A close-up of a computer screen

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Interface

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Service

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Razor

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Program  
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# Class Library for Models

<https://www.youtube.com/watch?v=cqRqkJaLgls&t=985s&ab_channel=CodingJackpot>

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# Empty Solution

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# Errors

{"'S' is an invalid start of a value. LineNumber: 0 | BytePositionInLine: 0."}

The error message you're encountering, "'S' is an invalid start of a value," indicates that the response you're receiving from the API is not in the expected format for JSON parsing.