



## ABP Framework Introduction

# Introduction

This document will introduce ABP Framework that is used by this product.

ABP Framework is a complete infrastructure based on the ASP.NET Core to create modern web applications and APIs by following the software development best practices and the latest technologies.

ABP Framework is free and open source created by Volosoft.

More about ABP Framework can be read on their official sites:

- Documentation: <https://docs.abp.io/en/abp/latest>
- Project Source Code: <https://github.com/abpframework/abp>
- Official Volosoft Company Website: <https://volosoft.com/>

# Requirements and Knowledge

Below are technology requirements and minimum knowledge that needed to be able follow the product and documentation

## Minimum knowledge

- Language: C#
- IDE: Visual Studio 2019
- Web UI: ASP.NET Razor Pages

## Technology Requirements

- .NET Core version: ASP.NET Core 5
- Visual Studio 2019
- MS SQL Express and Management Studio
- ABP Framework

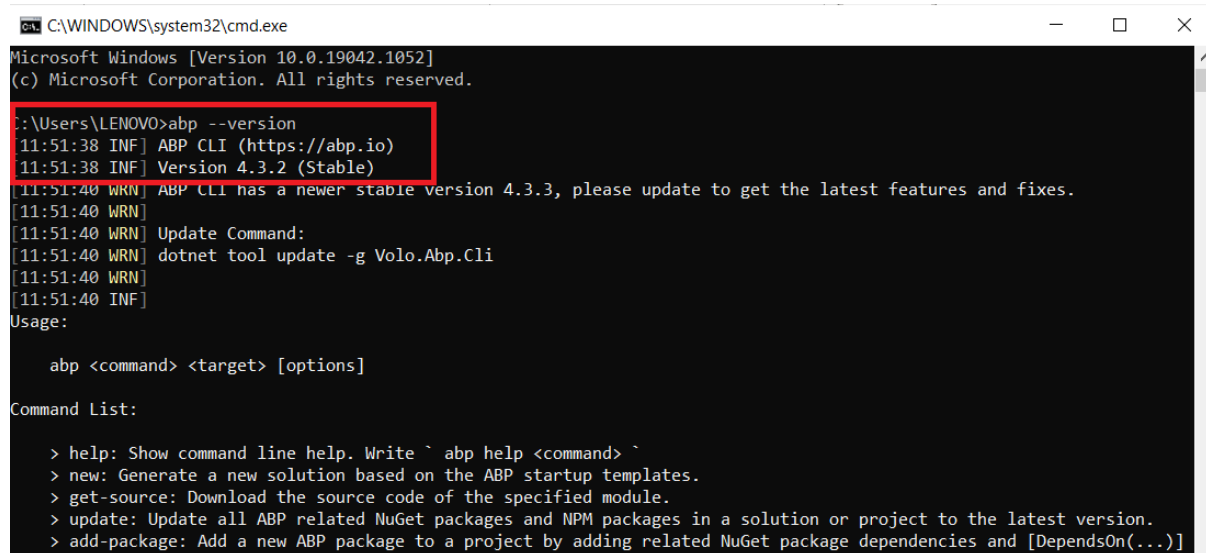
# Install ABP CLI

ABP CLI needed to create new solution and to run the migration to create database automatically and seed it with initial data.

## Steps to install ABP CLI

- Open your CMD
- Type: dotnet tool install -g Volo.Abp.Cli
- Hit enter
- Done

Make sure to check its installed by checking the version



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19042.1052]
(c) Microsoft Corporation. All rights reserved.

C:\Users\LENOVO>abp --version
11:51:38 INF] ABP CLI (https://abp.io)
11:51:38 INF] Version 4.3.2 (Stable)
11:51:40 WRN] ABP CLI has a newer stable version 4.3.3, please update to get the latest features and fixes.
11:51:40 WRN] Update Command:
11:51:40 WRN] dotnet tool update -g Volo.Abp.Cli
11:51:40 WRN]
11:51:40 INF]
Usage:

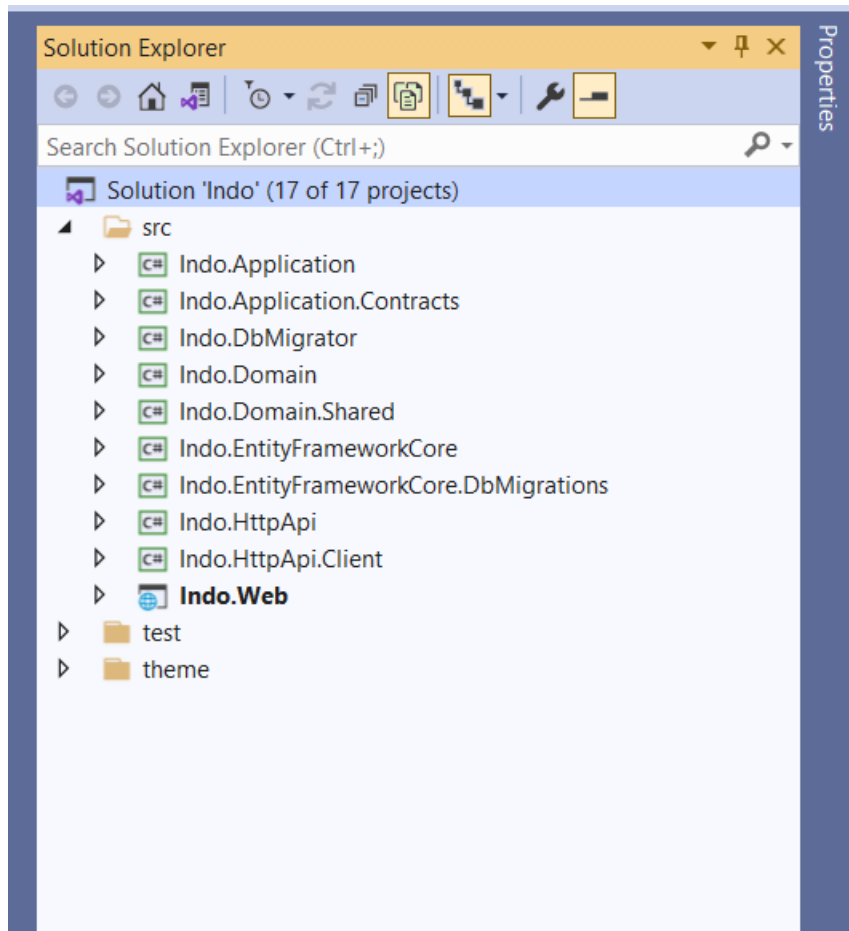
    abp <command> <target> [options]

Command List:

> help: Show command line help. Write ` abp help <command> `
> new: Generate a new solution based on the ABP startup templates.
> get-source: Download the source code of the specified module.
> update: Update all ABP related NuGet packages and NPM packages in a solution or project to the latest version.
> add-package: Add a new ABP package to a project by adding related NuGet package dependencies and [DependsOn(...)]
```

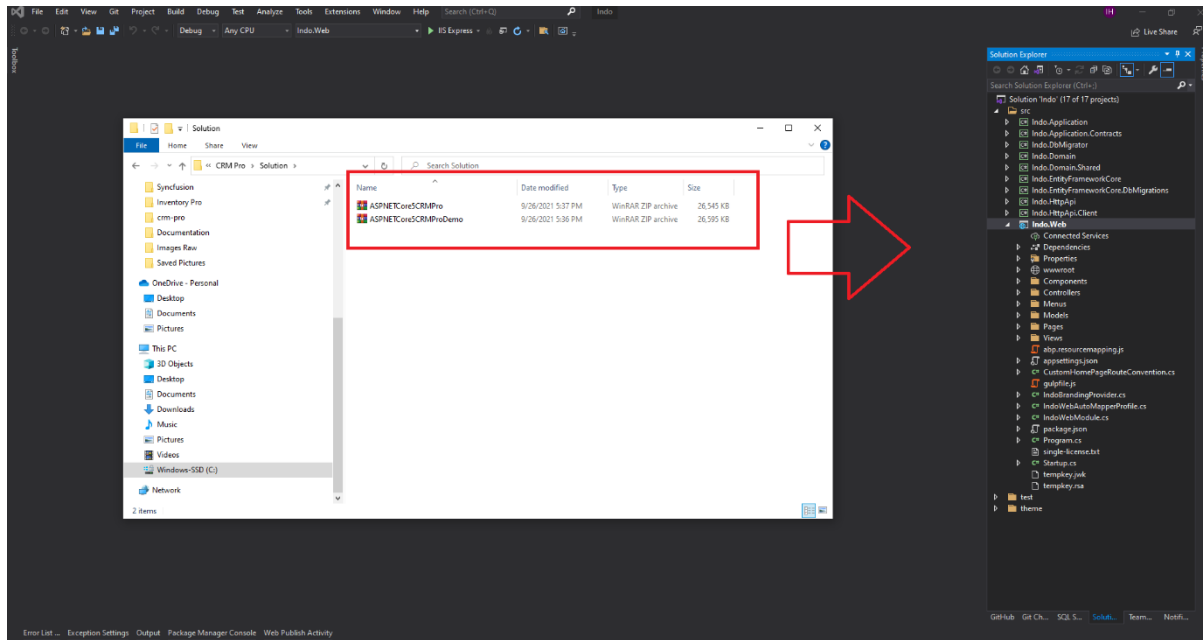
# Run The Project Solution

Below is the typical multi-layered projects solution that generated by ABP:



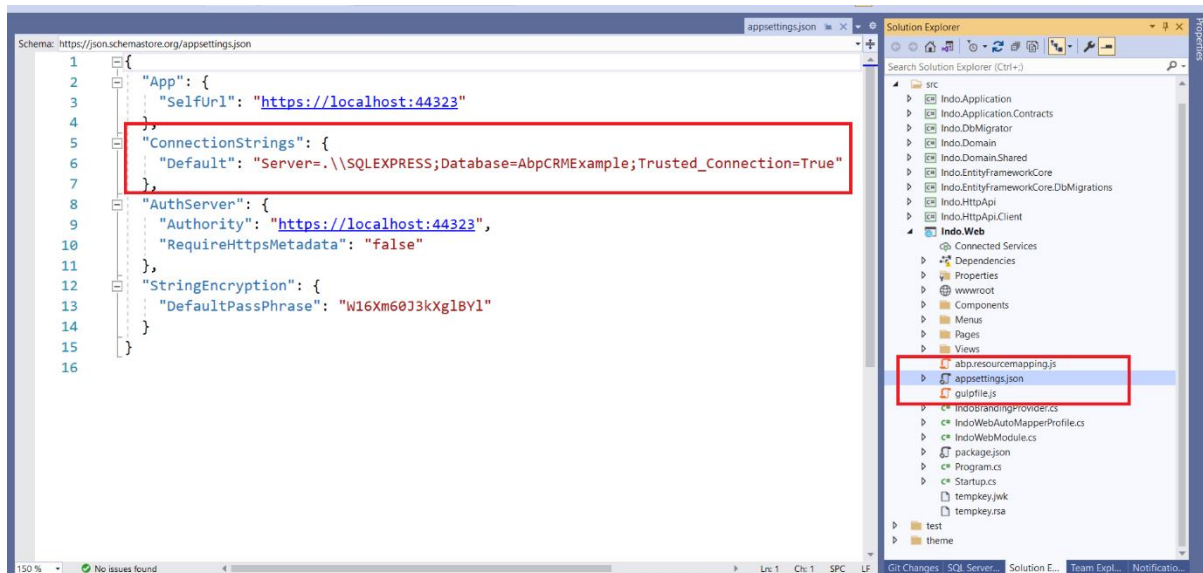
Below are steps to run the project

## 1. Open the project using Visual Studio



## 2. Change the connection string at two places

Appsettings.json from Web project



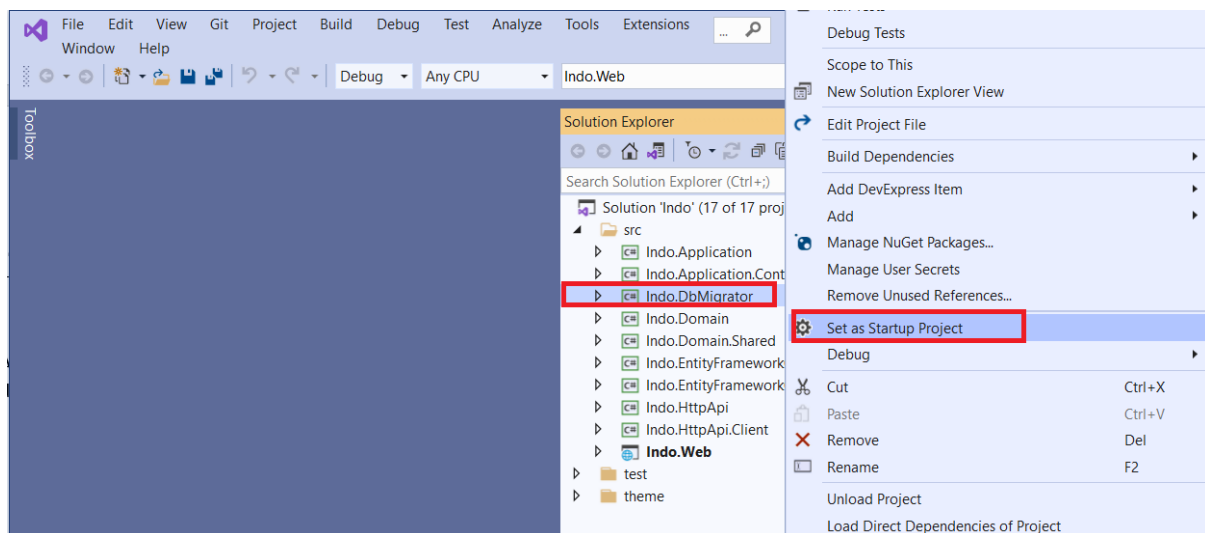
Appsettings.json from DbMigrator project



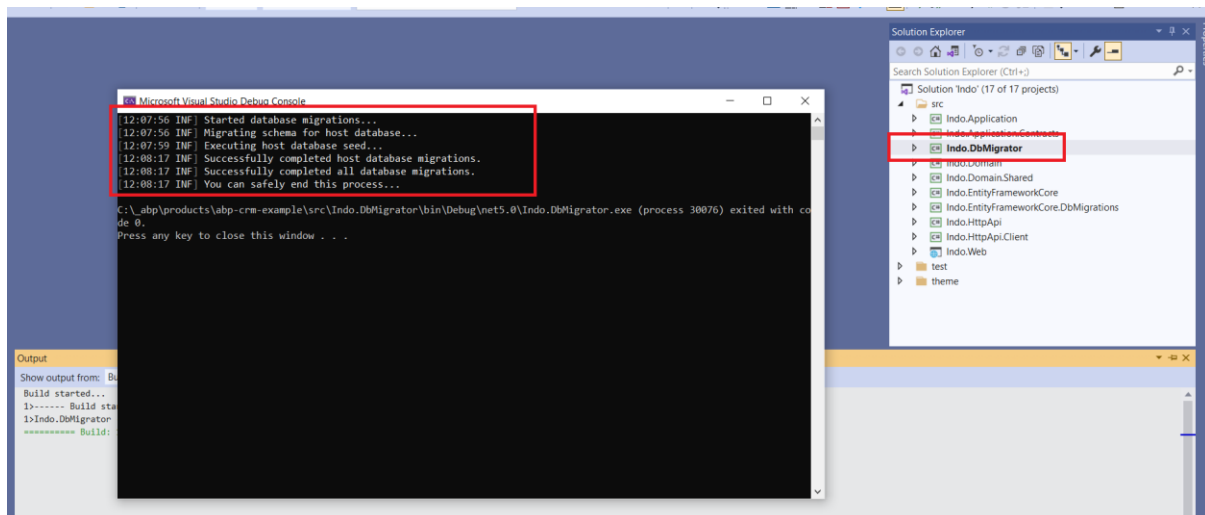
Please make sure to change the connection string to target your MSSQL / Express server.

3. Create the database automatically and seed it with data by executing DbMigrator project (don't forget to: Set as Startup Project before you execute the DbMigrator project)

### Set as Startup Project



### Run the DbMigrator project by hit: Ctrl+F5

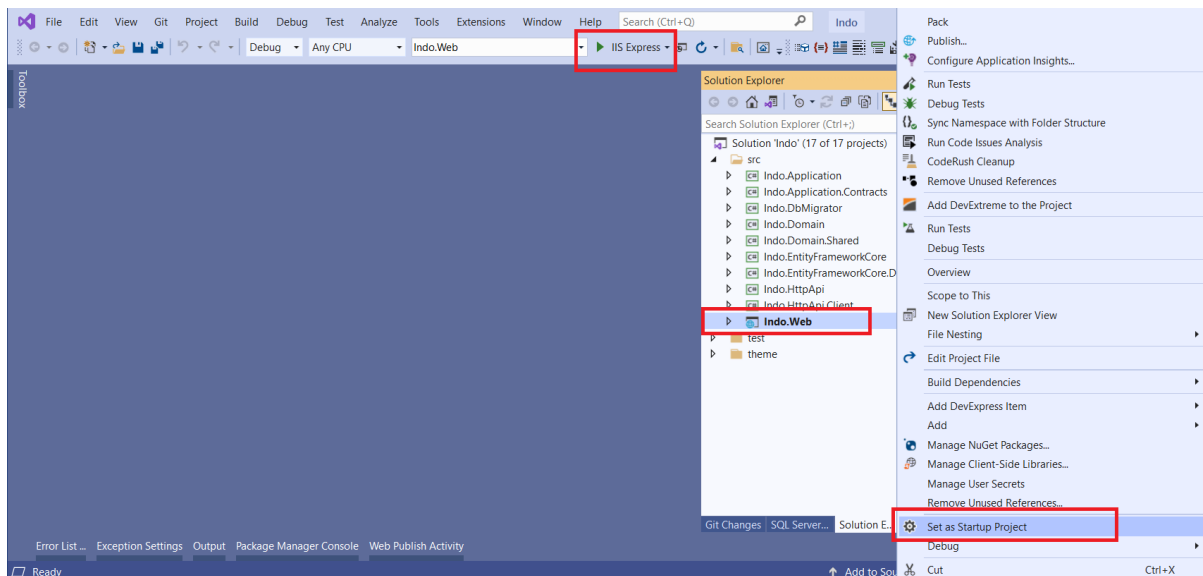




4. Run the ASP.NET Core 5 Razor Pages and use default credentials (username: admin, password: 1q2w3E\*)

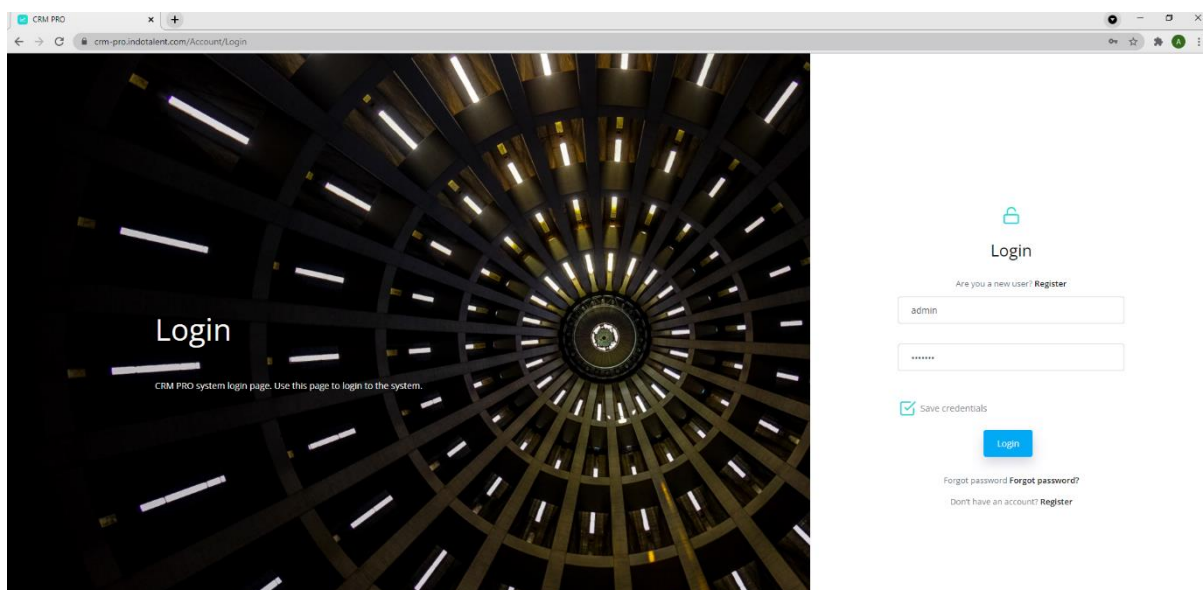
Note:

Don't forget to change to startup project from DbMigrator to Web project



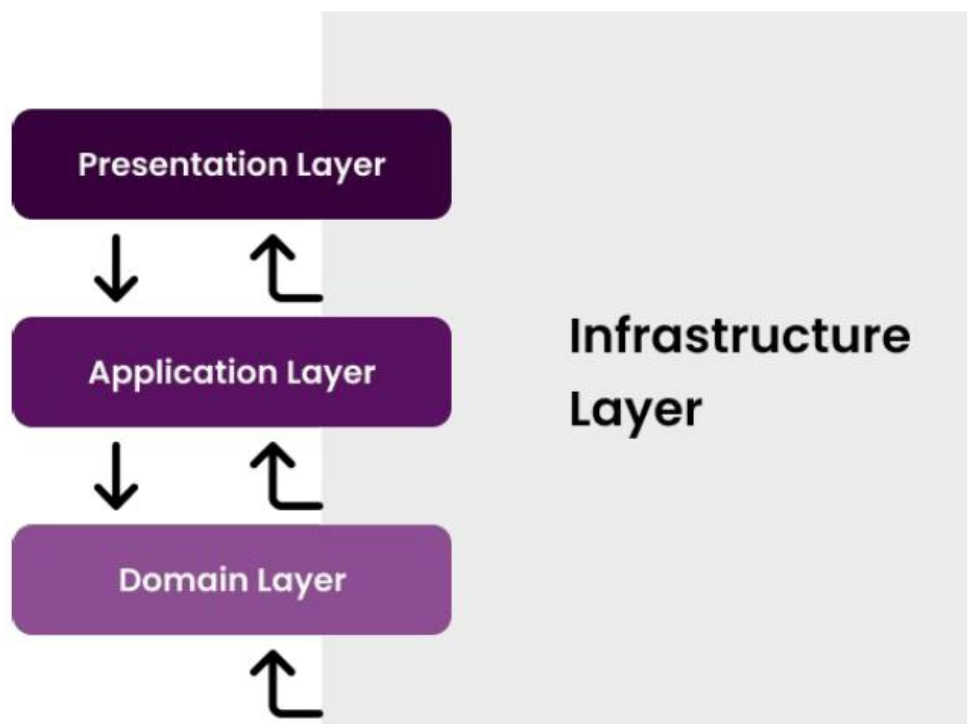
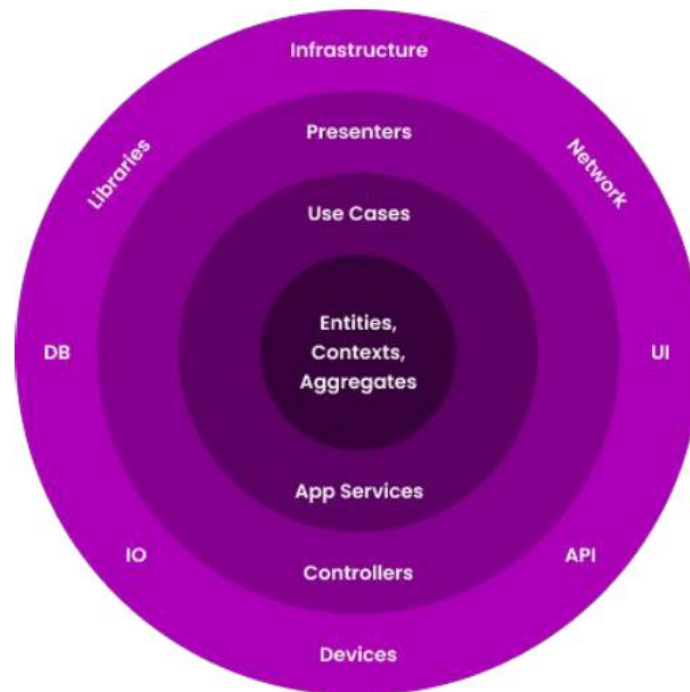
Default username: admin

Default password: 1q2w3E\*



# DDD and Clear Architecture

ABP Framework follow DDD and clear architecture. In the Clean Architecture, each layer only depends on the layer directly inside it. The most independent layer is shown in the most inner circle and it is the Domain Layer.



ABP Framework creator: Halil Ibrahim Kalkan create great ebook about DDD and Clean Architecture that can be freely download. Please use below link to download the eBook:

<https://abp.io/books/implementing-domain-driven-design>

ABP Framework come also with great documentation, please use below links to learn more about ABP Framework and gain practical knowledge about it.

Main docs: <https://docs.abp.io/en/abp/latest>

Quick start docs: <https://docs.abp.io/en/abp/latest/Tutorials/ToDo/Index?UI=MVC&DB=EF>

Complete Web Application Development Tutorial: <https://docs.abp.io/en/abp/latest/Tutorials/Part-1?UI=MVC&DB=EF>

Volosoft official website: <https://volosoft.com/>