

Building your First API with ASP.NET Core

GETTING ACQUAINTED WITH ASP.NET CORE



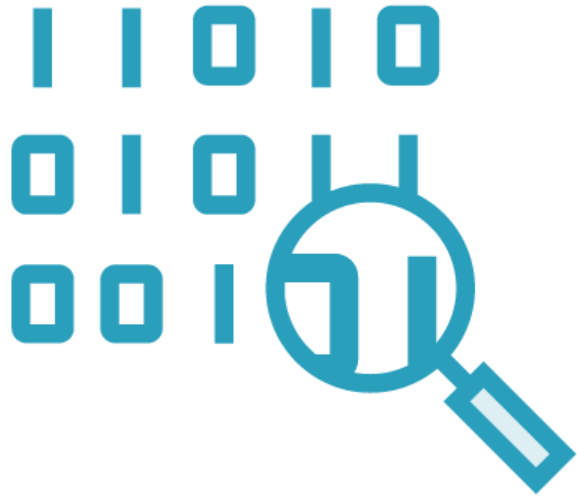
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Building your First API with ASP.NET Core



ASP.NET Core 1
ASP.NET Core 2

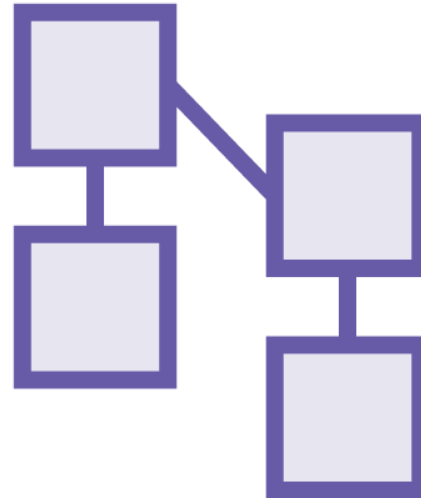


Visual Studio 2015
Visual Studio 2017

It's all About Gradual Improvement



From introducing
ASP.NET Core...



... to building the API ...



... to using Entity
Framework Core



Coming Up



The Big Picture: ASP.NET Core, .NET Core and .NET Standard

Starting an ASP.NET Core Project

Request Pipeline and Middleware



Tooling



Visual Studio 2015

ASP.NET Core 1
(update 3)

project.json

<http://bit.ly/2g0JDmh>

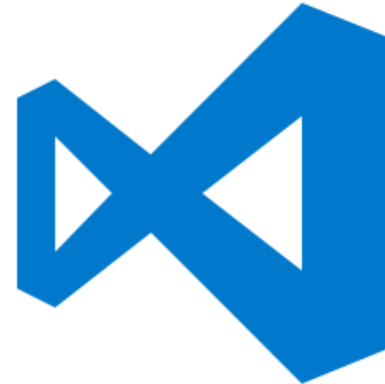


Visual Studio 2017

ASP.NET Core 1 & 2
(v15.3+)

.csproj/MSBuild

<http://bit.ly/2dSGoN5>

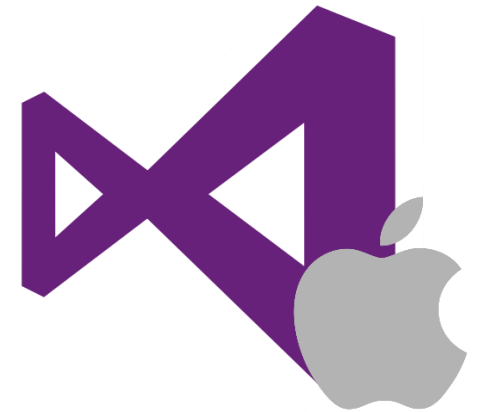


Visual Studio Code

ASP.NET Core 1 & 2

.csproj/MSBuild

<http://bit.ly/1J6QrU6>



Visual Studio for Mac

ASP.NET Core 1 & 2

.csproj/MSBuild

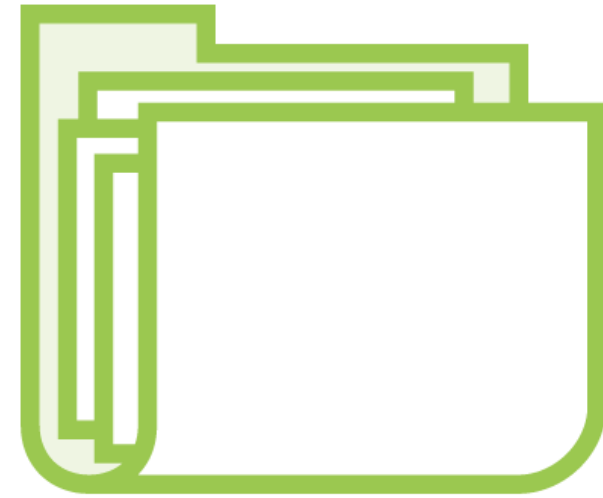
<http://bit.ly/2fXmQpH>



Exercise Files



95% code overlap in our exercises



3 exercise file flavours

VS2015 – ASP.NET Core 1

VS2017 – ASP.NET Core 1

VS2017 – ASP.NET Core 2



Developing with ASP.NET Core 1 and 2



Choosing an environment

- Licenses, functionality or even personal preference

Choosing between ASP.NET Core 1 & 2

- Larger API surface might require you to use a newer version
- Different support lifecycle might require you to use an older version

Tooling



Postman

<https://www.getpostman.com/>



A browser of choice

ASP.NET Core: The Big Picture



Framework for building modern internet connected applications

Open-source

- <https://www.github.com/aspnet/>

Cross-platform

- Runs on Windows, Mac, Linux
- Develop on Windows, Mac, Linux

ASP.NET Core: The Big Picture



Rethought from the ground up

Granular set of NuGet packages

Smaller application surface area

- Tighter security
- Reduced servicing
- Improved performance

ASP.NET Core: The Big Picture

Full .NET Framework

The full framework we know (& love 😊)

.NET Core

Modular version of .NET Framework
(which we'll grow to know & love 😊)

Portable across platforms

Subset of .NET Framework

Web: Windows, Linux, Mac

Other: desktop, devices, phone

Implementation of .NET Standard



ASP.NET Core: The Big Picture

Full .NET Framework

Target all dependencies we're used to

.NET Core

Modularity

Small footprint

Performance improvements

Cross-platform

...

.NET Core is the go-to choice



Demo



Downloading and Installing .NET Core



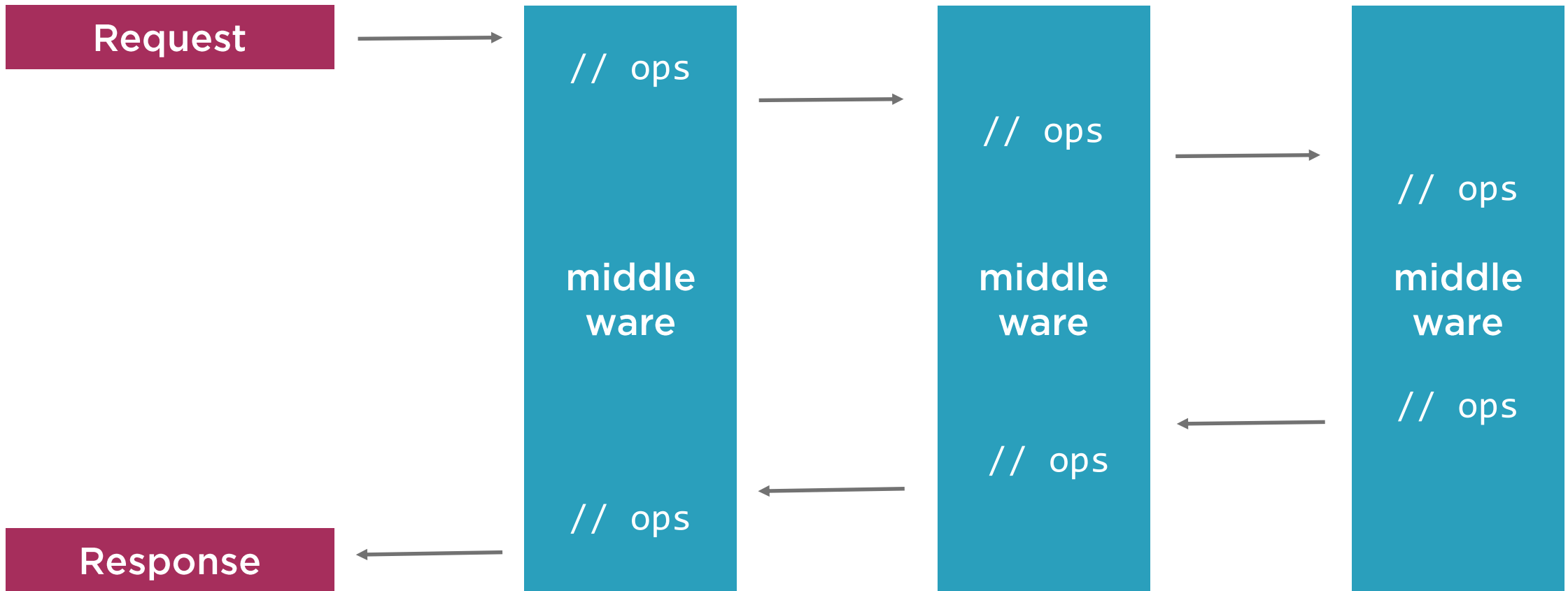
Demo



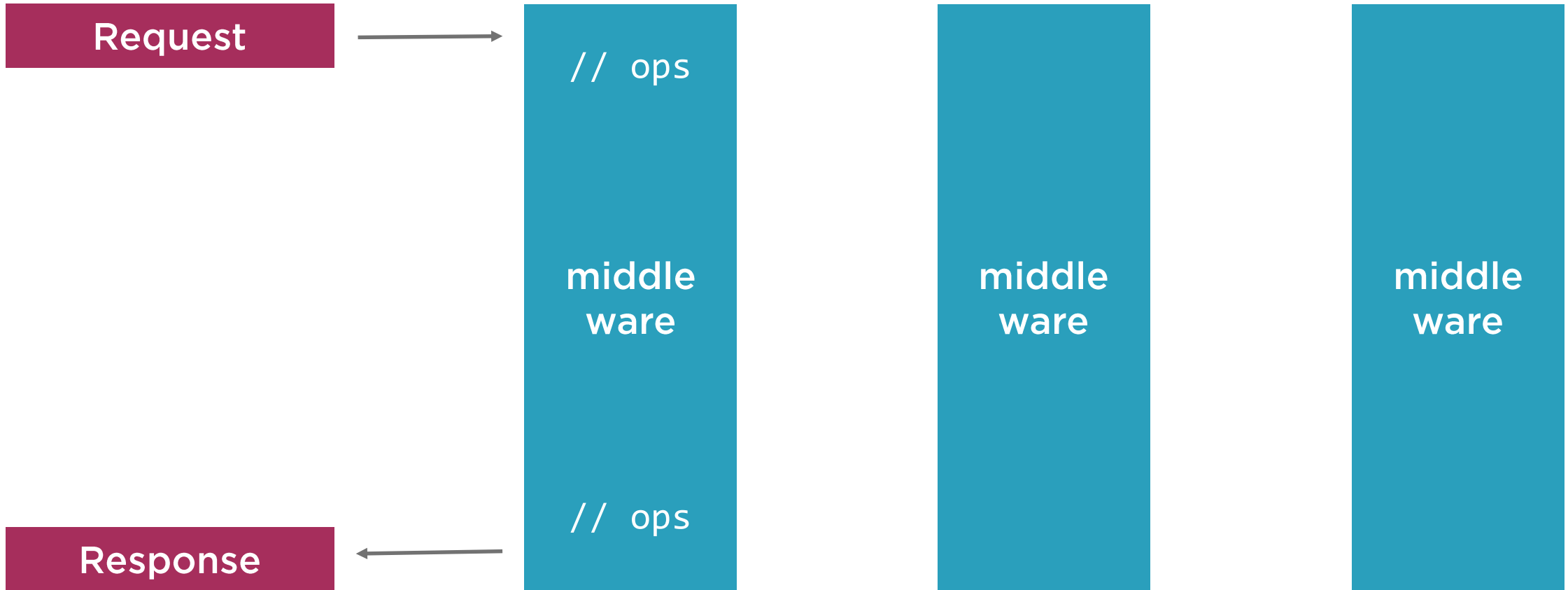
Starting a new ASP.NET Core Project



The ASP.NET Core Request Pipeline & Middleware



The ASP.NET Core Request Pipeline & Middleware



Demo



Configuring the ASP.NET Request Pipeline



Summary



ASP.NET Core

- Rethought from the ground up
- Tighter security, small footprint, cross-platform, better performance
- Runs on full .NET or .NET Core

Program class

- Responsible for configuring and running the application

Startup class: entry point of our web application

Summary



ConfigureServices is used to add services to the container, and to configure those services

Configure is used to specify how an ASP.NET application will respond to individual HTTP requests

Use **middleware** to configure the HTTP request pipeline

ASP.NET Core supports different environments

