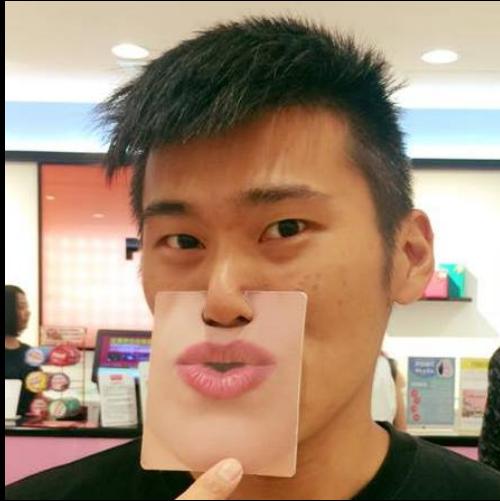


ASP.NET CORE

WITH GOOGLE CLOUD PLATFORM

BY BLACKIE TSAI

About Me



BLACKIE TSAI

SOLUTION ARCHITECT ❤ CODING

.NET

JAVASCRIPT

ARCHITECTURE

AGENDA

WHAT WE WILL TALK ABOUT

1

.NET
AND
ASP.NET CORE

2

.NET
PLAY WITH
GCP

3

WHY ASP.NET CORE

**TODAY
WILL NOT TEACH
YOU
HOW TO
PROGRAMMING
IN .NET**

FRAMEWORK

.NET CORE

XAMARI

Windows
Forms

ASP.NET

UWP

BUT

ASP.NET Core

WILL INTRODUCE YOU
WHAT IS
.NET STANDARD LIBRARY
.NET

iOS

OS X

COMMON INFRASTRUCTURE

Build Tools

Languages

Runtime compo

ASP.NET Core

Windows

Linux

OSX

AND WILL SHARE YOU HOW

Learn how to build ASP.NET 1.1 apps that can run on GAE - Flexible Environment with this click [Learn More](#)

.NET

PLAY WITH GCP

- Add a Controller and View
- Manage User Secrets using Secret Manager
- Use logging to log a message.
- Add packages using NuGet
- Add client packages using Bower.
- Target development, staging and production environment.

- Conceptual overview of what is ASP.NET Core
- Components of ASP.NET Core
- Setting up middleware.
- Working with Data
- Security
- Client side development
- Develop on different platforms
- Read more on the documentation site

Run & Deploy

- Run your app
- Run tools such as EF migrations and more
- Publish to Microsoft Azure Web Apps

GAENetCoreApp

Sample pages using ASP.NET Core
C
ver for managing client-side
ries
ming using Bootstrap

ARE YOU READY?



LET'S PROCEED



ASP.NET CORE

It is a new **open-source** and **cross-platform** framework for building modern cloud based internet connected applications, such as web apps, IoT apps and mobile backends.

ASP.NET Core apps can run on **.NET Core** or on the full **.NET Framework**. It was architected to provide an optimized development framework for apps that are deployed to the **cloud** or run **on-premises**.

ABOUT .NET

.NET Framework (pronounced dot net) is a software framework developed by Microsoft that runs primarily on **Windows**.

There are over 30+ coding languages can programming, includes C#, VB.NET, F#, IronRuby, IronPython and etc...

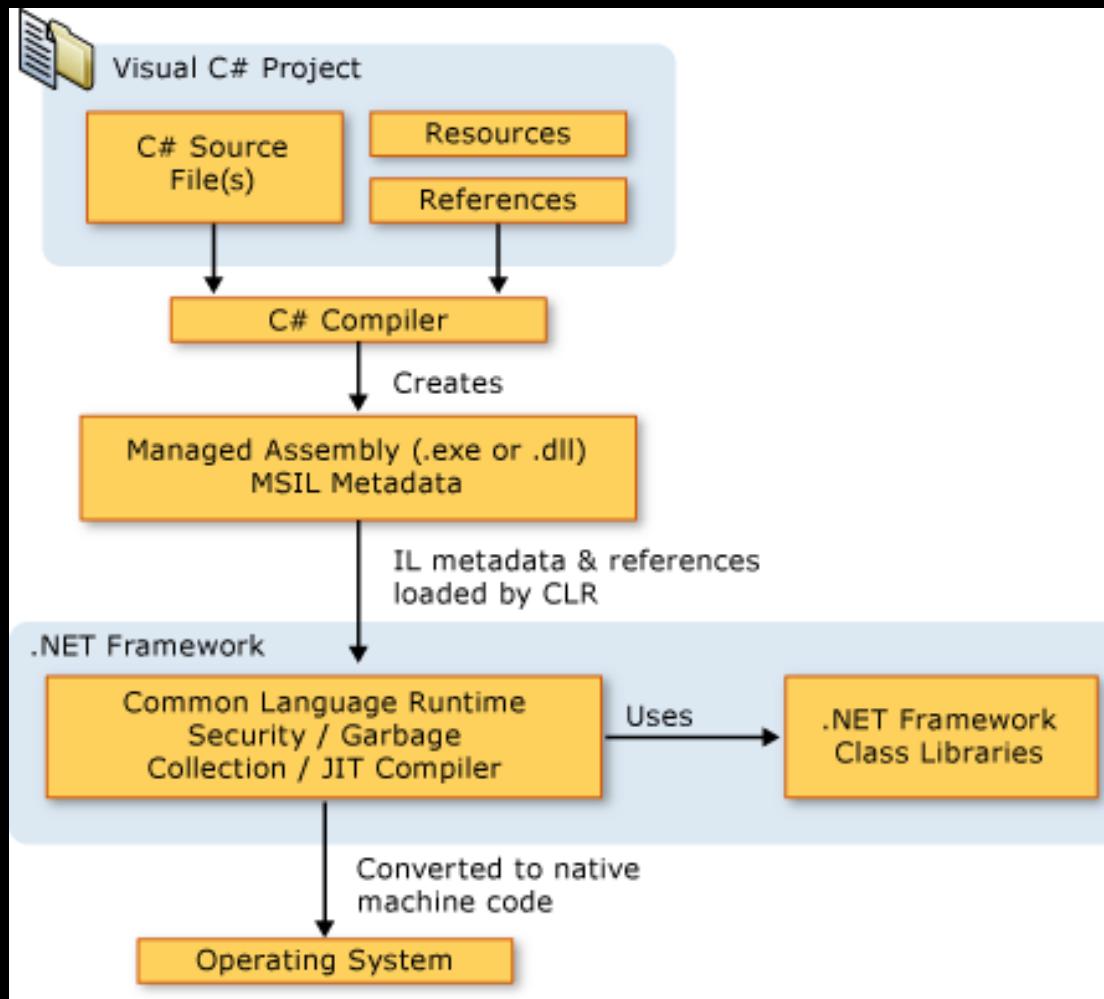
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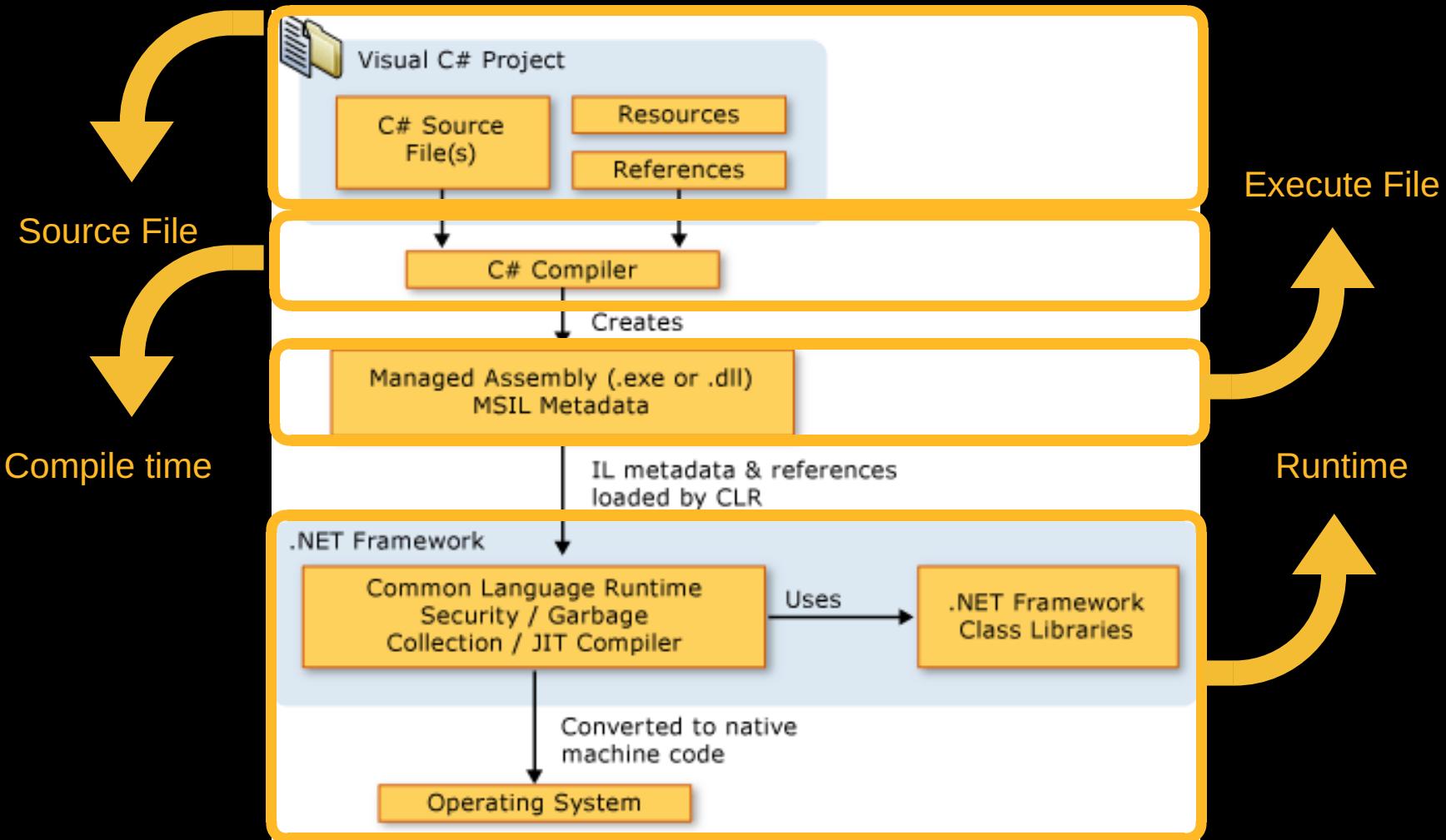
C# AND .NET

HOW THEM WORK TOGETHER



C# AND .NET

HOW THEM WORK TOGETHER



.NET FRAMEWORK

WHAT IT CAN DO

1

Windows Application
(.dll or .exe)

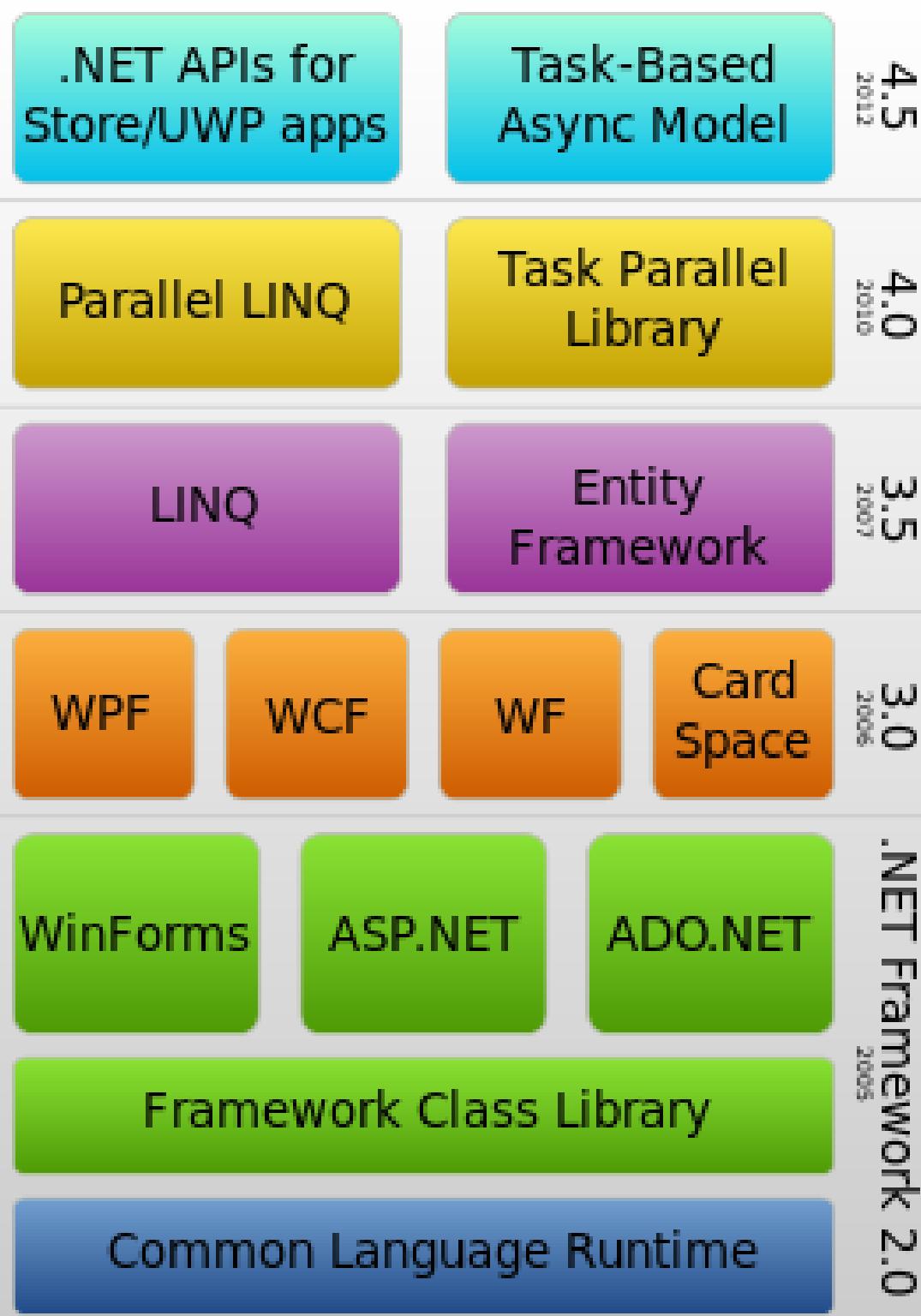
2

Class Library
(.dll)

3

Internet Application
(WCF, ASP.NET, ASP.NET MVC,
ASP.NET Web API)

.NET Framework component stack

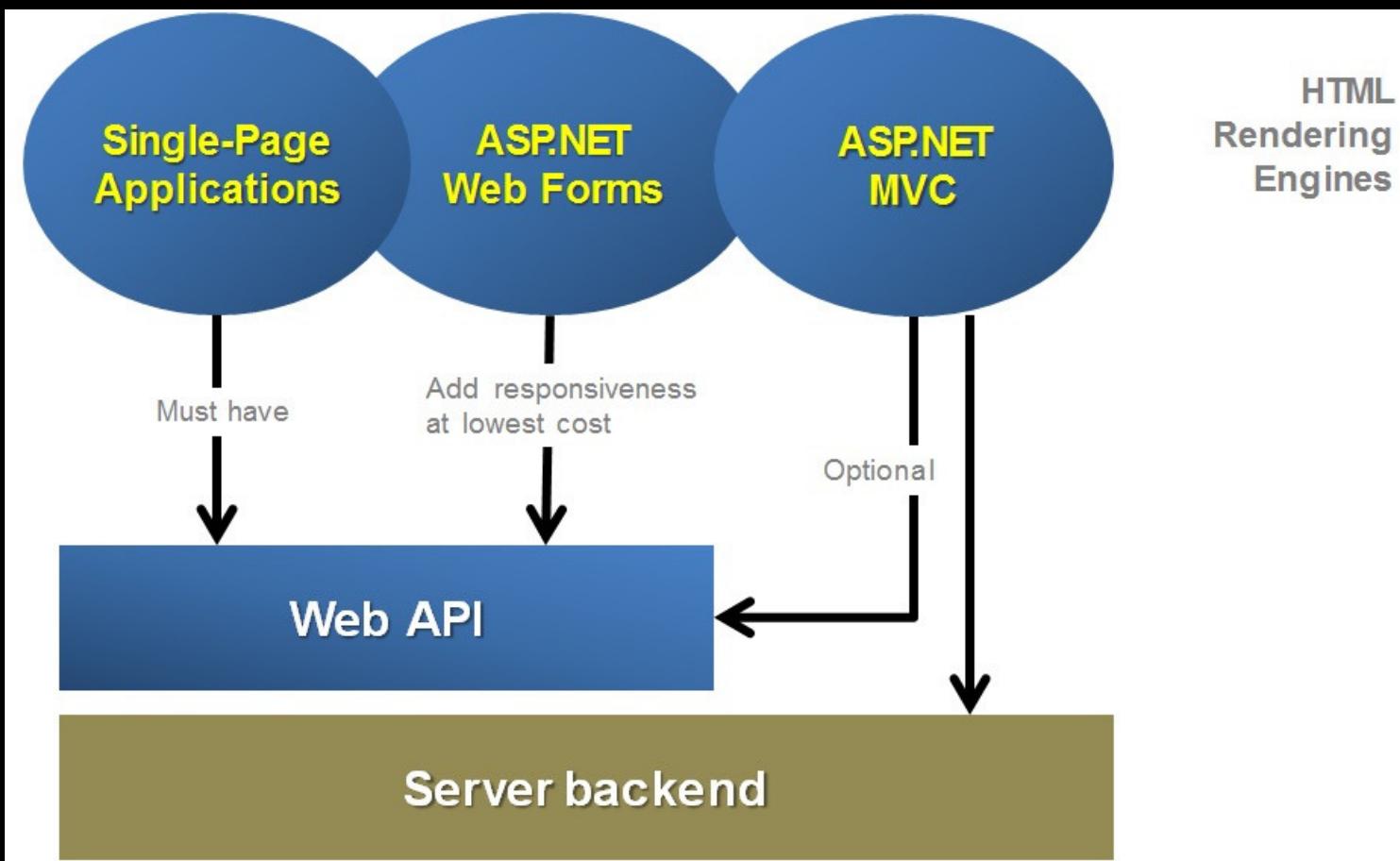




ASP.NET IS AN SERVER-SIDE WEB APPLICATION FRAMEWORK DESIGNED FOR WEB DEVELOPMENT TO PRODUCE DYNAMIC WEB SITES, WEB APPLICATIONS AND WEB SERVICES.

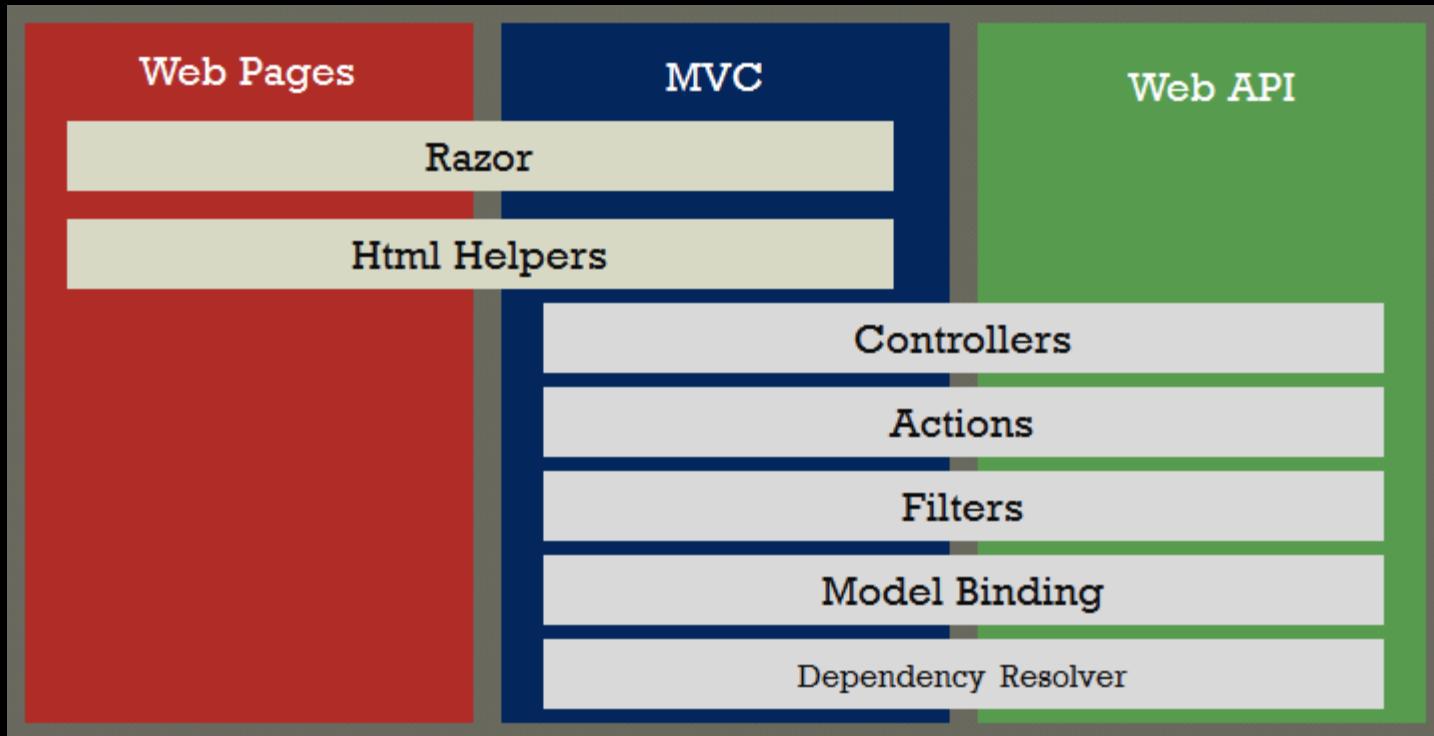
ASP.NET WEB SOLUTION

ACCORDING TO THE SCENARIO



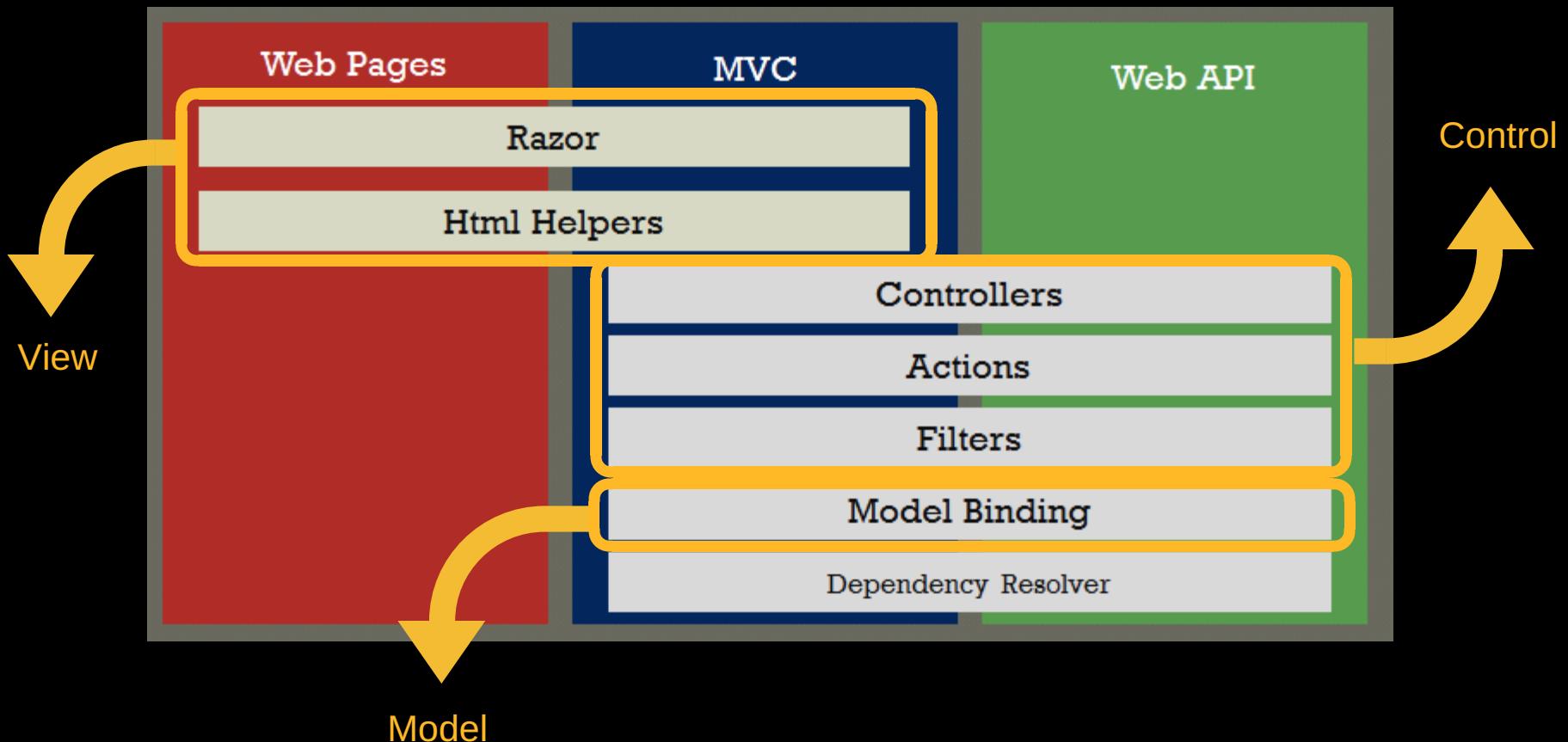
ASP.NET WEB SOLUTION

ACCORDING TO REQUEST LIFE CYCLE



ASP.NET WEB SOLUTION

ACCORDING TO REQUEST LIFE CYCLE



ABOUT .NET CORE

.NET Core is a blazing fast, lightweight and modular platform for creating web applications and services that run on **Windows**, **Linux** and **Mac**.

It supports 2+1 coding languages can programming, includes C#, F#, and VB.NET.

ABOUT .NET CORE

.NET Core is a blazing fast, lightweight and modular platform for creating web applications and services that run on **Windows**, **Linux** and **Mac**.

It supports 2+1 coding languages can programming, includes **C#**, **F#**, and **VB.NET**.

ABOUT .NET CORE

Open source
Cross-platform
Flexible deployment
Command-line tools
Compatible

.NET CORE

WHAT IT CAN DO

- #1 Application (.dll)
- #2 Class Library (.dll)
- #3 Internet Application (ASP.NET Core)



DEMO

.NET Core Setup and HelloWorld

.NET CORE COMPOSITION

IT'S COMPOSED OF THE FOLLOWING PARTS

.NET
RUNTIME

Framework
Libraries

Host

Compiler
&
CLI



.NET CORE CLI

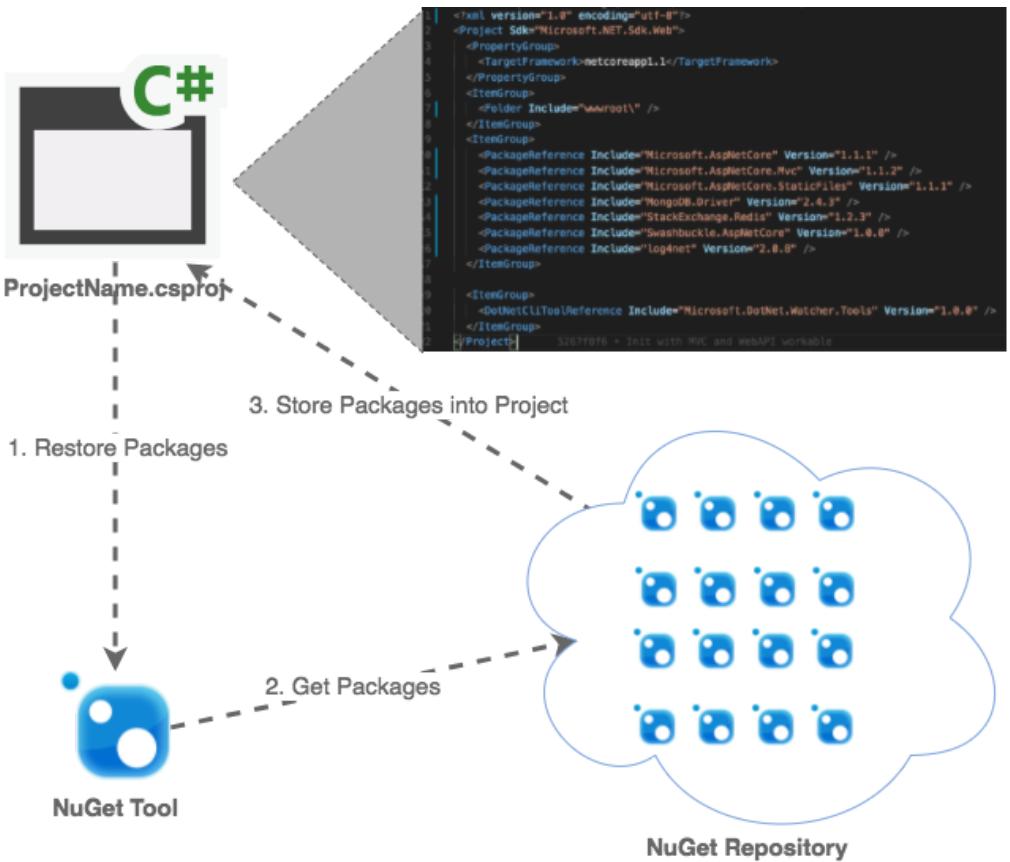
USED FOR BUILDING .NET CORE APPS AND LIBRARIES THROUGH YOUR DEVELOPMENT FLOW

- new
- restore
- run
- build
- publish
- test
- pack



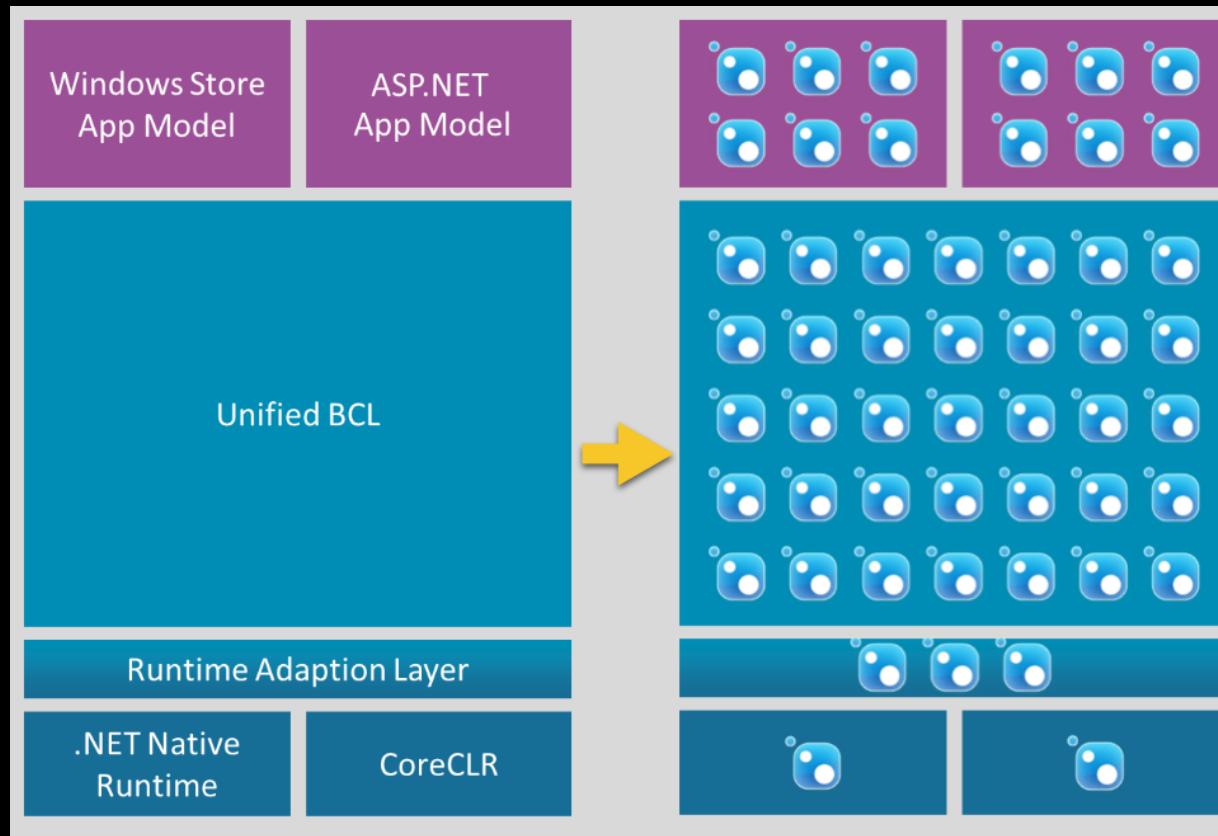
NUGET

CLIENT TOOLS PROVIDE THE ABILITY TO PRODUCE AND CONSUME PACKAGES



.NET CORE & NUGET

.NET CORE IS ESSENTIALLY A FORK OF NEW .NET FRAMEWORK



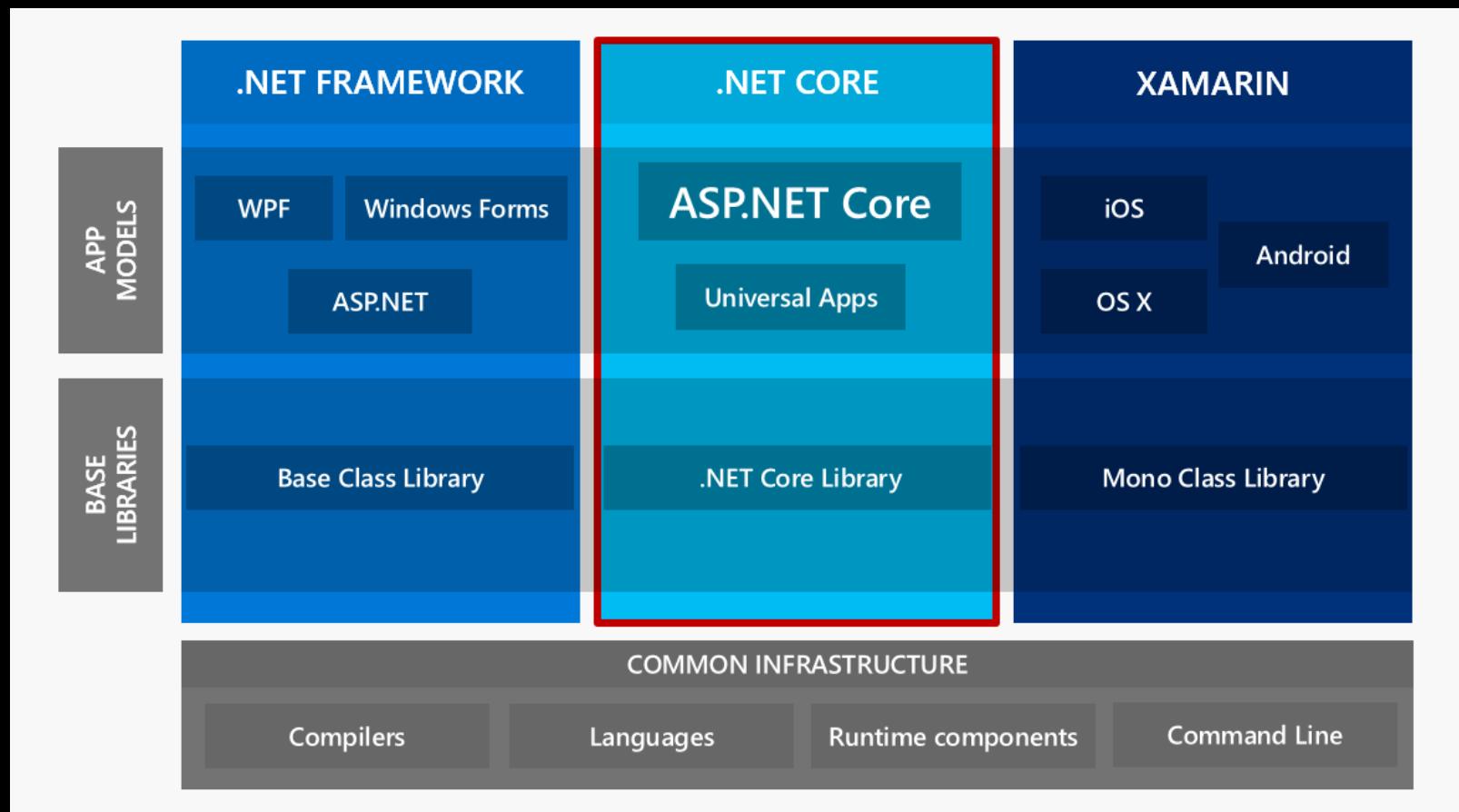


DEMO

HelloWorld with ASP.NET Core

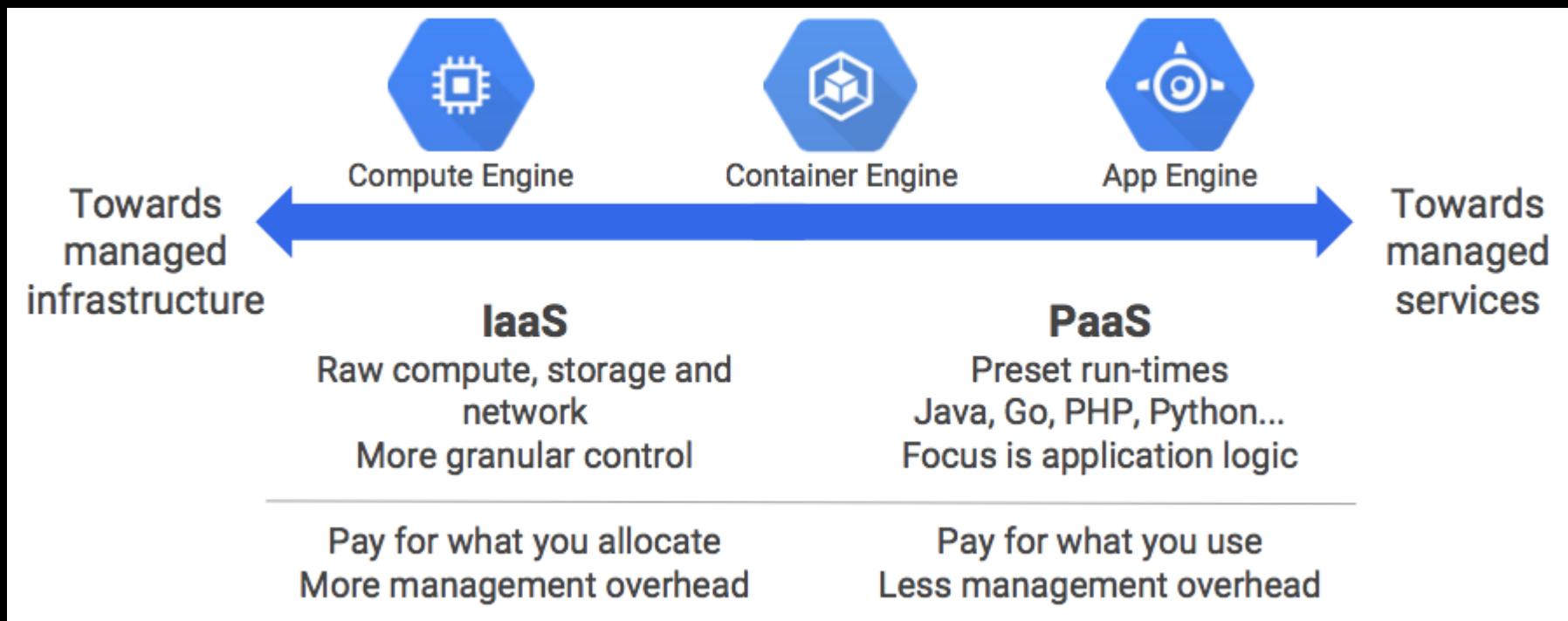
RECAP

ASP.NET CORE IS A NEW CROSS-PLATFORM FRAMEWORK FOR
BUILDING INTERNET APPLICATION



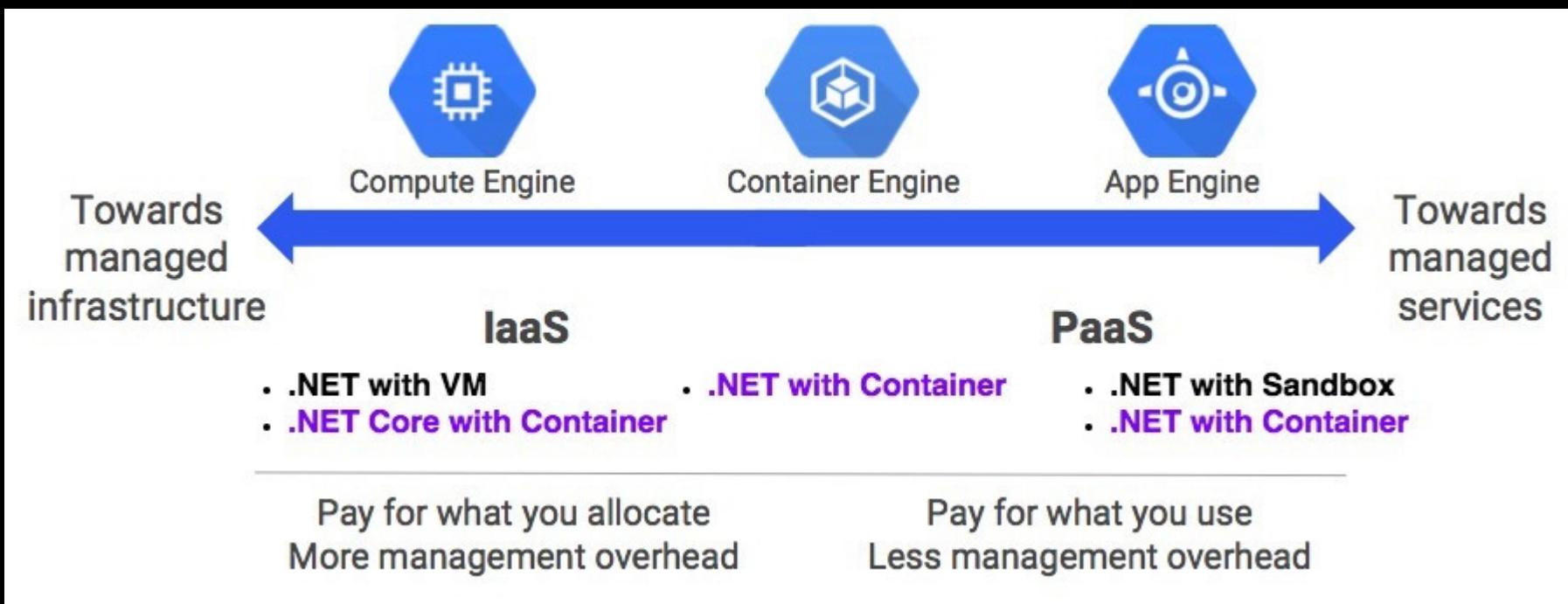
G C P

IaaS to PaaS



GCP WITH .NET

IaaS to PaaS





DEMO

**ASP.NET Core with GAE
- Google Runtime**



DEMO

ASP.NET Core with Container



DEMO

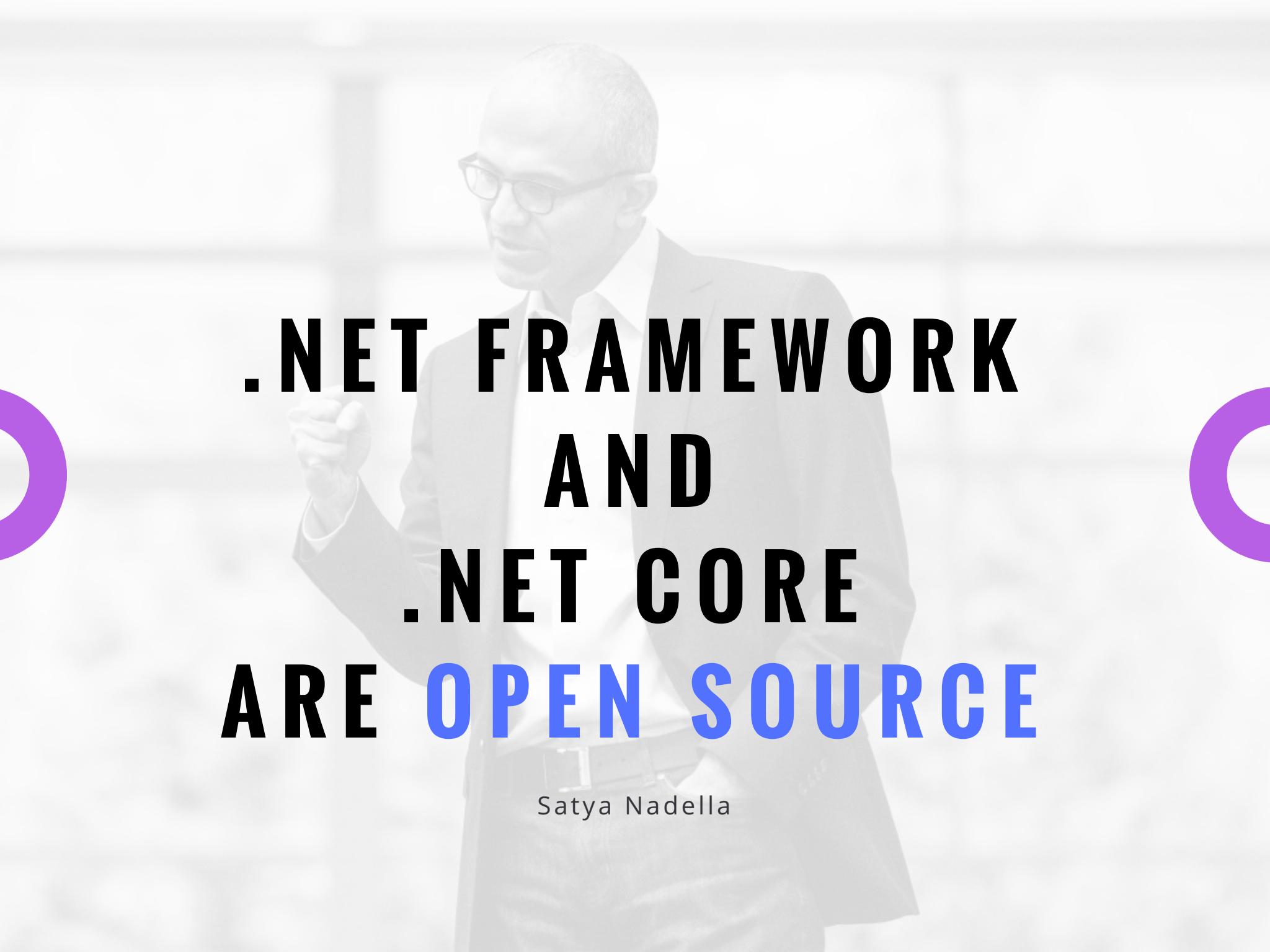
ASP.NET Core with GAE
- Custom Runtime



DEMO

ASP.NET with GCE

W H Y . N E T



.NET FRAMEWORK AND .NET CORE ARE OPEN SOURCE

Satya Nadella



VISUAL STUDIO CODE IS OPEN SOURCE

Satya Nadella

A black and white photograph of Satya Nadella, Microsoft CEO, wearing a dark suit, white shirt, and glasses. He is pointing his right index finger upwards towards the text. The background is a blurred outdoor scene.

VISUAL STUDIO FOR MAC IS RELEASE

Satya Nadella



FUTURE .NET

.NET FRAMEWORK

WPF

Windows
Forms

ASP.NET

.NET CORE

UWP

ASP.NET Core

XAMARIN

iOS

OS X

Android

.NET STANDARD LIBRARY

COMMON INFRASTRUCTURE

Build Tools

Languages

Runtime components

.NET STANDARD 2

XML

XLinq • XML Document • XPath • XSD • XSL

SERIALIZATION

BinaryFormatter • Data Contract • XML

NETWORKING

Sockets • Http • Mail • WebSockets

IO

Files • Compression • MMF

THREADING

Threads • Thread Pool • Tasks

CORE

Primitives • Collections • Reflection • Interop • Linq

.NET STANDARD 2

.NET Blog

A first-hand look from the .NET engineering teams

Announcing .NET Core 2.0 Preview 1

May 10, 2017 by Rich Lander [MSFT] // 7 Comments



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Today, we are announcing .NET Core 2.0 Preview 1. It is the first public release of .NET Core 2.0. We have great improvements that we want to share and that we would love to get your feedback on. You can develop .NET Core 2.0 apps with [Visual Studio 2017 Preview 15.3](#), [Visual Studio for Mac](#) or [VS Code](#).

Announcing .NET Standard 2.0

Has much bigger API surface

Extended to cover intersection between .NET Framework and Xamarin
Also makes .NET Core 2.0 bigger as it implements .NET Standard 2.0

+20K

More APIs than
.NET Standard 1.x

~70%

of NuGet packages
are API compatible

Can reference .NET Framework libraries

Compatibility shim allows referencing existing .NET Framework binaries
No recompile required – also covers existing NuGet packages
Limited to libraries that only use APIs that are available for .NET Standard

Q & A

ANY
QUESTION

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Blackie Tsai

Ever tried. Ever failed. No matter. Try Again.
Fail again. Fail better.

144.5K	122	15	102
visitors	posts	categories	tags

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MANY
THANKS