



INTRO & AGREEMENTS

S4 - .NET Technology CCCP-IBC

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INTRODUCTION

HELLO WORLD!



dimitri.casier



matthias.blomme

HOUSE RULES

A man in a dark suit and white shirt is hanging off the side of a grey train car. He is holding onto the side of the train with both hands and looking back over his shoulder. The train is moving on a track, and the background shows a grassy field and a road. The text "DON'T BE LATE!" is overlaid on the right side of the image.

**DON'T BE
LATE!**



FIRST WE TALK
THEN
YOU TRY IT OUT!

WHEN WE TALK

(unless we say otherwise)



#APBio

ECTS

Software Development IV (CCCP-IBC) - .NET Technology

ECTS

(<http://bamaflexweb.howest.be/bamaflexweb/BMFUIDetailxOLOD.aspx?a=80146&b=5&c=1>)

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.NET TECHNOLOGY

.NET LANGUAGES

- C#
- F#
- VISUAL BASIC

```
var names = new List<String>
{
    "Ana",
    "Felipe",
    "Emillia"
};

foreach (var name in names)
{
    Console.WriteLine($"Hello {name}");
}
```

.NET LANGUAGES

- C#
- F#
- VISUAL BASIC

```
let names = [ "Ana"; "Felipe"; "Emillia"]
```

```
names
```

```
|> List.iter (fun name -> printfn "Hello %s" name)
```


.NET LANGUAGES

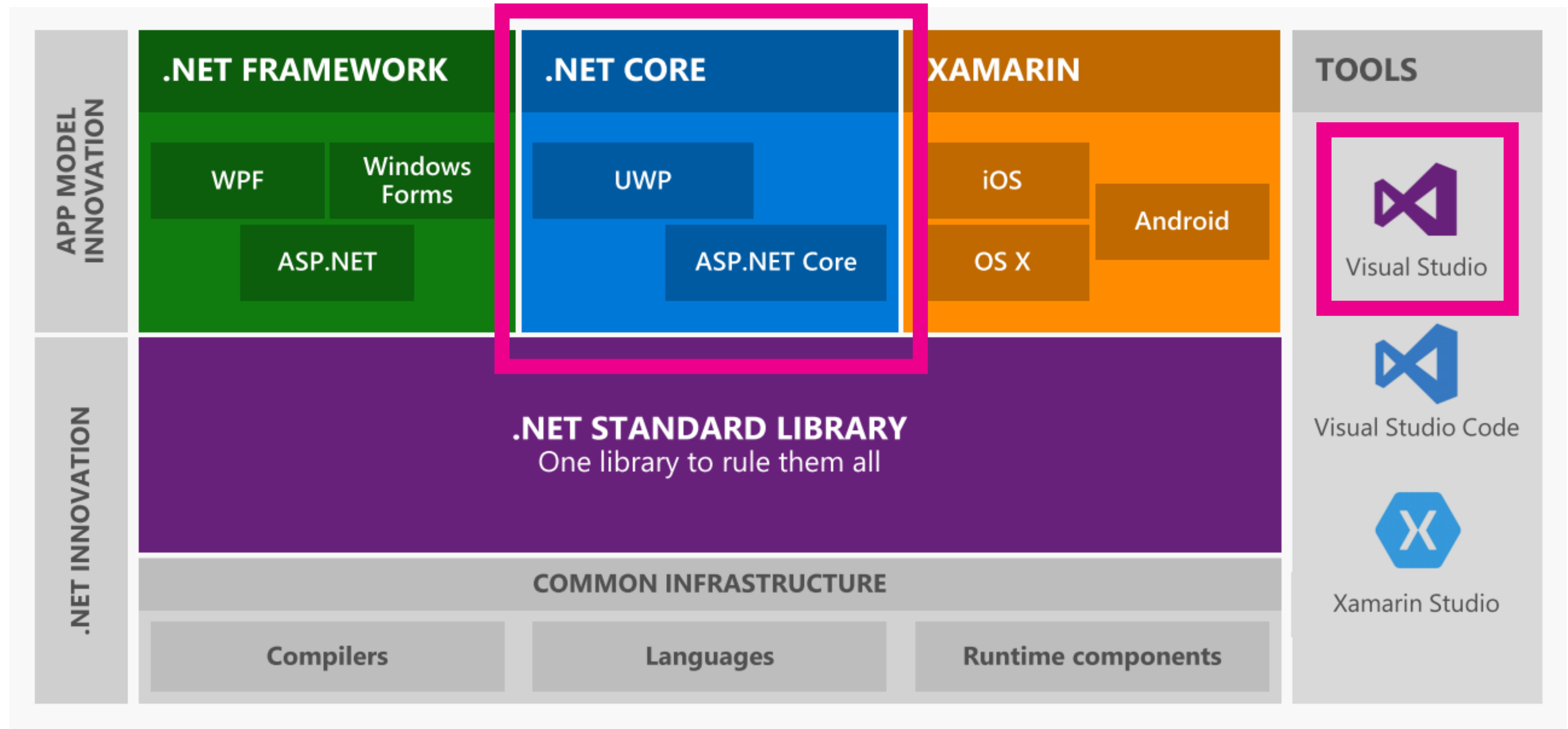
- C#
- F#
- VISUAL BASIC

```
Dim names As New List(Of String)({  
    "Ana",  
    "Felipe",  
    "Emillia"  
})  
  
For Each name In names  
    Console.WriteLine($"Hello {name}")  
Next
```

.NET PLATFORMS

- .NET CORE: cross platform (open source)
- .NET FRAMEWORK: Windows only (partially open source)
- XAMARIN/MONO: mobile (open source)
- .NET STANDARD: one library to rule them all (open source)

.NET PLATFORMS



**BUT HOW IS .NET STANDARD
DIFFERENT FROM .NET CORE?**



.NET PLATFORMS

.NET STANDARD:

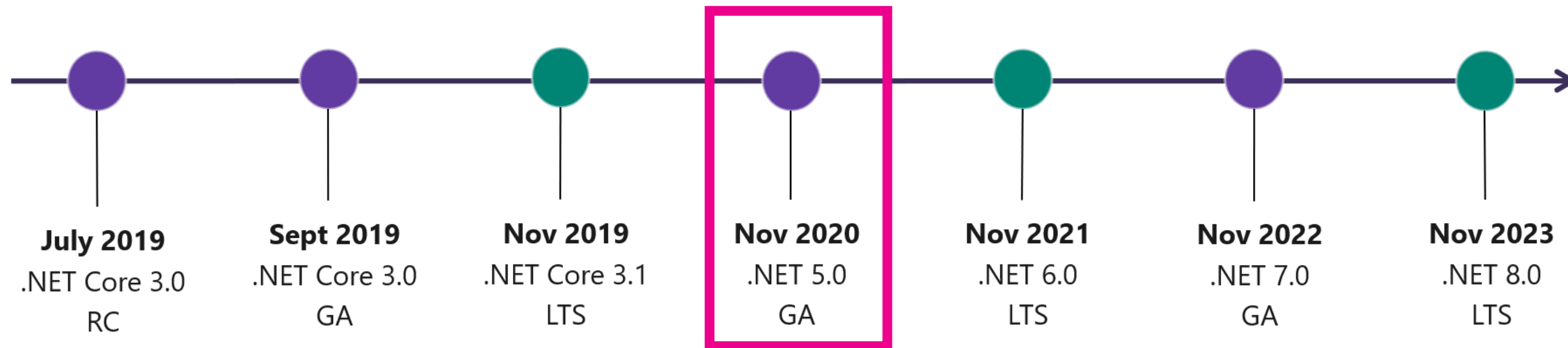
is a **specification** that covers which APIs a .NET platform has to implement.

.NET CORE:

is a **concrete .NET platform** and implements the .NET Standard.

.NET PLATFORMS IN THE FUTURE

.NET Schedule

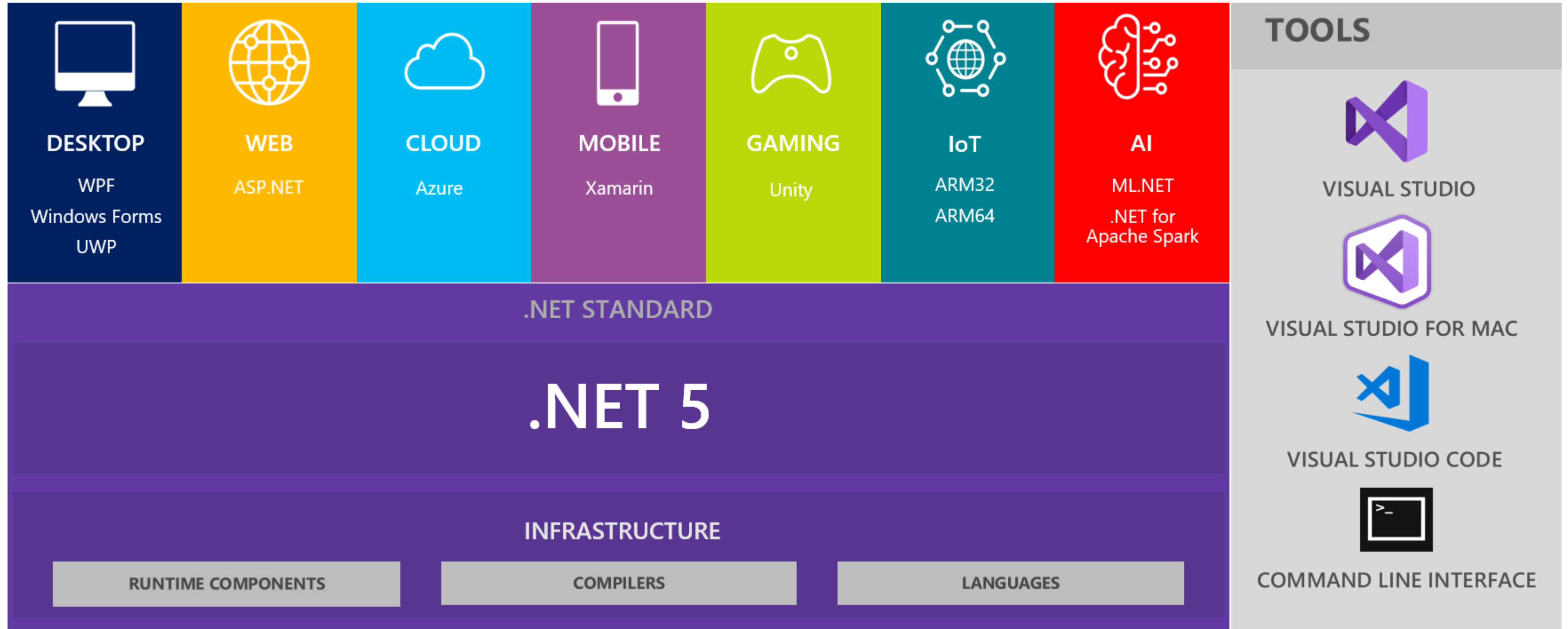


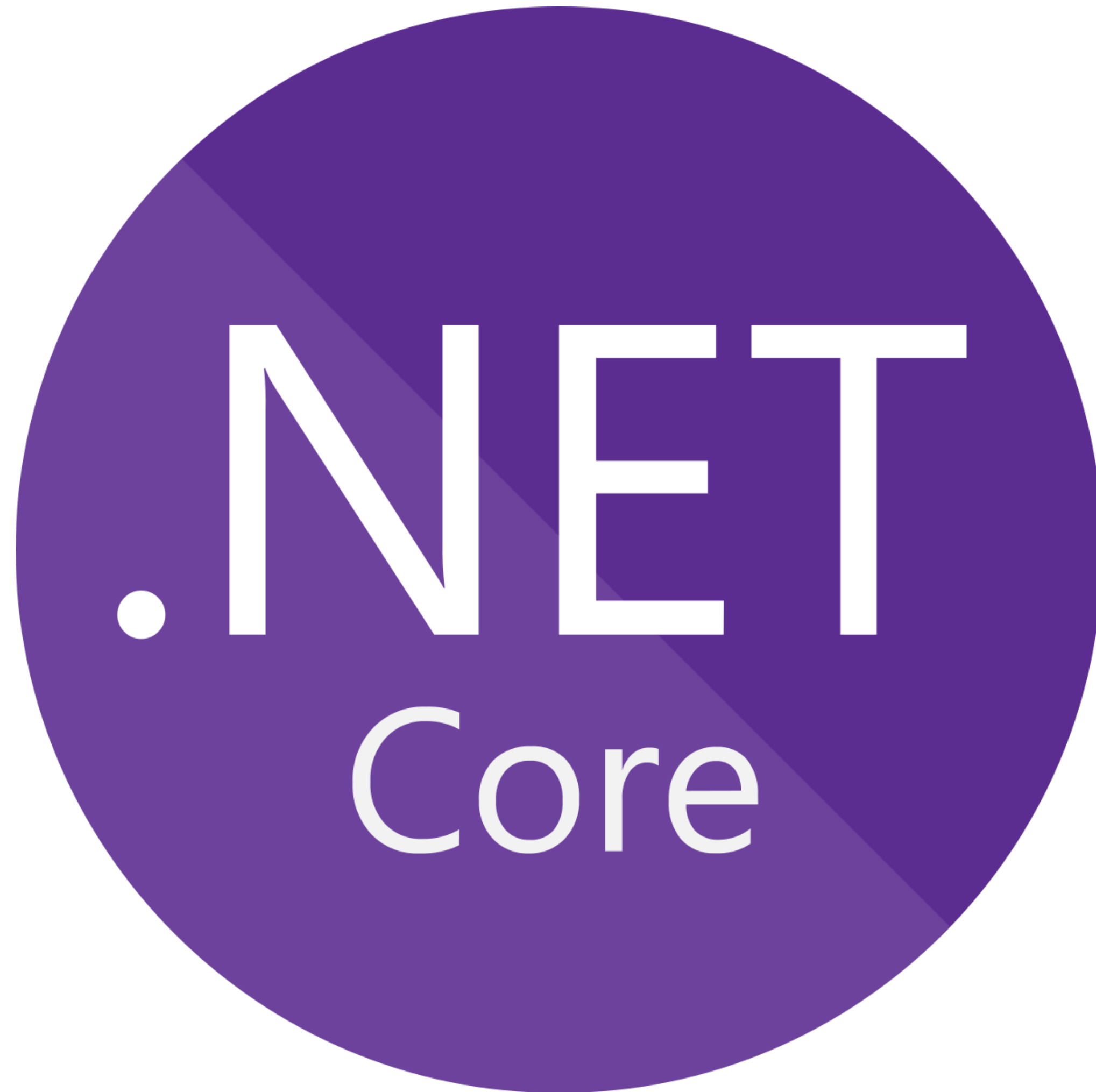
- .NET Core 3.0 release in September
- .NET Core 3.1 = Long Term Support (LTS)
- .NET 5.0 release in November 2020
- Major releases every year, LTS for even numbered releases
- Predictable schedule, minor releases if needed



.NET 5 = .NET Core vNext

.NET PLATFORMS IN THE FUTURE

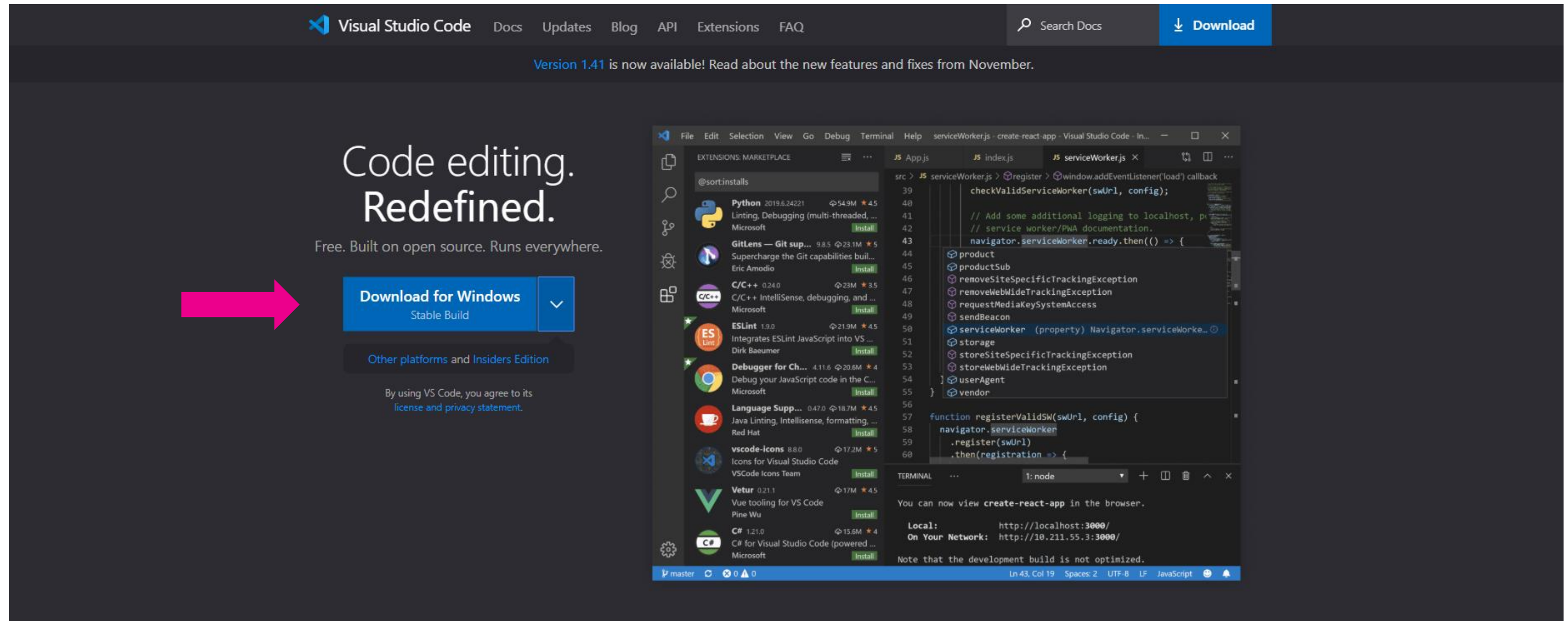




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TOOLS

TOOLS – VISUAL STUDIO CODE



IntelliSense



Debugging

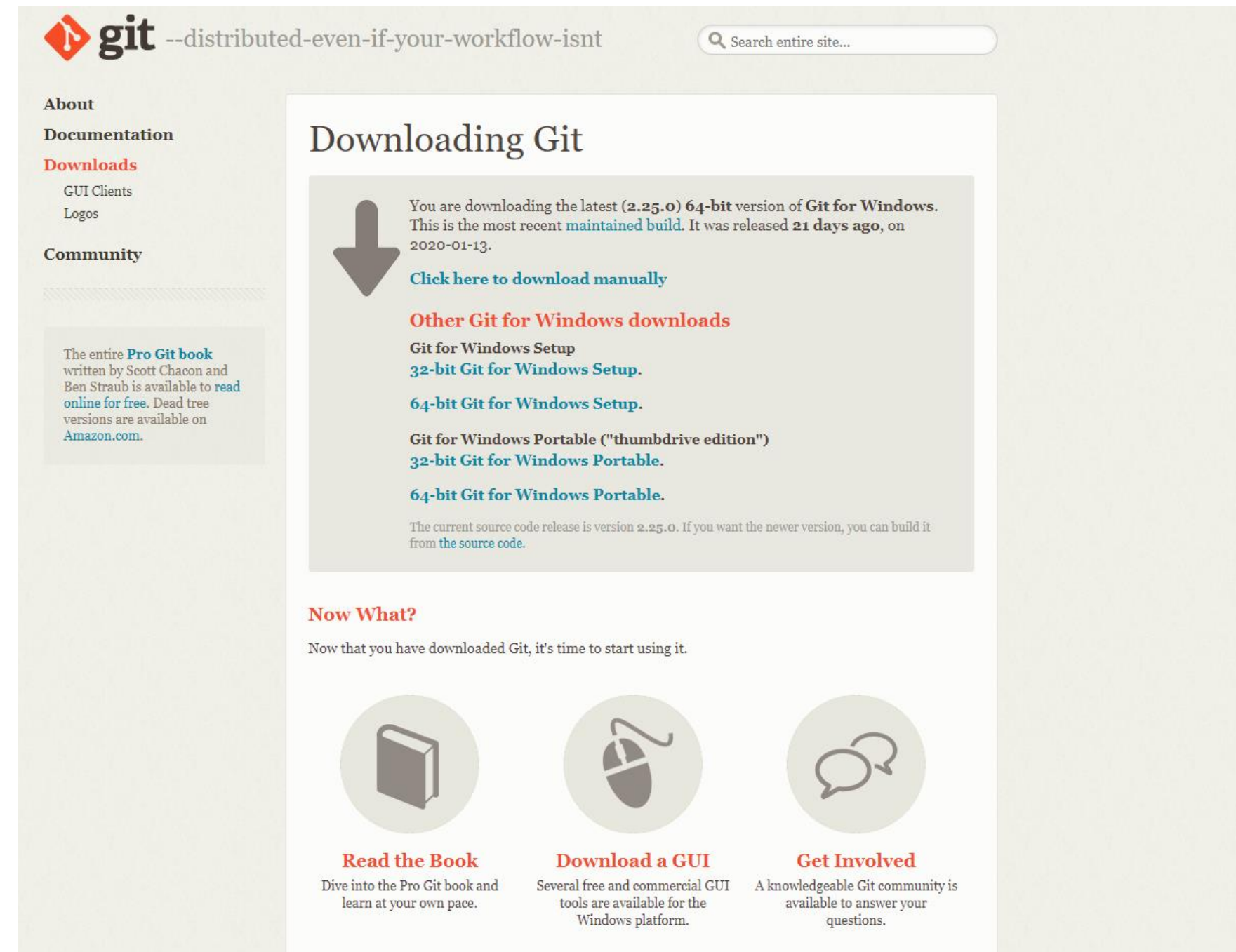


Built-in Git



Extensions

TOOLS – GIT



The screenshot shows the Git website's 'Downloading Git' page. The header features the Git logo and the tagline '--distributed-even-if-your-workflow-isnt', along with a search bar. The left sidebar contains links for 'About', 'Documentation', 'Downloads' (highlighted), 'GUI Clients', 'Logos', and 'Community'. A box in the sidebar promotes the 'Pro Git book'. The main content area is titled 'Downloading Git' and includes a large downward arrow icon. Text indicates the latest version is 2.25.0 (64-bit) for Windows, released 21 days ago. A link 'Click here to download manually' is provided. Below, 'Other Git for Windows downloads' lists links for '32-bit Git for Windows Setup', '64-bit Git for Windows Setup', '32-bit Git for Windows Portable', and '64-bit Git for Windows Portable'. A note mentions the current source code release is version 2.25.0. The 'Now What?' section suggests next steps: 'Read the Book', 'Download a GUI', and 'Get Involved', each with an icon and a brief description.

git --distributed-even-if-your-workflow-isnt

Search entire site...

About
Documentation
Downloads
GUI Clients
Logos
Community

The entire **Pro Git book** written by Scott Chacon and Ben Straub is available to read online for free. Dead tree versions are available on Amazon.com.

Downloading Git

You are downloading the latest (2.25.0) 64-bit version of **Git for Windows**. This is the most recent **maintained build**. It was released **21 days ago**, on 2020-01-13.

[Click here to download manually](#)

Other Git for Windows downloads


Git for Windows Setup
[32-bit Git for Windows Setup.](#)
[64-bit Git for Windows Setup.](#)

Git for Windows Portable ("thumbdrive edition")
[32-bit Git for Windows Portable.](#)
[64-bit Git for Windows Portable.](#)


The current source code release is version 2.25.0. If you want the newer version, you can build it from [the source code](#).

Now What?


Now that you have downloaded Git, it's time to start using it.



Read the Book
Dive into the Pro Git book and learn at your own pace.



Download a GUI
Several free and commercial GUI tools are available for the Windows platform.



Get Involved
A knowledgeable Git community is available to answer your questions.

TOOLS – GITLAB (HOWEST)

<https://op-gitlab.howest.be/TI/2019-2020/s4-.net-technology/cccp-ibc>



CHEAT SHEETS!

TOOLS – LEHO

CCCP: <https://leho-howest.instructure.com/courses/6171>

IBC: <https://leho-howest.instructure.com/courses/7044>



YOUR TURN!

C# TEST

CCCP:

<https://leho-howest.instructure.com/courses/6171/quizzes/5117>

IBC:

<https://leho-howest.instructure.com/courses/7044/quizzes>

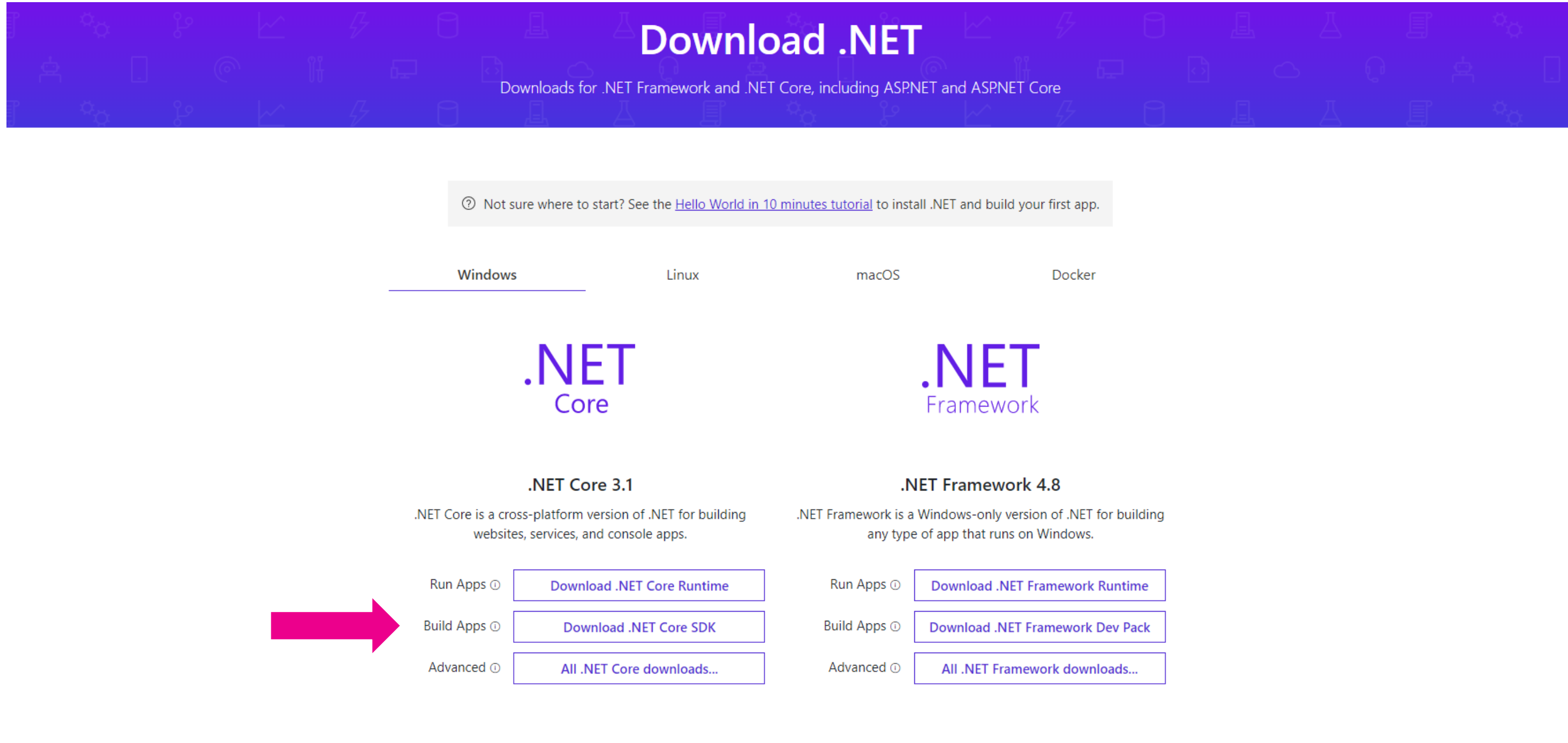
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INSTALLATION

INSTALLATION AND TOOLS

- .NET CORE 3.1 SDK
- VISUAL STUDIO CODE
- GIT (command line)
- GITLAB (HOWEST)
- LEHO

INSTALLATION - .NET CORE 3.1



The screenshot shows the 'Download .NET' page for Windows. At the top, a purple banner contains the text 'Download .NET' and 'Downloads for .NET Framework and .NET Core, including ASP.NET and ASP.NET Core'. Below this, a grey box provides a helpful link: 'Not sure where to start? See the [Hello World in 10 minutes tutorial](#) to install .NET and build your first app.' The page is divided into two main columns: '.NET Core' and '.NET Framework'. The '.NET Core' column is for version 3.1 and describes it as a cross-platform version for building websites, services, and console apps. It offers three download options: 'Run Apps' (Download .NET Core Runtime), 'Build Apps' (Download .NET Core SDK), and 'Advanced' (All .NET Core downloads...). A large pink arrow points to the 'Build Apps' option. The '.NET Framework' column is for version 4.8 and describes it as a Windows-only version for building any type of app that runs on Windows. It also offers three download options: 'Run Apps' (Download .NET Framework Runtime), 'Build Apps' (Download .NET Framework Dev Pack), and 'Advanced' (All .NET Framework downloads...).

Download .NET
Downloads for .NET Framework and .NET Core, including ASP.NET and ASP.NET Core

Not sure where to start? See the [Hello World in 10 minutes tutorial](#) to install .NET and build your first app.

Windows Linux macOS Docker

.NET Core
Core

.NET Framework
Framework

.NET Core 3.1
.NET Core is a cross-platform version of .NET for building websites, services, and console apps.

Run Apps ⓘ [Download .NET Core Runtime](#)

Build Apps ⓘ [Download .NET Core SDK](#)

Advanced ⓘ [All .NET Core downloads...](#)

.NET Framework 4.8
.NET Framework is a Windows-only version of .NET for building any type of app that runs on Windows.

Run Apps ⓘ [Download .NET Framework Runtime](#)

Build Apps ⓘ [Download .NET Framework Dev Pack](#)

Advanced ⓘ [All .NET Framework downloads...](#)

INSTALLATION - .NET CORE 3.1

Check everything installed correctly

Once you've installed, open a **new** command prompt and run the following command:

Command prompt

Copy

```
> dotnet
```

If the command runs, printing out information about how to use dotnet, you're good to go.

If you receive a `'dotnet' is not recognized as an internal or external command` error, make sure you opened a **new** command prompt. If you can't resolve the issue, use the `I ran into an issue` button to get help fixing the problem.

INSTALLATION - .NET CORE 3.1

```
PS C:\Users\dimitri.casier\Documents\Code\dotnet\password\password> dotnet --version
3.1.100
PS C:\Users\dimitri.casier\Documents\Code\dotnet\password\password> _
```

```
PS C:\Users\dimitri.casier\Documents\Code\dotnet\password\password> dotnet --info
.NET Core SDK (reflecting any global.json):
Version: 3.1.100
Commit: cd82f021f4

Runtime Environment:
OS Name: Windows
OS Version: 10.0.17763
OS Platform: Windows
RID: win10-x64
Base Path: C:\Program Files\dotnet\sdk\3.1.100\

Host (useful for support):
Version: 3.1.0
Commit: 65f04fb6db

.NET Core SDKs installed:
3.1.100 [C:\Program Files\dotnet\sdk]

.NET Core runtimes installed:
Microsoft.AspNetCore.App 3.1.0 [C:\Program Files\dotnet\shared\Microsoft.AspNetCore.App]
Microsoft.NETCore.App 3.1.0 [C:\Program Files\dotnet\shared\Microsoft.NETCore.App]
Microsoft.WindowsDesktop.App 3.1.0 [C:\Program Files\dotnet\shared\Microsoft.WindowsDesktop.App]

To install additional .NET Core runtimes or SDKs:
https://aka.ms/dotnet-download
PS C:\Users\dimitri.casier\Documents\Code\dotnet\password\password> _
```