

.NET masterclass
2022

Who we are

- Mentors
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 - Toni Petrina
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- Mentor assistants
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What we want to do

- Focus on server-side knowledge
- Reuse of Meal sharing frontend
- Use C#, ASP.NET Core

What is .NET?

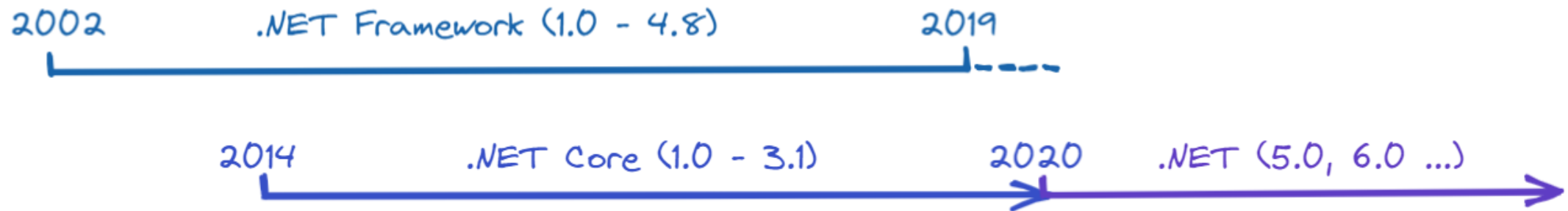
- .NET is a software framework developed by Microsoft
- It is a framework not a language
- Enables developers to build different types of applications
- It is an open source developer platform <https://github.com/dotnet>
- Key features: multi language support, portable, rich set of built in libraries and functions, automatic memory management, security, type safety

History

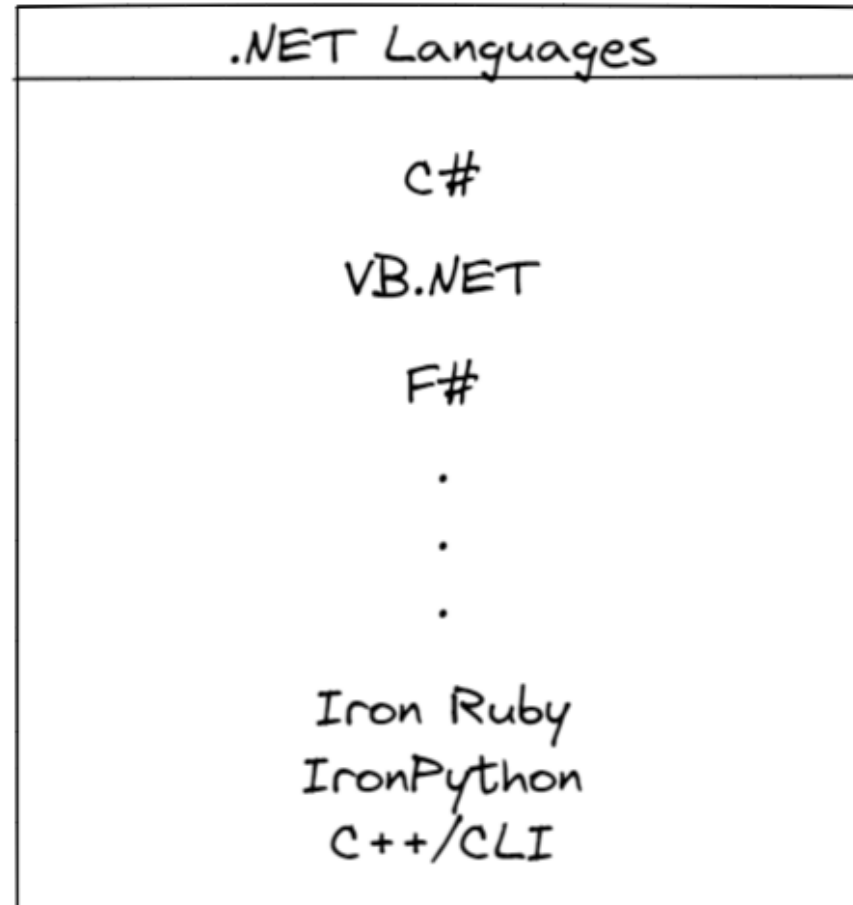
- First version of .NET Framework was released in February 2002
- In 2008 parts of the .NET Framework source code become available
- In 2014 Microsoft announced development of .NET Core
- In April 2019 last major release of .NET Framework (4.8)
- In November 2020 .NET (Core) 5.0 was released, replacing .NET Framework

Current state

- .NET Framework 4.8 is last major version of .NET Framework
- .NET 6.0 is latest implementation and runs technically on all platforms
- .NET Framework vs .NET (ex .NET Core)



Language support



C# language

- Anders Hejlsberg was original creator of C#
- C-like programming language
- Multi-paradigm
- Type-safe
- Statically typed
- Strongly typed

Tools/IDE

- C# 10
- .NET 6
- VS Code

DEMO

Data types

- C# type system
- Specifying types
- Built in types
- Custom types
- Array and List<T>

Kahoot time!

Controlling program flow

- If/else statement
- For-loop
- Foreach-loop
- While-loop
- Switch statement

Examples

- Create a name variable where its value is your full name and write it on the screen
- Make an variable Celsius with custom integer value. Create a function that converts value of Celsius variable to Fahrenheit and returns it.
$$(C * 9/5) + 32 = F$$
- Using Random.Shared.Next method, create an variable and write in the console if the variable value is even or odd (modus operand %)
- Write an array of fruits. Pass array to the PrintFruits function that will print it out in the console

Q&A