Security

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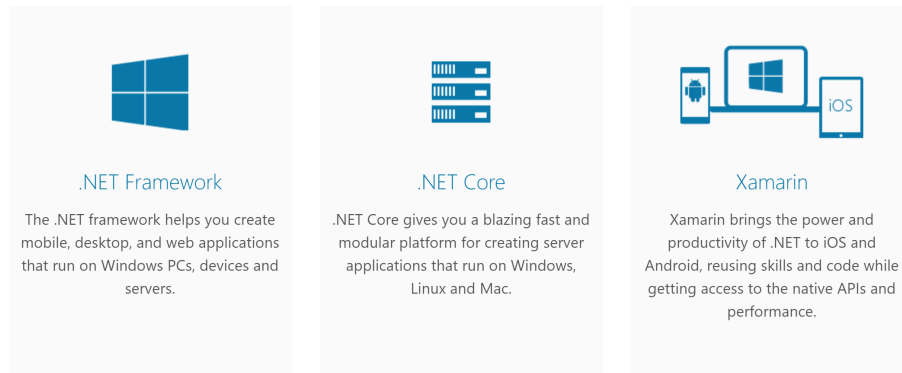
Inhoudsopgave

1 .NET

.NET is a free, cross-platform, open source developer platform (*) for building many different types of applications.

* languages + libraries

Figuur 1: .NET ecosystem

1.1 Languages

- Syntax very similar to C, C++, Java & JavaScript
- Functional programming language, cross-platform, open source
- Approachable English-like language for OOP

1.2 Applications

- desktop
- web & server
- mobile
- gaming
- IoT
- AI

1.2.1 Desktop

- UWP (Universal Windows Project)
- Xamarin.Mac
- WPF (Windows Presentation Foundation)
- WinForms (Windows Forms)

1.2.2 Web & Server

- ASP.NET
- ASP.NET Core

1.2.3 Mobile

- UWP (Universal Windows Project)
- Xamarin

1.2.4 Gaming

- Unity
- CryEngine

1.2.5 IoT

- UWP
- .NET Core IoT

1.2.6 AI

- Cognitive Services
- Azure Machine Learning
- Machine Learning and AI Libraries
- F# for Data Science and ML
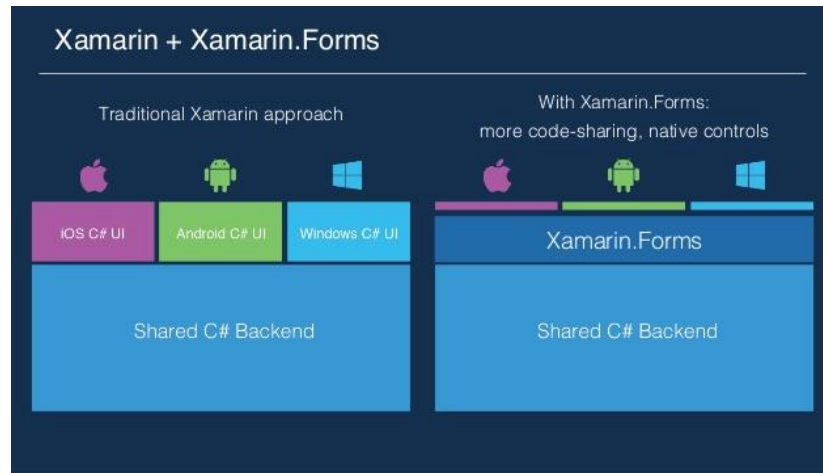
1.3 Xamarin

- 'Target all platforms with a single, shared codebase for Android, iOS, Windows'.
- Developen van Mobile devices lastig: verschillende platformen, verschillende talen voor elk device.
- Oplossing: Xamarin
- Extensie op Visual Studio.

Figuur 2: Xamarin Logo

1.3.1 Xamarin - UI Technology

Figuur 3: Native vs Xamarin.Forms

1.3.2 Xamarin - Code Sharing strategy

Figuur 4: .NET Standard vs Shared (Assets) Project

Met Shared Assets Project maken we de UI voor elk platform apart. Wij gaan vooral werken met .NET Standard.

1.4 Vragen

- What devices, platforms, etc. can we target using .NET, and what programming languages can we use?
- What is the basic difference between .NET Standard and Shared Assets projects in Xamarin?
- What is the difference between Xamarin native and Xamarin.Forms? What are the advantages and disadvantages?
- How to set up and understand the structure of a Xamarin project for the labs in this course, and how to debug on the different platforms.