

Xamarin
X ON THE ISLAND

Xamarin
X DEV DAYS

Native iOS & Android Development with Xamarin

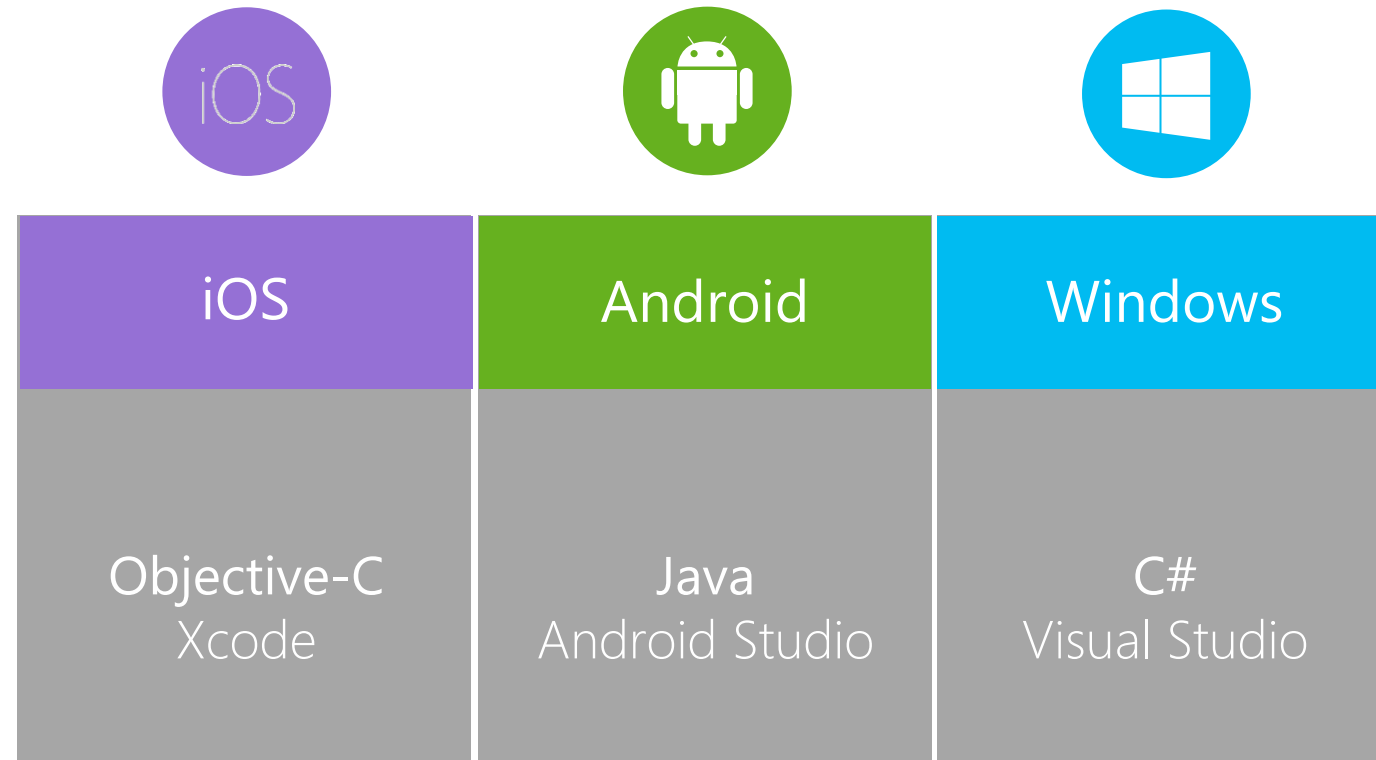
Naweed Akram

@xgeno / naweed@xgeno.com

Developer/Evangelist @ XGENO Software

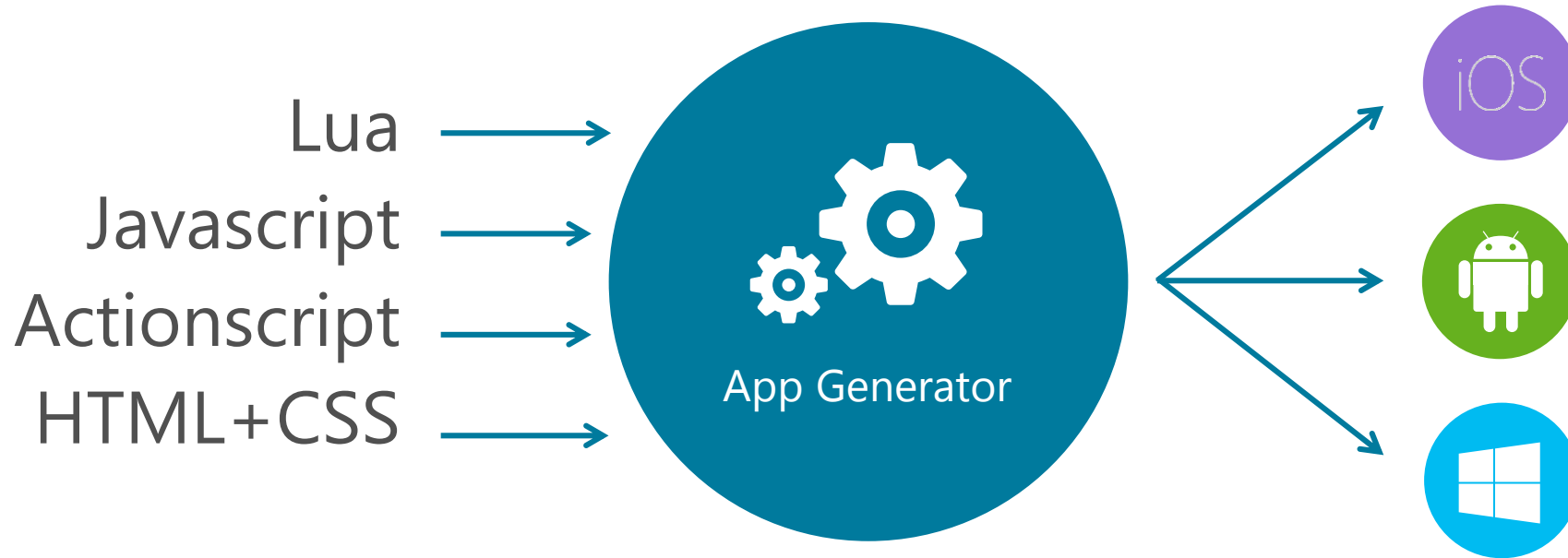
Architecting Mobile Apps

Silo Approach



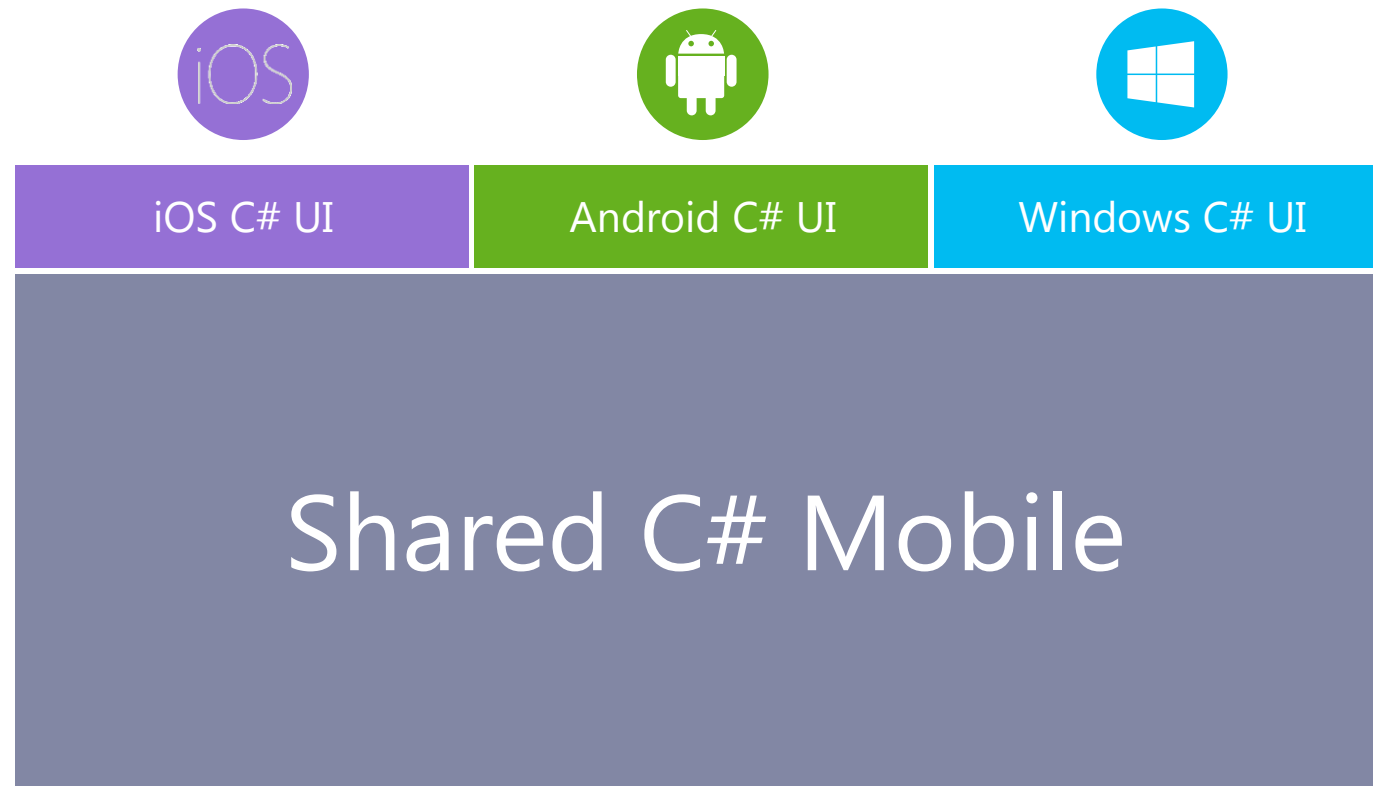
No shared code • Many languages & development environments • Multiple teams

Write Once, Run Anywhere



Limited native API access • Slow performance • Poor user experience


Xamarin's Unique Approach



Shared C# codebase • 100% native API access • High performance

Windows APIs


Microsoft.Phone	Microsoft.Networking	Windows.Storage	Windows.Foundation	Microsoft.Devices
System.Net	System	System.IO	System.Linq	System.Xml
System.Data	System.Windows	System.Numerics	System.Core	System.ServiceModel



C#

iOS – 100% API Coverage


MapKit	UIKit	iBeacon	CoreGraphics	CoreMotion
System.Net	System	System.IO	System.Linq	System.Xml
System.Data	System.Windows	System.Numerics	System.Core	System.ServiceModel



C#

Android – 100% API Coverage

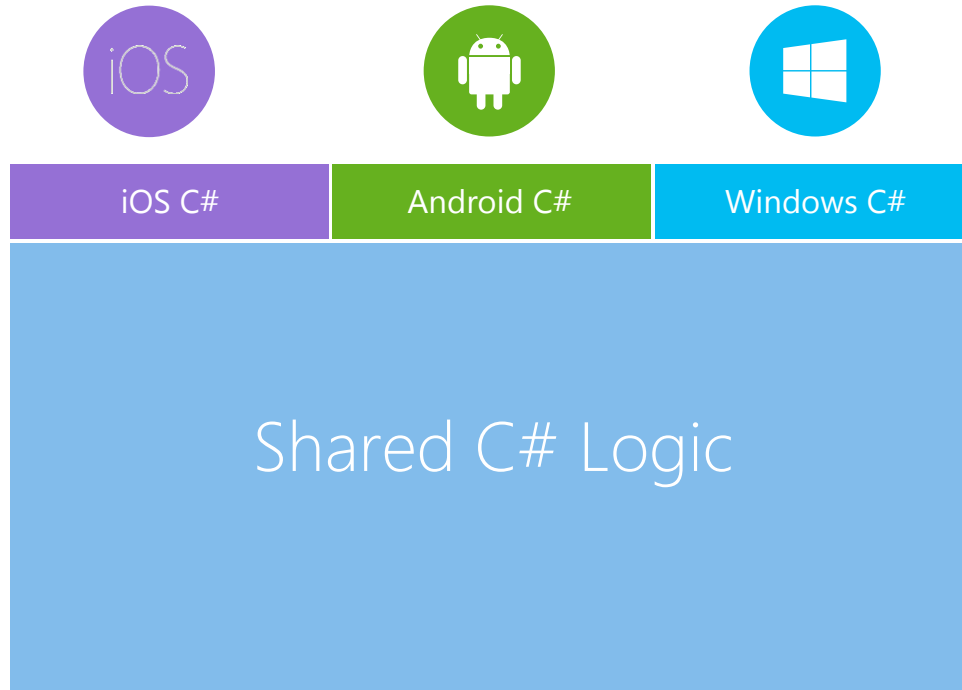
Text-to-speech	ActionBar	Printing Framework	RenderScript	NFC
System.Net	System	System.IO	System.Linq	System.Xml
System.Data	System.Windows	System.Numerics	System.Core	System.ServiceModel



C#

Building User Interfaces

Traditional UI approach



3 Native User Interfaces
Shared App Logic



Xamarin.Forms approach

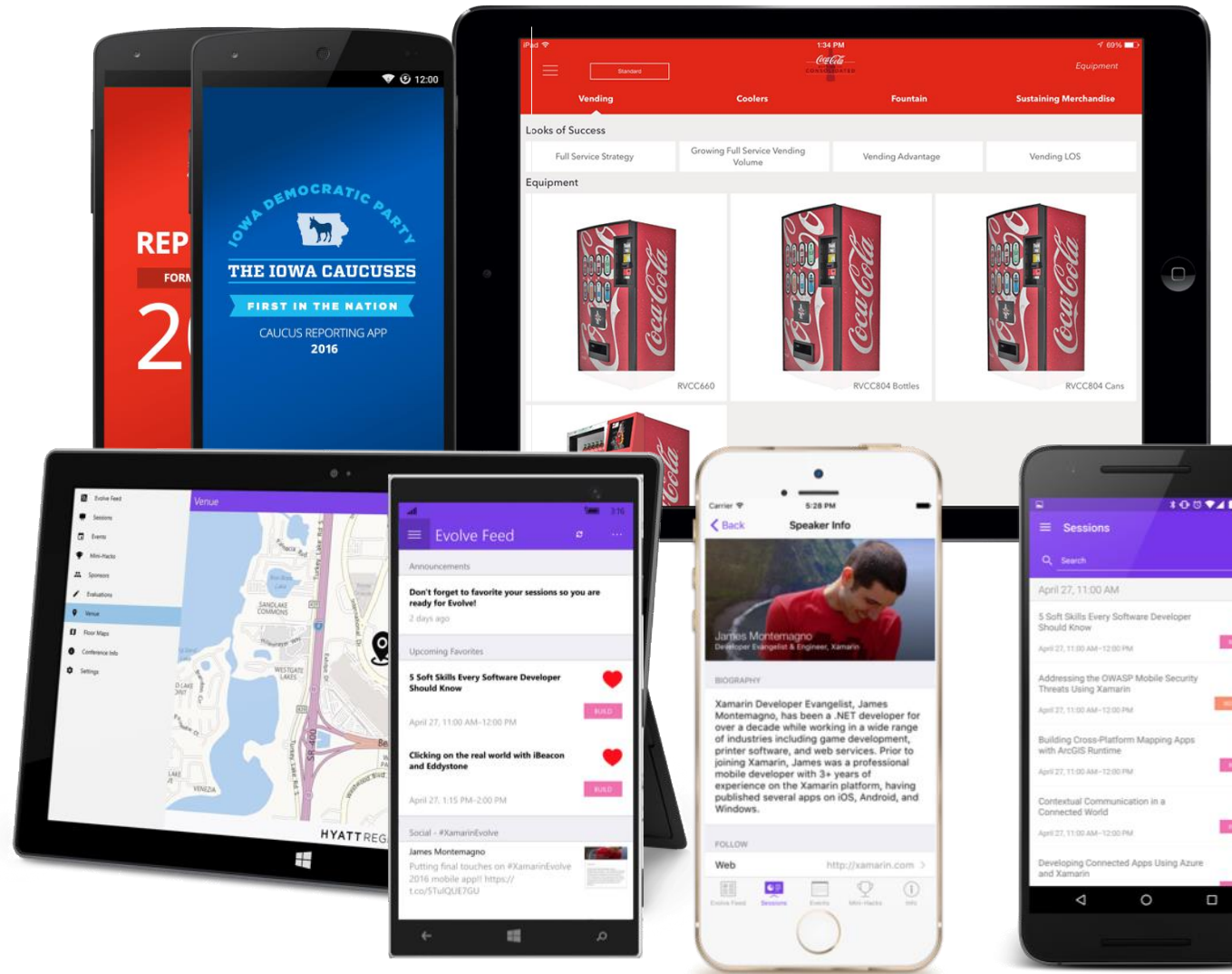


Shared UI Code

Shared C# Logic

Shared User Interface

Shared App Logic





MONO**GAME**



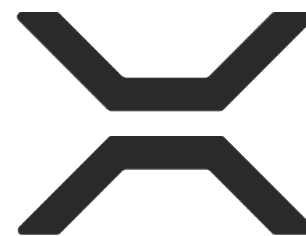
UrhoSharp



WAVETM
CROSS-PLATFORM ENGINE

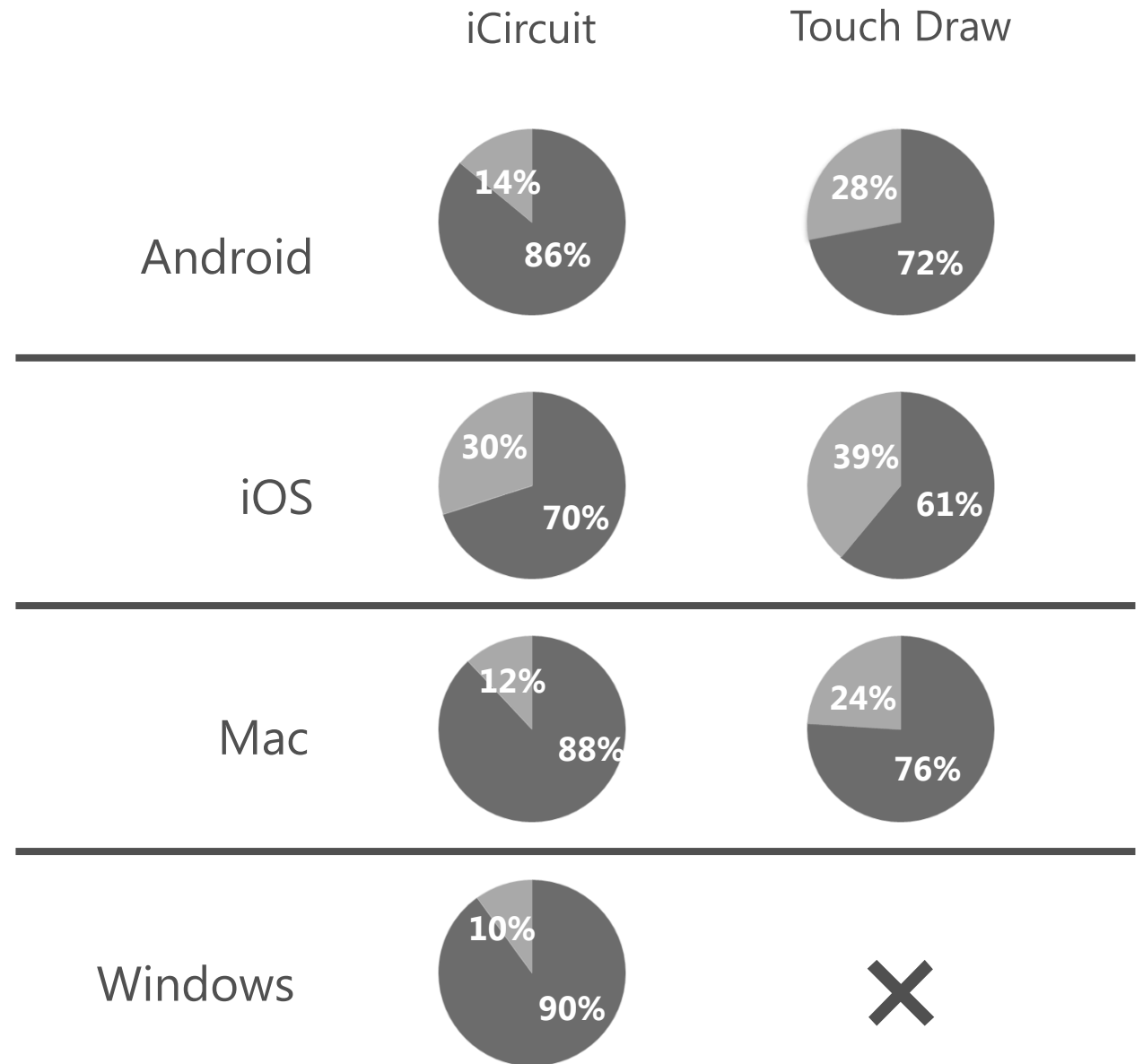


CocosSharp

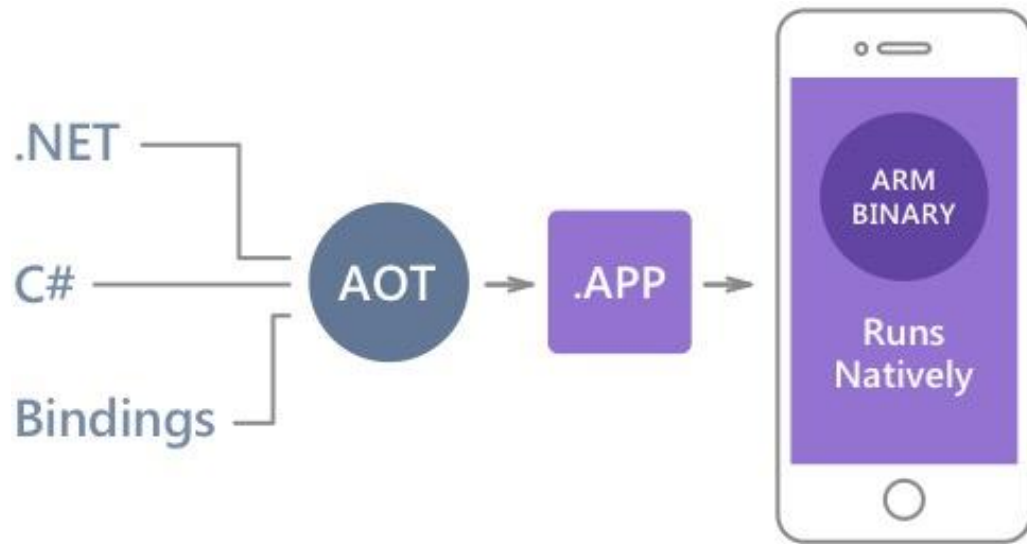


XENKOTM

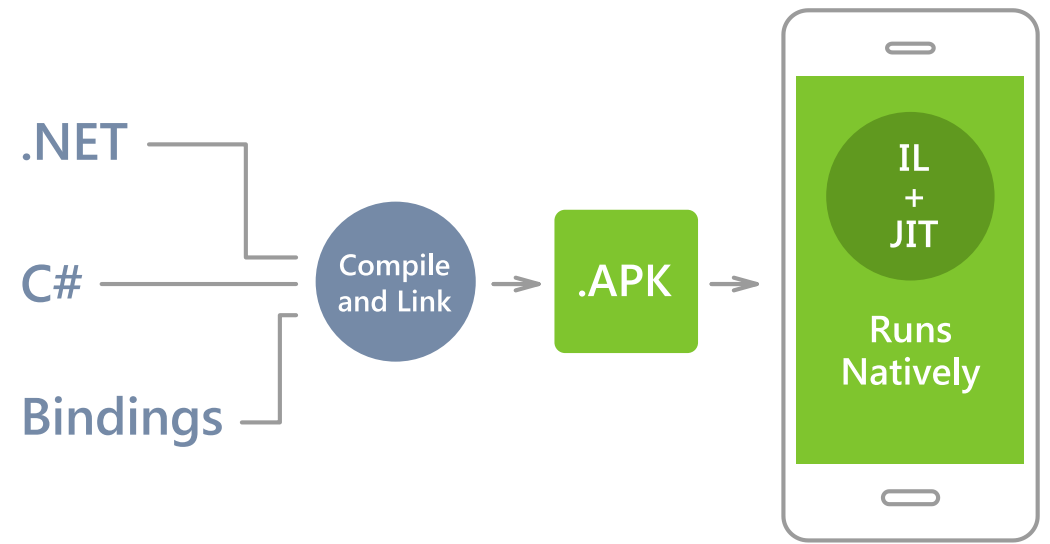
Code sharing stats



Native Performance



Xamarin.iOS does full Ahead Of Time (AOT) compilation to produce an ARM binary for Apple's App Store.



Xamarin.Android takes advantage of Just In Time (JIT) compilation on the Android device.

✓ Always Up-to-Date

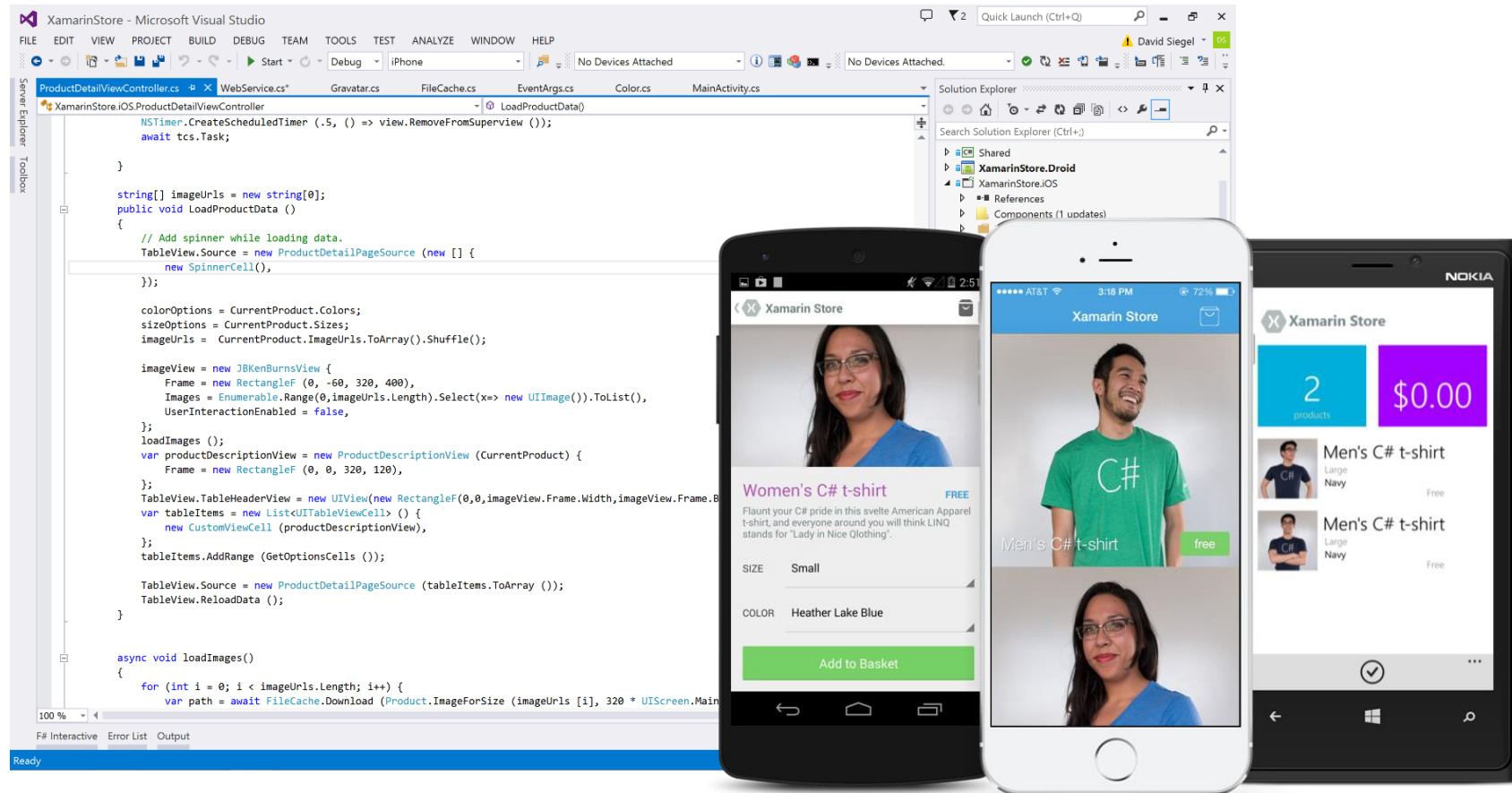
Same-day support:

- iOS 5
- iOS 6
- iOS 7
- iOS 8
- iOS 9
- iOS 10

Full support for:

- Apple Watch
- Android Wear
- Amazon Fire TV
- Google Glass
- and much more

Anything you can do in Objective-C, Swift, or Java
can be done in **C#** with Xamarin.



Development Experience

Xamarin is included in Visual Studio

Including Community Edition!

Open Source – open.xamarin.com



Xamarin
OPEN SOURCE

[Xamarin SDK](#)

[Documentation](#)

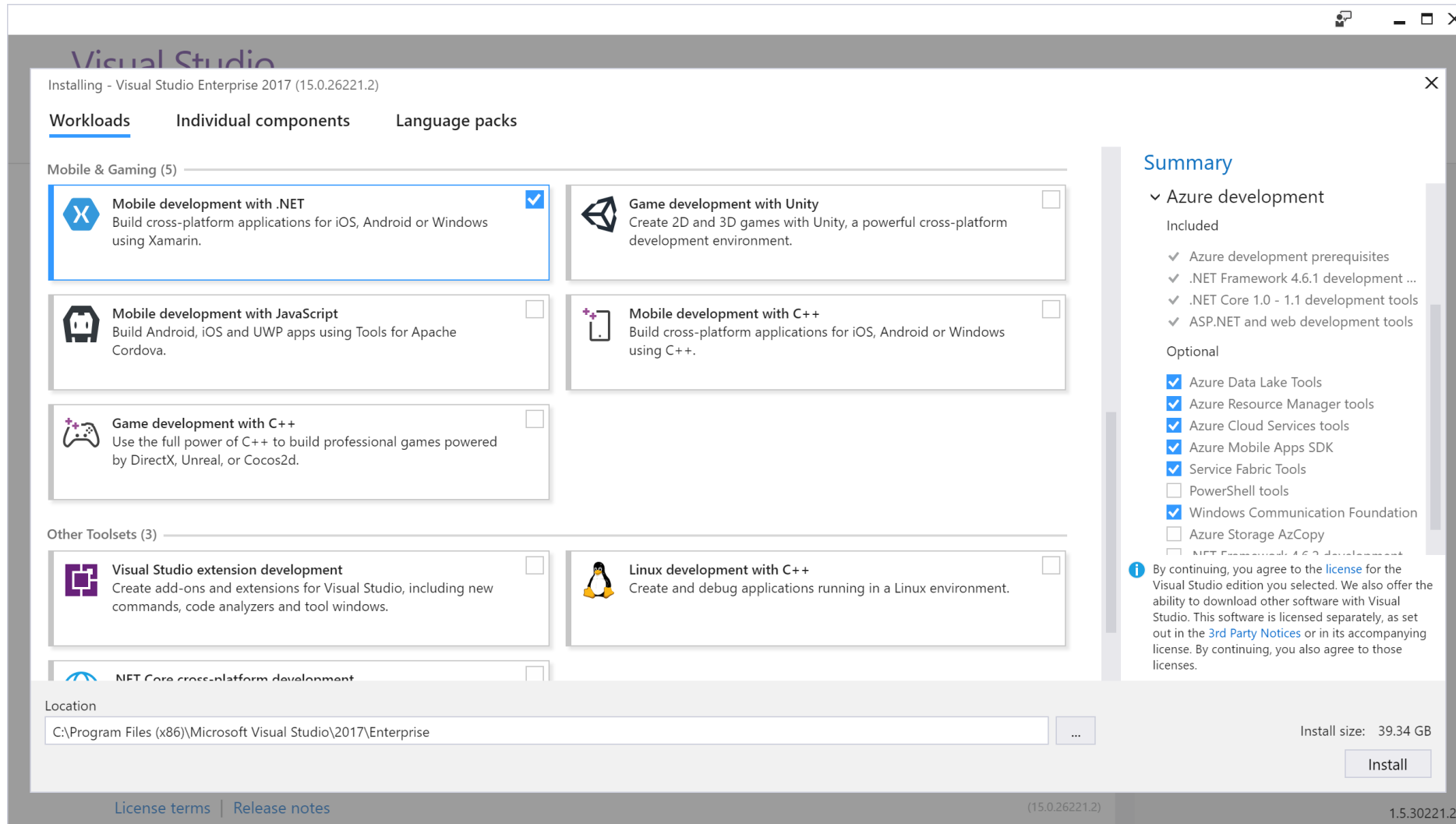
[Community](#)

[Contribute](#)

Build the future of apps
with Xamarin.

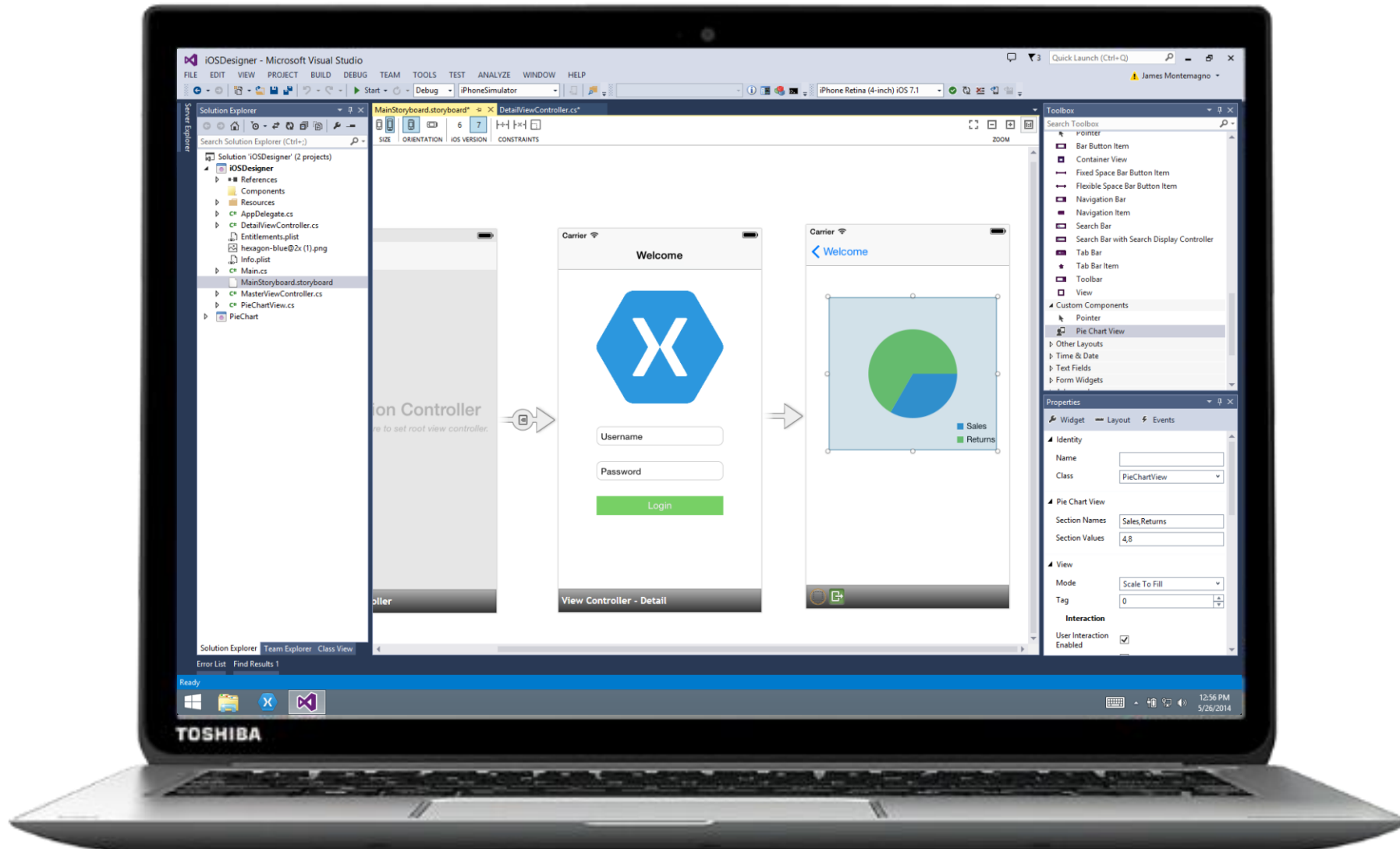
Xamarin SDK is now fully available under the MIT license.

Visual Studio Integration

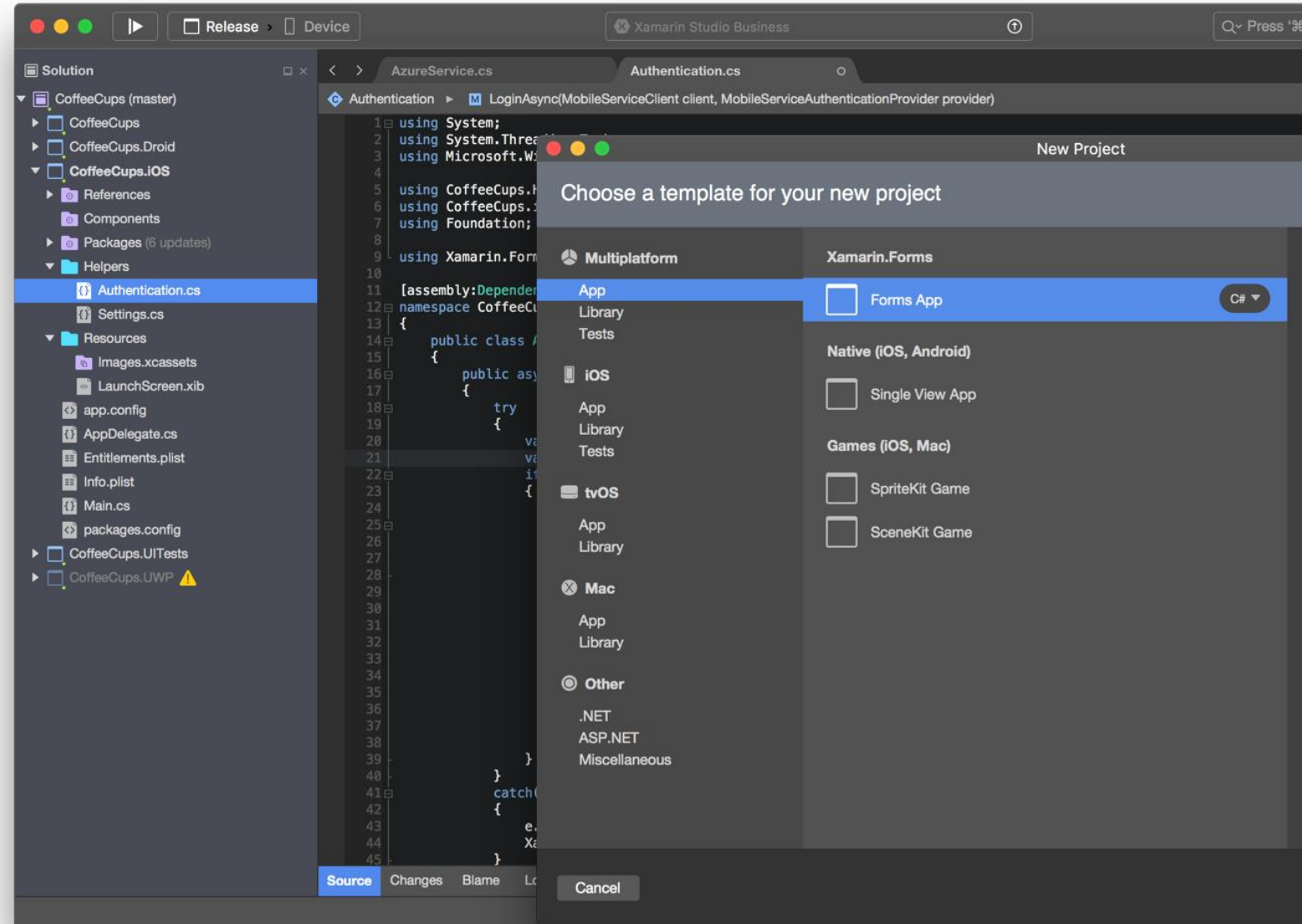


Xamarin.com/Download

Xamarin for Visual Studio



Xamarin Studio – Mac



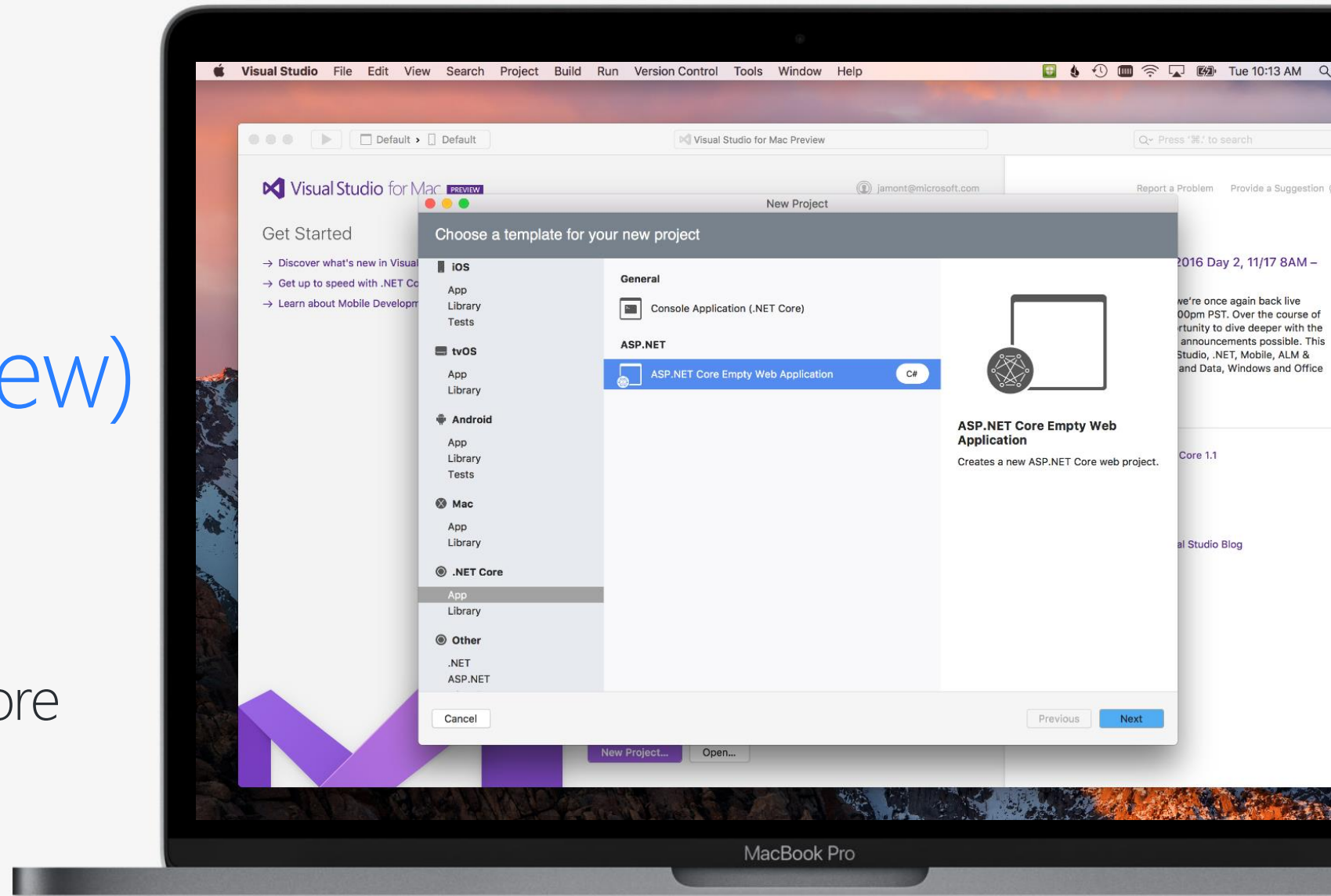
Visual Studio for Mac (Preview)

iOS, Android, & macOS

.NET development

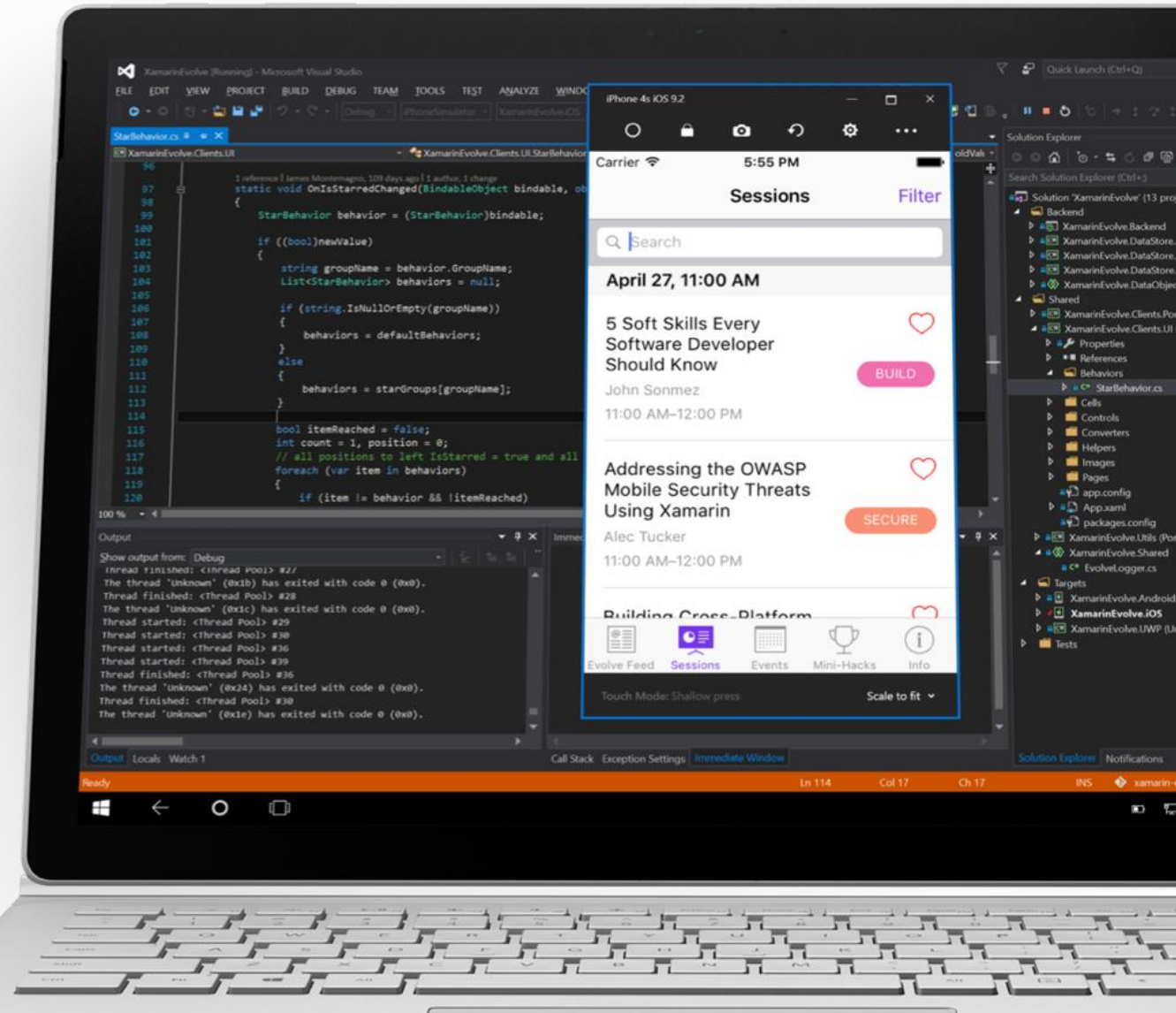
.NET Core & ASP.NET Core

Tools for Azure



Visual Studio iOS Simulator Remoting

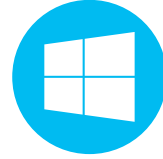
- Multi-Touch Enabled
- Pressure Sensitive
- Super Fast
- Rotate, screenshots, location changes
- Never leave VS



*Requires Visual Studio Enterprise

DEMO

Streamlined Development



UI+APIs

Battery
GPS
Lights
Notifications
Settings
Text To Speech

UI + APIs

Battery
GPS
Lights
Notifications
Settings
Text To Speech

UI + APIs

Battery
GPS
Lights
Notifications
Settings
Text To Speech

Platform Specific Code

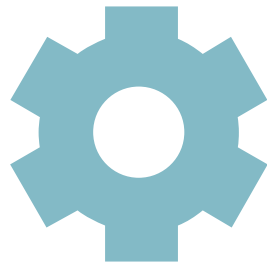
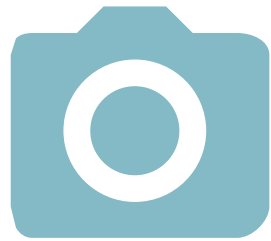
What if we didn't have to
write this code?

What if we could access
it from shared code?

Plugins for Xamarin

github.com/xamarin/plugins

Common API

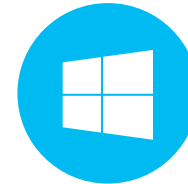


Speak("Hello World");

AVSpeechSynthesizer

TextToSpeech

SpeechSynthesizer



Microsoft's complete mobile DevOps solution



Develop



Test



Build



Distribute



Monitor

 Test

 Analytics

 Build

 Distribute

 Live Update

 Crash Reporting

 Storage

 A/B Testing

 Push Notifications

 Identity

 Tables

 Remote Config.





Build



Test



Analytics



Push Notifications



Distribute



A/B Testing



Crash Reporting



Remote Config.



Identity



Tables



Live Update



Storage

Visual Studio Mobile Center

mobile.azure.com



Q & A