

Welcome to the Xamarin platform

HELLO
MY NAME IS



1-Day Agenda

- The Xamarin Mobile Platform
- Introduction to Xamarin.Form
- Defining UI in XAML
- Azure Mobile App Server and Client
- Using the Xamarin.Forms ListView
- Azure Authentication/Notifications
- Mobile Center

- ... and of course lunch and snacks!



What we will build

Today you will learn how to build a trivia application that runs on iOS, Android and Windows Phone

The screenshot shows a mobile application interface. At the top, there is a header bar with the text "Carrier" and a signal icon on the left, "12:24 PM" in the center, and a battery icon on the right. Below the header, the title "eXam" is displayed in bold black text, with a "Back" button and a left arrow icon to its left. The main content area contains a statement in black text: "For the purposes of testing an application, simulators are just as good as physical devices." Below this statement are two large, rounded rectangular buttons: a blue one on the left labeled "True" and a red one on the right labeled "False". At the bottom of the screen is a large green button with the word "Next" in white text.

Carrier 12:24 PM

Back eXam

For the purposes of testing an application, simulators are just as good as physical devices.

True False

Next

Important information

Know your closest emergency exit and restroom





Xamarin University

Free self-guided courses

- Our free self-guided courses cover the core Xamarin concepts and count towards certification. Upgrade to a full subscription for live classes, advanced content, and to complete your certification.
- Register at university.xamarin.com/self-guided



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Introduction to Xamarin

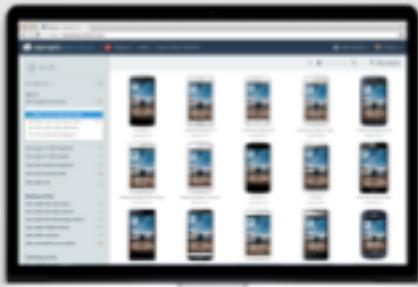
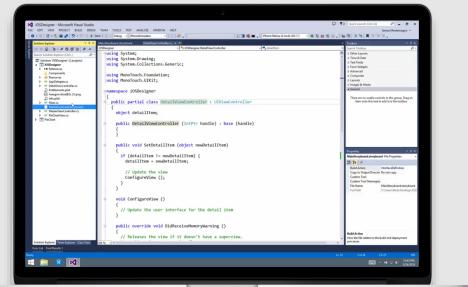
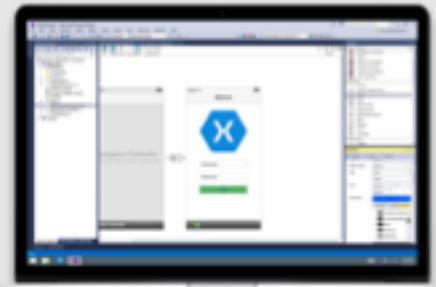
Development Environment

We assume you have a working development environment already!



What is the Xamarin Platform?

- Xamarin lets you develop, test and monitor your released application for iOS, Android and Windows Phone



Xamarin Development Platform



Xamarin Test Cloud



Xamarin Insights

Design

Develop

Integrate

Test

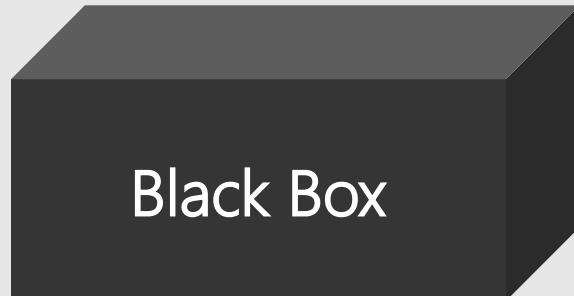
Monitor

Approaches to mobile app development

There are three common ways to create mobile applications, each with specific strengths and weaknesses



Silo



Black Box



Silo approach

Can write the same application multiple times using the vendor's tools

iOS

iOS App

Obj-C

Swift

XCode



Android App

Java

Eclipse

A. Studio



Windows App

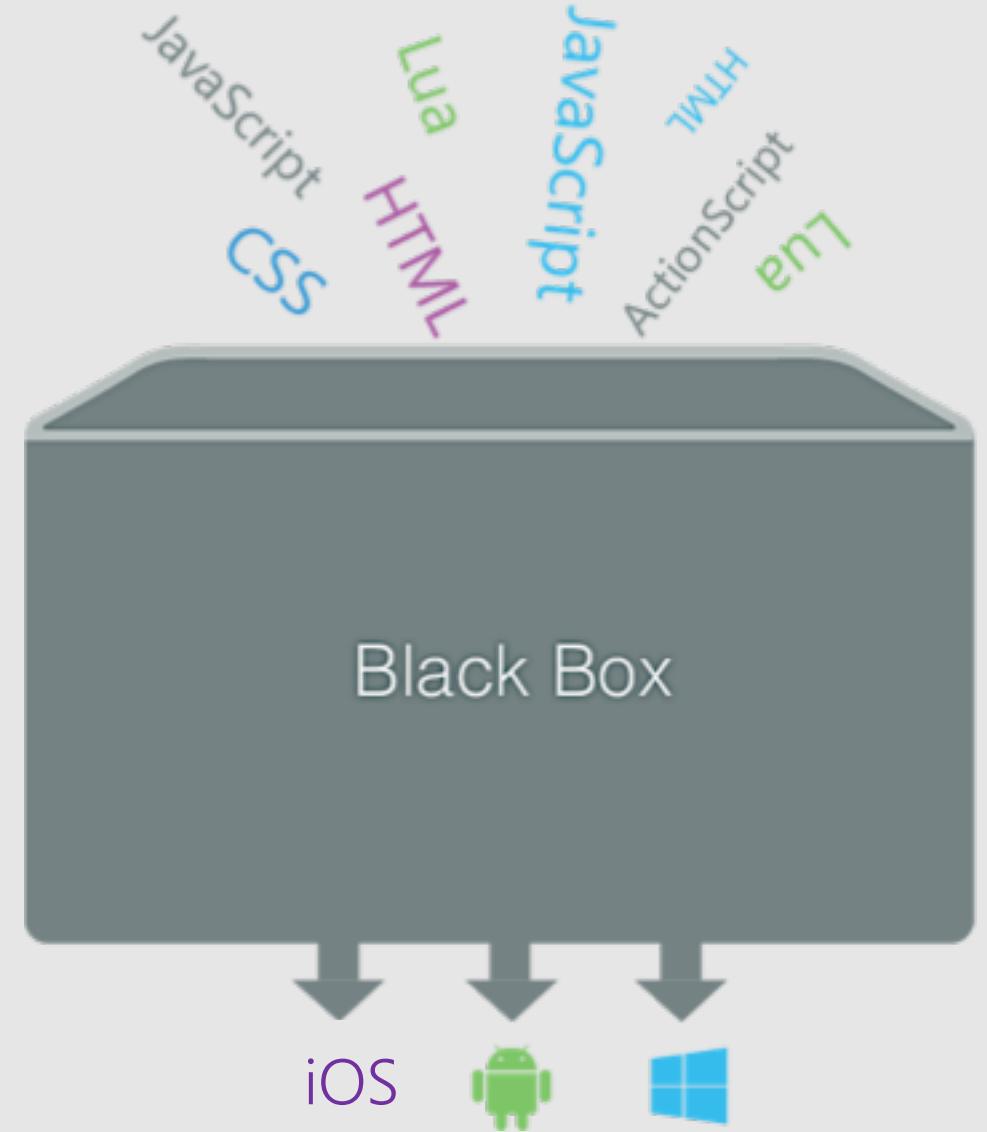
C#

Visual

Studio

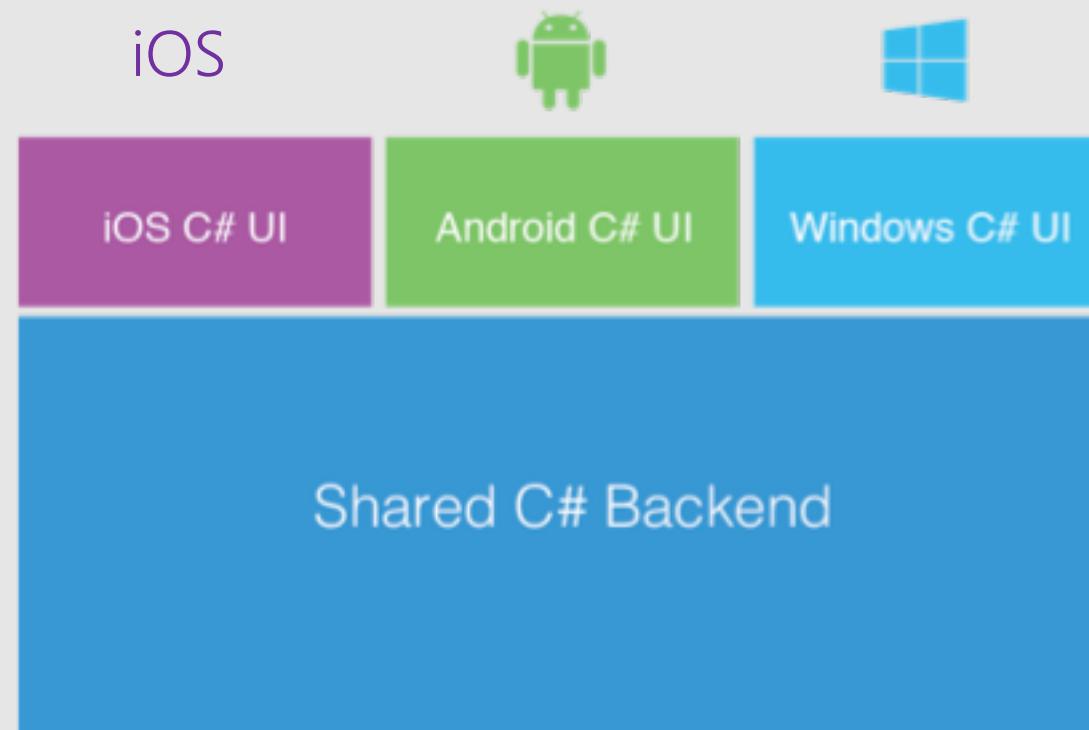
Black Box approach

- Can build app using high-level tools that convert a single code base (typically in HTML/JavaScript) to an app for each platform



Xamarin approach

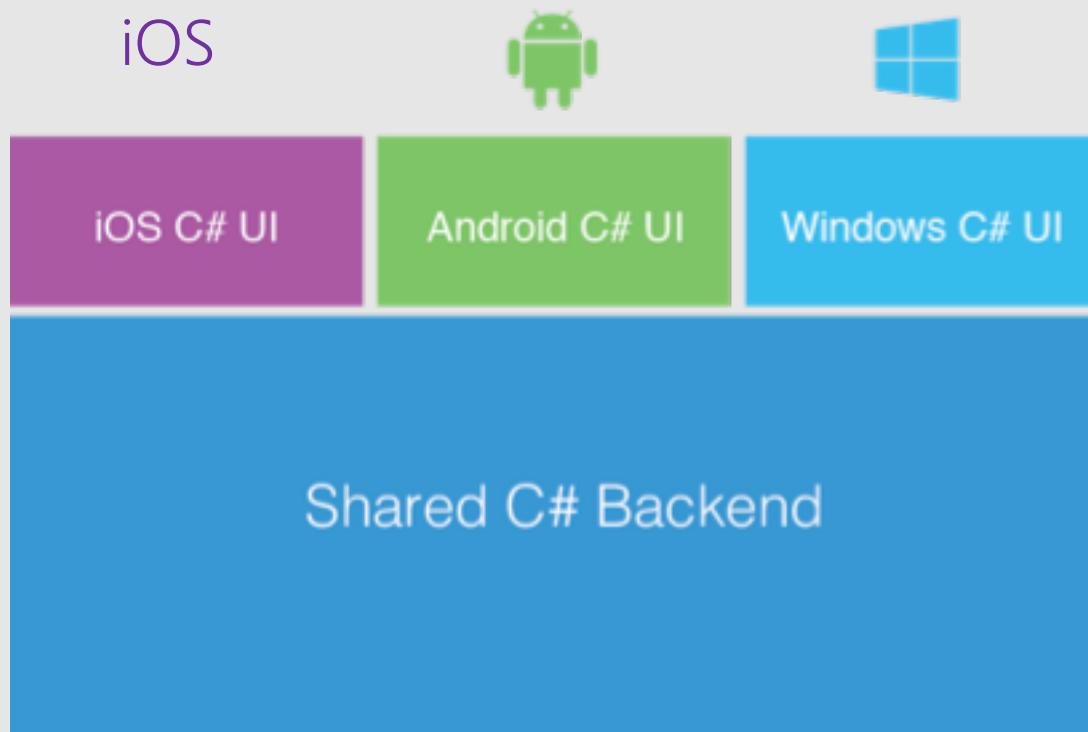
Can build native apps using C# and .NET, sharing the business logic but leveraging each platform's benefits and paradigms



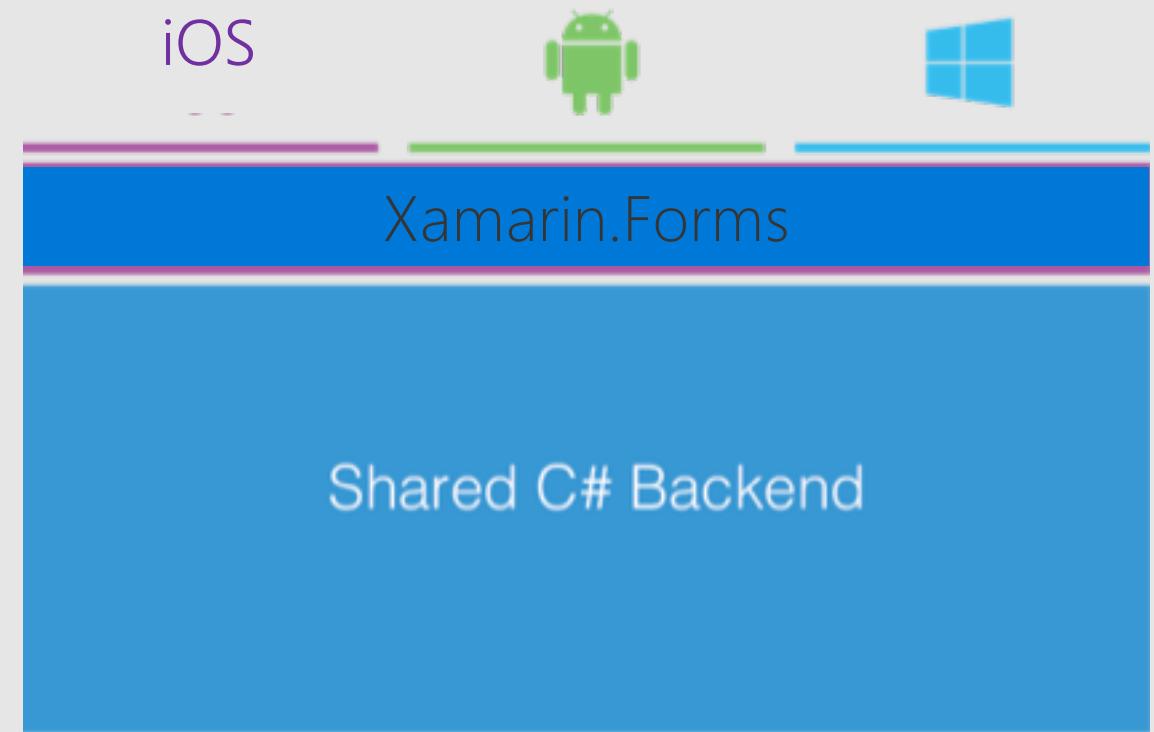
Traditional Xamarin approach

Xamarin approach

Xamarin.Forms enables even more code-sharing through a shared UI definition when deep platform integration is unnecessary



Traditional Xamarin approach



Xamarin.Forms approach

Traditional vs. Forms

- Xamarin.Forms is not suitable for all types of apps
 - ✓ Great for data-driven (forms) and utility applications
 - ✗ Not ideal if your UI will be highly customized to the platform
- Can be used for quick prototyping even if you do not utilize it for the final app





Anything you can do in Objective-C, Swift,
or Java can be done in C# (or F#) with Xamarin

Summary

- Xamarin provides a complete solution for the entire Software Development Lifecycle from development to production monitoring
- Xamarin allows you to build your mobile apps using languages and knowledge you already have
- Anything you can do in the vendor's native tools, you can do in C# with Xamarin