

Blazor Hybrid – Build cross-platform web, mobile, & desktop



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The Ultimate Education Destination
ORLANDO 2022

Level: Introductory

Build anything with a unified platform



.NET offers choice for developers

Reach



Depth

ASP.NET Core – A Web Toolkit for .NET

Services

HTTP
APIs

SignalR

Worker

gRPC

Web UI

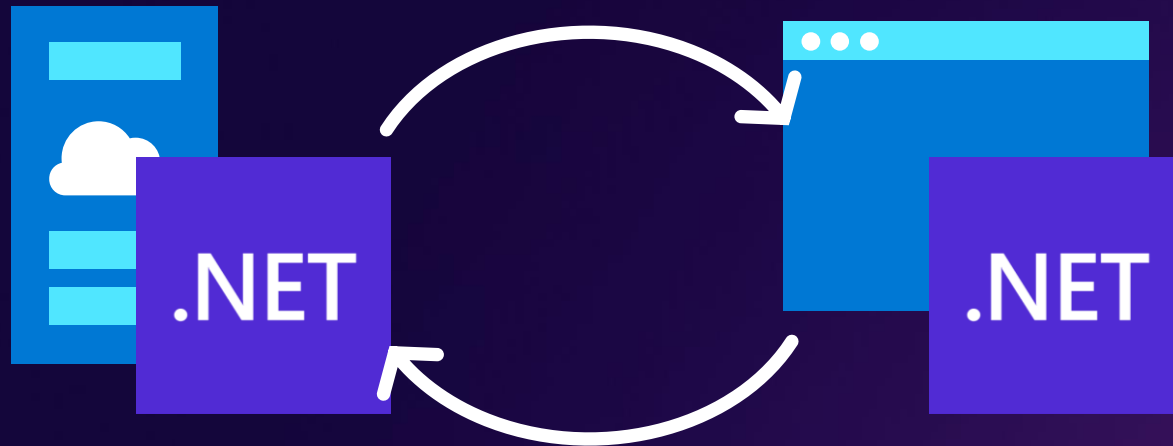
MVC

Razor
Pages

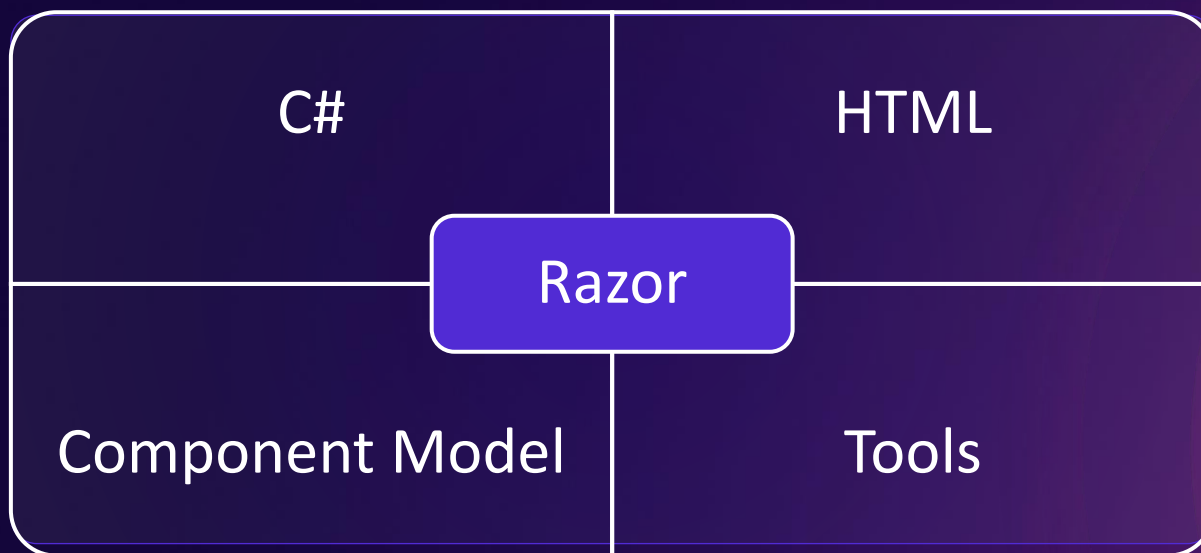
SPA

Blazor

Blazor – full stack web apps with .NET




The power of Razor components



.NET offers choice for developers



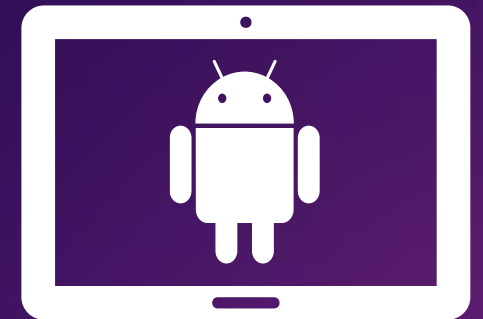
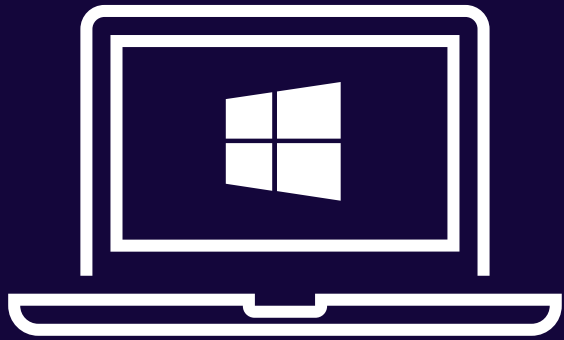
A blurred photograph of several people walking in a modern, brightly lit hallway with a white tiled wall and floor. The motion blur suggests a fast-paced environment.

Client app development is important

>1B Windows 10 & 11 devices worldwide

>4B iPhone & Android devices worldwide

Sources: blog.google/products/android/android-12-beta/ ;
www.imore.com/apple-earnings-call-transcripts-q1-2021 ;



.NET MAUI in .NET

Unified .NET

One Base Class Library
Type Unification
CLI Support
SDK Style Projects
Modern Support Lifecycle

Mobile, desktop, hybrid

Android
iOS
WinUI
Mac Catalyst
Blazor WebView

Productive development

Single Project
Microsoft.Extensions
.NET Hot Reload
XAML Hot Reload
Visual Diagnostics

.NET

.NET MAUI

WinUI



Mac
Catalyst



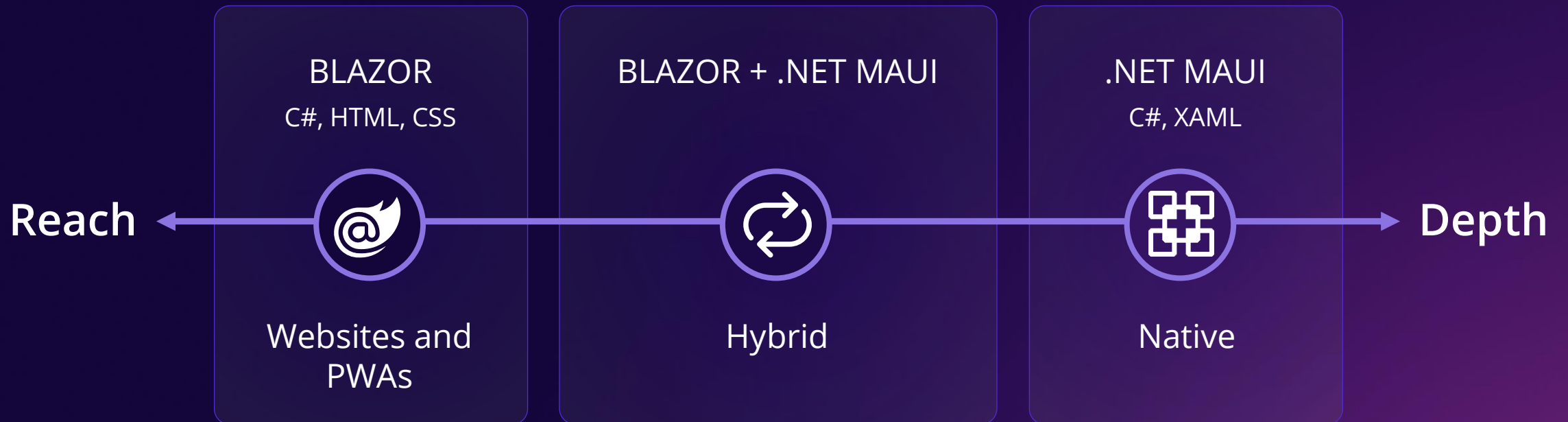
iOS



Android



.NET offers choice for developers



Blazor Hybrid apps

Reuse UI components across native and web

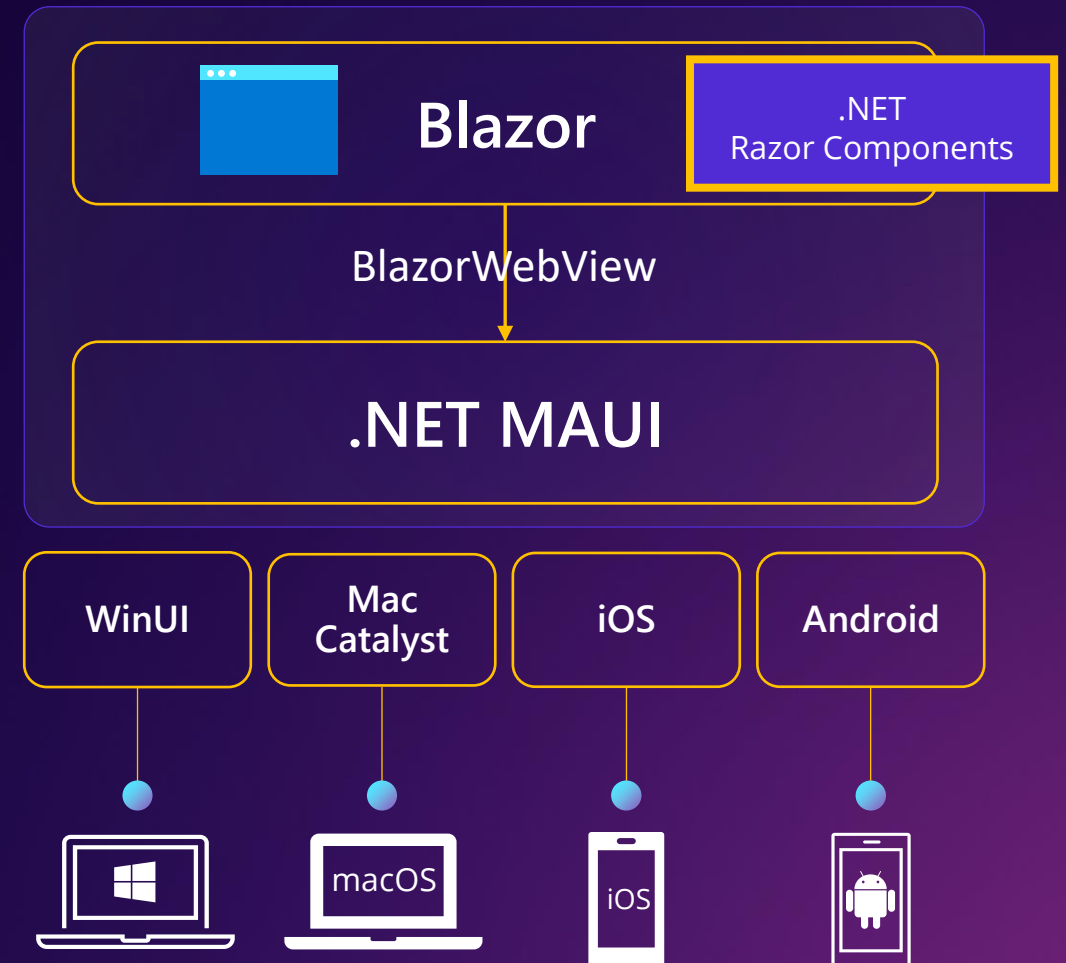
Native app container & embedded controls

No WebAssembly, No Server

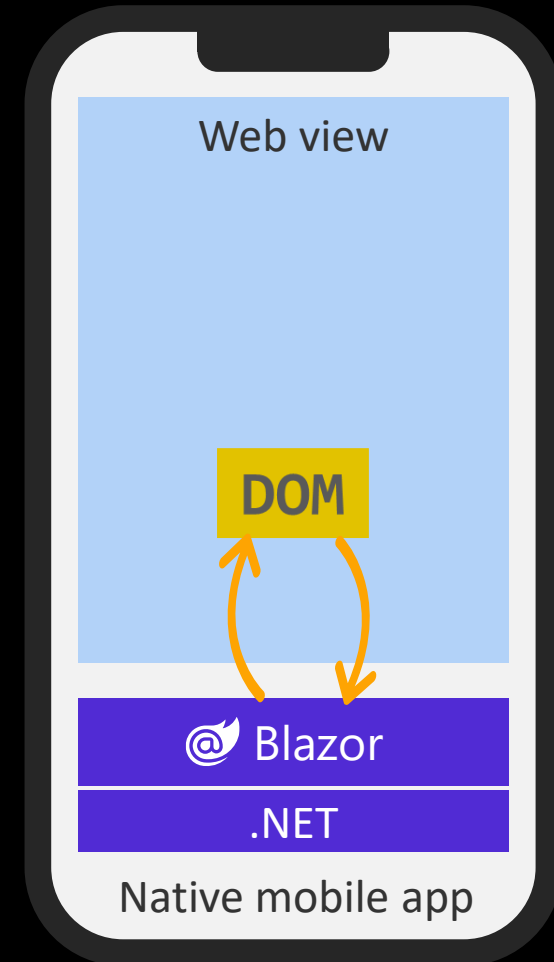
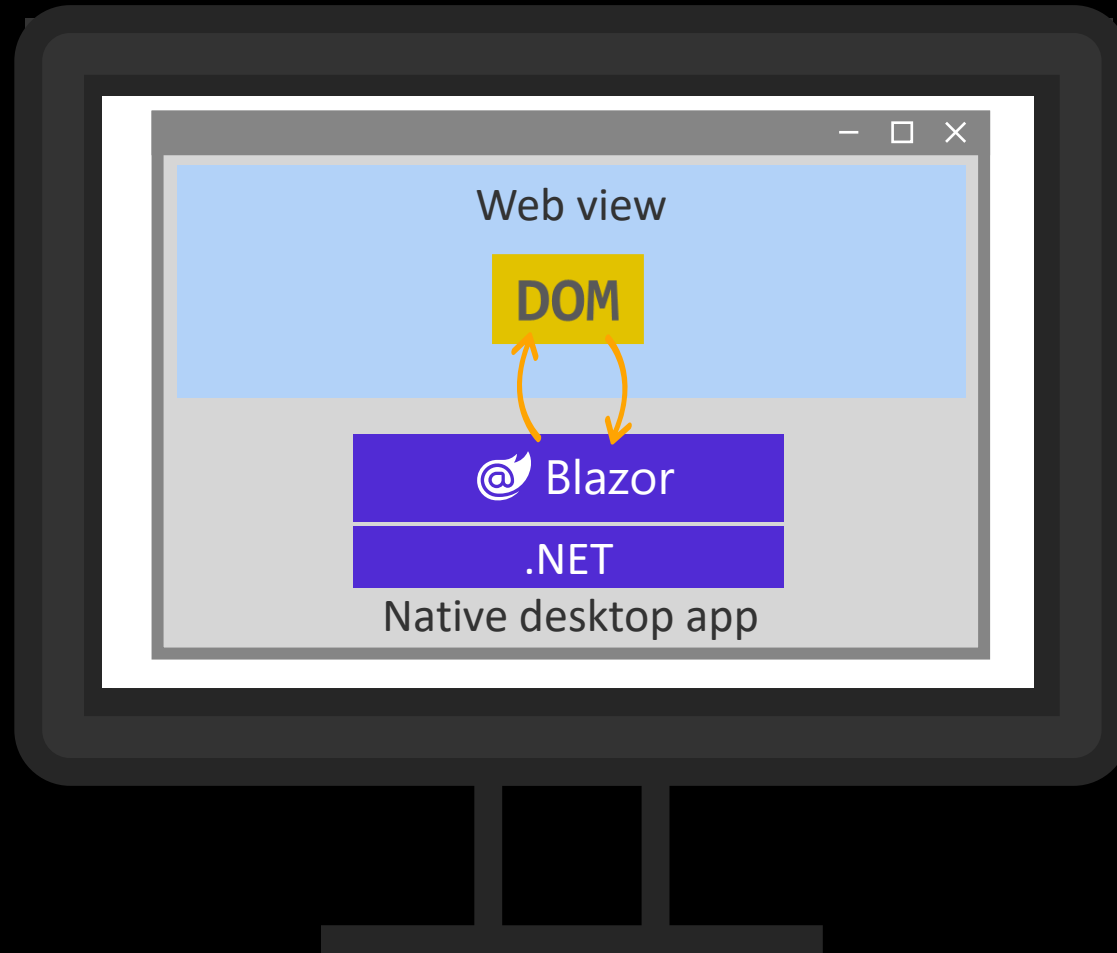
Built on top of .NET Multi-platform App UI

Access native APIs

Mix & Match Web/Native UI



Blazor Hybrid apps



Blazor Hybrid

Runs 100% of the app natively
on the device in one process

No HTTP, no network, no
browser sandbox

Blazor Hybrid

Only the HTML UI is *rendered*
into a web view control

Hybrid Architecture



C#

C#

C#

C#

C#

Shared Blazor Components

Shared Business Logic

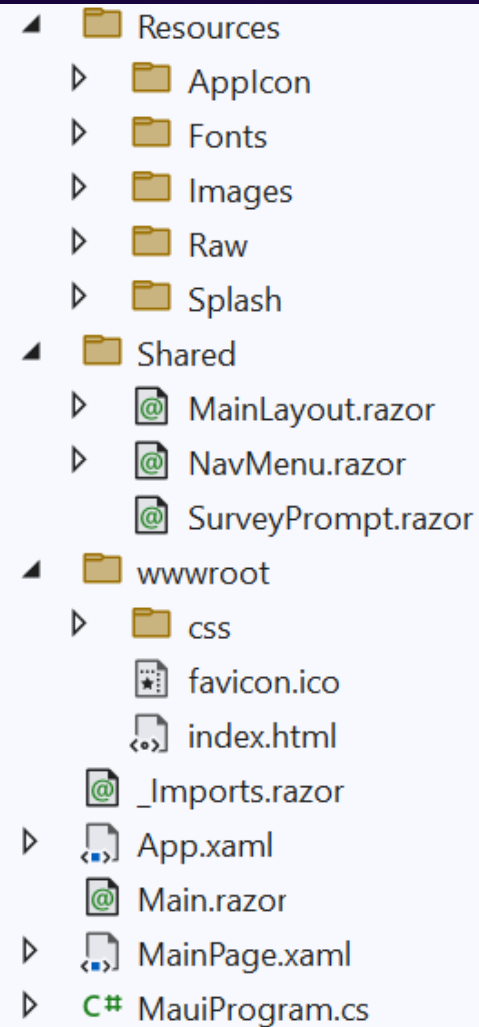
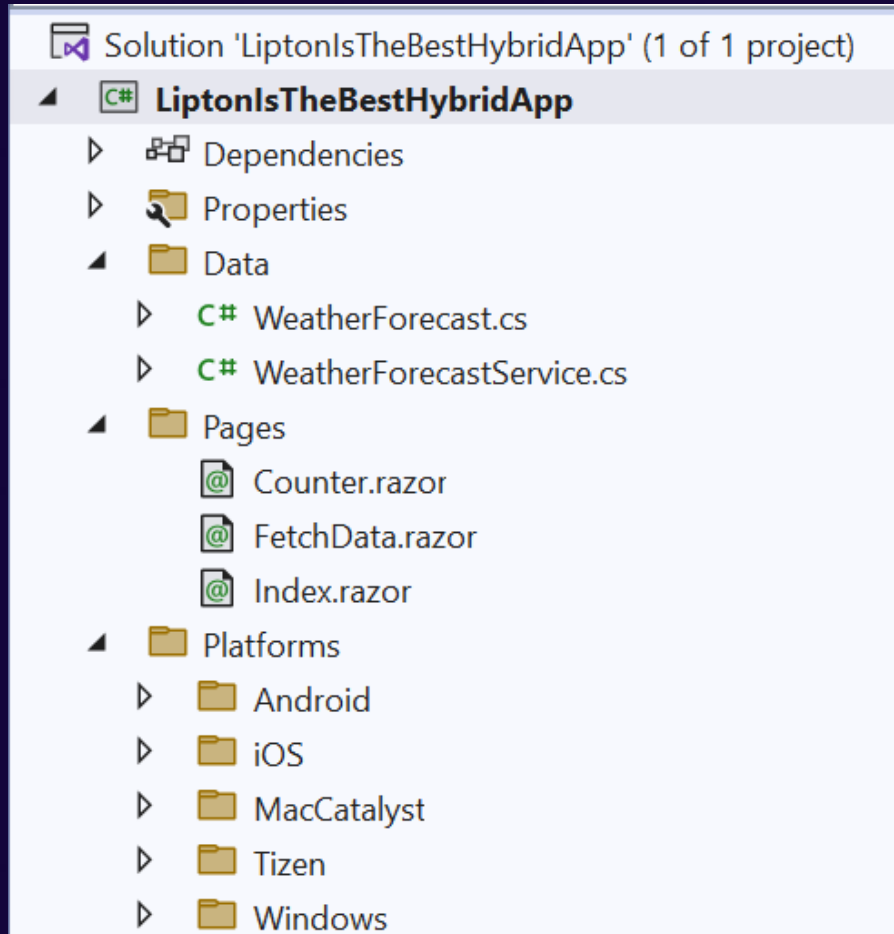
Demo

Blazor Hybrid with .NET MAUI

Sharing Code & Components

A little Blazor or a lot of Blazor

Where's the code sharing!?!?!?



Class Libraries to the Rescue!



Class Library

A project for creating a class library that targets .NET or .NET Standard

C#

Android

Linux

macOS

Windows

Library



Razor Class Library

A project for creating a Razor class library that targets .NET Standard

C#

Linux

macOS

Windows

Library

Web

Sharing Code & Components



Class Library

Razor Class Library

API Interfaces (Class Library)

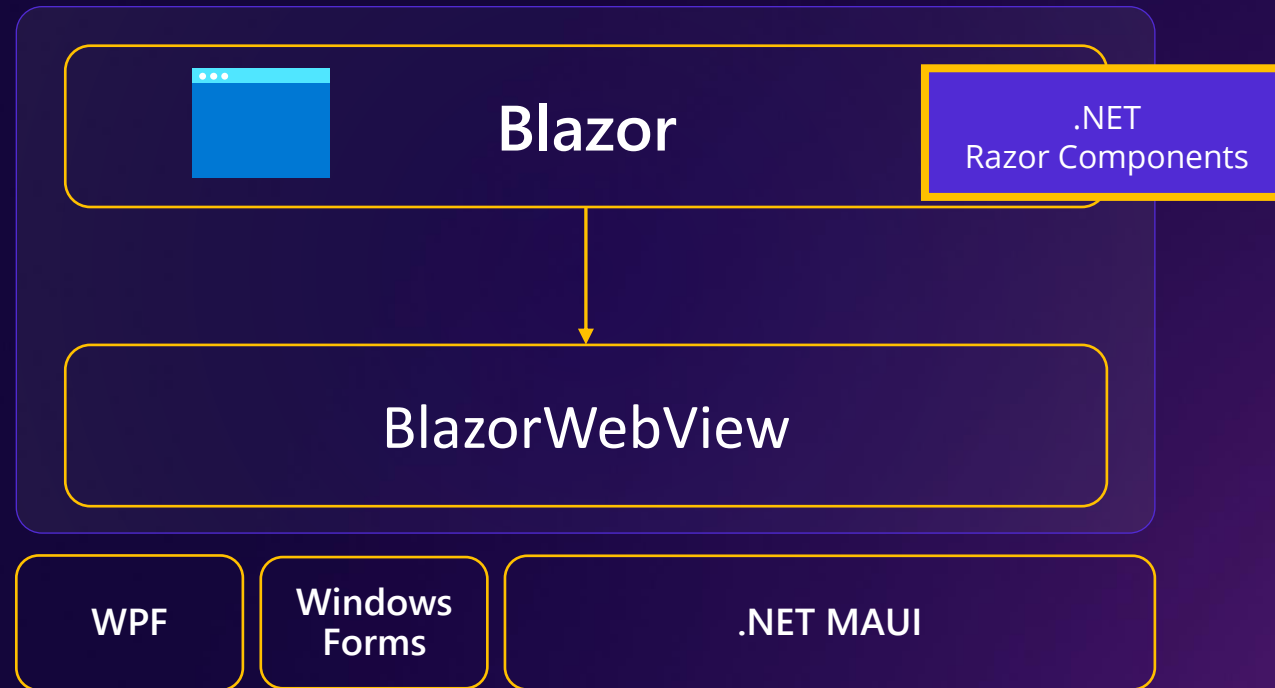
Blazor Implementations

.NET MAUI Implementations

Demo

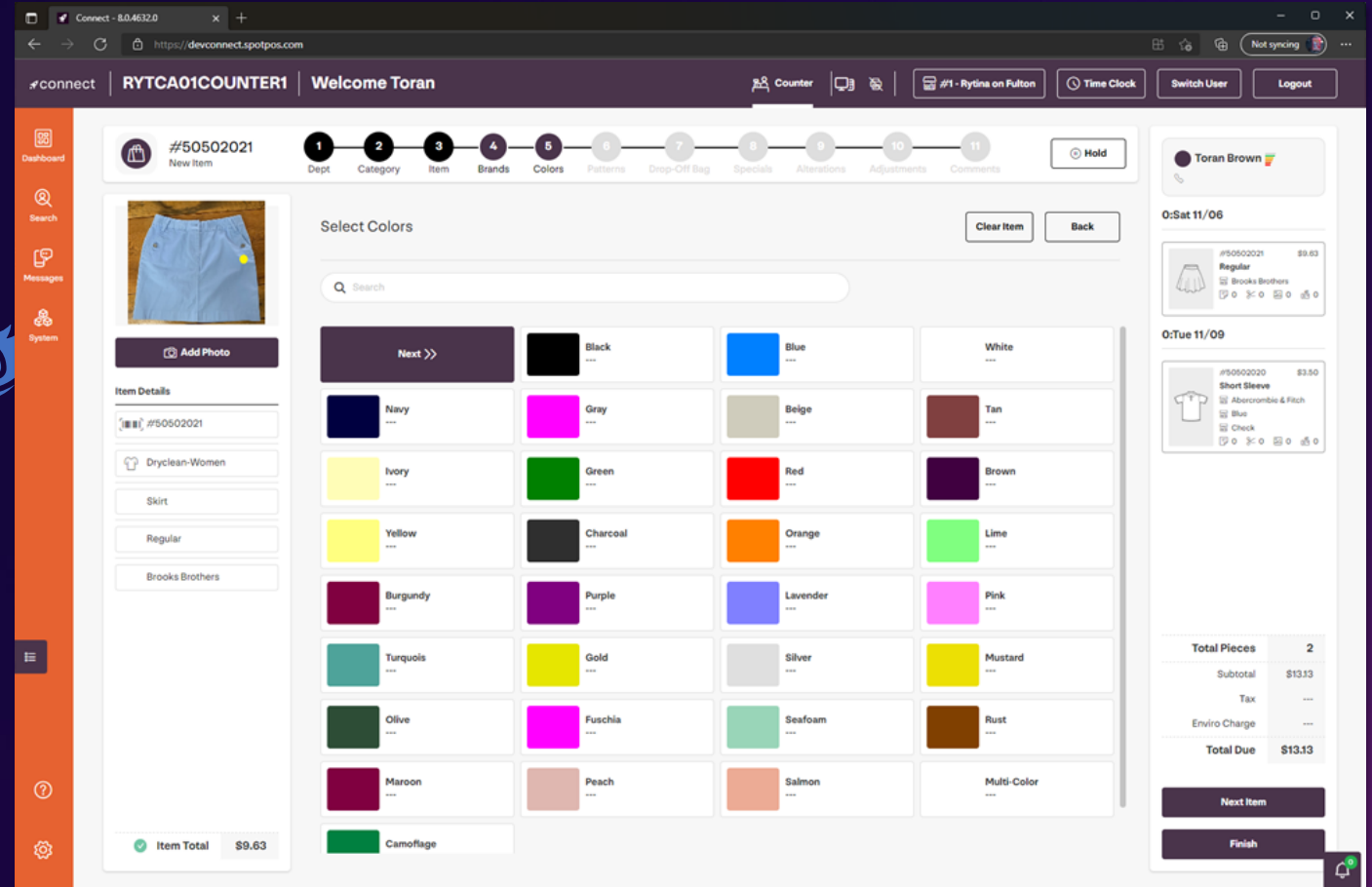
Sharing Code & Components

Blazor Hybrid apps



Modernize with Blazor Hybrid UI

- Add Blazor UI to existing WPF & Windows Forms apps
- Expand your reach to new platforms and users with .NET MAUI and Blazor Hybrid
- Leverage existing investments



SPOT
by xplor

Demo

Blazor Hybrid with Windows Forms

Blazor Hybrid apps

Reuse UI components across native and web

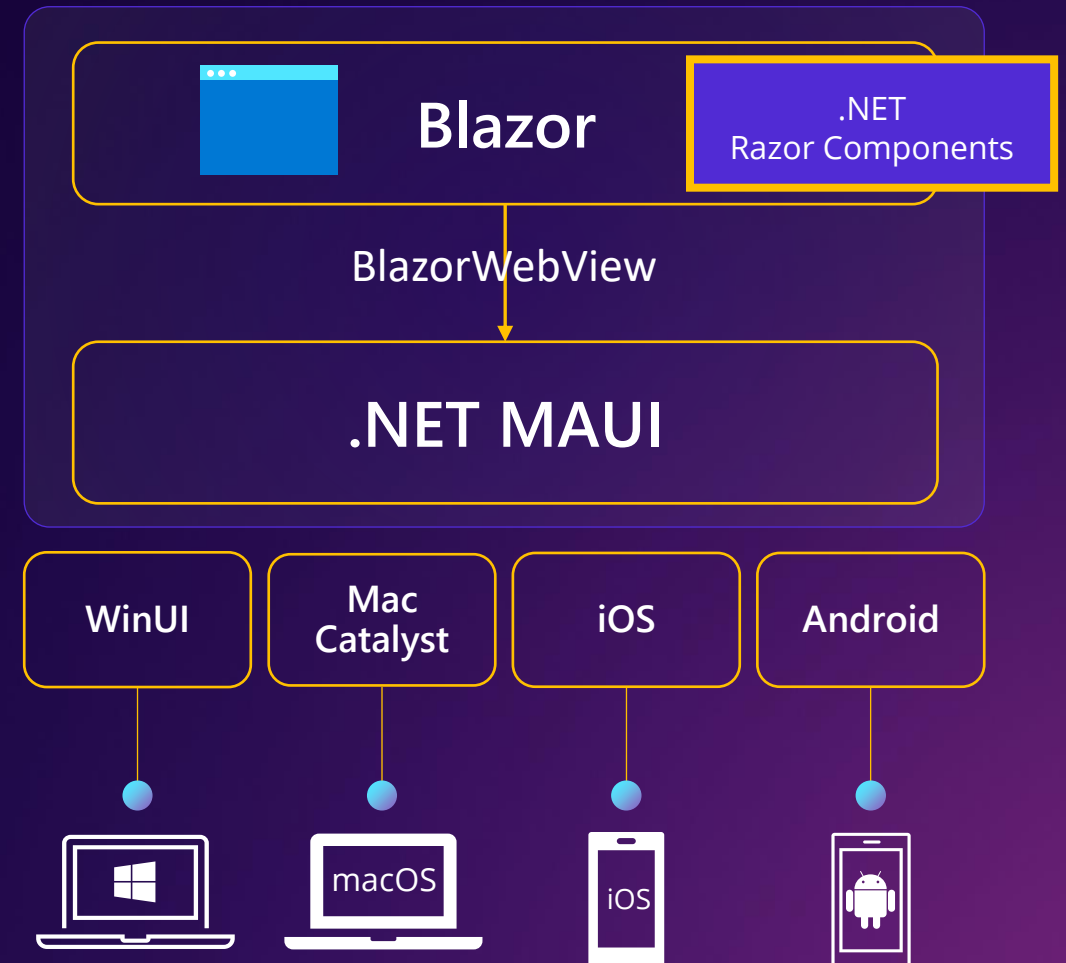
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Built on top of .NET Multi-platform App UI

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Blazor Hybrid app patterns

- Build new apps composed of RCLs that can be used on the web or in native apps
- Re-use entire Blazor Web app in a native app
- Modernize existing native app with “islands of Blazor”
 - And then grow the island until it can migrate to the web or to .NET MAUI

Summary

- Choose web, native, or hybrid with Blazor
 - Built on .NET MAUI for cross platform
 - Modernize WPF and WinForms apps
-
- <https://github.com/dotnet/maui>
 - <https://github.com/microsoft/dotnet-podcasts>
 - <https://github.com/jamesmontemagno/BlazorHybridSyncfusion>

Get started today!

Get started with .NET MAUI

.NET Multi-platform App UI

Build native, cross-platform desktop and mobile apps all in one framework.

[Get started](#) [Read docs](#)

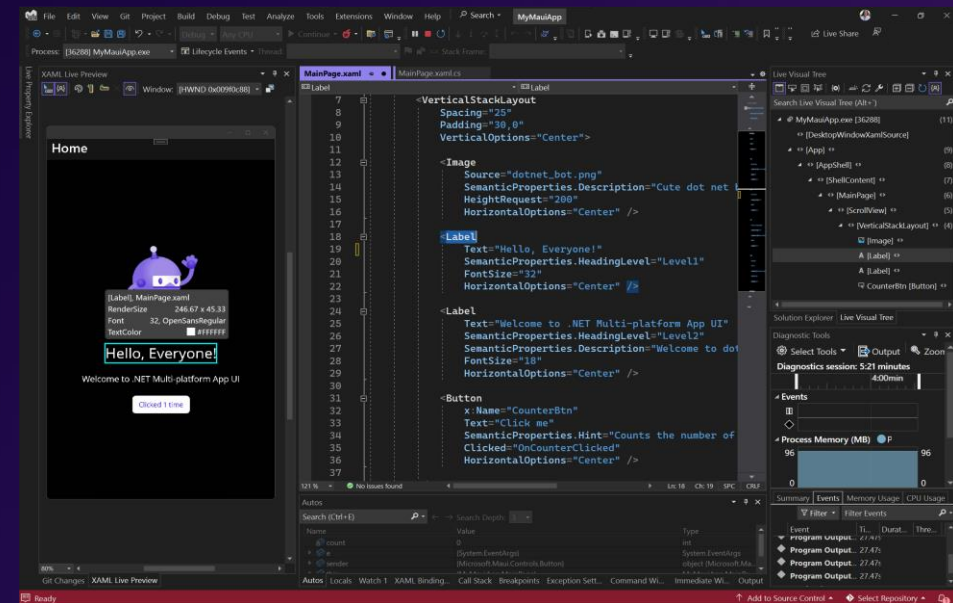
Multi-platform
.NET MAUI uses the latest technologies for building native apps on Windows, macOS, iOS, and Android, abstracting them into one common framework built on .NET.

One codebase
Use a single C# codebase and project system for all device targets to build apps that look and feel like the native platforms.

Productive
Build beautiful apps faster and easier by integrating the power of Visual Studio with .NET MAUI.

dot.net/maui &
blazor.net

Download Visual Studio 2022



visualstudio.com/download

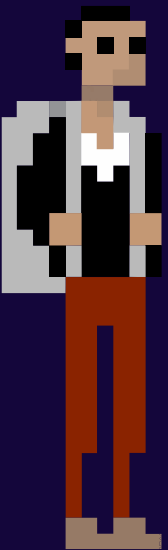
Session Survey

- Your feedback is very important to us
- Please take a moment to complete the session survey found in the mobile app
- Use the QR code or search for “Converge360 Events” in your app store
- Find this session on the Agenda tab
- Click “Session Evaluation”



Thank you so much!

Q&A



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