

The logo features the Xamarin logo (a hexagon with an 'X') followed by the text 'ON THE ISLAND' in a bold, sans-serif font.

Xamarin  
**ON THE ISLAND**

The logo features the Xamarin logo (a hexagon with an 'X') followed by the text 'DEV DAYS' in a bold, sans-serif font.

Xamarin  
**DEV DAYS**

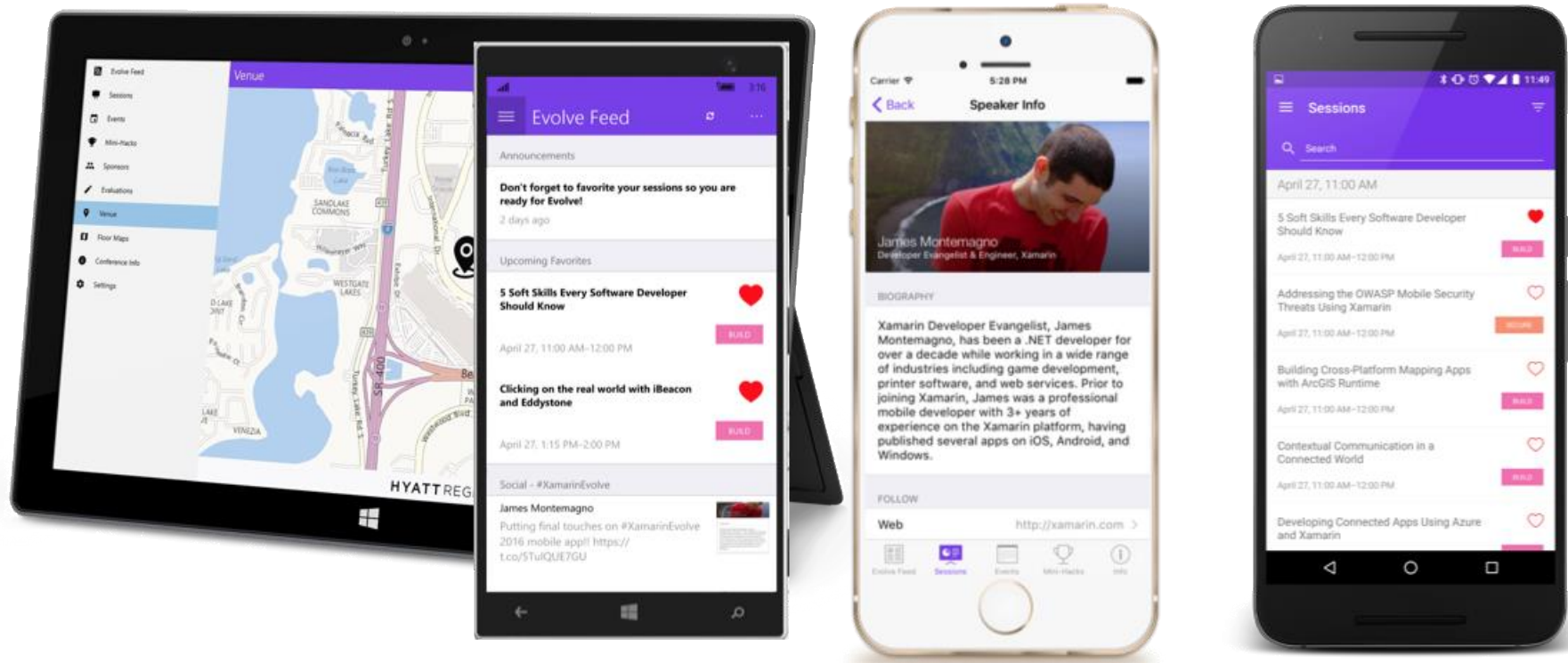
# Cross-Platform Native User Interfaces with Xamarin.Forms

Naweed Akram

@xgeno / naweed@xgeno.com

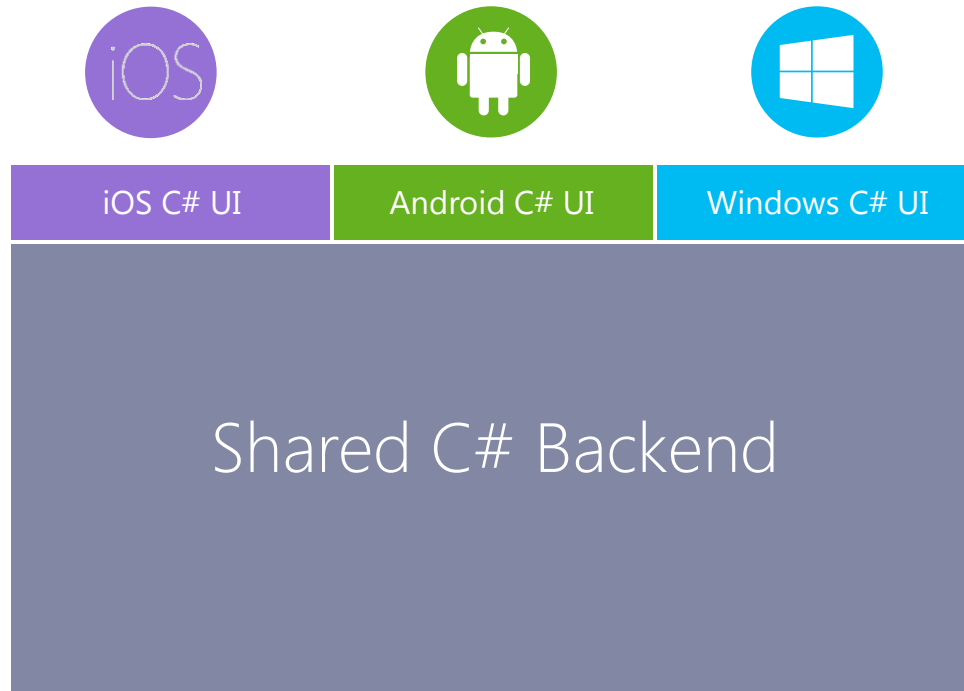
Developer/Evangelist @ XGENO Software

# Meet Xamarin.Forms

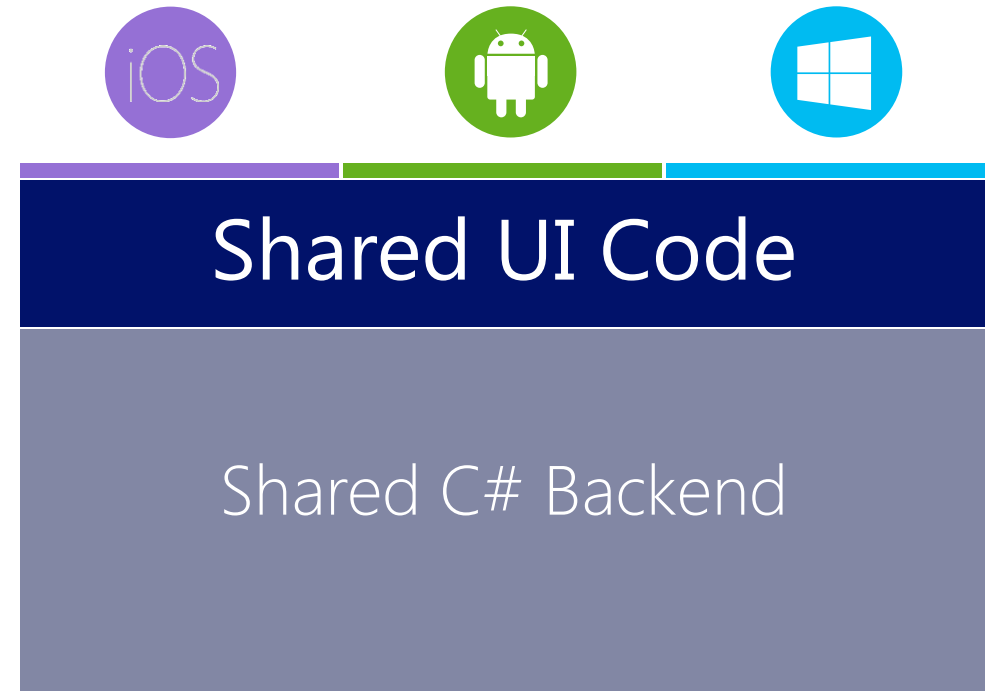


Build native UIs for iOS, Android, and Windows  
from a single, shared C# codebase.

# Xamarin + Xamarin.Forms

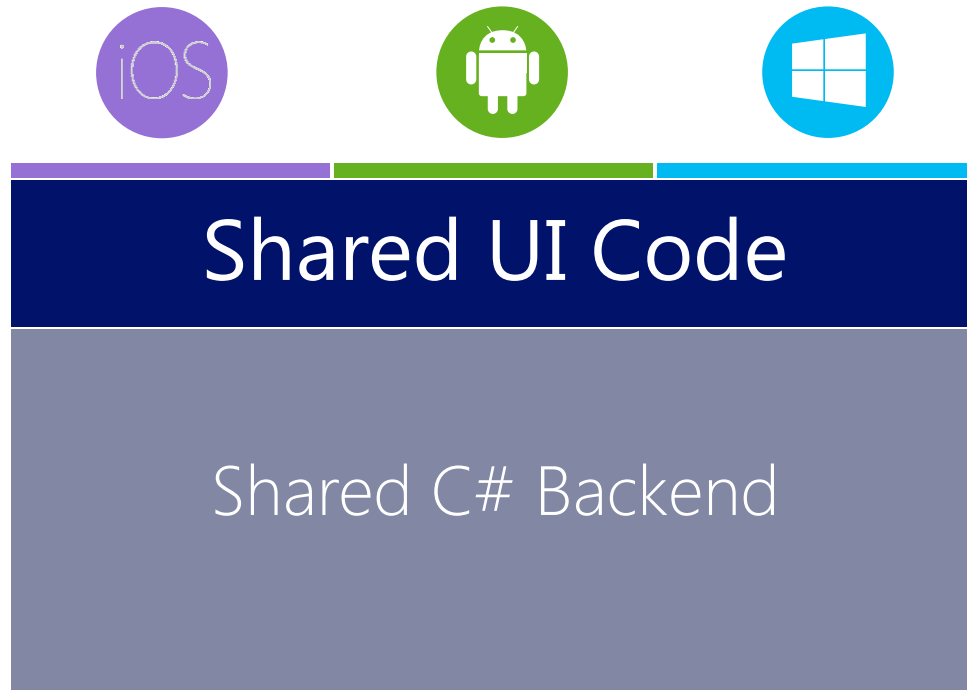


Traditional Xamarin  
Approach



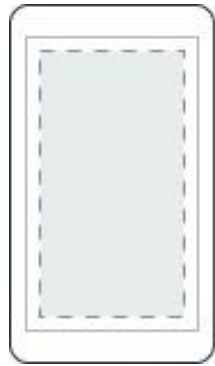
With Xamarin.Forms:  
More code-sharing, all native

# What's included



- ✓ 40+ Pages, layouts, and controls  
(Build from code behind or XAML)
- ✓ Two-way data binding
- ✓ Navigation
- ✓ Animation API
- ✓ Dependency Service
- ✓ Messaging Center

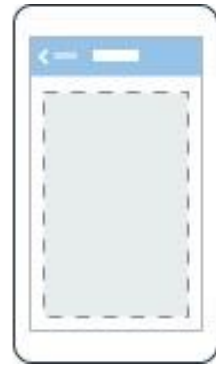
# Pages



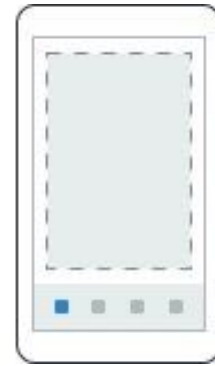
Content



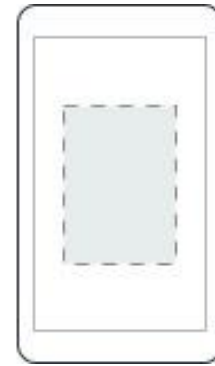
MasterDetail



Navigation

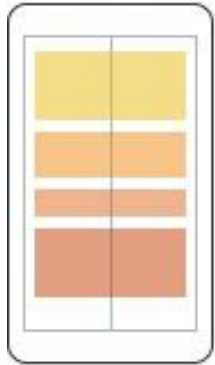


Tabbed

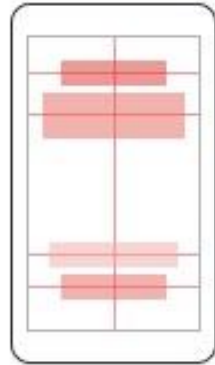


Carousel

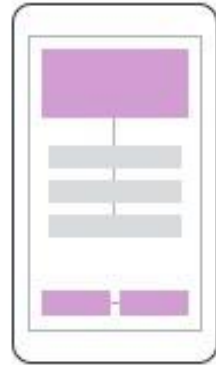
# Layouts



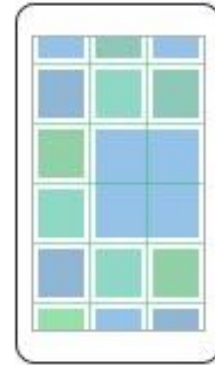
Stack



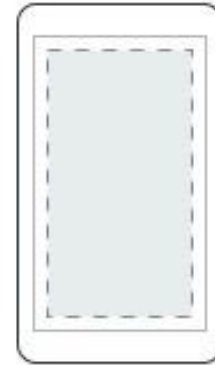
Absolute



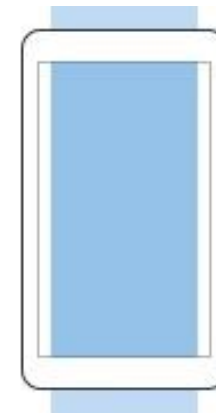
Relative



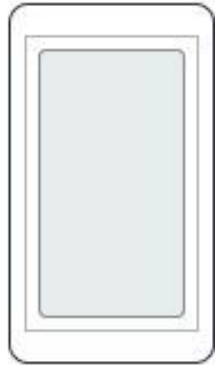
Grid



ContentView



ScrollView



Frame

# Controls

ActivityIndicator

BoxView

Button

DatePicker

Editor

Entry

Image

Label

ListView

Map

OpenGLView

Picker

ProgressBar

SearchBar

Slider

Stepper

TableView

TimePicker

WebView

EntryCell

ImageCell

SwitchCell

TextCell

ViewCell

# Xamarin.Forms Ecosystem





Windows	Xamarin.Forms
StackPanel	StackLayout
TextBox	Entry
ListBox	ListView
CheckBox	Switch
ProgressBar	ActivityIndicator
Grid	Grid
Label	Label
Button	Button
Image	Image
Date/TimePicker	Date/TimePicker

# Control Comparison

Windows	Xamarin.Forms
DataContext	BindingContext
{Binding Property}	{Binding Property}
ItemsSource	ItemsSource
ItemTemplate	ItemTemplate
DataTemplate	DataTemplate

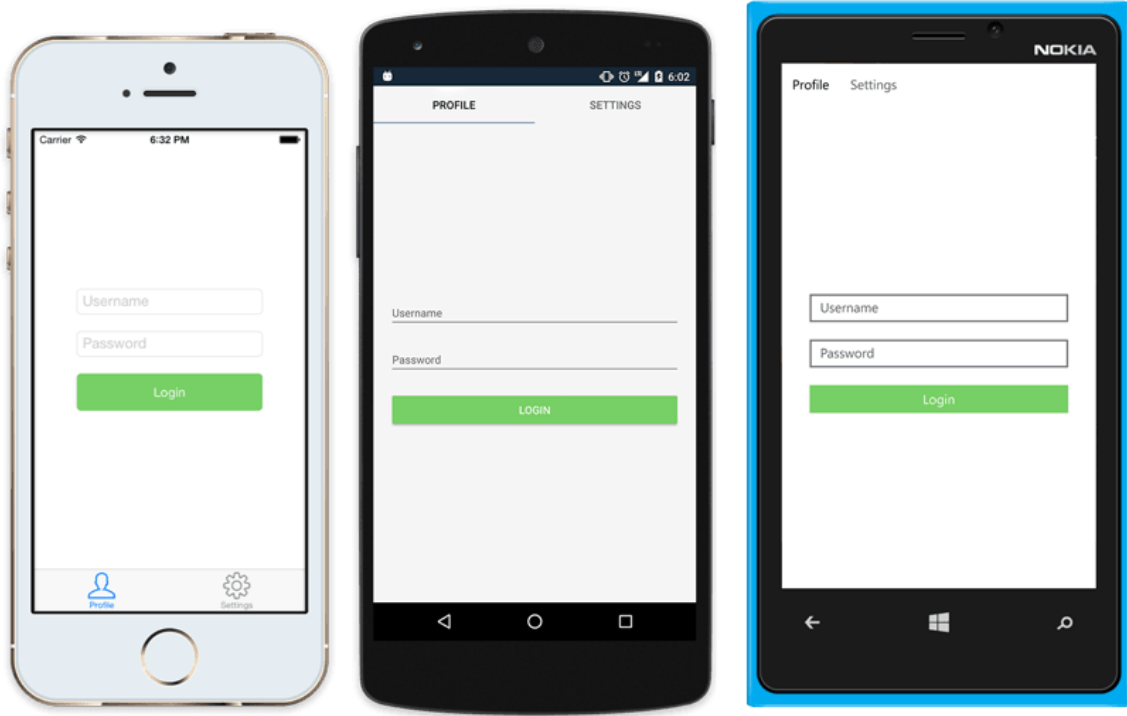
# Binding Comparison

```
<Label Text="{Binding Color.R,
    Converter={StaticResource intConverter},
    ConverterParameter=255,
    StringFormat='R={0:X2}'}" />
```

```
<ContentPage.Padding>
  <OnPlatform x:TypeArguments="Thickness">
    <OnPlatform.iOS>
      0, 20, 0, 0
    </OnPlatform.iOS>
    <OnPlatform.Android>
      0, 0, 0, 0
    </OnPlatform.Android>
    <OnPlatform.WinPhone>
      0, 0, 0, 0
    </OnPlatform.WinPhone>
  </OnPlatform>
</ContentPage.Padding>
```

# Platform Customization

# Native UI from shared code



```
<?xml version="1.0" encoding="UTF-8"?>
<TabbedPage xmlns="http://xamarin.com/schemas/2014/forms"
             xmlns:x="http://schemas.microsoft.com/winfx/2009/xaml"
             x:Class="MyApp.MainPage">
  <TabbedPage.Children>
    <ContentPage Title="Profile" Icon="Profile.png">
      <StackLayout Spacing="20" Padding="20"
                   VerticalOptions="Center">
        <Entry Placeholder="Username"
                 Text="{Binding Username}"/>
        <Entry Placeholder="Password"
                 Text="{Binding Password}"
                 IsPassword="true"/>
        <Button Text="Login" TextColor="White"
                 BackgroundColor="#77D065"
                 Command="{Binding LoginCommand}"/>
      </StackLayout>
    </ContentPage>
    <ContentPage Title="Settings" Icon="Settings.png">
      <!-- Settings -->
    </ContentPage>
  </TabbedPage.Children>
</TabbedPage>
```

DEMO

Xamarin.Forms  
is Open Source!

[open.xamarin.com](https://open.xamarin.com)

# XAML Previewer

The screenshot displays the Xamarin Studio XAML Previewer interface. The top bar shows the application is in 'Debug' mode for an 'iPhone 6s iOS 9.3' simulator. The active tab is 'CoffeesPage.xaml'. The XAML code is visible on the left, and the visual preview of the application is on the right.

**XAML Code:**

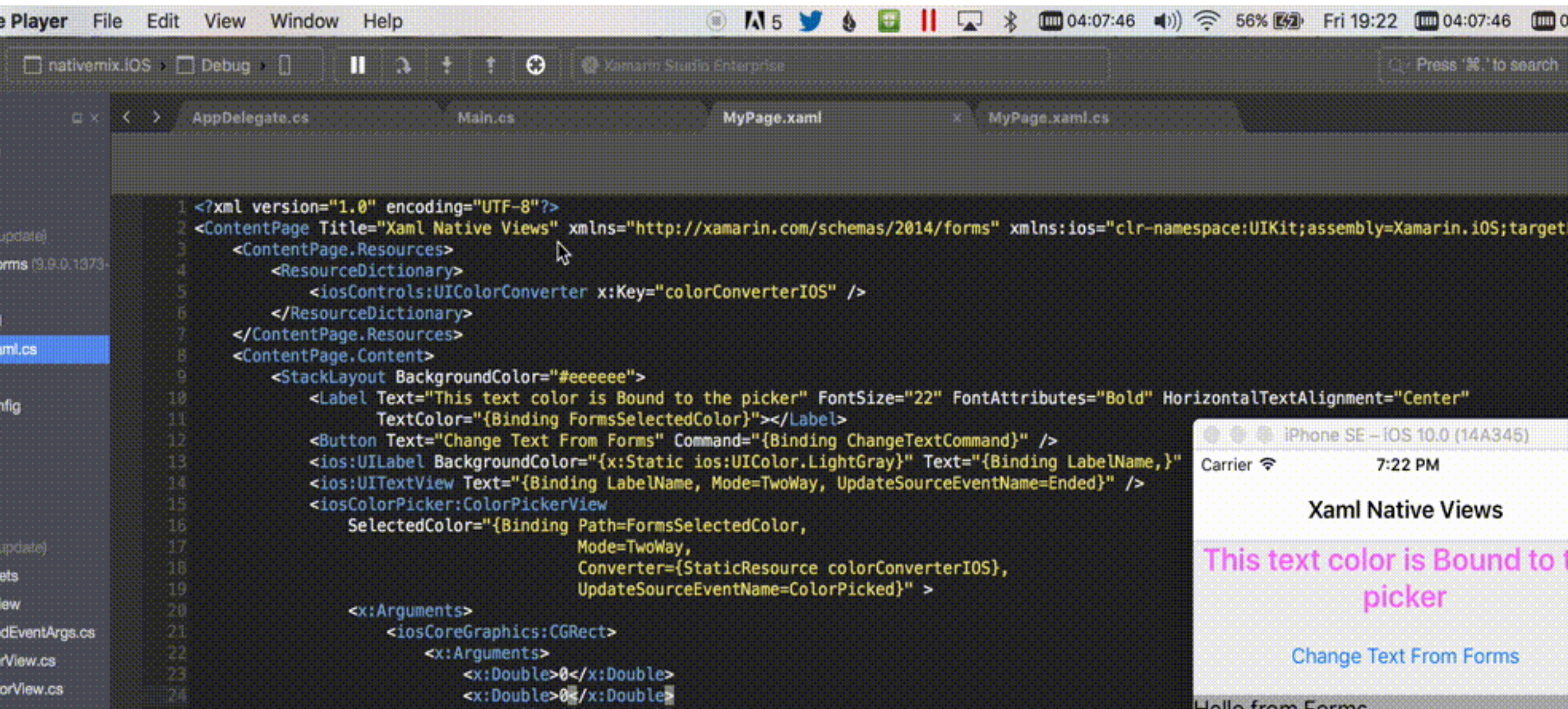
```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <ContentPage
3     xmlns="http://xamarin.com/schemas/2014/forms"
4     xmlns:x="http://schemas.microsoft.com/winfx/2009/xaml"
5     xmlns:local="clr-namespace:CoffeeCups;assembly=CoffeeCups"
6     xmlns:controls="clr-namespace:ImageCircle.Forms.Plugin.Abstractions;assembly=ImageCircle.Forms.Plugin.Abstractions"
7     x:Class="CoffeeCups.CoffeesPage"
8     Title="Cups Of Coffee">
9     <AbsoluteLayout HorizontalOptions="FillAndExpand" VerticalOptions="FillAndExpand">
10         <Grid AbsoluteLayout.LayoutFlags="All"
11             AbsoluteLayout.LayoutBounds="0,0,1,1"
12             RowSpacing="0">
13             <Grid.RowDefinitions>
14                 <RowDefinition Height="Auto"/>
15                 <RowDefinition Height="*" />
16                 <RowDefinition Height="Auto" />
17             </Grid.RowDefinitions>
18             <StackLayout Orientation="Horizontal" Padding="16" Spacing="16" BackgroundColor="Teal">
19                 <Label Text="Made at Home?"
20                     TextColor="White"
21                     VerticalOptions="Center"
22                     HorizontalOptions="Start"
23                     FontSize="16">
24                     <Label FontSize="16">
```

**Visual Preview:**

The preview shows a mobile application interface. At the top, there is a teal header bar with a toggle switch for 'Made at Home?' and a button labeled 'ADD COFFEE'. Below the header, the main content area has a dark background and displays a list of coffee entries. Each entry includes a timestamp (e.g., '4/26/2016 10:17:53 AM'), a time (e.g., '10:17 AM'), and a circular image of a coffee cup. The text 'Made At Home' is visible next to some entries.



# Native View Declarations





Q & A