

Where to Find Stuff

The Talk

Code & Slides:

github.com/codemillmatt/four-beautiful-apps

Matt Soucoup - Sr. Cloud Developer Advocate @ Microsoft

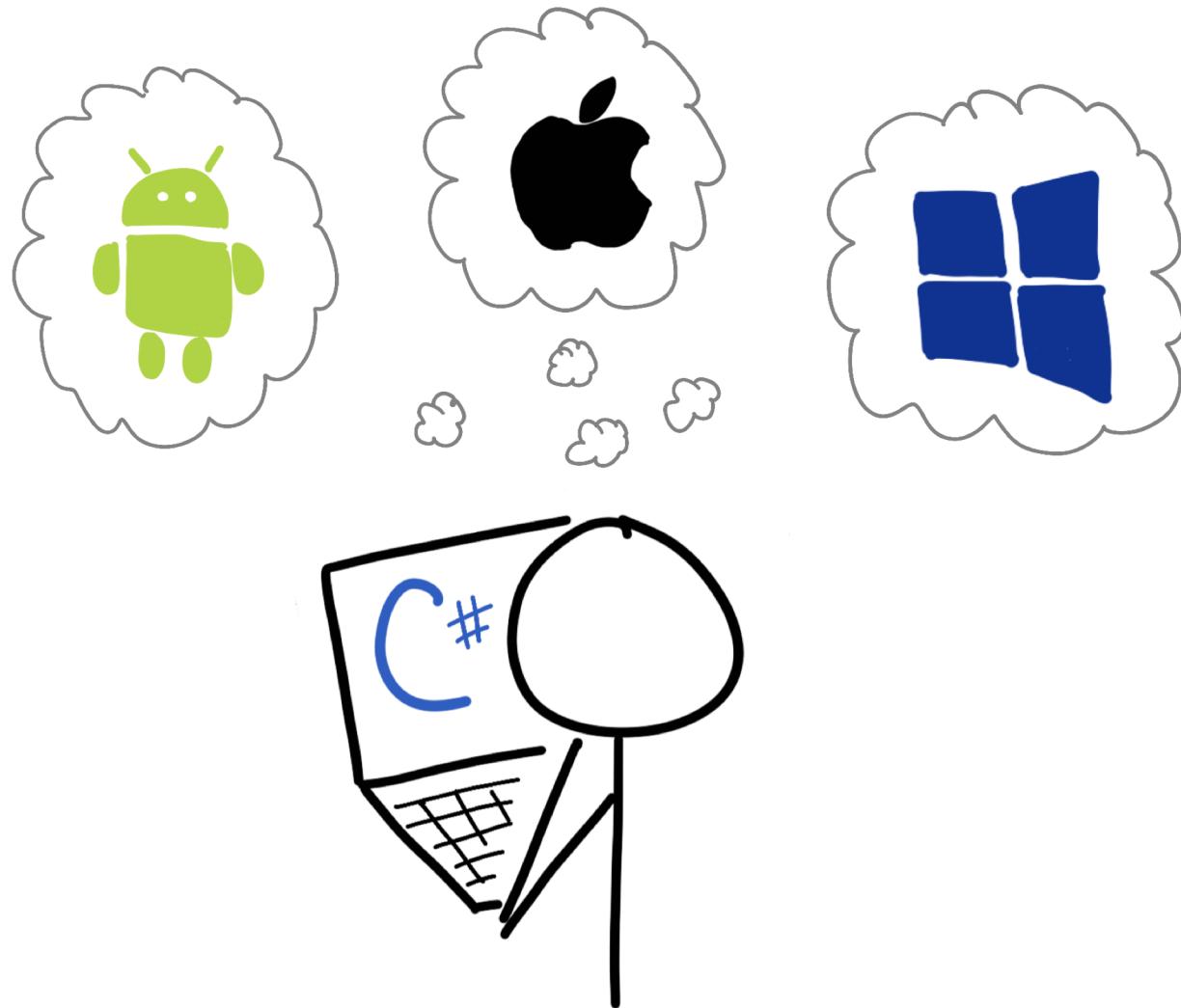
I ❤️ You

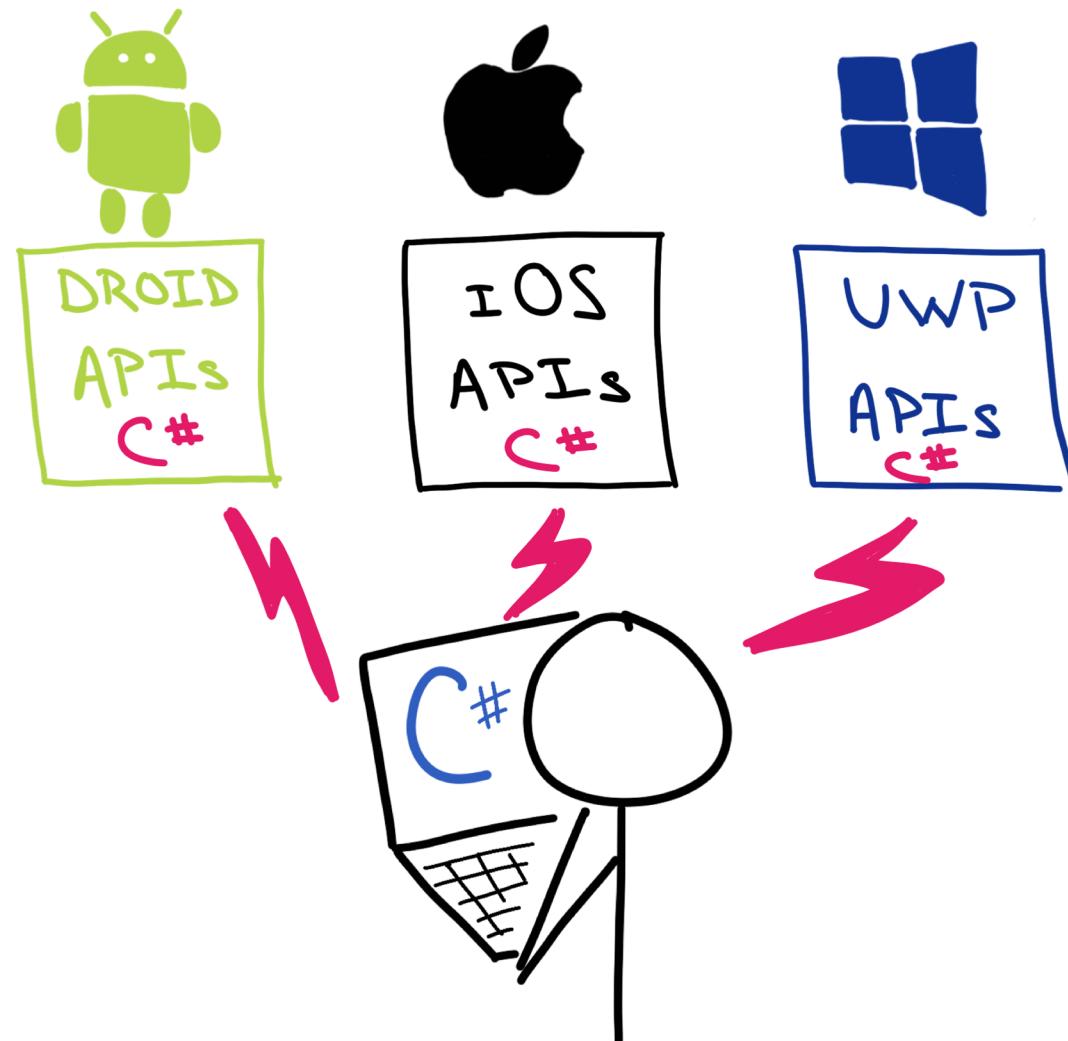
[@codemillmatt](https://twitter.com/codemillmatt)

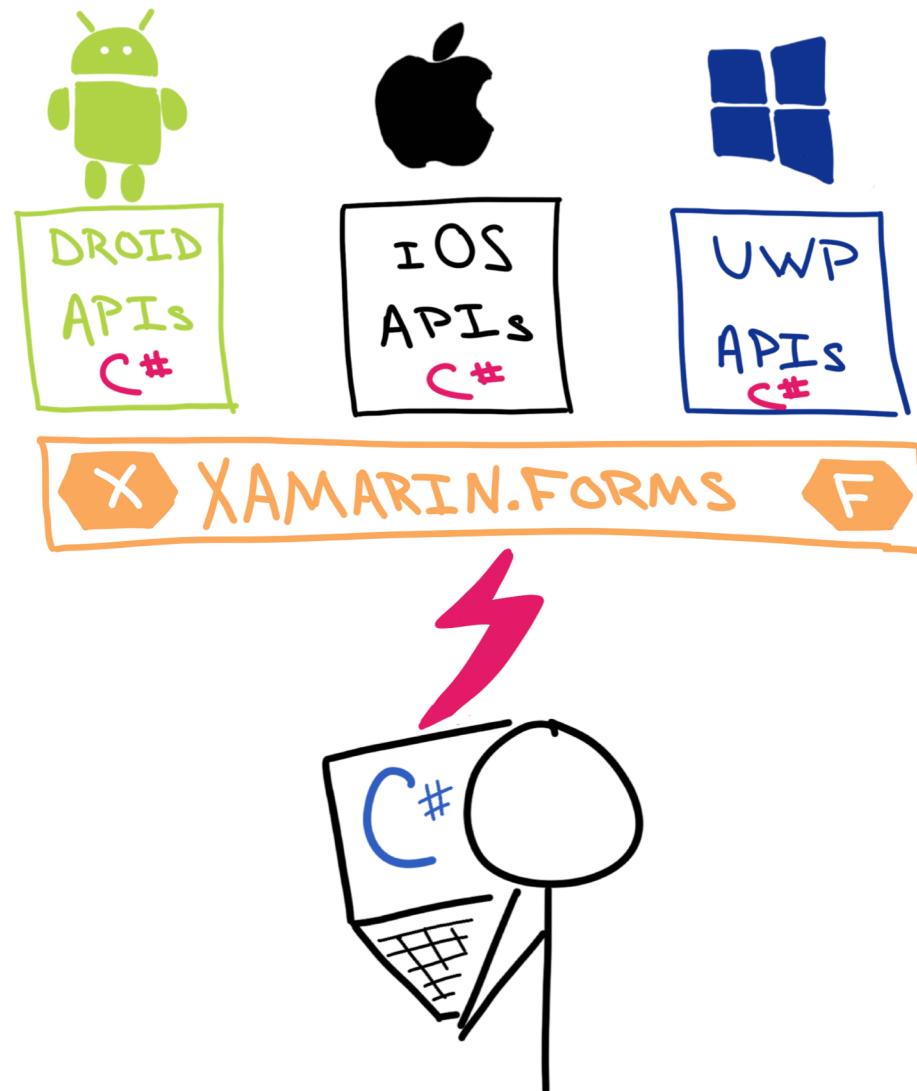
codemillmatt@microsoft.com

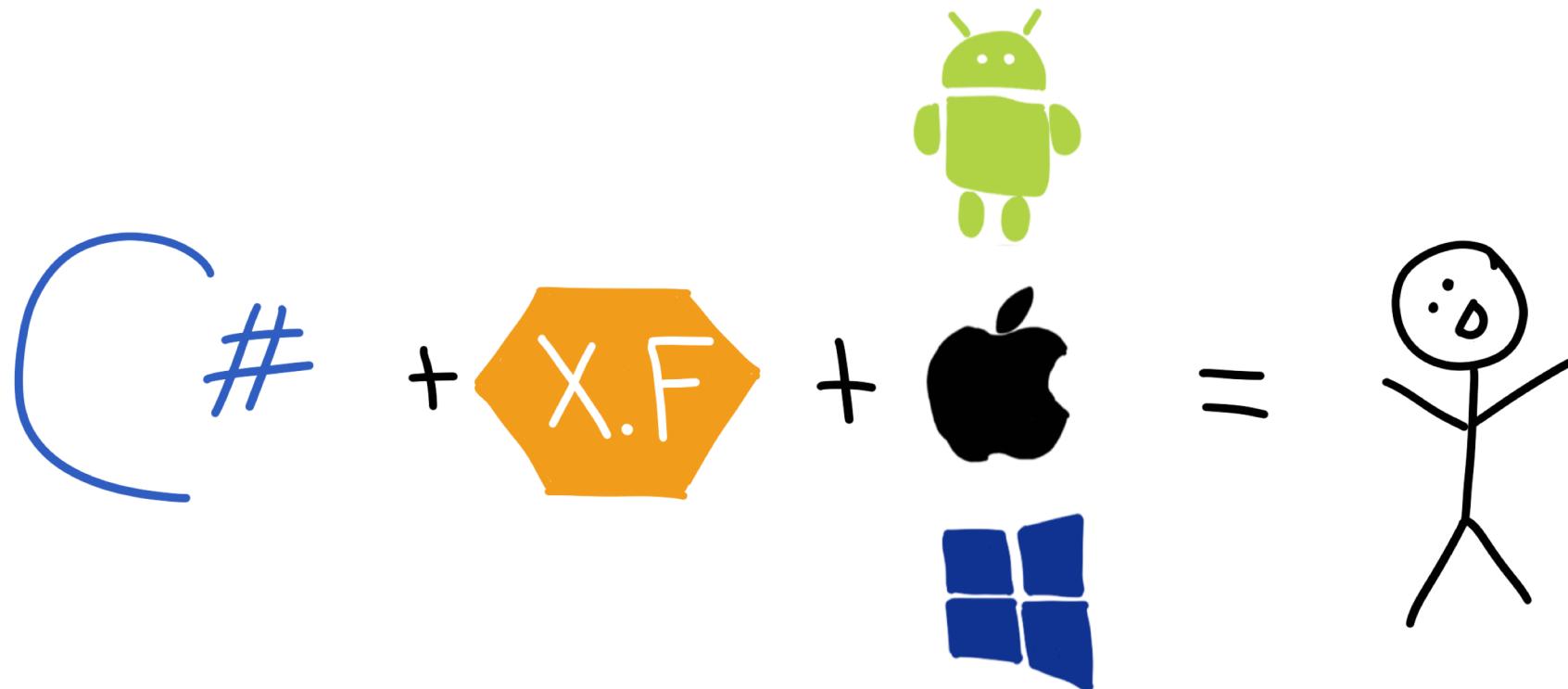
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Intro to Xamarin.Forms Agenda

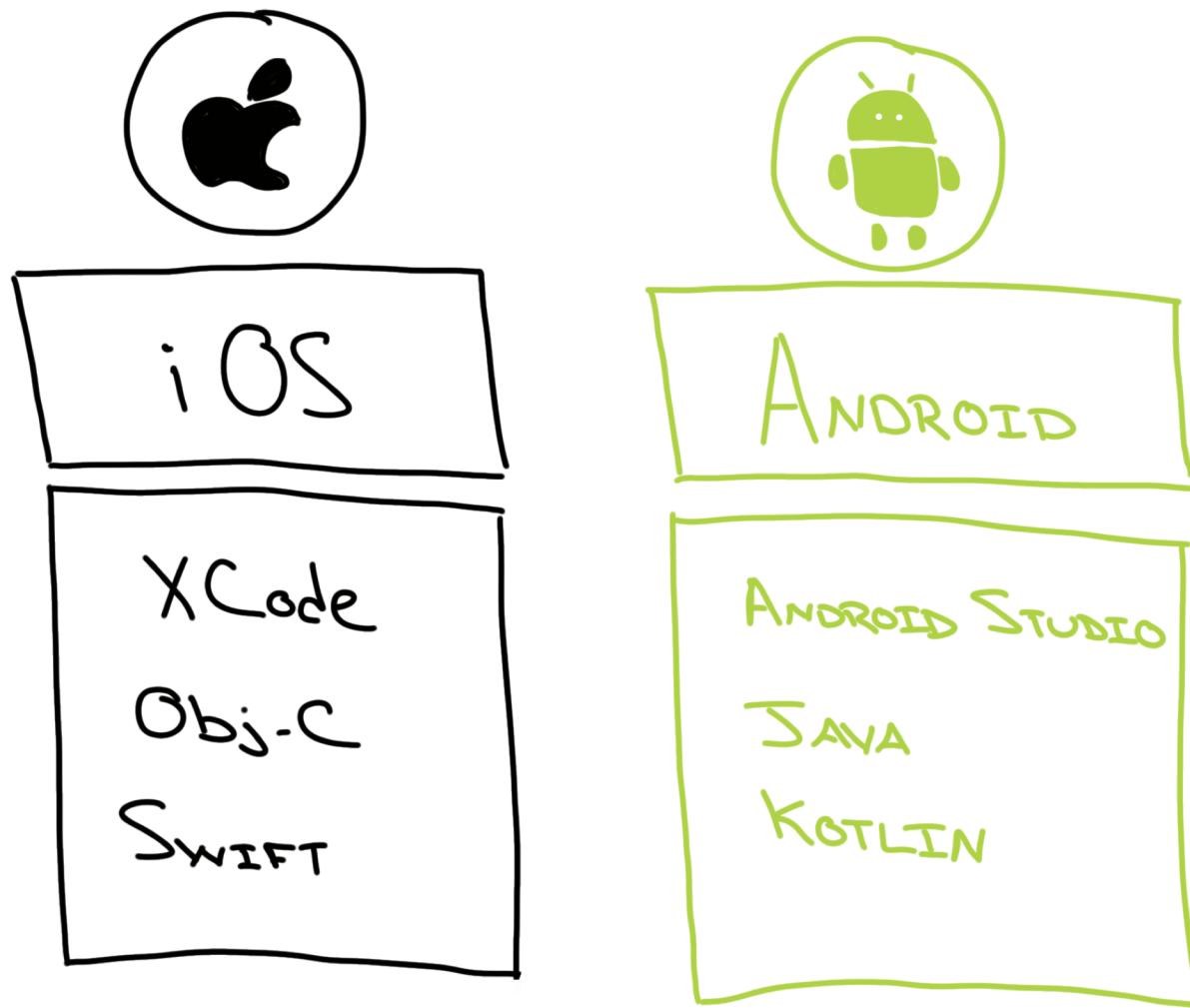
User Interface

MVVM

Additional
Features and
Platform Access

But... What is Xamarin??

Silo Approach



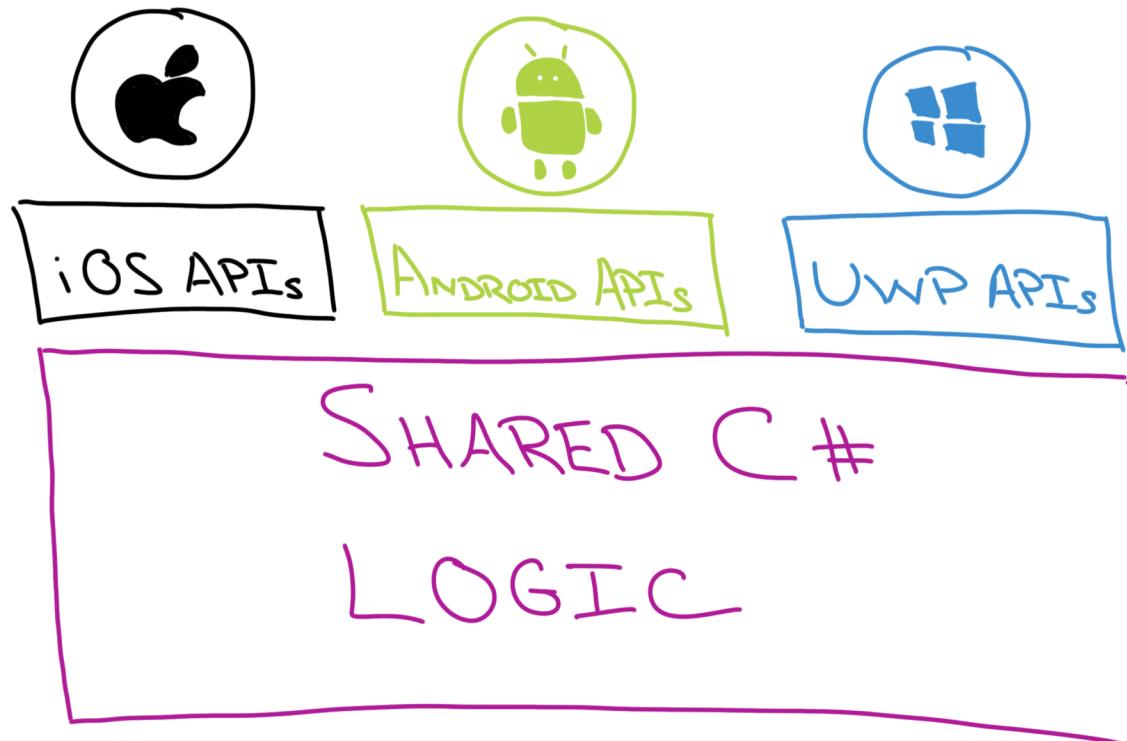
Native Benefits

UI That People
Expect for Device

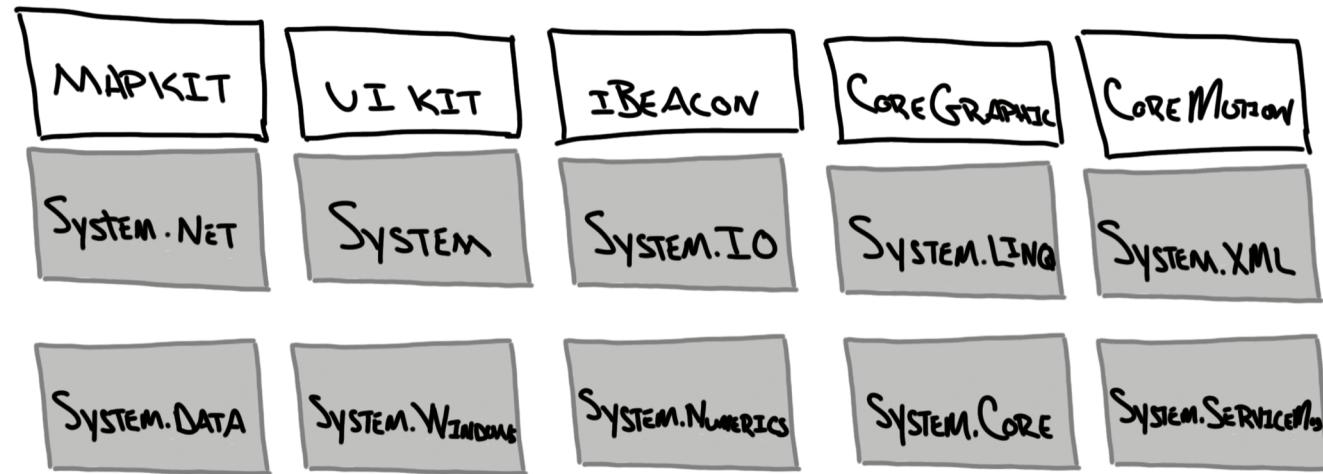
API Access

Performance

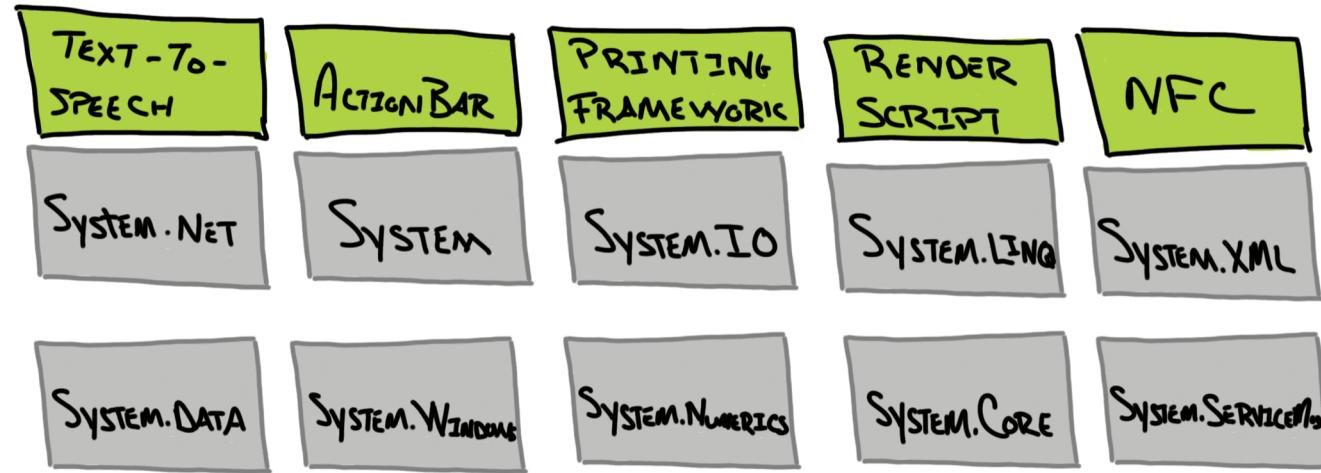
Xamarin Approach



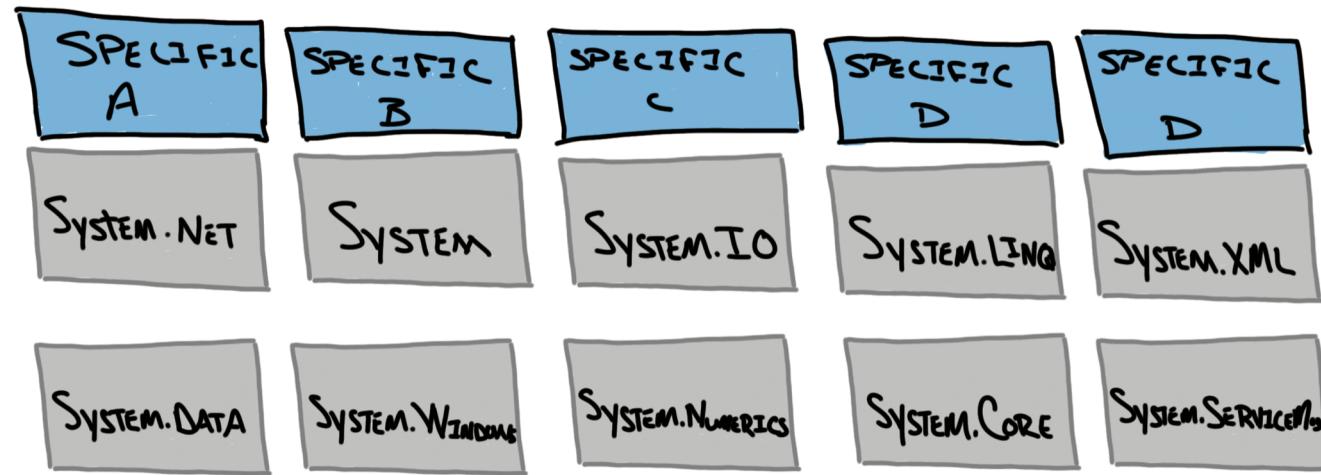
iOS APIs



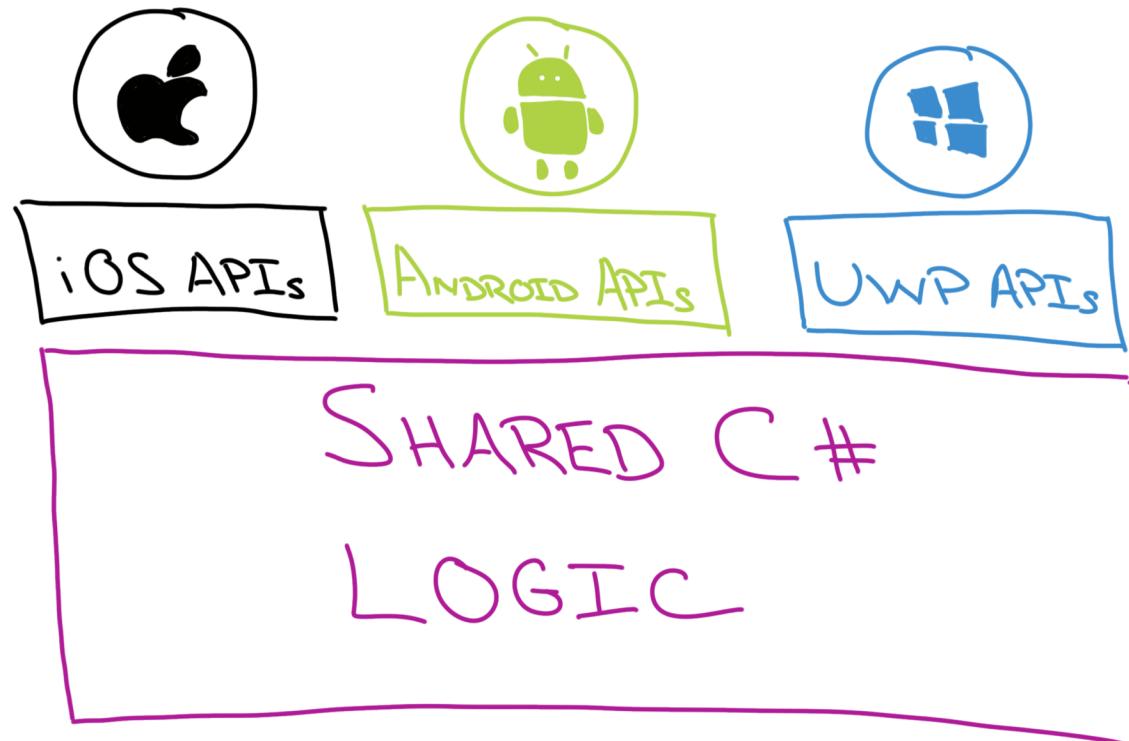
Android APIs



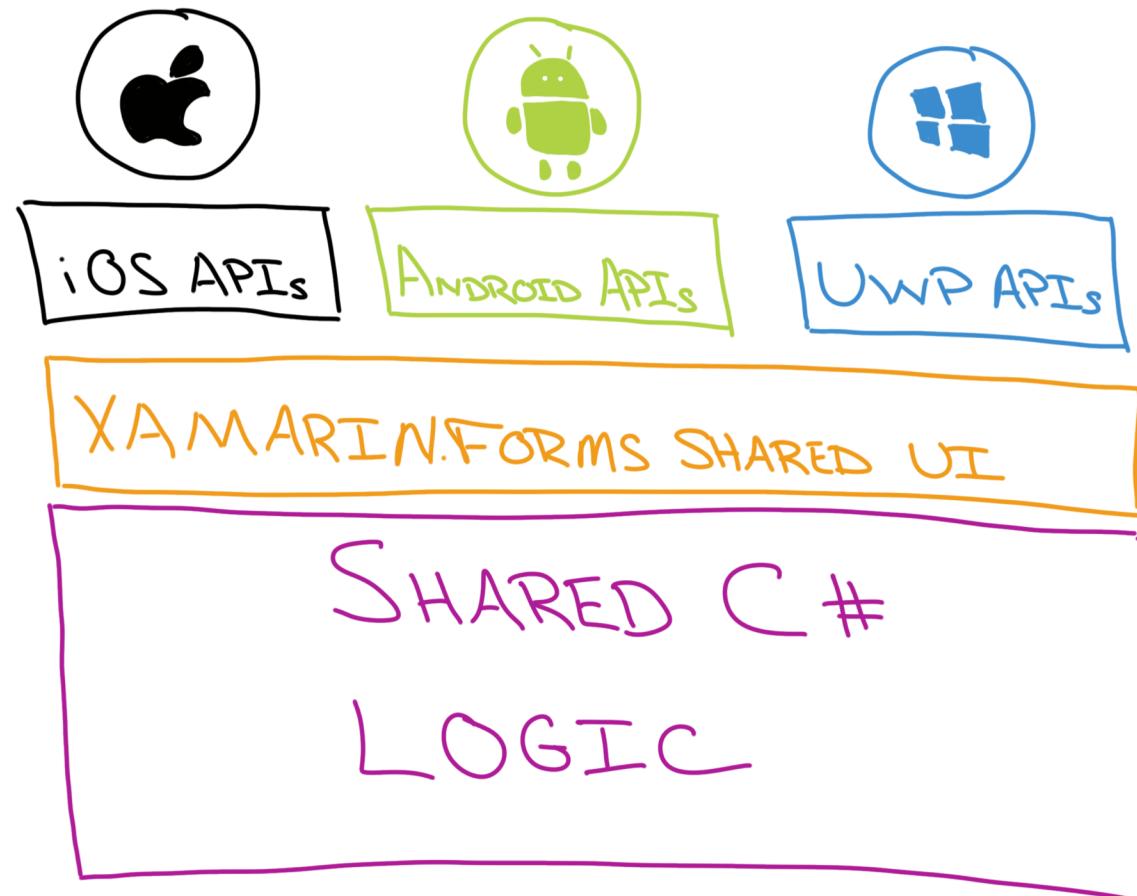
Etc... APIs



Cool... Code Sharing!



Xamarin.Forms Makes Sharing Better!



Xamarin.Forms Makes Sharing Better

Navigation

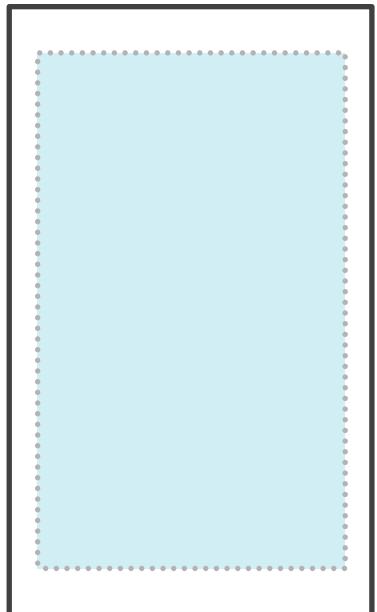
Dependency Service

Animation API

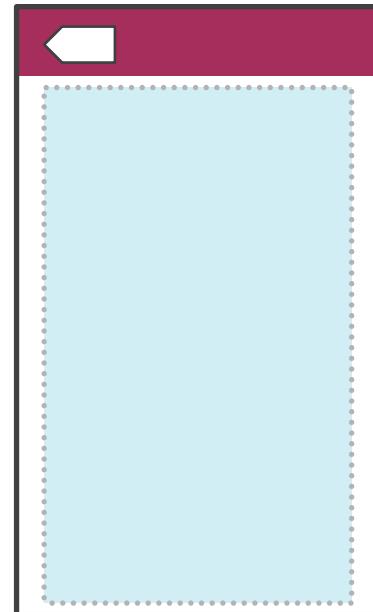
Messaging Center

User Interface

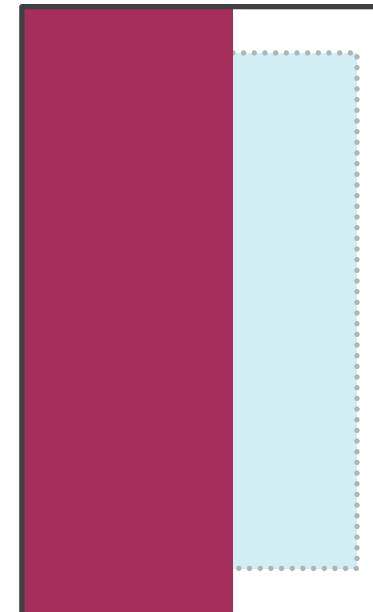
Pages



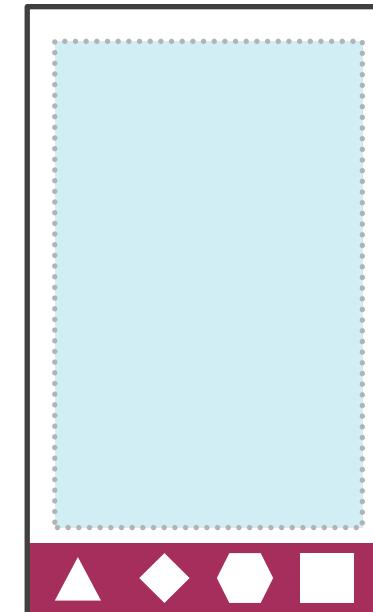
Content



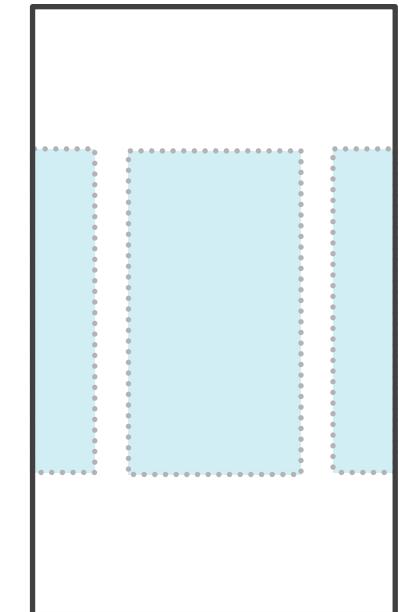
Navigation



Master/Detail

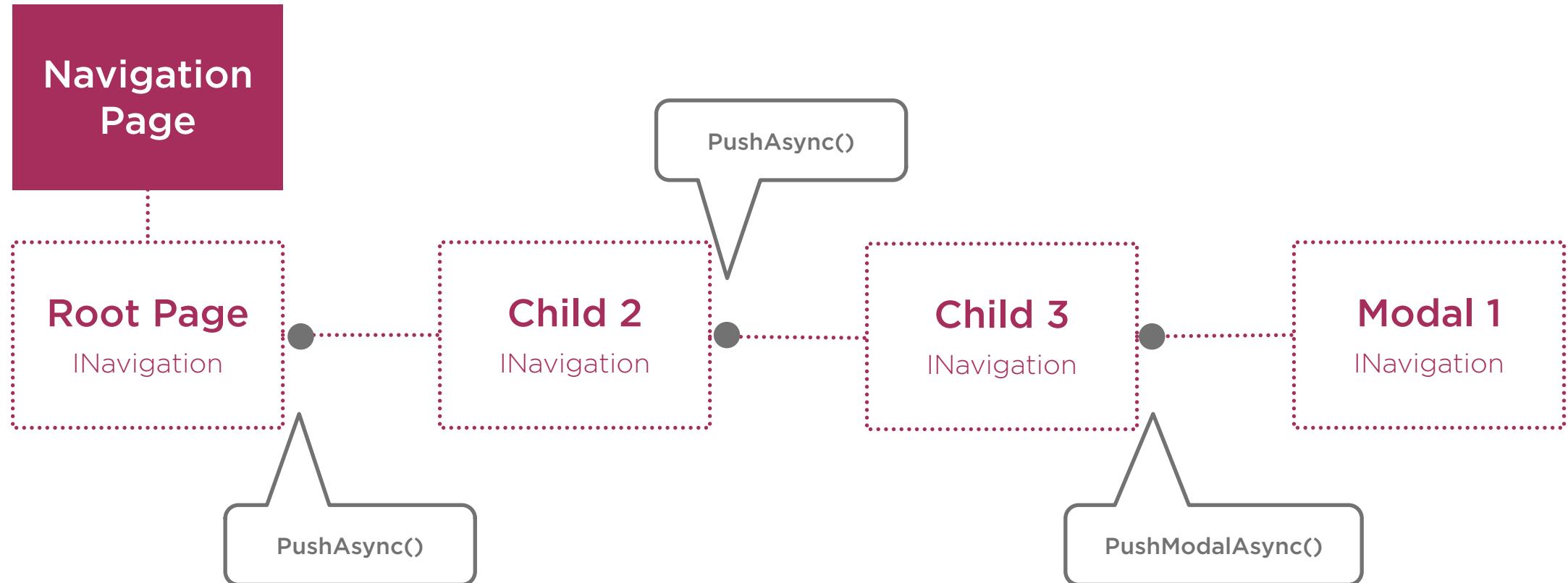


Tabbed

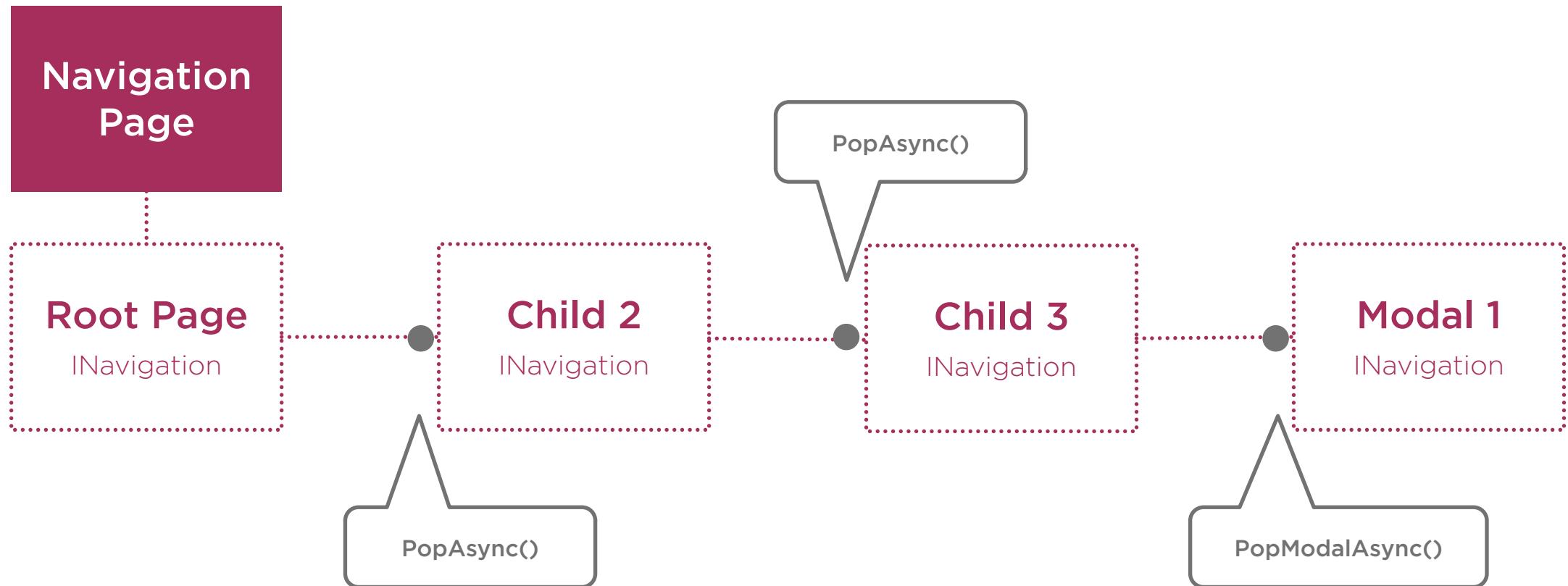


Carousel

Navigation



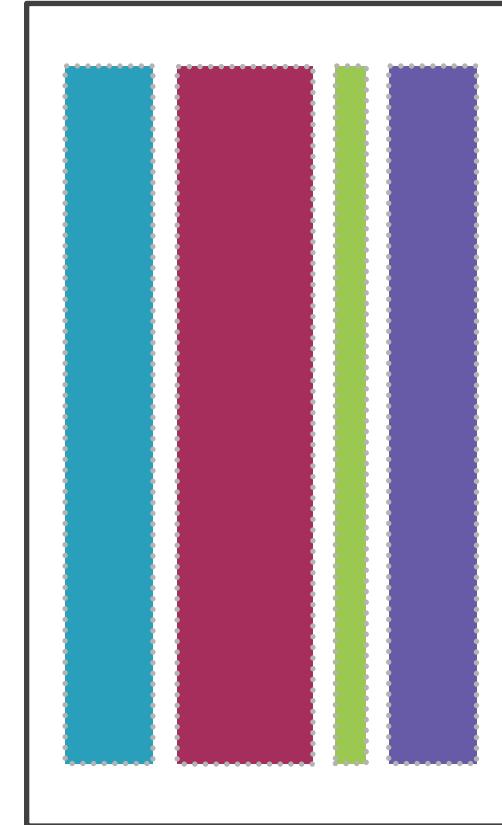
Navigation



Layouts - Stack

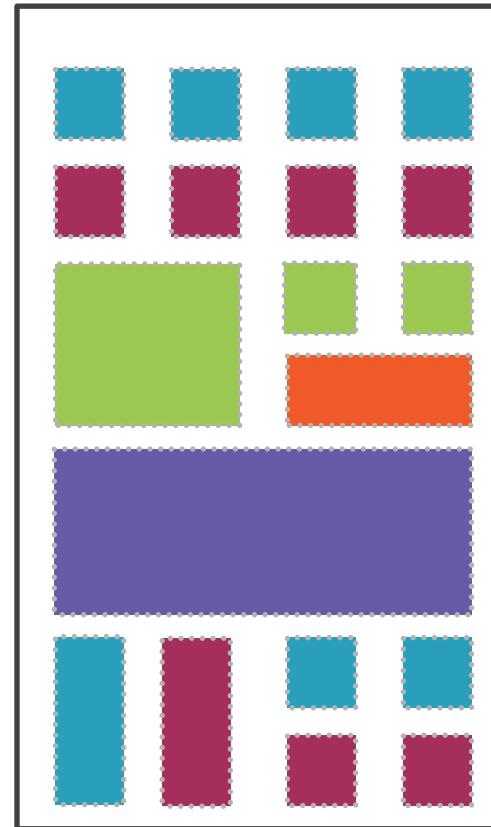


Vertical

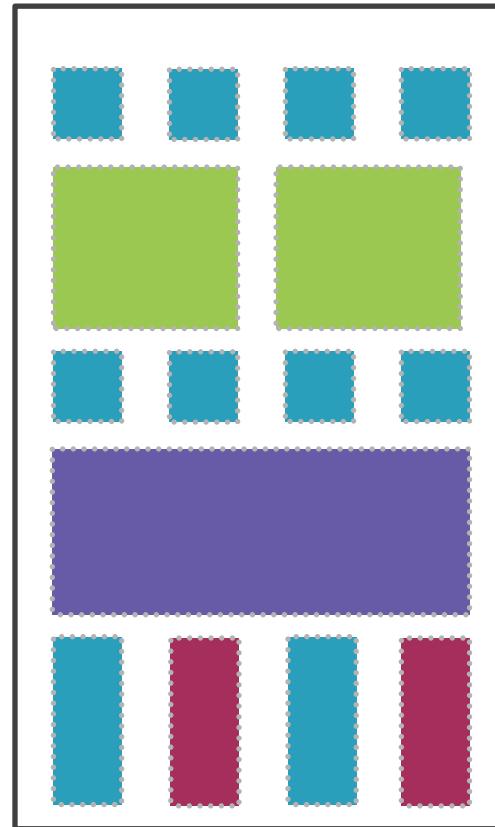


Horizontal

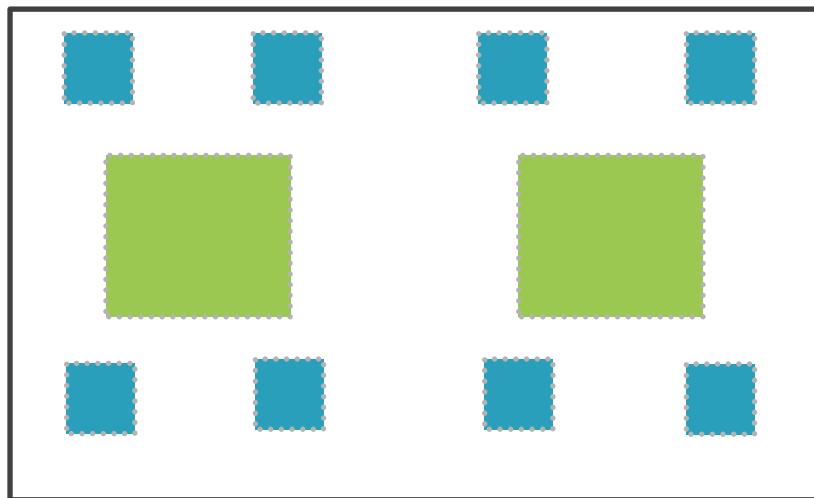
Layouts - Grid



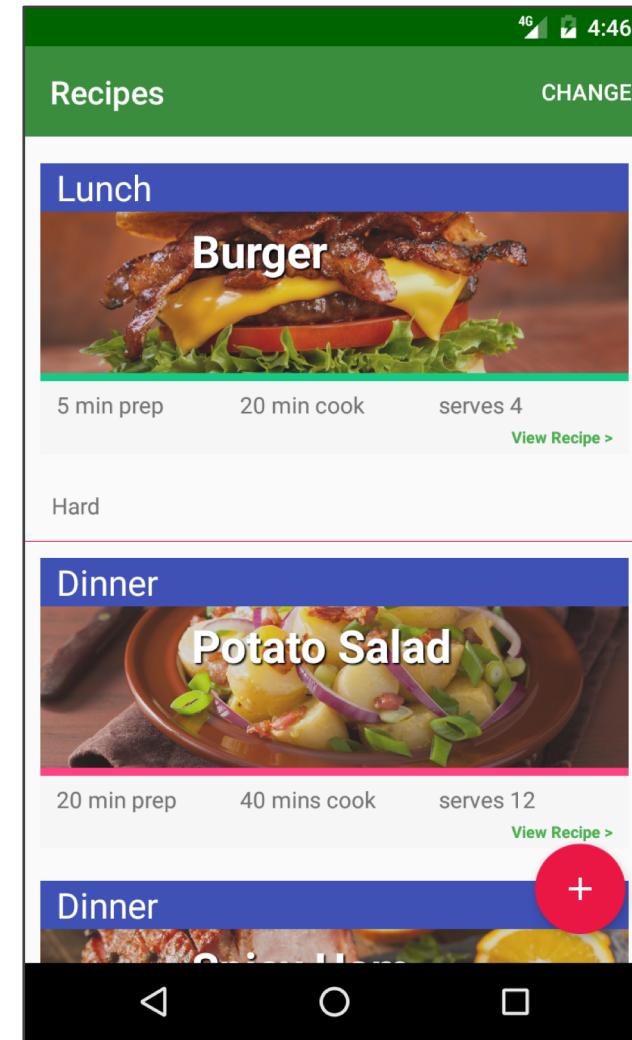
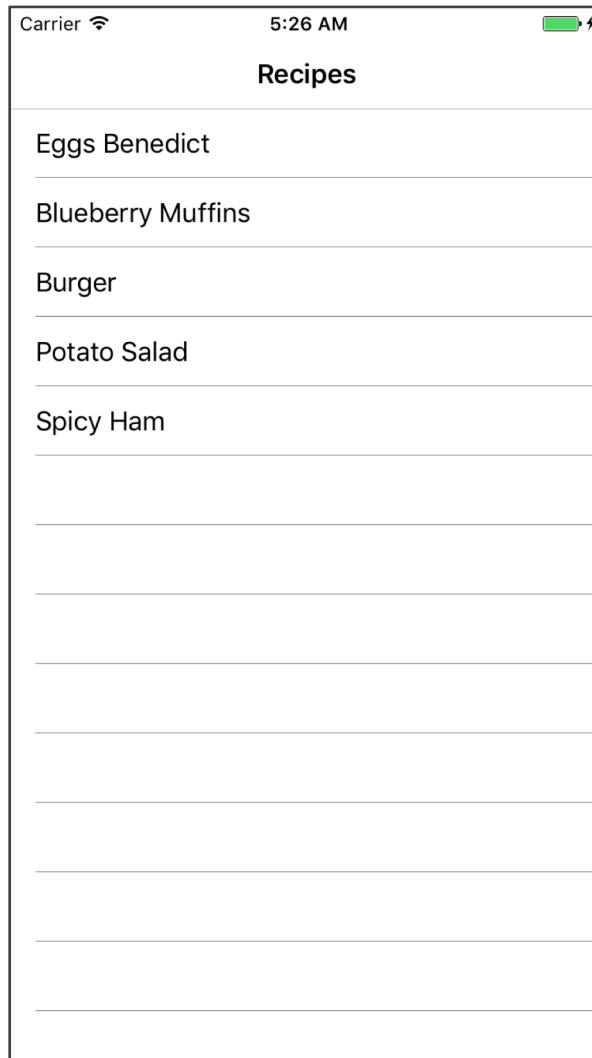
Layouts - Flex



Layouts - Flex

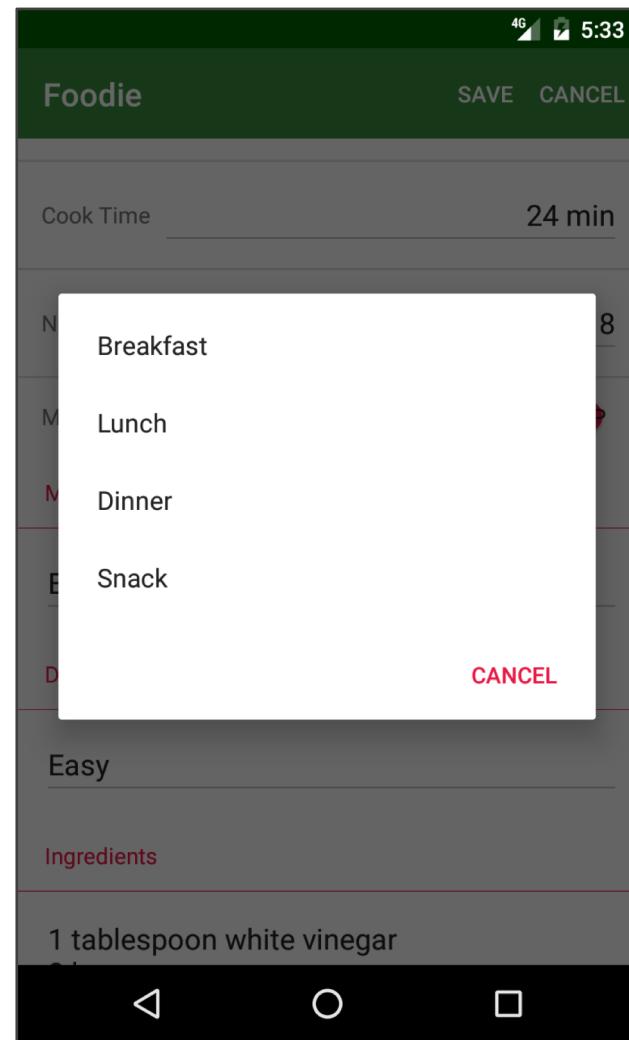
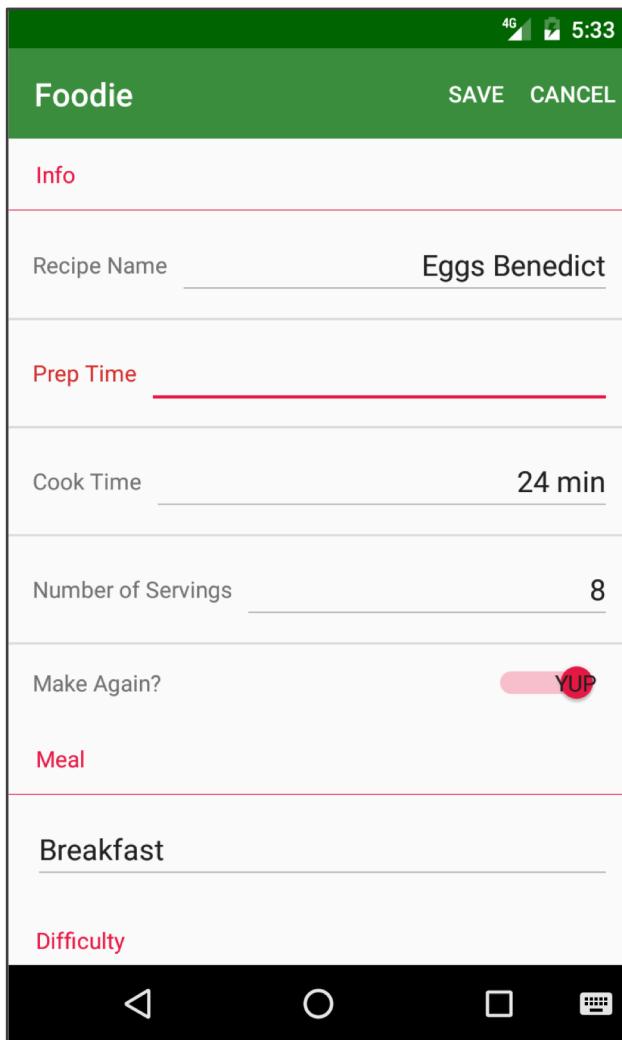


ListView



@codemillmatt

TableView



@codemillmatt

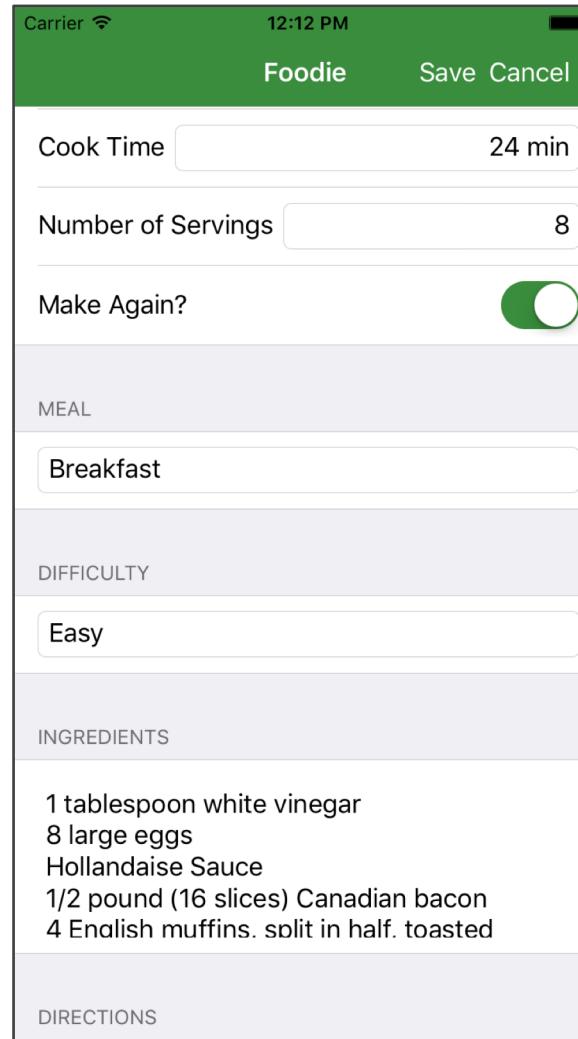
Controls



Controls

Entry

Picker



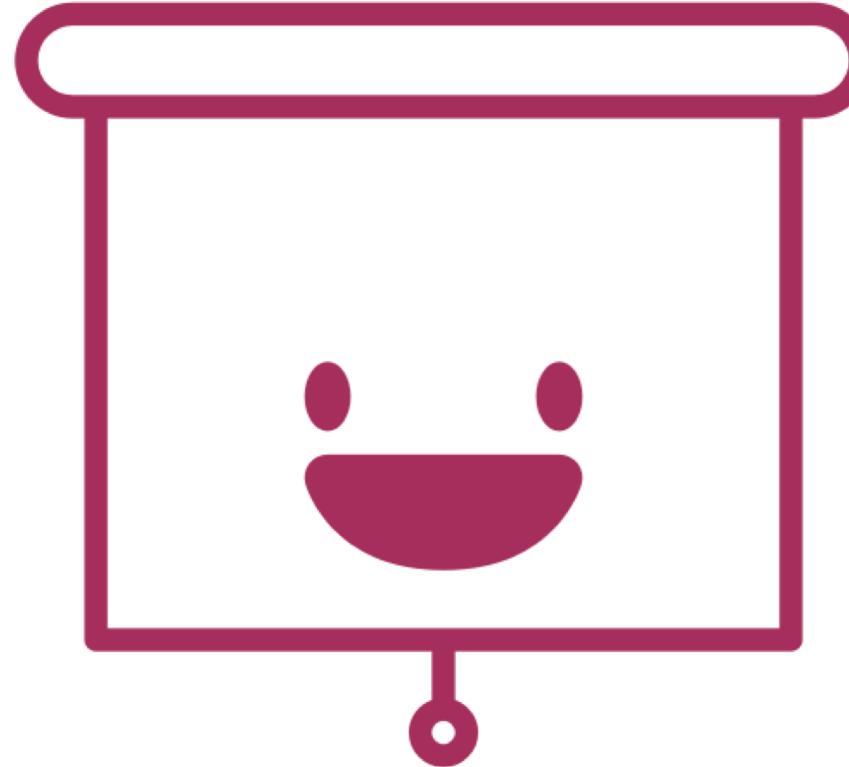
ToolbarItem

Switch

Editor

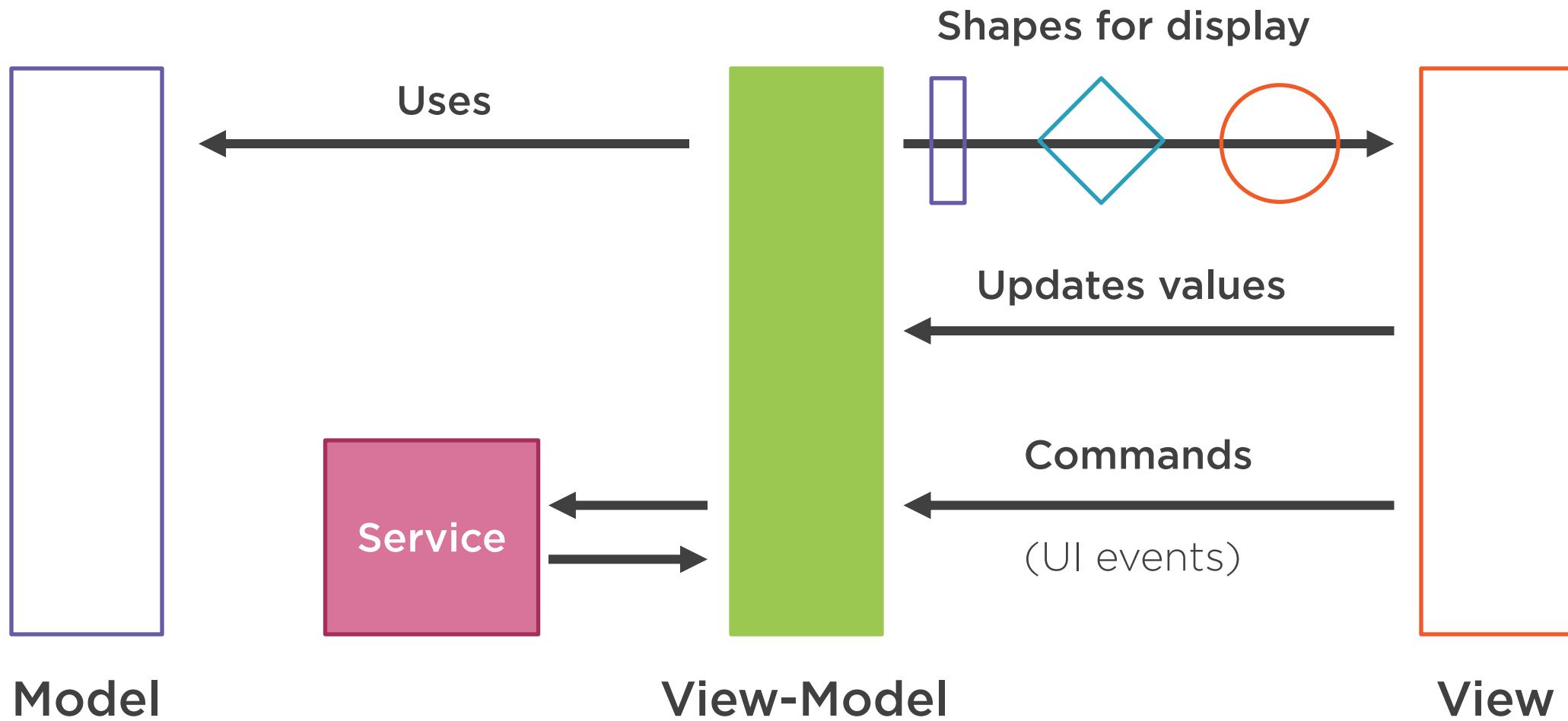
UI Demo

Controls
TableView
ListView



MVVM

MVVM

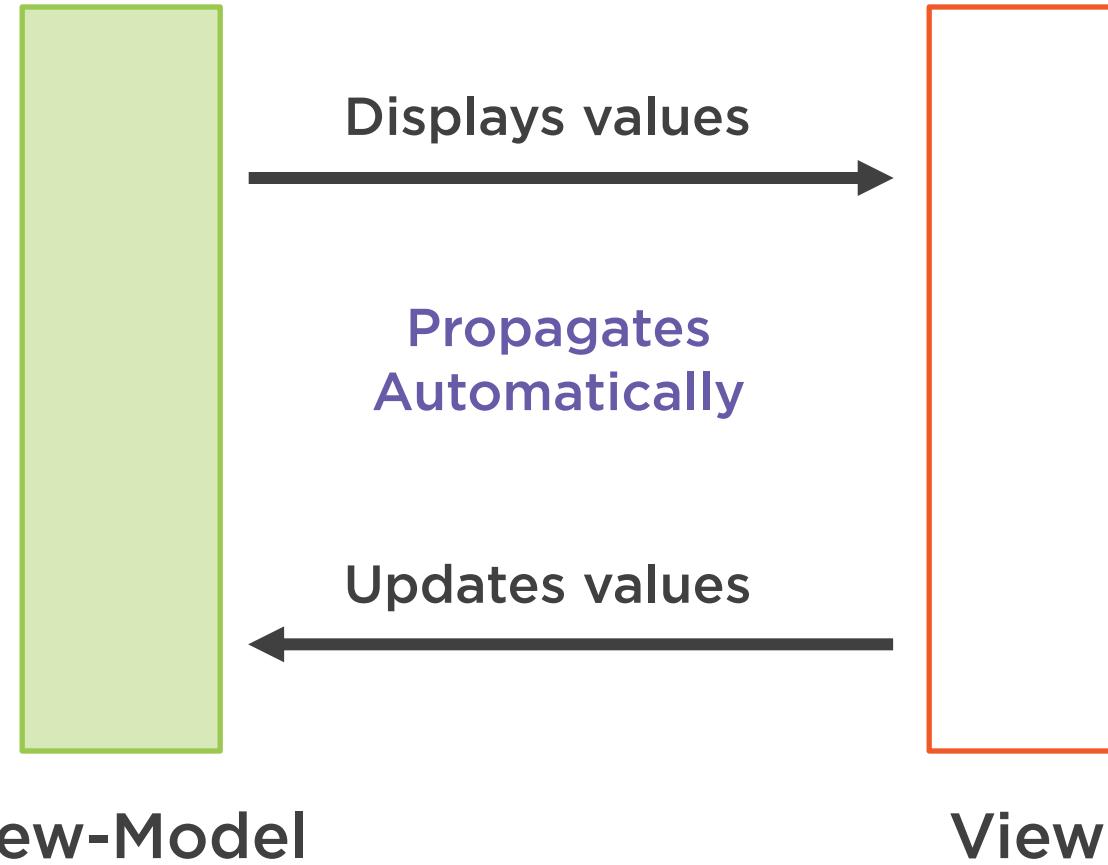


Model

View-Model

View

Databinding



INotifyPropertyChanged

```
public class RecipeViewModel : INotifyPropertyChanged
{
    public event PropertyChangedEventHandler PropertyChanged;

    string _recipeName;
    public string RecipeName
    {
        get { return _recipeName; }
        set
        {
            if (_recipeName == value)
                return;

            _recipeName = value;
            OnPropertyChanged();
        }
    }

    public void OnPropertyChanged([CallerMemberName]string memberName = "") =>
        PropertyChanged?.Invoke(this, new PropertyChangedEventArgs(memberName));
}
```

```
public void OnPropertyChanged([CallerMemberName]string memberName = "") =>
    PropertyChanged?.Invoke(this, new PropertyChangedEventArgs(memberName))
);
```

Cuz it was at the bottom

```
<Label Text="{Binding RecipeName}" />  
...  
<Label Text="{Binding Time, StringFormat=' {0} prep' }" />
```

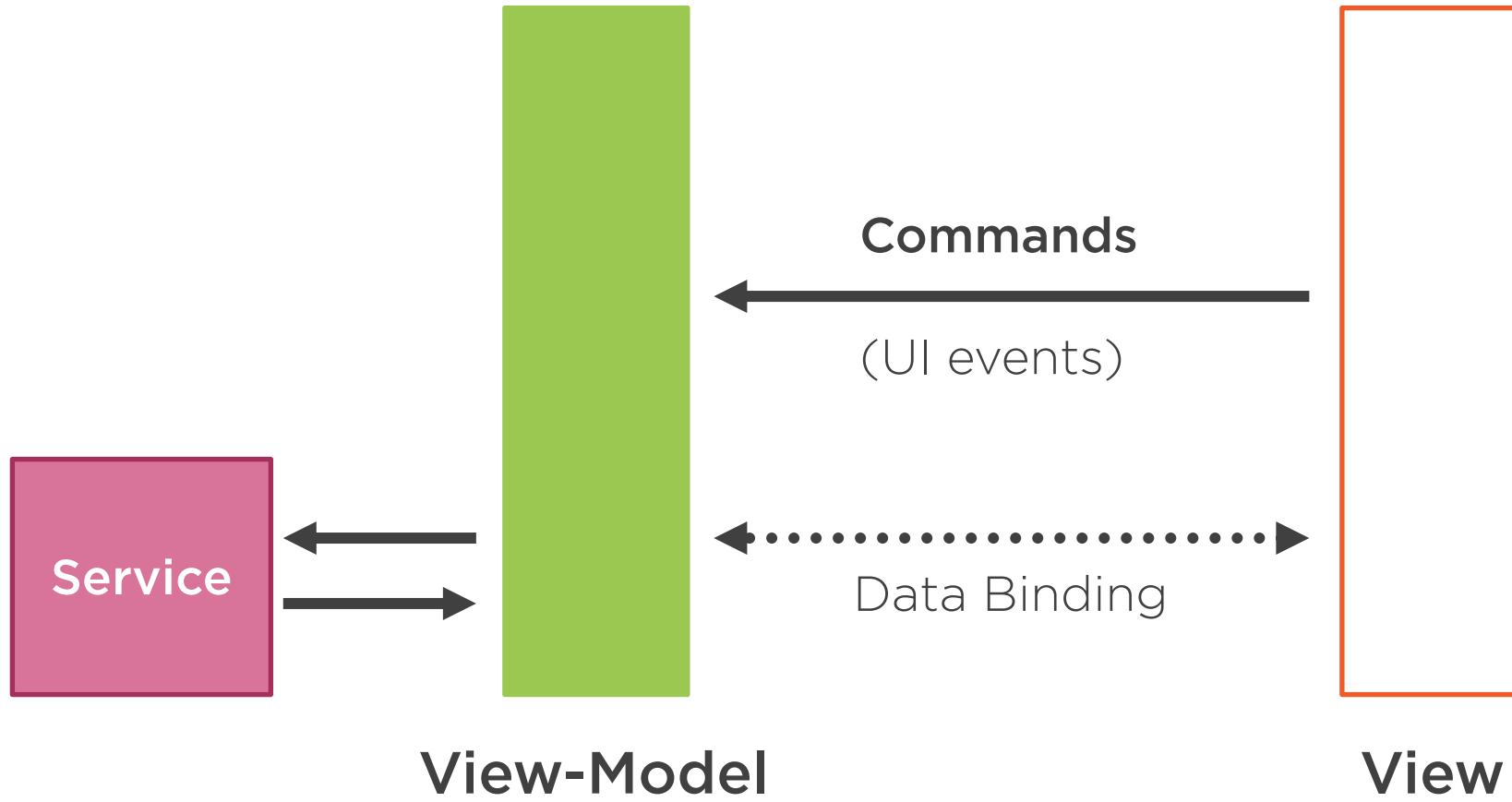
Data Binding - XAML

BindingContext set on parent or control

Binding keyword

Reference view model property

Commanding



```
public ICommand AddRecipeCommand { get; } =  
    new Command(async (obj) => await Navigation.PushModalAsync(  
        new NavigationPage(new EditRecipePage())))  
);
```

Command – View Model

ICommand interface

Action when invoked

Optional bool function for enabling

```
<Button Text="Add" Command="{Binding AddRecipeCommand}" />
```

Command - XAML

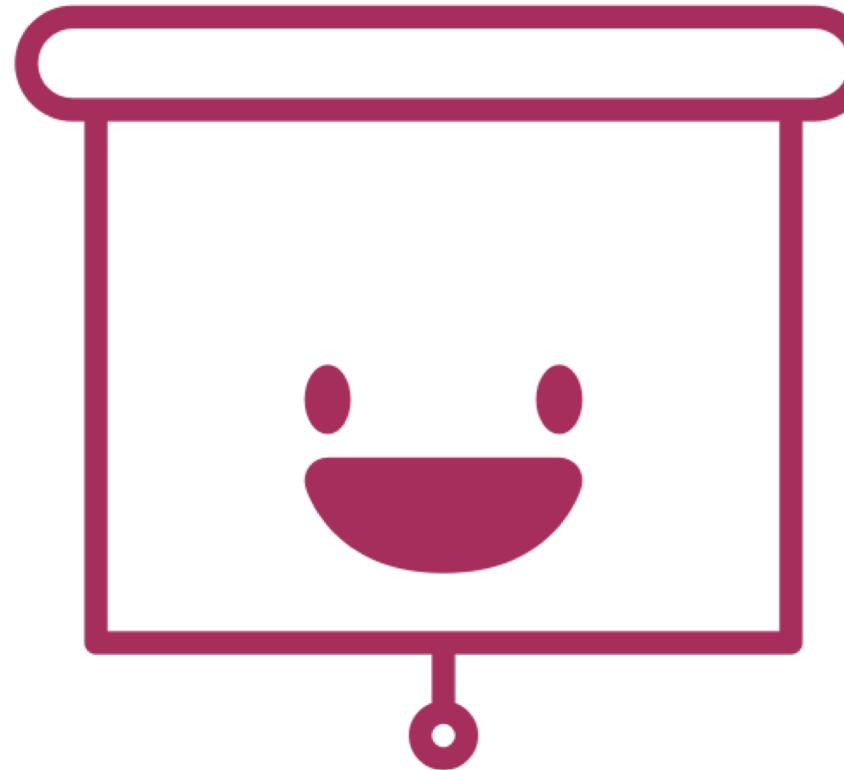
Command property

Binding keyword

One command per control

MVVM Demo

Data binding
Commanding



Additional Features & Platform Access

Dependency Service

Platform Specific Functionality in Shared Code

Define interface

Implement on each platform

**Register with
DependencyService**

**Shared code calls
DependencyService**

```
public interface IFormsCamera
{
    void LaunchCamera();
}
```

Dependency Service

Define the interface

```
[assembly: Dependency(typeof(AppleCamera))]  
namespace Foodie.iOS  
{  
    public class AppleCamera : IFormsCamera  
    {  
        public void LaunchCamera()  
        {  
            // Some camera stuff  
        }  
    }  
}
```

Dependency Service **Platform implementation**

```
public void TakePhoto()
{
    var camera = DependencyService.Get<IFormsCamera>();
    camera.LaunchCamera();
}
```

Dependency Service - Consume
DependencyService static object

CSS Styling

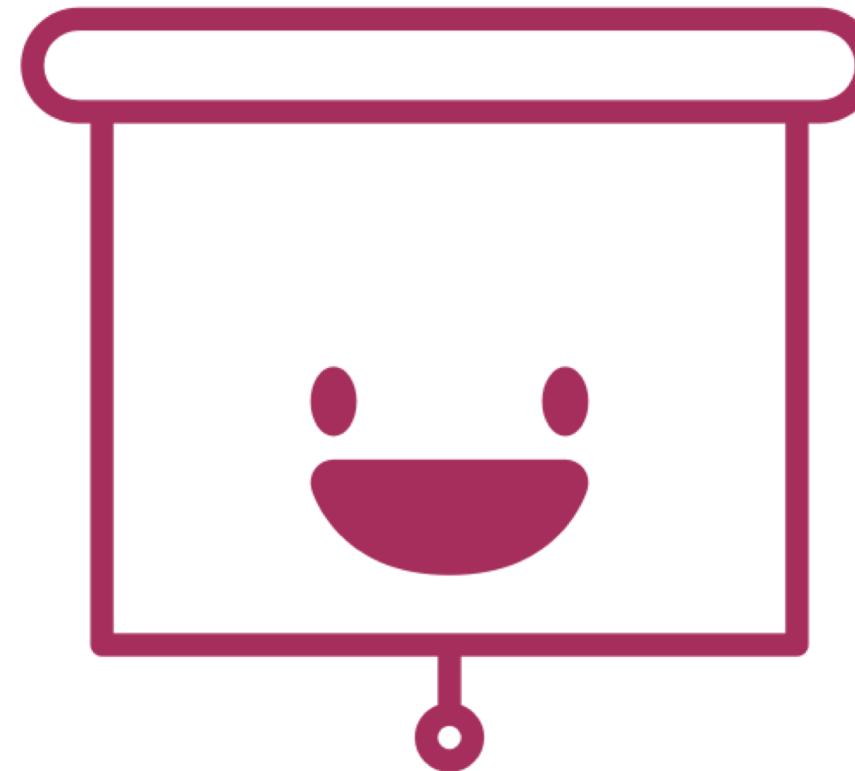
Similar to web CSS

C# or XAML

Select by ID, Class, Type,
Base, etc.

Not all Forms properties
available... yet

CSS Demo



Xamarin.Forms

User Interface

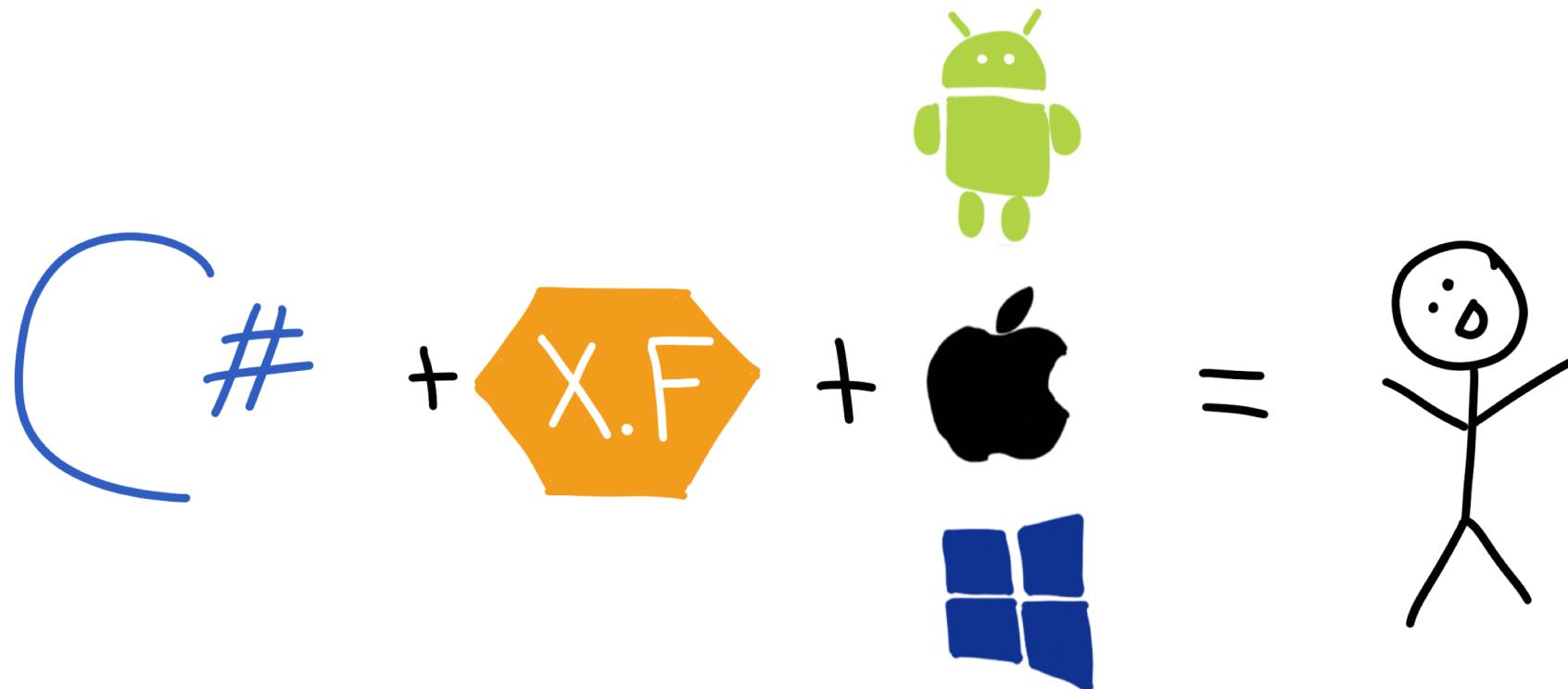
- Pages
- Navigation
- Layouts
- Controls

MVVM

- Data binding
- Commanding

And More!

- Dependency Service
- Platform Access
- CSS



Learn More!

Pluralsight: Moving Beyond the Basics with Xamarin.Forms

<https://www.pluralsight.com/courses/xamarin-forms-moving-beyond-basics>

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Matt Soucoup - Sr. Cloud Developer Advocate @ Microsoft

I ❤️ You

[@codemillmatt](https://twitter.com/codemillmatt)

codemillmatt@microsoft.com

codemillmatt.com

@codemillmatt