

Navigation In Xamarin.Forms

Kym Phillpotts

kphillpotts@gmail.com

@kphillpotts

code & slides:

<https://github.com/kphillpotts/XFNavigation>





Topics

Xamarin.Forms Overview

- Where does Xamarin.Forms fit in?
- What does the XF framework give you?

Navigation in Xamarin.Forms

- Push, Pop and Modal
- Lists Navigation
- Tabbed Pages
- Master / Detail Pages
- Carousel Pages

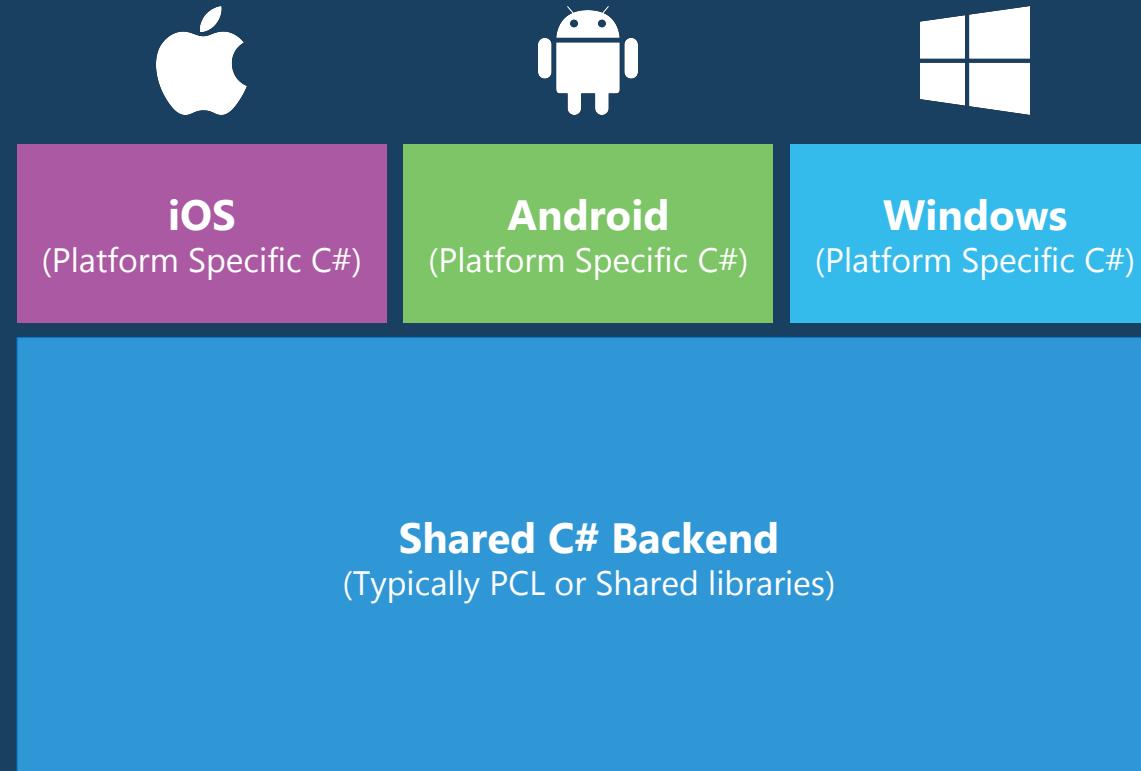
Additional Resources

- Design Resources
- Xamarin Resources

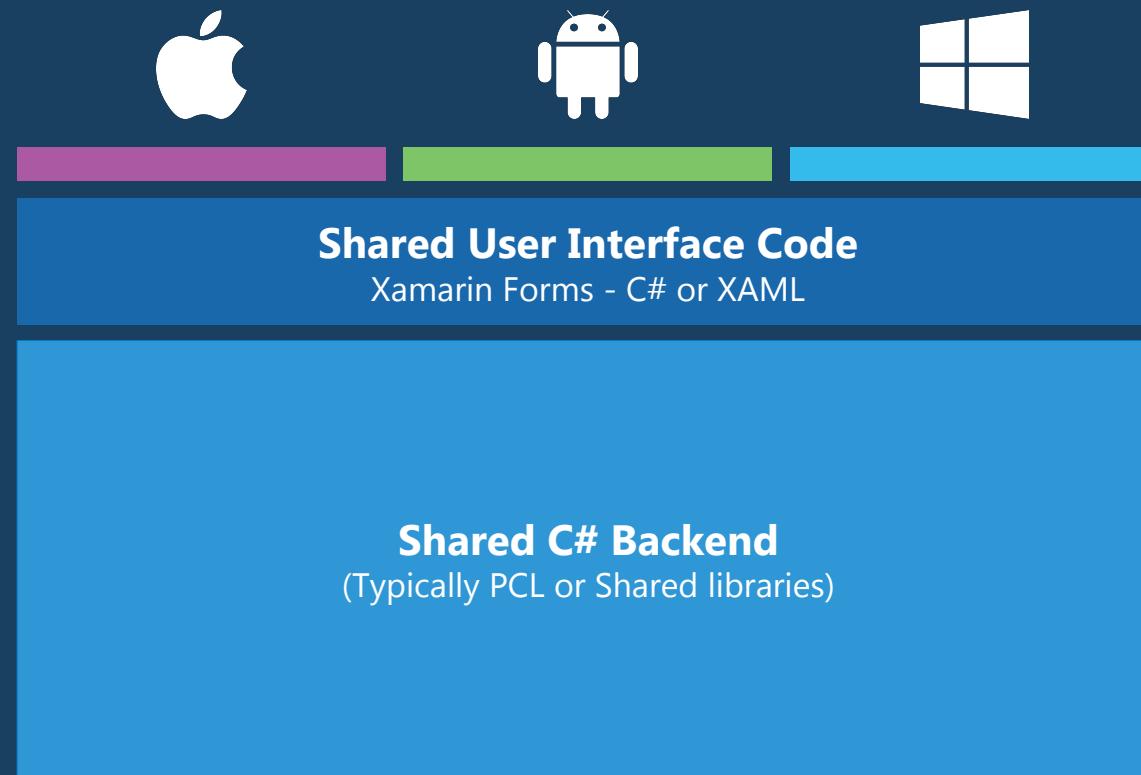
Xamarin.Forms

Overview

Traditional Xamarin Approach



Xamarin Forms Approach

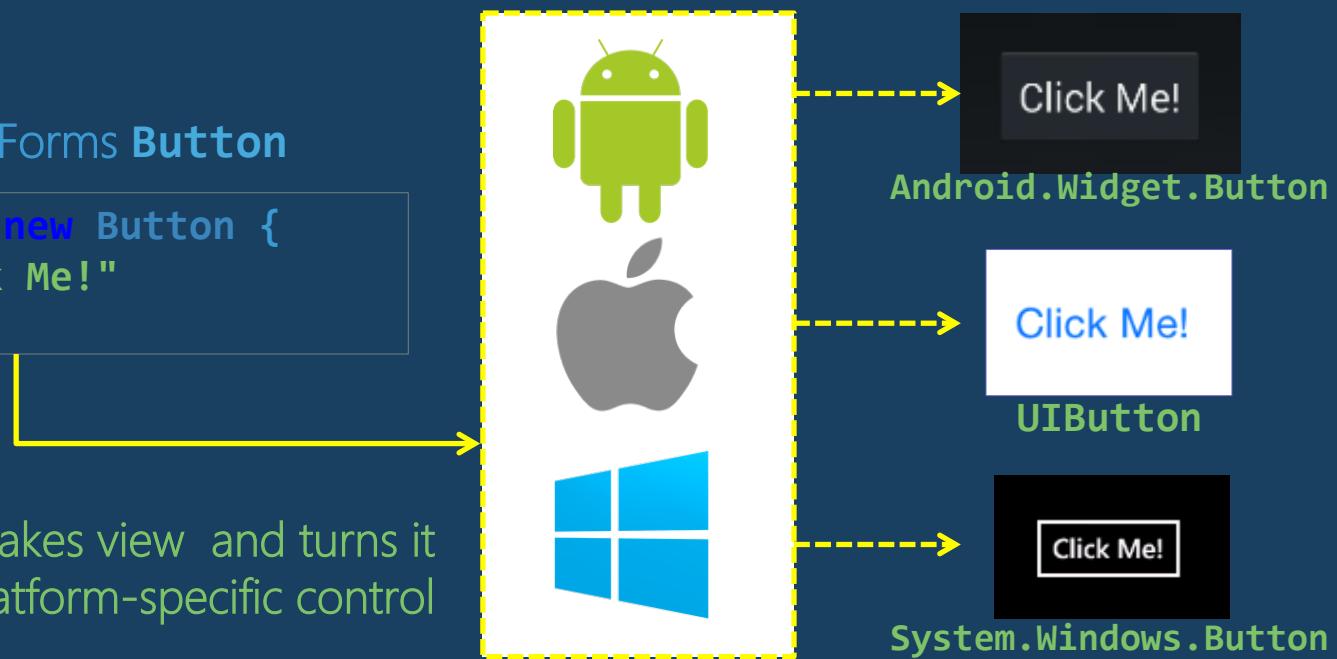


How Xamarin.Forms Renders Controls

UI uses a Xamarin.Forms **Button**

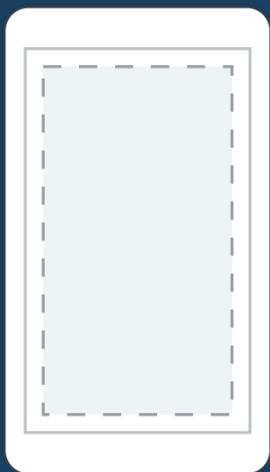
```
Button button = new Button {  
    Text = "Click Me!"  
};
```

Platform Renderer takes view and turns it into platform-specific control



What's in the box?

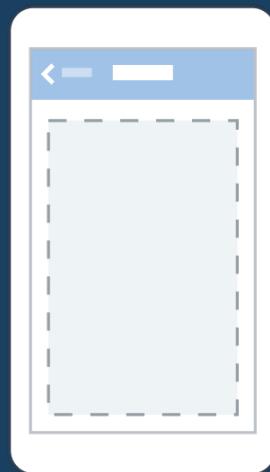
- Pages



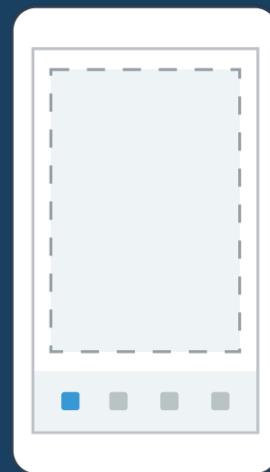
Content Page



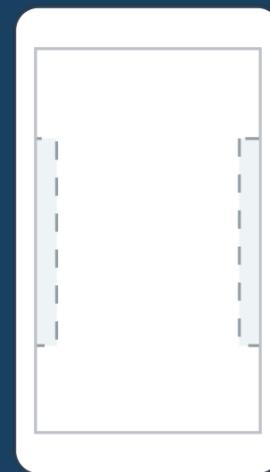
Master Detail



NavigationPage



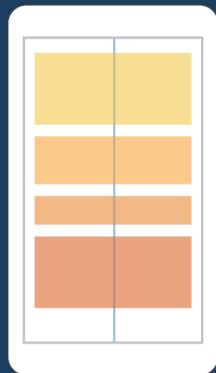
TabbedPage



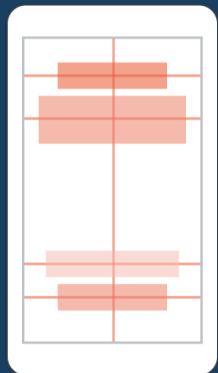
CarouselPage

What's in the box?

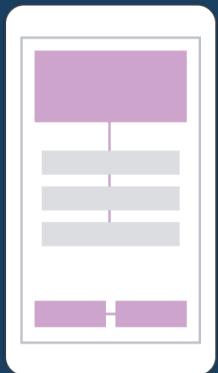
- Pages
- Layouts



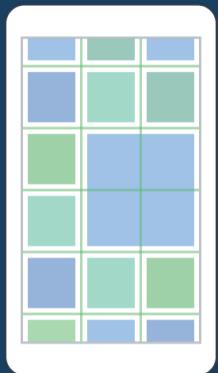
StackLayout



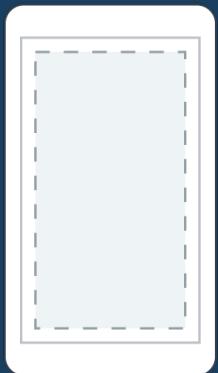
AbsoluteLayout



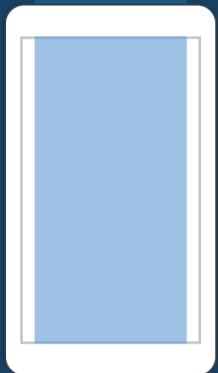
RelativeLayout



GridLayout



ContentView



ScrollView

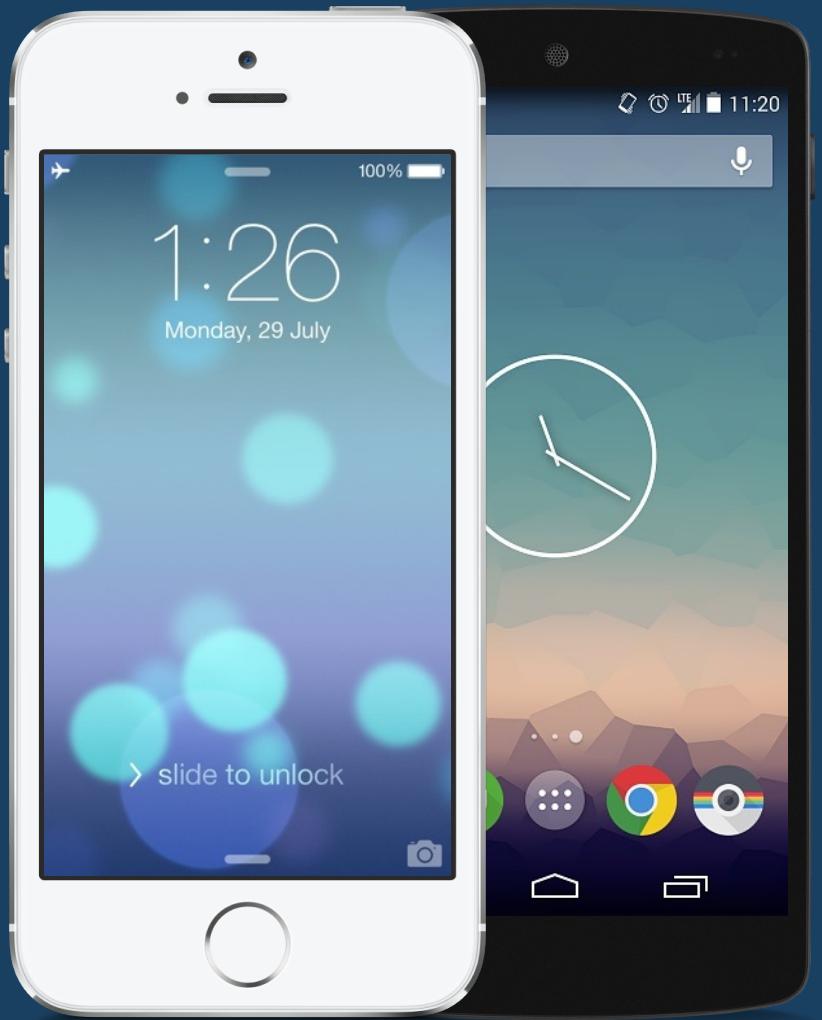


Frame

What's in the box?

- Pages
- Layouts
- 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	



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- What does the XF framework give you?

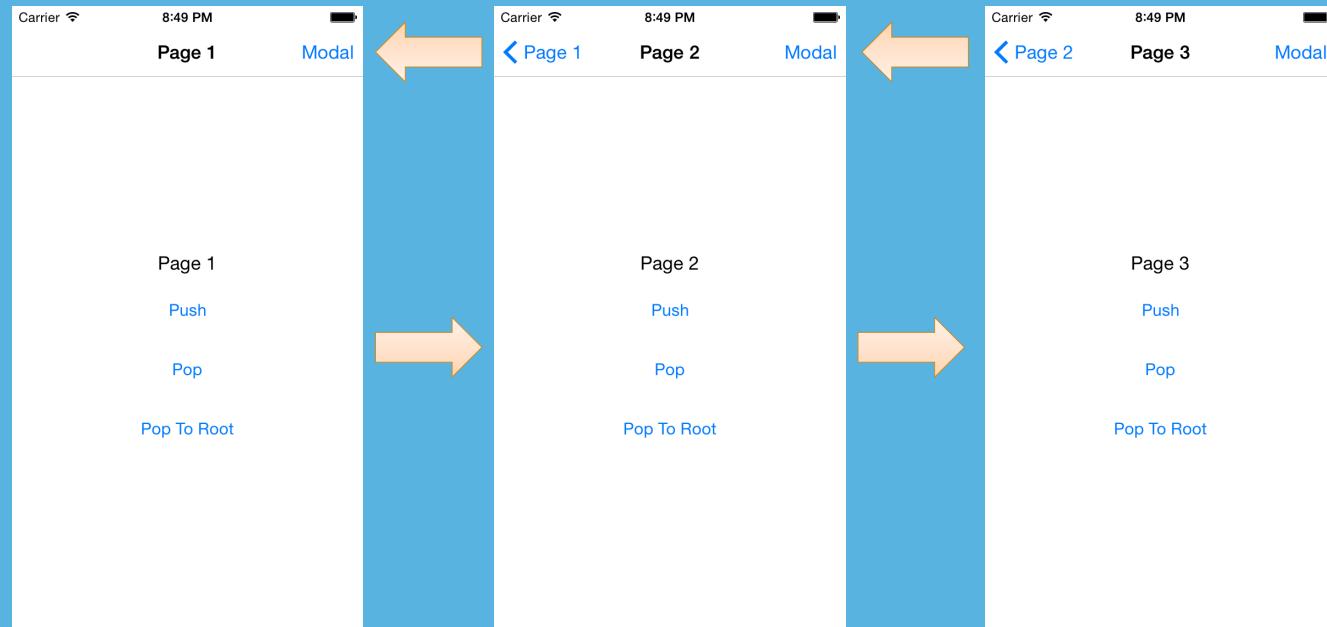
Navigation in Xamarin.Forms

- NavigationPage
- Lists Navigation
- Tabbed Pages
- Carousel Pages
- Master / Detail Pages

Additional Resources

- Design Resources
- Xamarin Resources

NavigationPage



Navigation Page

Basic Concepts

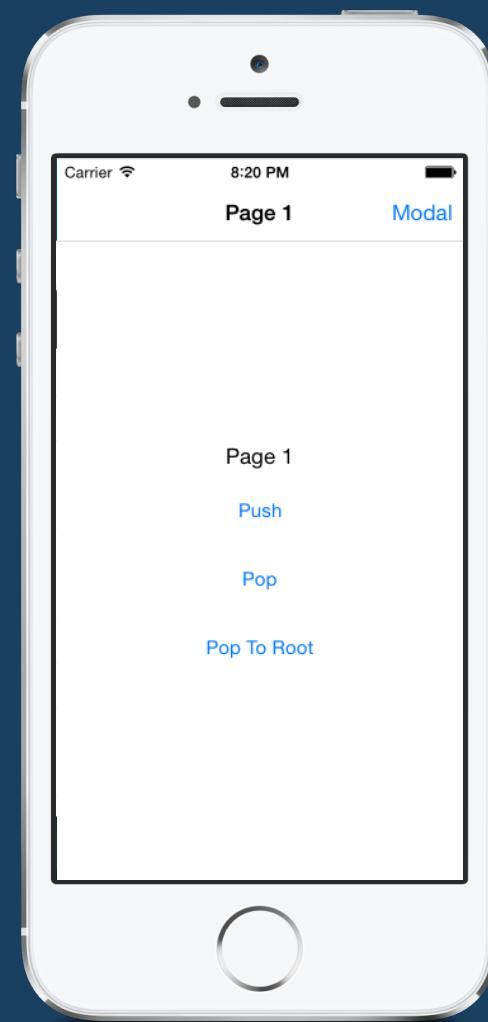
- **Push** pages onto the stack
- **Pop** pages off the stack

Hierarchical Navigation

- **PushAsync()**
- **PopAsync()**
- **PopToRootAsync()**

Modal Navigation

- **PushModalAsync()**
- **PopModalAsync()**

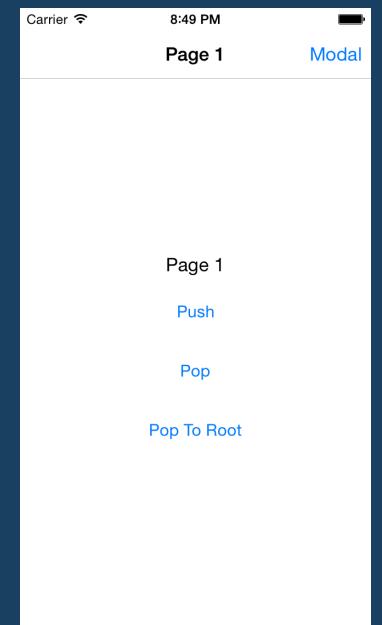


Implementing NavigationPage – Wrap it!

```
public App()
{
    MainPage = new MyPage();
}
```

Implementing NavigationPage – Wrap it!

```
public App()
{
    // MainPage = new MyPage();
    MainPage = new NavigationPage(new MyPage());
}
```



Hierarchical Navigation

Navigate Forward (Push)

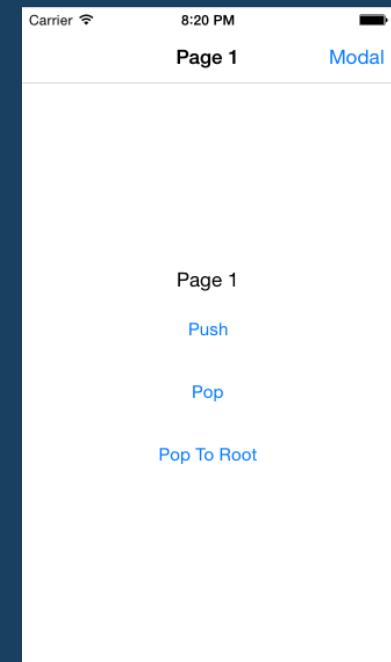
```
Navigation.PushAsync(new SecondPage());
```

Navigate Back One Page (Pop)

```
Navigation.PopAsync();
```

Navigate Back To First Page (PopToRoot)

```
Navigation.PopToRoot();
```



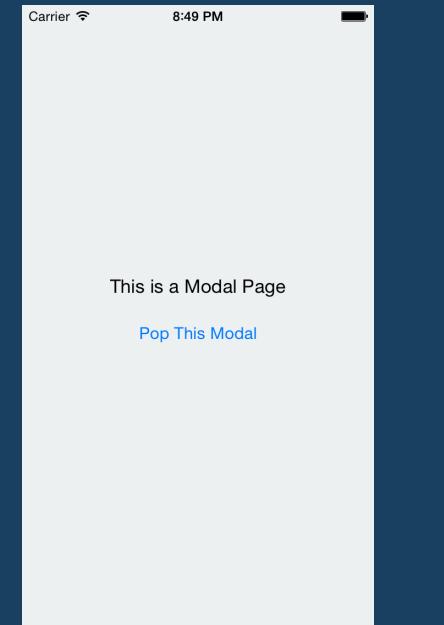
Modal Navigation

Display A Modal Page

```
Navigation.PushModalAsync(new MyNewModalPage());
```

Remove A Modal Page

```
Navigation.PopModalAsync();
```

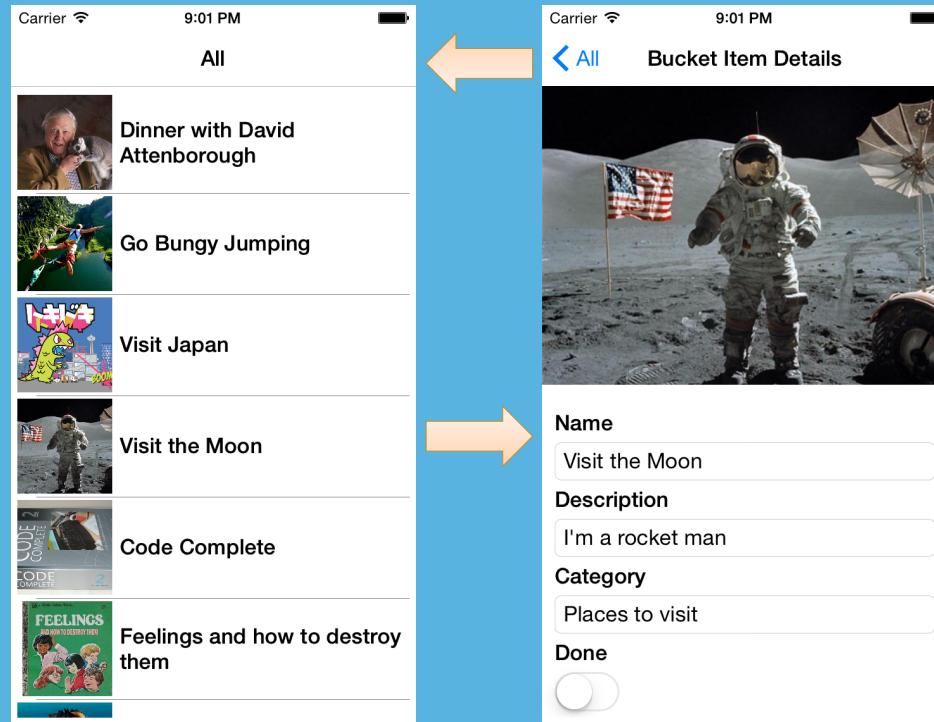




Other NavigationPage Goodness

- Have access to the NavigationStack
 - InsertPage
 - RemovePage
- BackButtonPressed Events
- Customizing the navigation bar
 - var navPage = new NavigationPage(new MyPage());
 - navPage.**BarBackgroundColor** = Color.Green;
 - navPage.**BarTextColor** = Color.White;
- NavigationBar Icons
 - NavigationPage.**SetTitleIcon**(this, "your-logo-here.png");

ListView Navigation



Using ListViews for Navigation

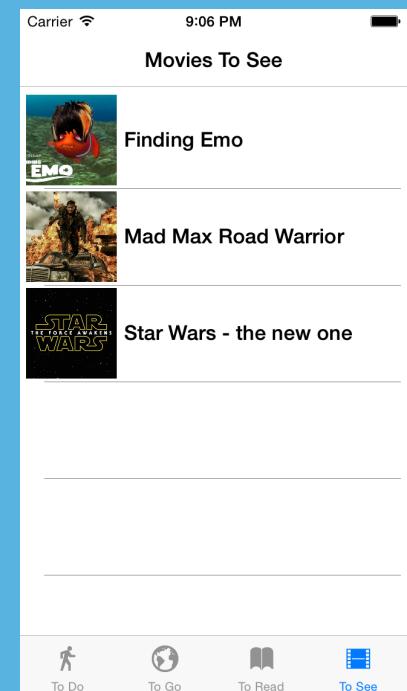
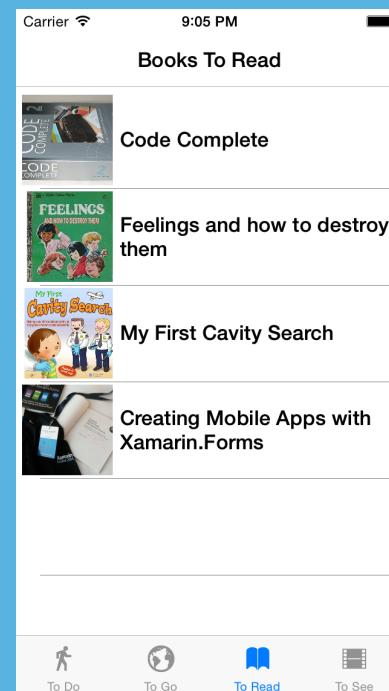
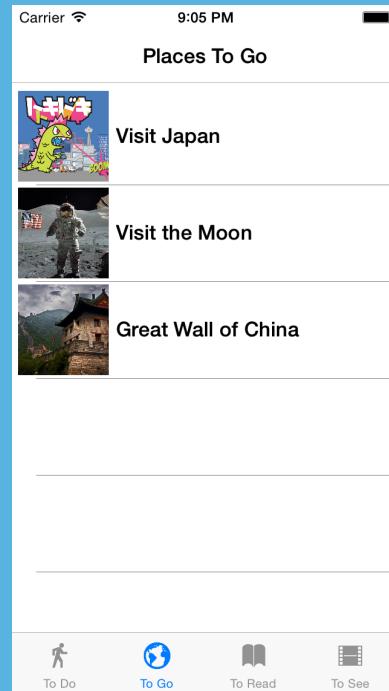
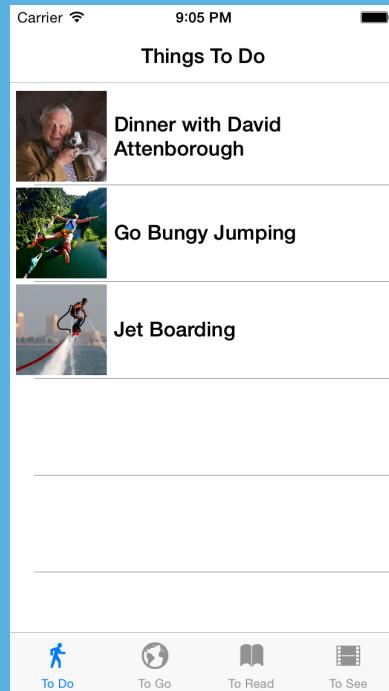
- Make sure you wrap your ListView page inside a NavigationPage
- Setup your listview data and bindings (as per normal)
- Respond to the ItemTapped Event (as per normal)
- Use the NavigationPage methods to Push to new pages



Other ListView goodness you should check out

- Pull To Refresh
- Action Buttons
- Search Bar
- Circle Images – Plugin
- Grouped Lists – James Montemagno
 - <http://bit.ly/GroupedListView>

TabPage



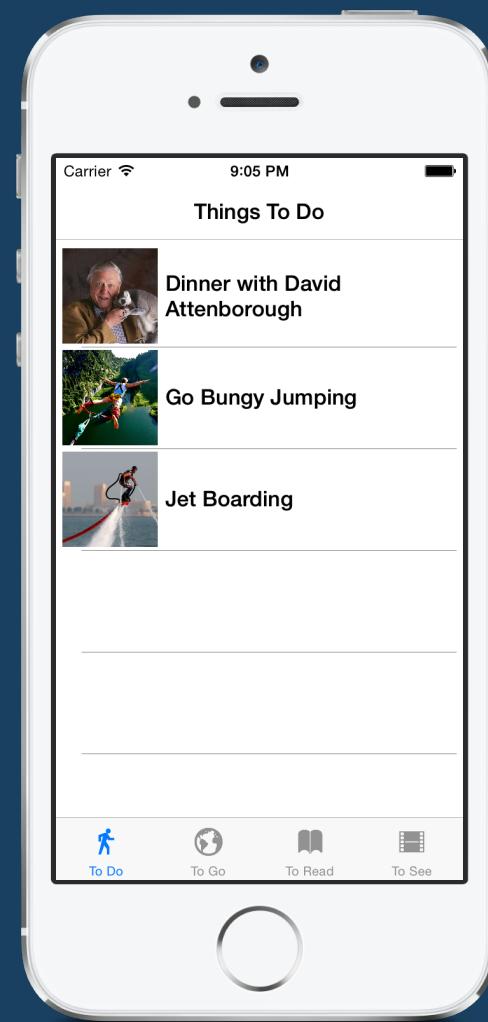
TabPage

Basic Concepts

- Creates a tabbed interface for a collection of child pages

Platform Differences

- On iOS Tabs at bottom with icon
- On Android tabs at the top without icon
- On Windows Phone uses Pivot control





Implementing TabbedPage

Adding pages to the TabbedPage

```
public class TabsPage : TabbedPage
{
    public TabsPage ()
    {
        this.Children.Add (new Page1 () { Title = "Page1", Icon = "Page1.png" });
        this.Children.Add (new Page2 () { Title = "Page2", Icon = "Page2.png" });
        this.Children.Add (new Page3 () { Title = "Page3", Icon = "Page3.png" });
        this.Children.Add (new Page4 () { Title = "Page4", Icon = "Page4.png" });
    }
}
```

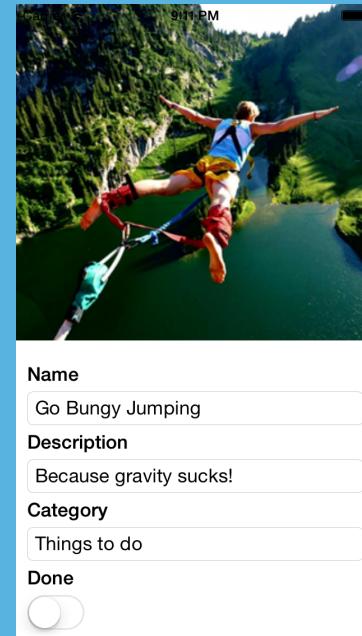
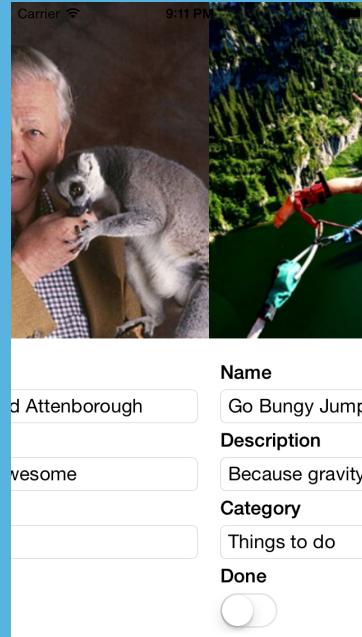
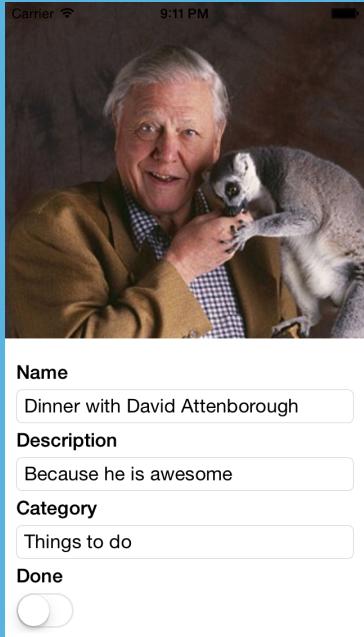
Navigation inside a TabbedPage

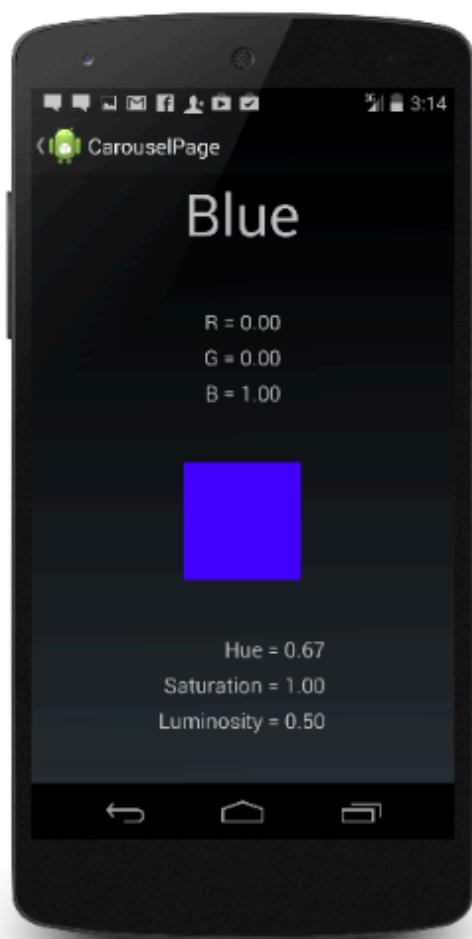
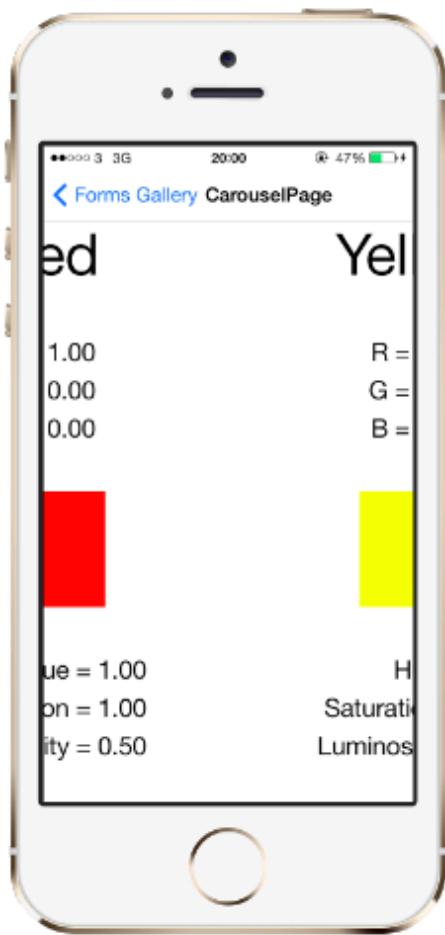
It's easy, just wrap your children in a NavigationPage

```
Children.Add ( new NavigationPage (new ChildPage())  
    {  
        Title = "PageName",  
        Icon = "PageIcon.png"  
    } );
```



CarouselPage





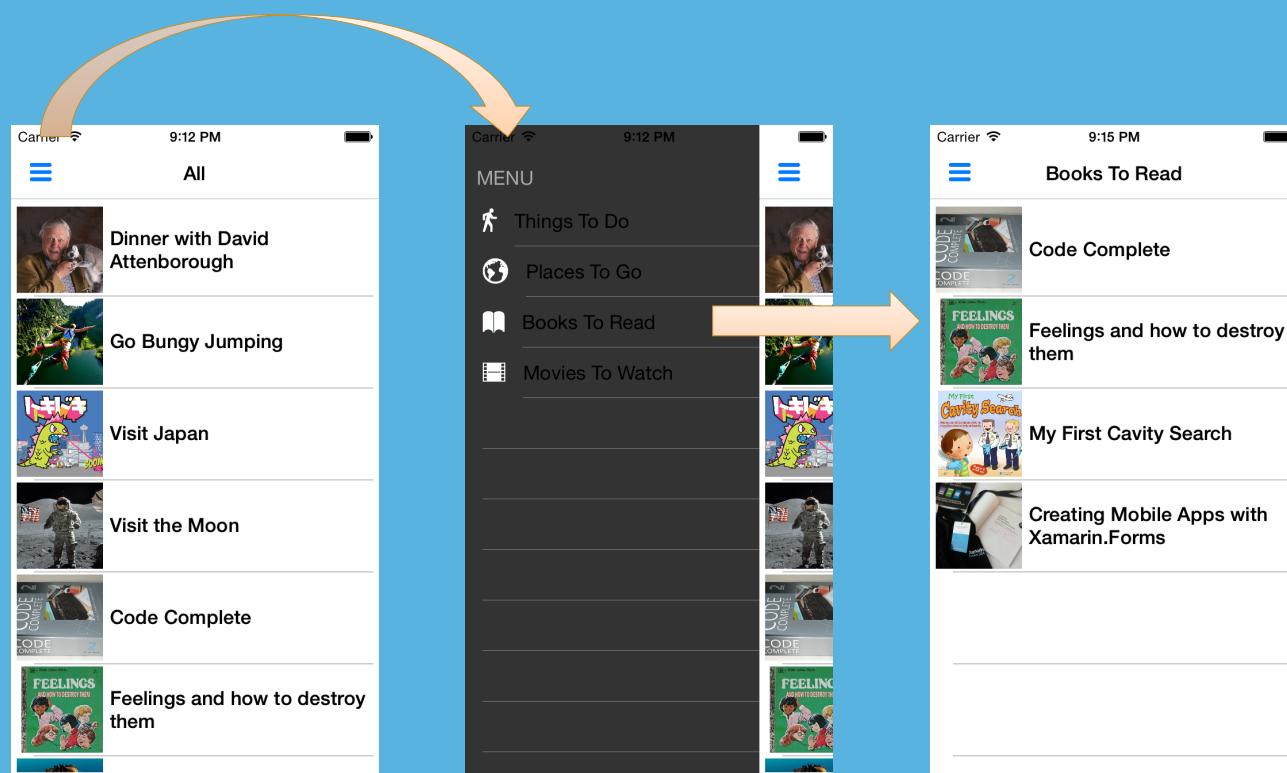
Implementing CarouselPage

Adding pages to the CarouselPage

```
public class FlippyPage : TabbedPage
{
    public FlippyPage ()
    {
        Children.Add(new BucketItemDetail(bucketItem));
        Children.Add(new BucketItemDetail(bucketItem));
        Children.Add(new BucketItemDetail(bucketItem));
    }
}
```



MasterDetailPage



MasterDetailPage

Basic Concepts

- A container page that manages the presentation of two other pages.
- A master page, which typically shows a list or menu of options
- A detail page, which typically shows the detail of the selection



Implementing the MasterDetailPage

```
public class SimpleMasterDetailContainer : MasterDetailPage
{
    public SimpleMasterDetailContainer()
    {
        Master = new SimpleMasterPage();
        Detail = new NavigationPage(new SimpleDetailPage());
    }
}
```

Things to Remember with MasterDetailPage

You have to provide a **Title** in the Master Page, or things go bang!
(optionally you can add an **Icon** to display – think hamburger icon)

You have to handle the navigation between the master and the details pages. Do this by setting **Detail** property

For Tablets you can use **MasterBehavior** property

- Default
- PopOver
- SplitOnHorizontal
- SplitOnVertical





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Design Resources

- **Xamarin.Forms in Anger** – Replicating designs in Xamarin.Forms
<https://www.syntaxismyui.com/xamarin-forms-in-anger>
- **Dribbble** – Awesome ideas by bizarrely talented artists
<http://dribbble.com>
- **UI-Patterns** – They why & why nots of UI
<http://ui-patterns.com>

Xamarin.Forms Dev Resources

- **Xamarin Community blog** – Aggregates the best Xamarin blogs
<http://planet.xamarin.com/>
- **Official Xamarin.Forms Website** – Links to all the official doco & samples
<http://xamarin.com/forms>
- **Xamarin-Forms-Labs** – Community controls and code
<https://github.com/XLabs/Xamarin-Forms-Labs>
- **Xamarin Plugins** – Awesome nuget plugins that work with Xamarin.Forms
 - <https://github.com/xamarin/plugins>
- **Free Charles Petzold Xamarin Forms eBook**
<http://bit.ly/PetzoldBook>

THANKS (and questions)

Kym Phillpotts

kphillpotts@gmail.com

@kphillpotts

code & slides:

<https://github.com/kphillpotts/XFNavigation>

