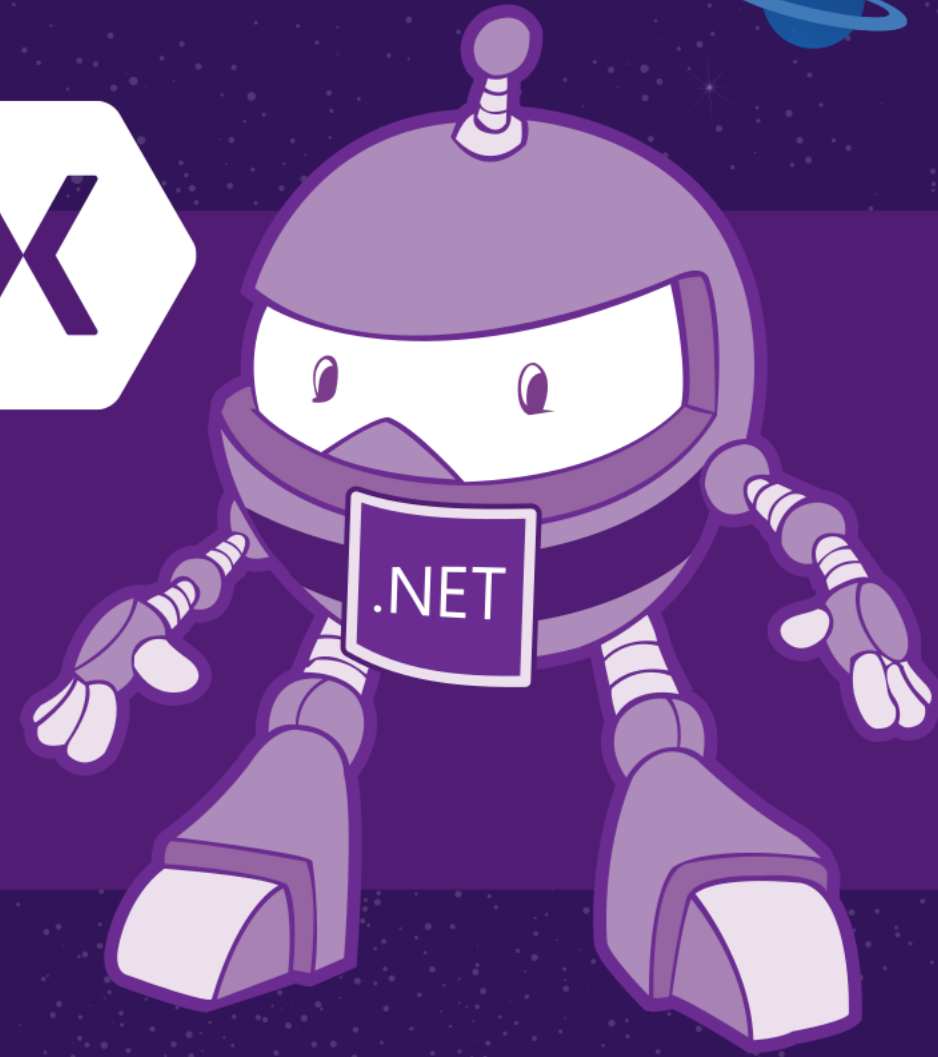.NET Conf
"Focus on Xamarin"

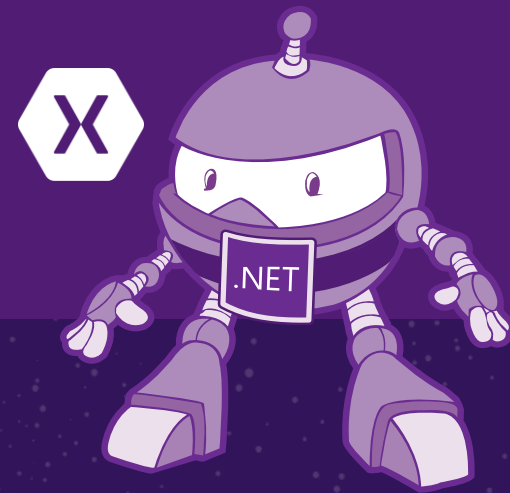focus.dotnetconf.net

Xamarin.Forms Shell

Shane Neuville (he/him)
Xamarin.Forms Senior Engineer
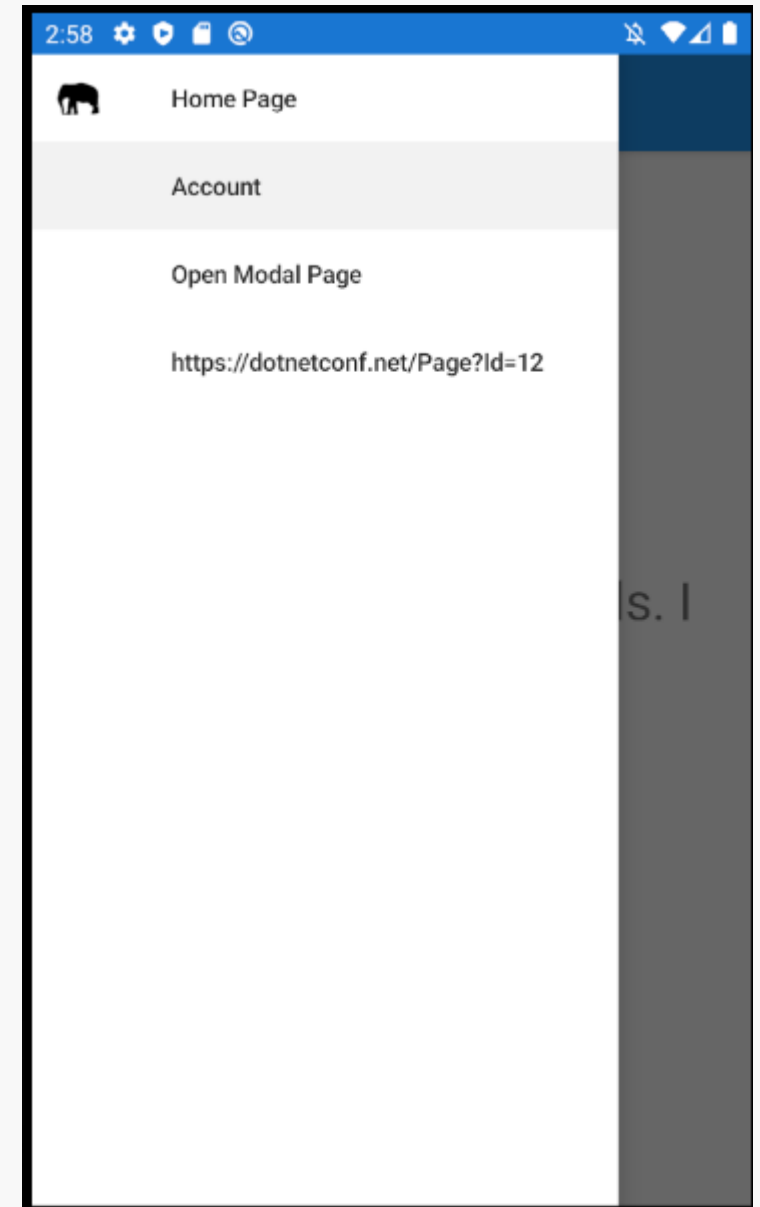Microsoft

PUREWEEN

What is Shell?

- Declarative Application Structure
- Simplified Navigation
- Easy to Customize
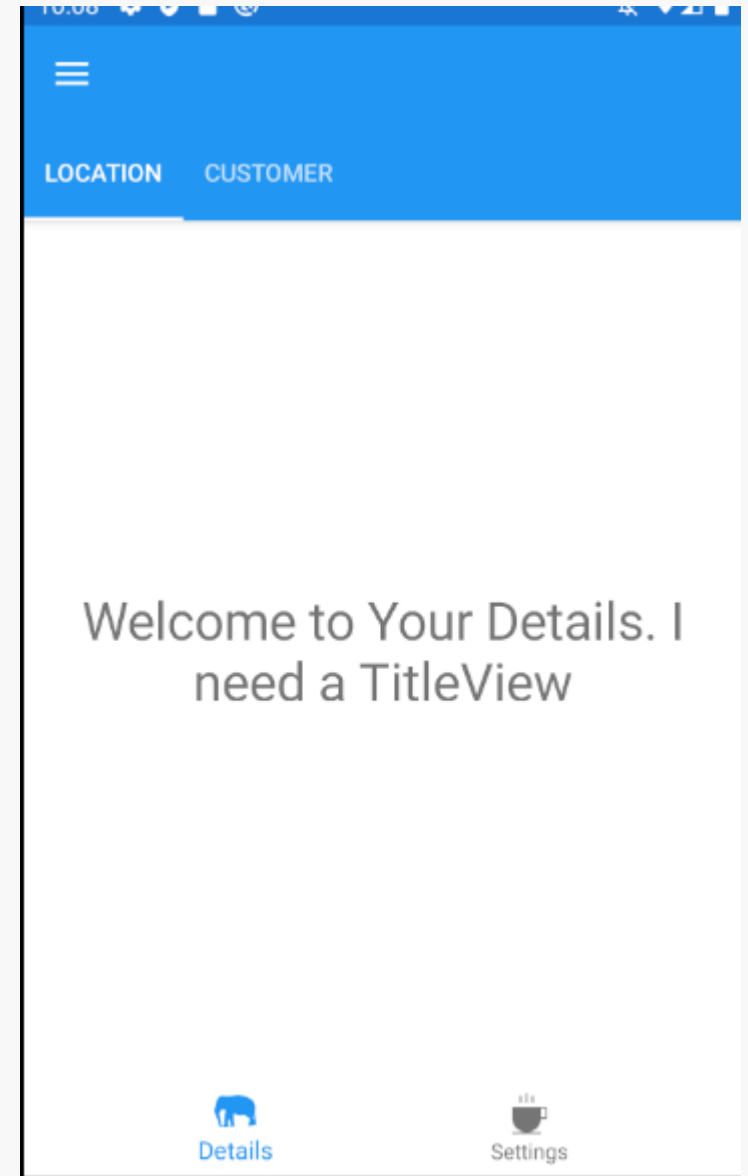- Rapidly build the apps you want

Declarative App Structure


```xml
<FlyoutItem
    Title="Home Page"
    Icon="elephant.png">
    <ShellContent Route="HomePage"
    </ShellContent>
</FlyoutItem>
<FlyoutItem Title="Account">
    <Tab Title="Details" Route="Det
    <Tab Title="Settings" Route="Se
</FlyoutItem>
<TabBar Title="Goto Uri Page"...>
<MenuItem Text="Open Modal Page" Co
<MenuItem Text="https://dotnetconf.
```
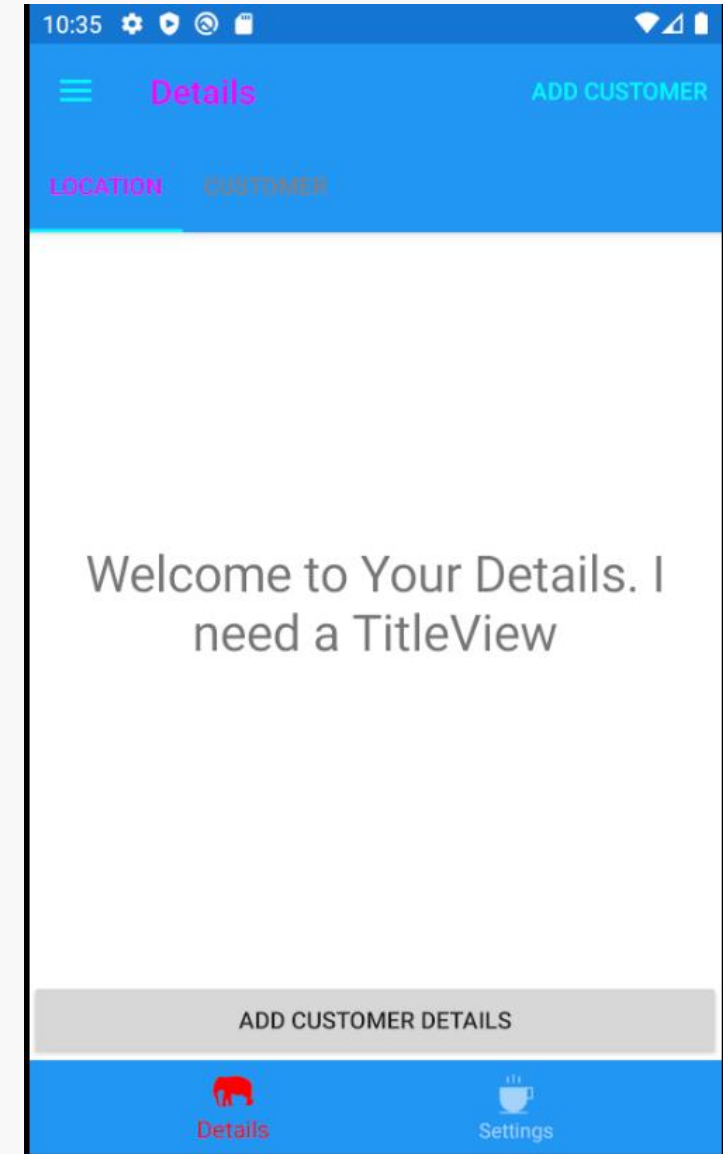

2:58

Home Page

Account

Open Modal Page

https://dotnetconf.net/Page?Id=12

Declarative App Structure

```xml
<FlyoutItem Title="Account">
    <Tab Title="Details" Icon="e
        <ShellContent Route="Loc
        <ShellContent Route="Cus
    </Tab>
    <Tab Title="Settings" Route=
        <ShellContent ContentTem
    </Tab>
</FlyoutItem>
```
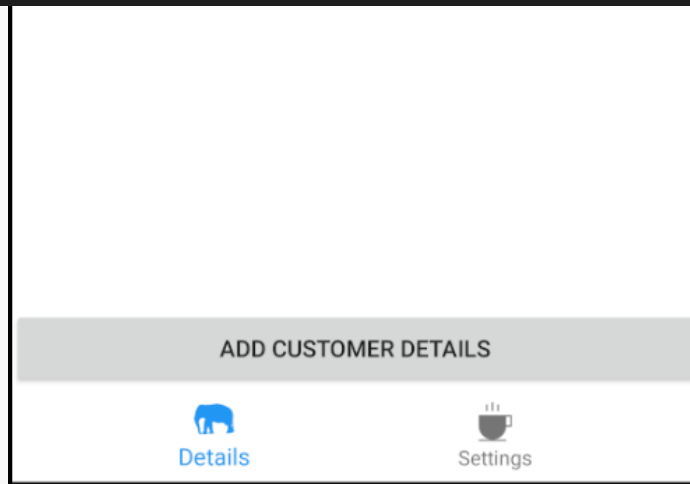
Shell Theming

```xml
<Shell.Resources>

    <Color x:Key="NavigationPrimary">#2196F3</Color>
    <Style x:Key="BaseStyle" TargetType="Element">
        <Setter Property="Shell.BackgroundColor" Value="{StaticResource NavigationPrimary}" />
        <Setter Property="Shell.ForegroundColor" Value="Cyan" />
        <Setter Property="Shell.TitleColor" Value="Magenta" />
        <Setter Property="Shell.DisabledColor" Value="#B4FFFFFF" />
        <Setter Property="Shell.UnselectedColor" Value="Gray" />
        <Setter Property="Shell.TabBarBackgroundColor" Value="{StaticResource NavigationPrimary}" />
        <Setter Property="Shell.TabBarForegroundColor" Value="White"/>
        <Setter Property="Shell.TabBarUnselectedColor" Value="#95FFFFFF"/>
        <Setter Property="Shell.TabBarTitleColor" Value="Red"/>
    </Style>
    <Style TargetType="TabBar" BasedOn="{StaticResource BaseStyle}" />
    <Style TargetType="FlyoutItem" BasedOn="{StaticResource BaseStyle}" />
```
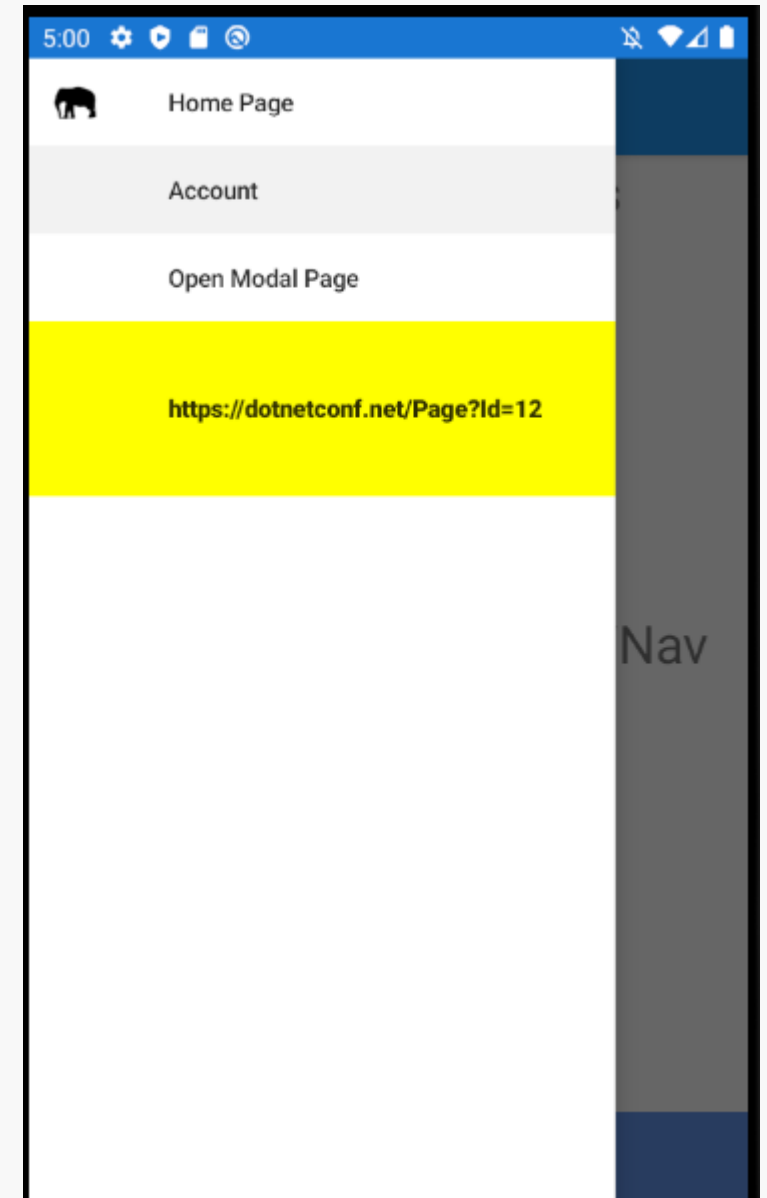
Flyout Customization

```xml
<MenuItem Shell.MenuItemTemplate="{StaticResource CustomFlyoutTemplate}"
</MenuItem>


<!--https://docs.microsoft.com/en-us/xamarin/xamarin-forms/app-fundamental
<Shell.Resources>
    <DataTemplate x:Key="CustomFlyoutTemplate">
        <Grid BackgroundColor="Yellow" HeightRequest="{x:OnPlatform Andro
    </DataTemplate>
</Shell.Resources>
```

Flyout StyleClass (4.6)

```xml
<FlyoutItem StyleClass="MainPageFlyoutItem" Title="Account"...>

<!--https://docs.microsoft.com/en-us/xamarin/xamarin-forms/app-fundame
<Shell.Resources>
    <Style TargetType="Label" Class="MainPageFlyoutItem">
        <Setter Property="TextColor" Value="Purple" />
        <Setter Property="TextDecorations" Value="Underline"></Setter>
    </Style>
```
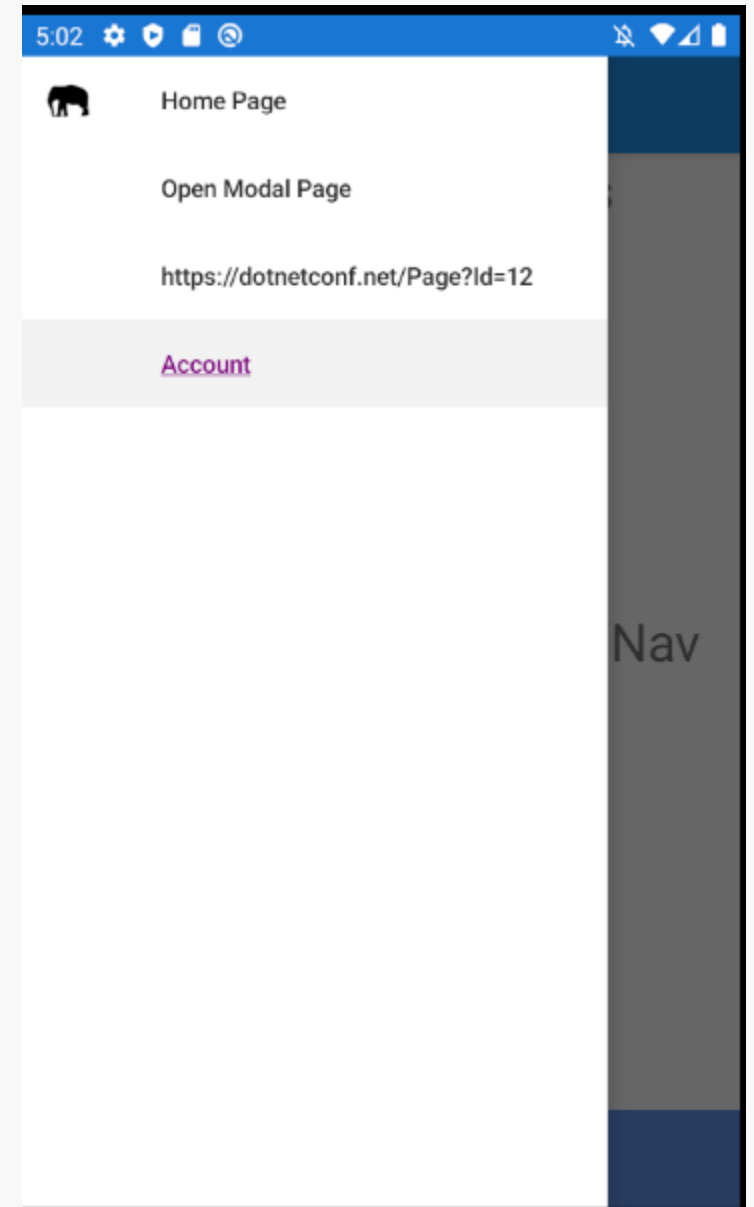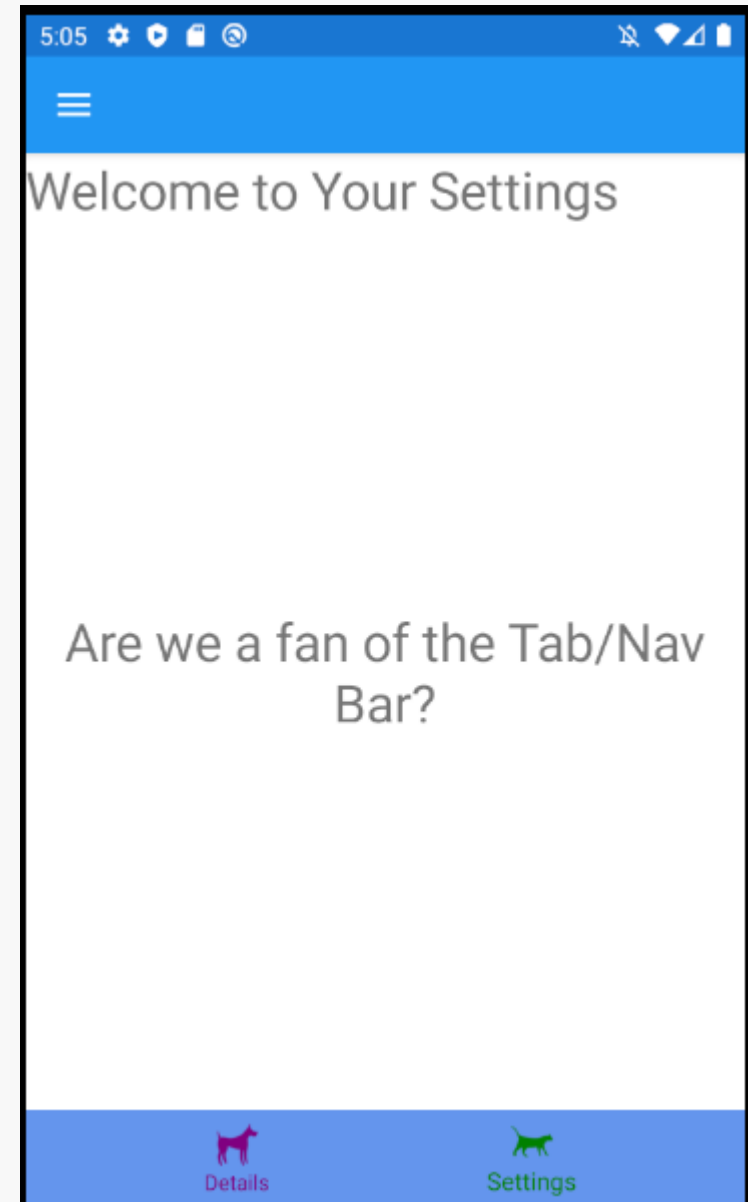
Tab Styling

```xml
<Shell xmlns="http://xamarin.com/schemas/2014/forms'
       xmlns:x="http://schemas.microsoft.com/winfx/
       x:Class="Xamarin.Forms.Sandbox.ShellPage"
       xmlns:local="clr-namespace:Xamarin.Forms.Sar
       FlyoutHeaderBehavior="Scroll"
       Shell.TabBarBackgroundColor="CornflowerBlue"
       Shell.TabBarUnselectedColor="Purple"
       Shell.TabBarTitleColor="Green"
```

Shell Navigation

- Name your destination.

- Go there from anywhere

- Register generic pages

- Deep link navigation

- It's just a string!!!
  - Save app location
  - Navigate to location on app from web url

```
<Tab Title="Details" Route="Details"
```

```
await Shell.Current.GoToAsync("//Details");
```

```
Routing.RegisterRoute("ModalPage", typeof(ModalPage));
```
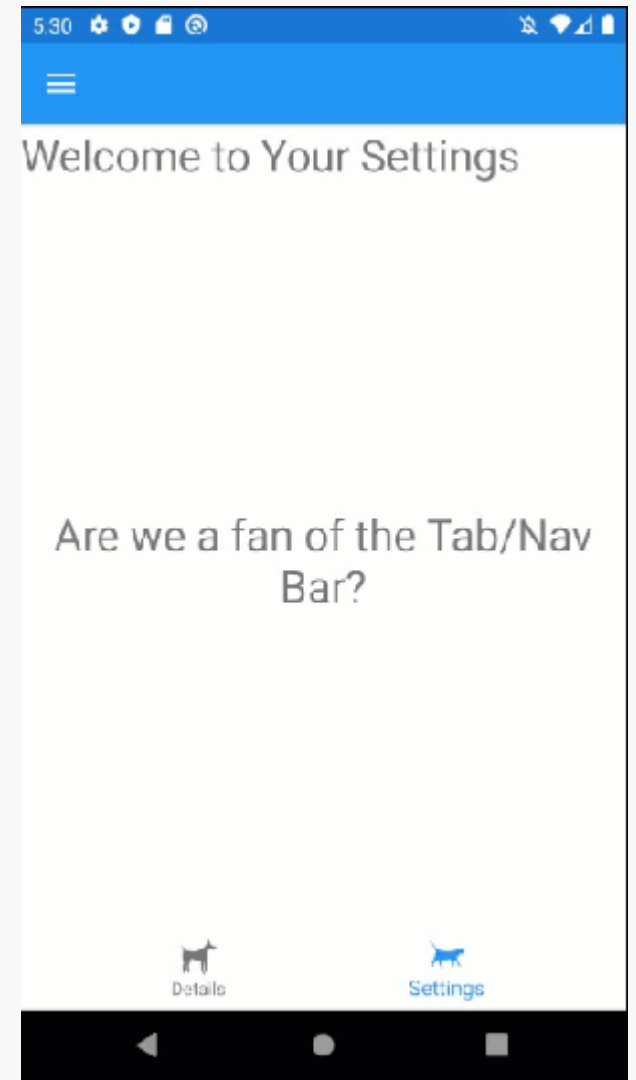
```
await GoToAsync("//Details/ModalPage");
```

```
await GoToAsync("https://dotnetconf.net/Details?Id=12");
```

Modal Page Support (4.5)

```
Shell.PresentationMode="Modal"
```

```
await Shell.Current.GoToAsync("ModalPage");
```

Shell Navigation – Passing Parameters

- Attribute View or VM.

```csharp
[QueryProperty("Id", "Id")]
public class DeepLinkedPageViewModel
{
    public string Id
}
```

- Navigate

```csharp
await Shell.Current.GoToAsync("//Page?Id=12");
```

Shell Navigation – Events

- Navigating

```csharp
        Shell.Current.Navigating += ShellNavigating;
}

2 references | 0 changes | 0 authors, 0 changes
private void ShellNavigating(object sender, ShellNavigatingEventArgs e)
{
    // No Back Button For You!!!
    if (!(entryCustomer?.Text?.Length > 0))
        e.Cancel();
}
```
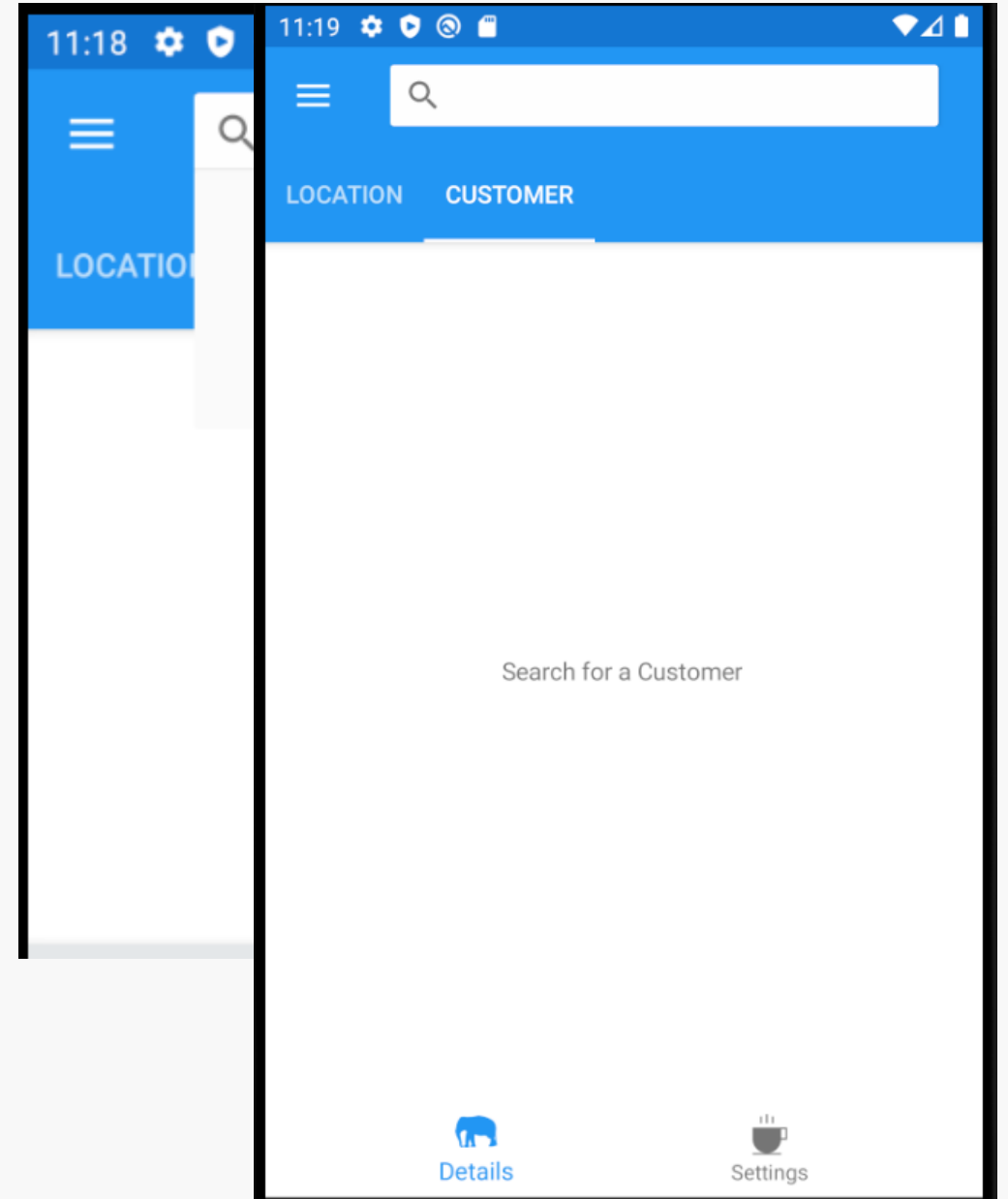
- Navigated

```csharp
1 reference | 0 changes | 0 authors, 0 changes
void OnShellNavigated(object sender, ShellNavigatedEventArgs e)
{
    Preferences.Set("LastKnownUrl", e.Current.Location.ToString());
}
```
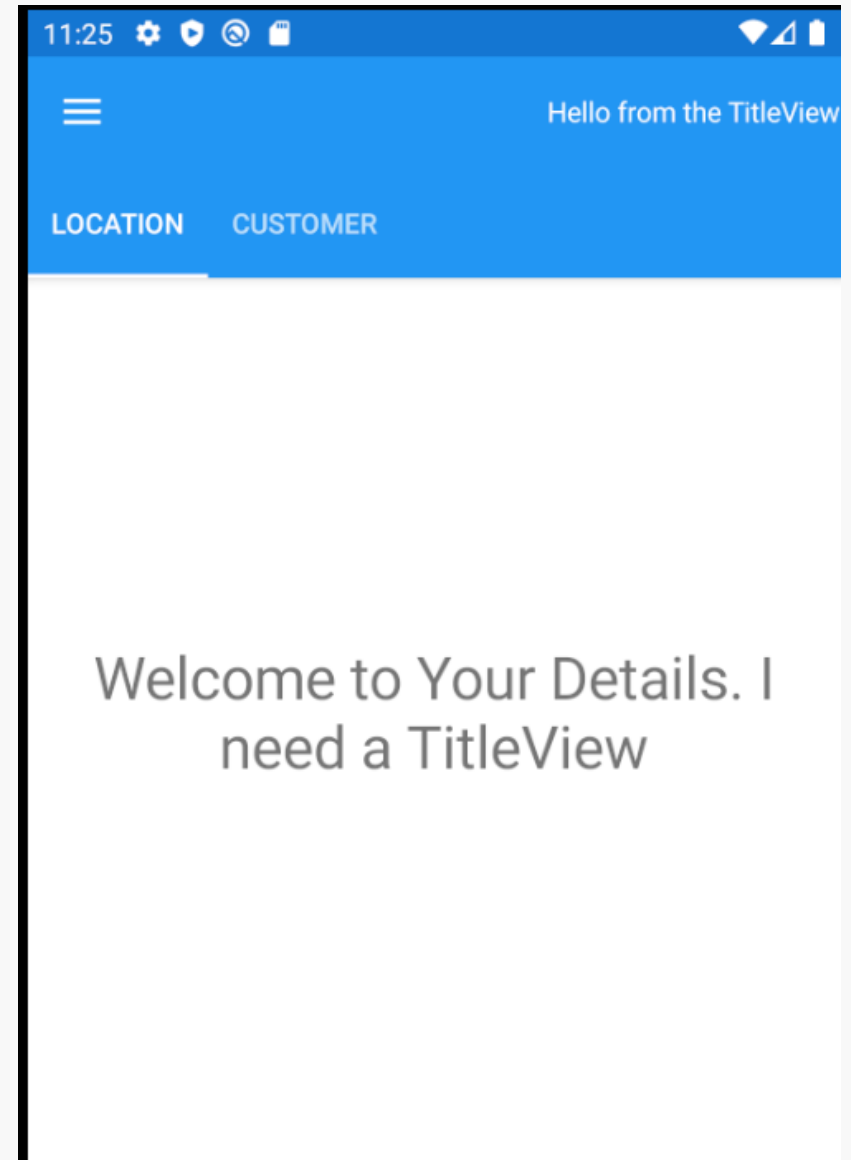
Shell – Search Handler

```xml
<Shell.SearchHandler>
    <local:CustomerSearchHandler
        ItemsSource="{Binding Customers}"
        ShowsResults="True">
    </local:CustomerSearchHandler>
</Shell.SearchHandler>
<ContentPage.Content>
```

Shell – TitleView

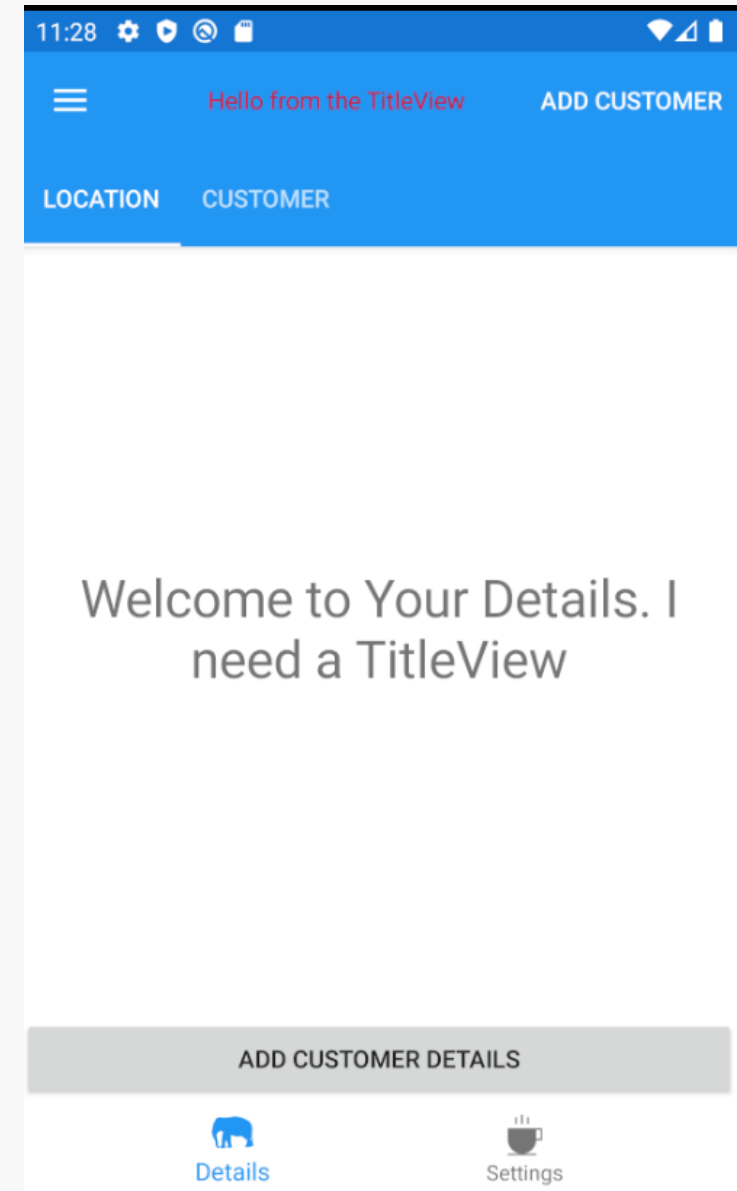```
<Shell.TitleView>
    <StackLayout>
        <Label TextColor="White"
               Text="Hello from the TitleView"
               VerticalOptions="CenterAndExpand"
               HorizontalOptions="End"
               VerticalTextAlignment="Center">
        </Label>
    </StackLayout>
</Shell.TitleView>
<ContentPage.Content>
```

# Shell – ToolbarItems

```xml
<ContentPage.ToolbarItems>
    <ToolbarItem
        Text="Add Customer"
        Clicked="Button_Clicked">
    </ToolbarItem>
</ContentPage.ToolbarItems>
```

Code demo

Replacement for all page types

ContentPage MasterDetailPage NavigationPage TabbedPage

What's coming

- 3rd party MVVM support
  - Actively working with FreshMVVM, RxUI, and Prism
- TitleView fixes
- Templating everything
- Dual Screen Support
- Performance improvements
- https://github.com/xamarin/Xamarin.Forms/projects/54
- Push Shell onto stack