

Binding to Your Data



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Module Outline



Create a data binding in XAML

- Binding Markup Extension

Understand and apply the MVVM pattern

Create a DataTemplate to give your data a look

Create compiled data bindings in XAML

- x:Bind Markup Extension
- Generates C# code at compile time
- Exists only in UWP



Demo



Create a data binding in XAML



Demo



Implement a Dependency Property



Demo



Use data bindings in a UserControl



Understand the Binding's Data Context

ElementName

```
<TextBlock Text="{Binding ElementName=...}" />
```



Understand the Binding's Data Context

ElementName

Source

```
<TextBlock
```

```
Text="{Binding Source={StaticResource myRes}}"/>
```



Understand the Binding's Data Context

ElementName

Source

RelativeSource

```
<Rectangle Fill="Red"  
  Width="300"  
  Height="{Binding RelativeSource=  
    {RelativeSource Self}, Path=Width}" />
```



Understand the Binding's Data Context

```
<TextBlock Text="{Binding}" />
```

DataContext

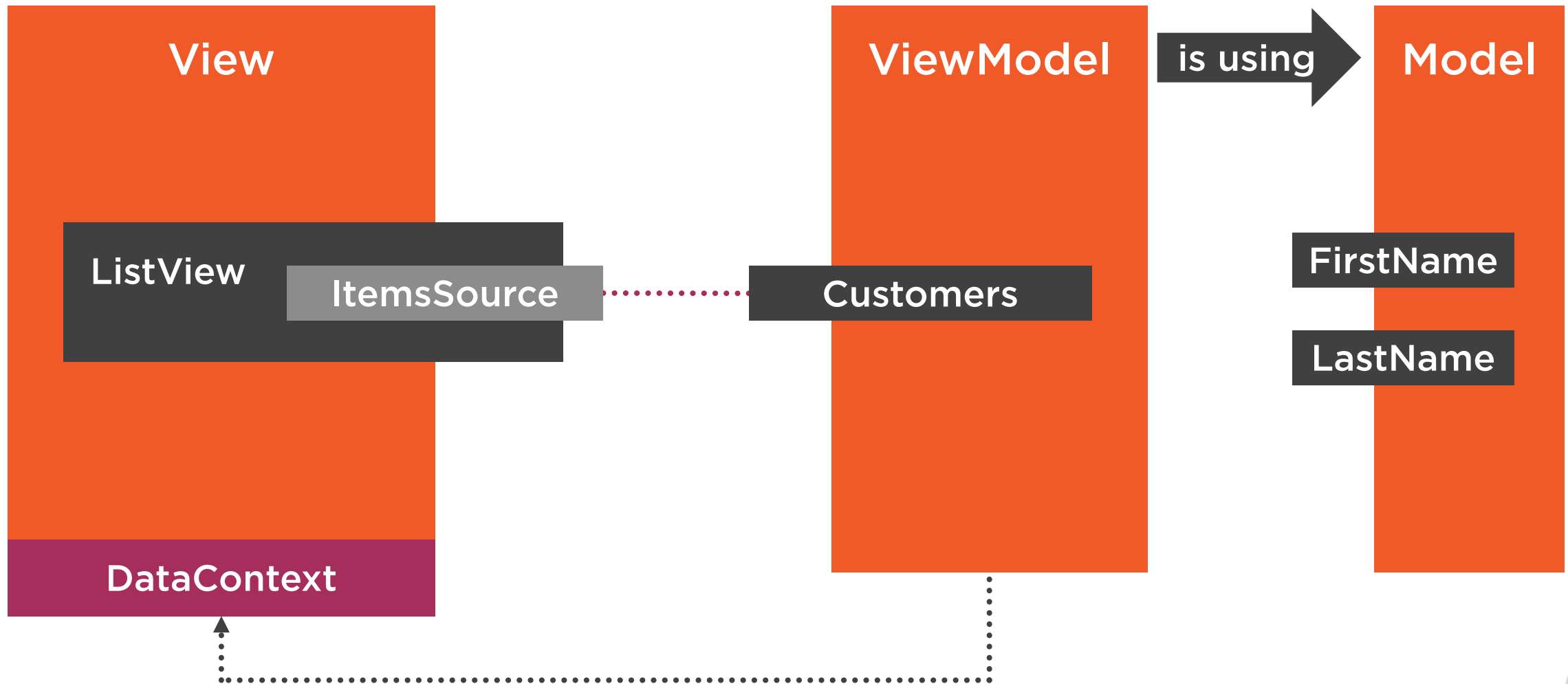


Understand the Binding's Data Context

```
<Grid DataContext="Pluralsight">  
  <StackPanel>  
    <TextBlock Text="{Binding}" />  
  </StackPanel>  
</Grid>
```



The Model View ViewModel (MVVM) Pattern



Advantages of MVVM

Maintainability

Testability



Advantages of MVVM

**Course: WPF and MVVM:
Test Driven Development of ViewModels**

Maintainability

Testability



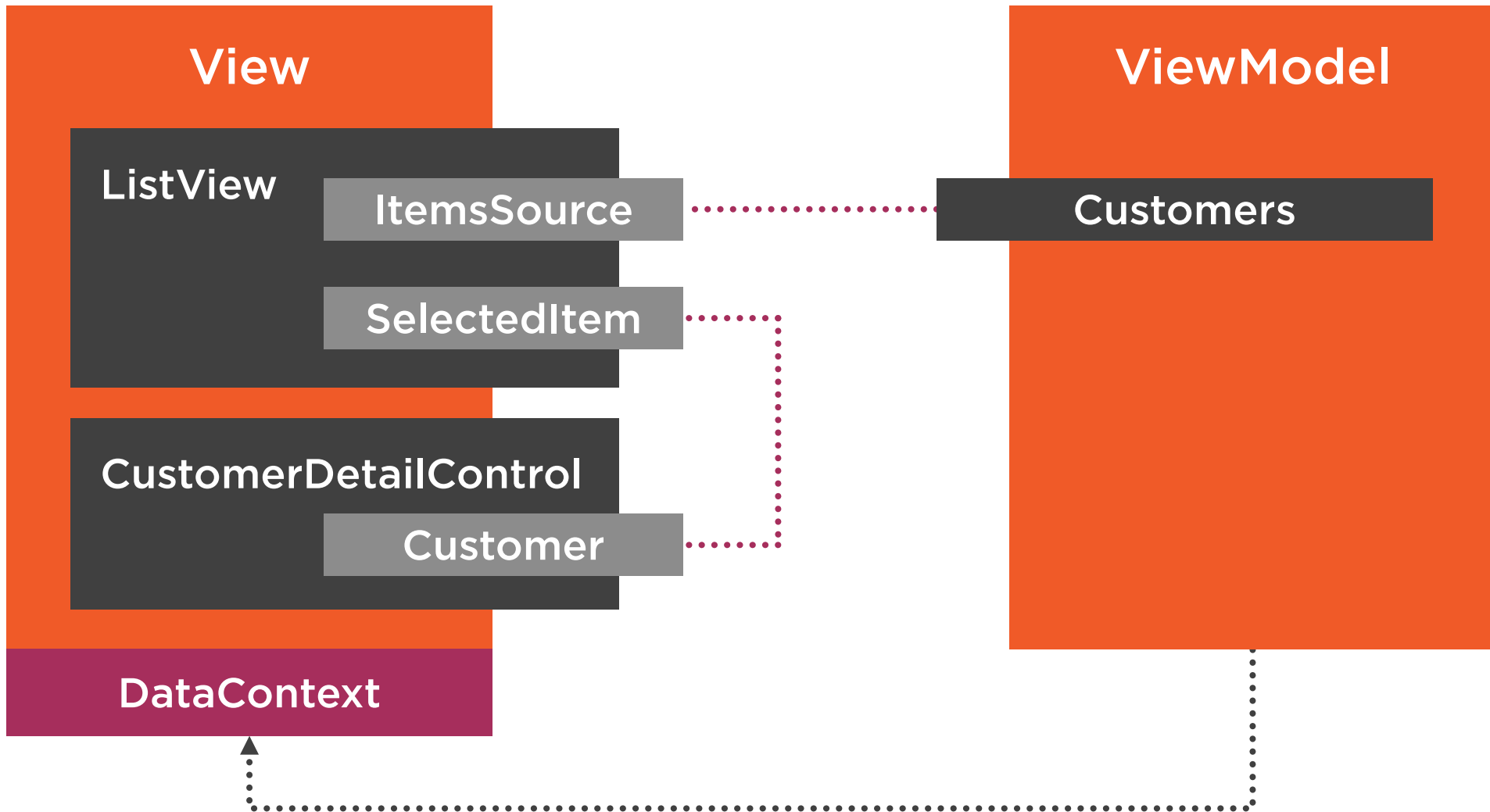
Demo



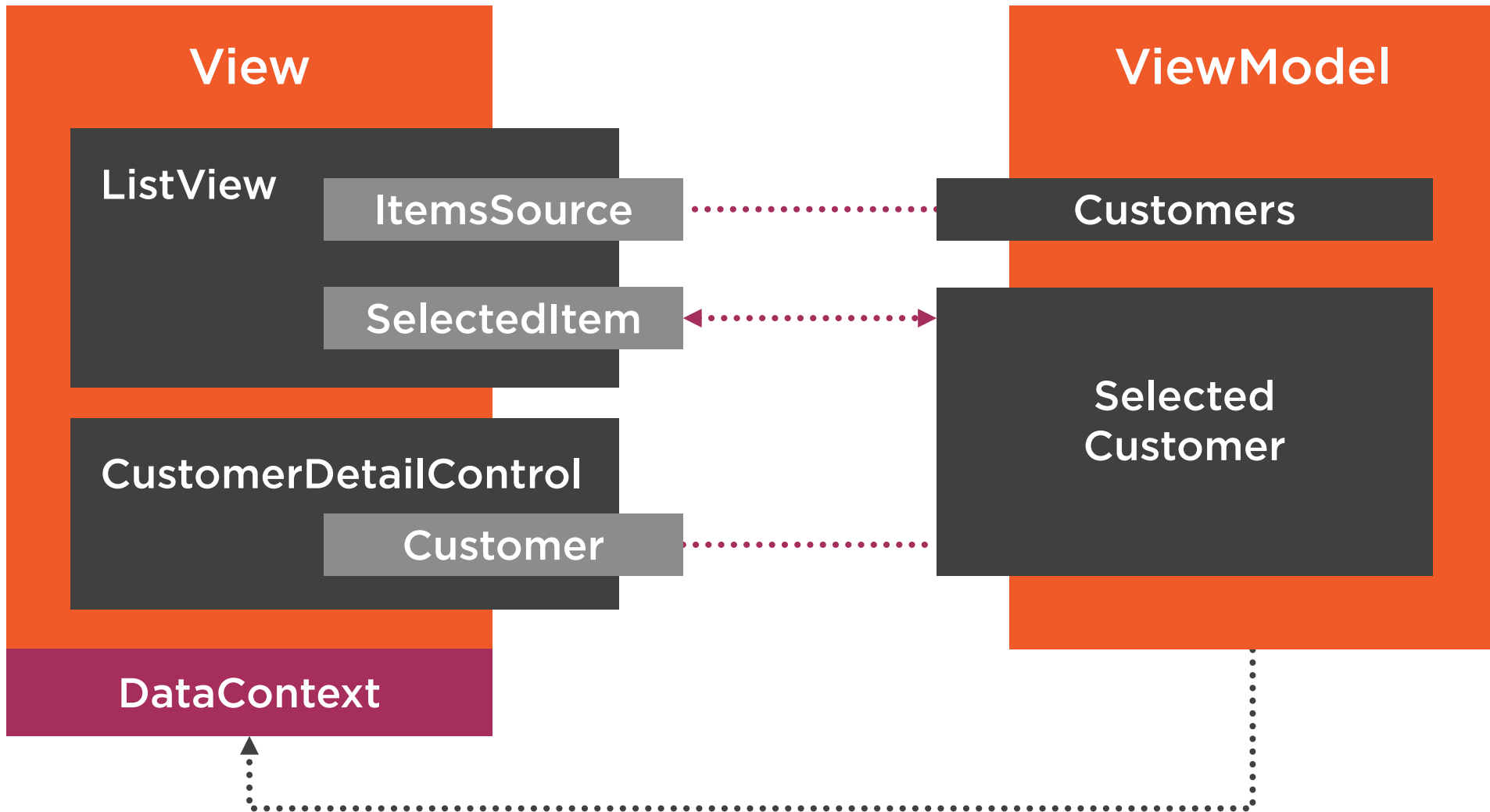
Create and use a MainViewModel



Add a SelectedCustomer Property



Add a SelectedCustomer Property



Demo



Add a `SelectedCustomer` property to the `MainViewModel`



Demo



Give your data a look
with a DataTemplate



Create Compiled Data Bindings with x:Bind

```
<TextBox Text="{Binding Path=...}" />
```

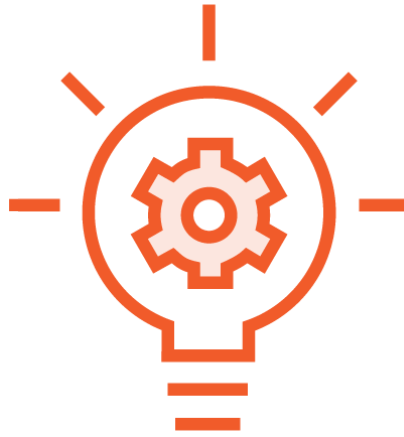
```
<TextBox Text="{x:Bind Path=...}" />
```



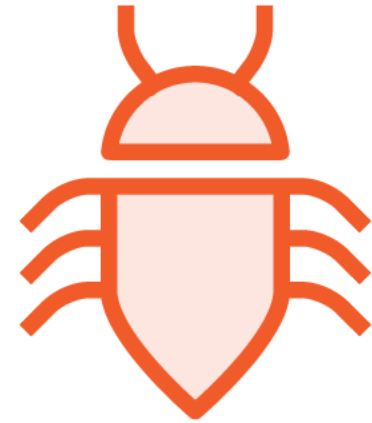
Advantages of Compiled Data Bindings



Better performance



Compile-time errors



**Better debugging
experience**



The Data Source of x:Bind

Binding Markup Extension

ElementName

Source

RelativeSource

DataContext

x:Bind Markup Extension

Page /
UserControl



Demo



Use x:Bind in the
Coffee Customers application



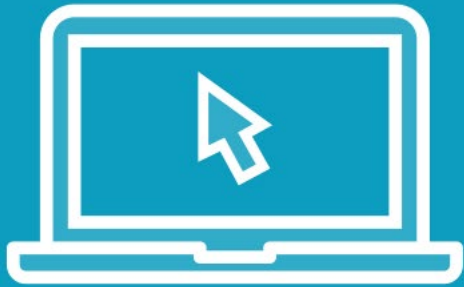
Demo



Use x:Bind in a DataTemplate



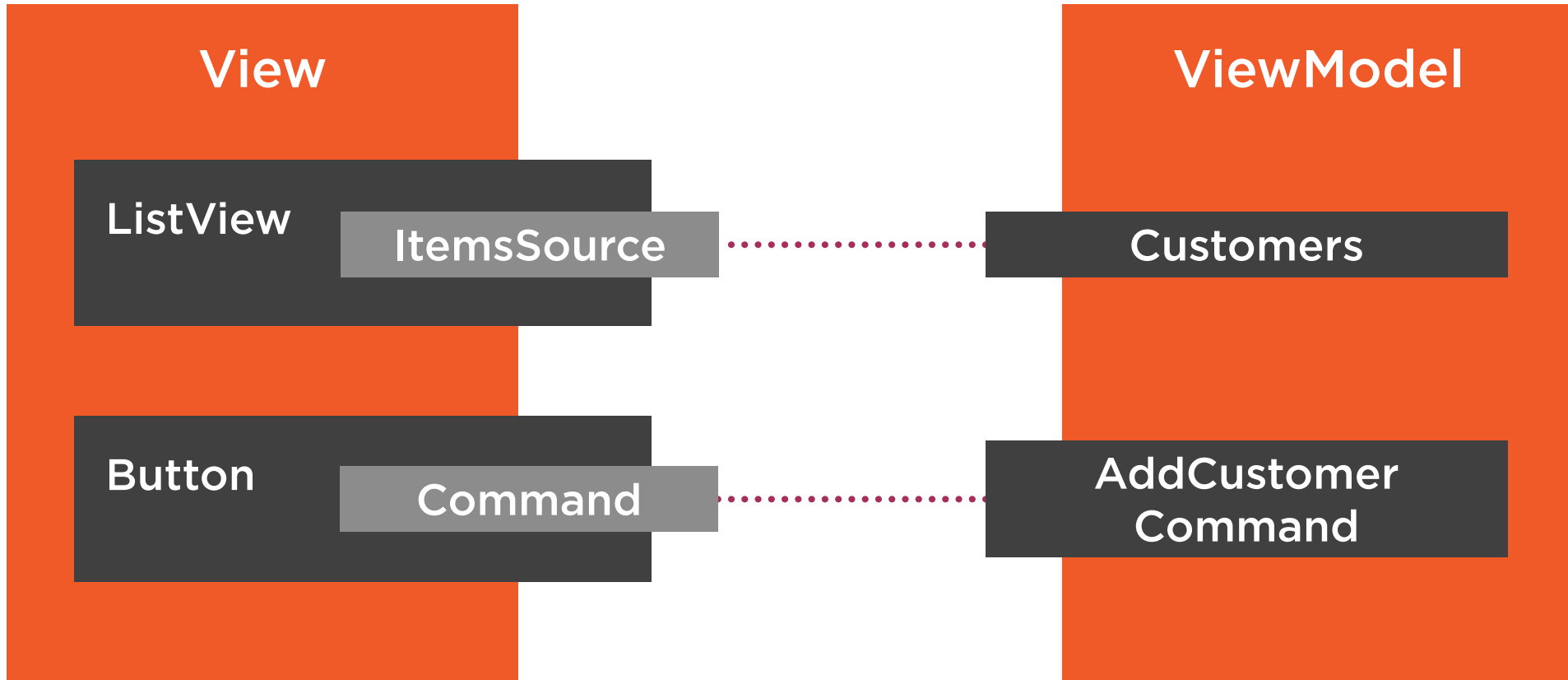
Demo



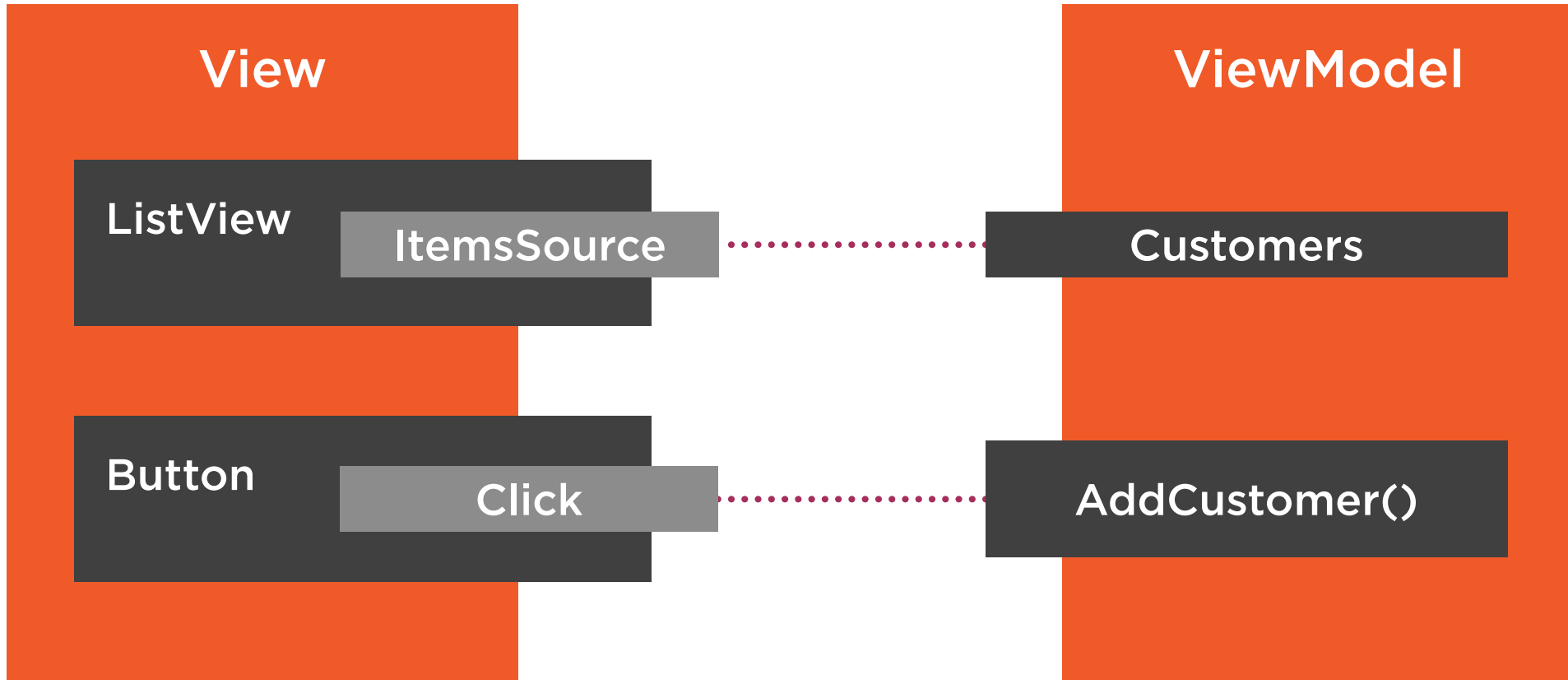
Convert bool to Visibility with x:Bind



Bind Events to Methods with x:Bind



Bind Events to Methods with x:Bind



Demo



Add methods in the MainViewModel

- Add customers
- Delete customers

Bind events to these methods



Summary



Create data bindings in XAML

- Binding Markup Extension
- x:Bind Markup Extension
- **Course:** Compiled Data Binding Fundamentals in UWP Using XAML

The MVVM pattern

- Separation of UI and UI logic
- Makes UI logic testable
- **Course:** WPF and MVVM: Test Driven Development of ViewModels

Create a DataTemplate

