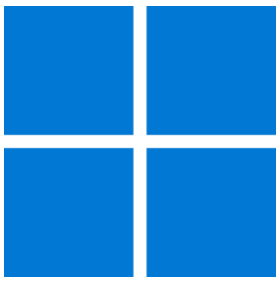
tutorial

Windows App SDK



Custom Button

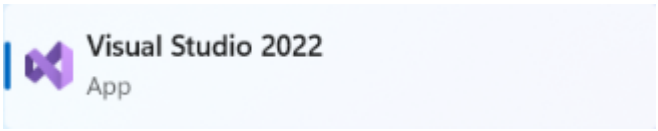
Custom Button

Custom Button shows how to create a customised **Style** for a **Button** using **Windows App SDK**

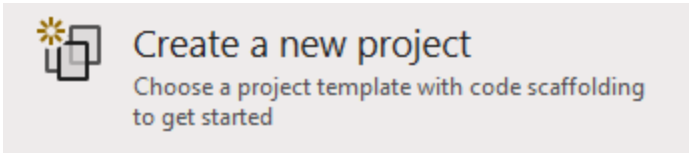
Step 1

Follow **Setup and Start** on how to get **Setup** and **Install** what you need for **Visual Studio 2022** and **Windows App SDK**.

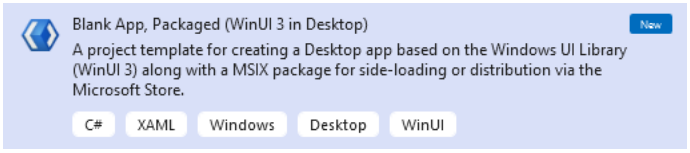
In **Windows 11** choose **Start** and then find or search for **Visual Studio 2022** and then select it.



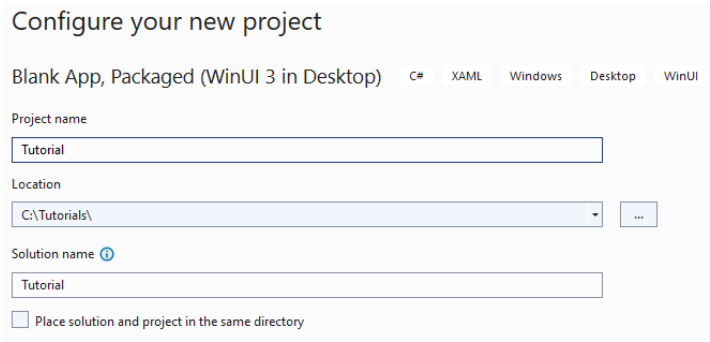
Once **Visual Studio 2022** has started select **Create a new project**.



Then choose the **Blank App, Packages (WinUI in Desktop)** and then select **Next**.

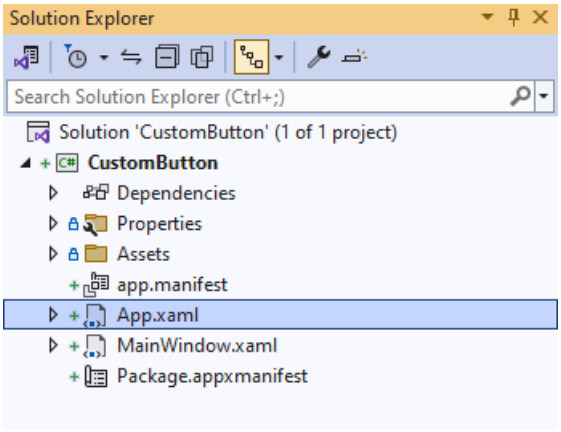


After that in **Configure your new project** type in the **Project name** as *CustomButton*, then select a Location and then select **Create** to start a new **Solution**.



Step 2

Then in **Visual Studio** within **Solution Explorer** for the **Solution** double-click on **App.xaml** to see the **XAML** for the **Project**.



Step 3

In the **XAML** for **App.xaml** below the **Comment** of **`<!-- Other app resources here -->`** type in the following **XAML**:

```
<Style x:Key="CustomButton" TargetType="Button">
    <Setter Property="Background">
        <Setter.Value>
            <LinearGradientBrush StartPoint="0.5,0" EndPoint="0.5,1">
                <GradientStop Offset="0" Color="LightSalmon"/>
                <GradientStop Offset="1" Color="DarkSalmon"/>
            </LinearGradientBrush>
        </Setter.Value>
    </Setter>
    <Setter Property="Template">
        <Setter.Value>
            <ControlTemplate TargetType="Button">
                <Grid>
                    <!-- Visual State Groups -->

                    <!-- Content -->

                </Grid>
            </ControlTemplate>
        </Setter.Value>
    </Setter>
</Style>
```

This **XAML** is part of a **`Style`** of **`CustomButton`** that will be used to target a **`Button`** which will contain some **Visual State Groups** and **Content** for the **Custom Button**.

Step 4

While still in the **XAML** for **App.xaml** below the **Comment** of **`<!-- Visual State Groups -->`** type the following **XAML**:

```
<VisualStateManager.VisualStateGroups>
    <VisualStateGroup x:Name="CommonStates">
        <VisualState x:Name="Normal"/>
        <VisualState x:Name="PointerOver">
            <Storyboard>
                <ObjectAnimationUsingKeyFrames Storyboard.TargetName="Inner"
                Storyboard.TargetProperty="(ScaleTransform.ScaleY)">
                    <DiscreteObjectKeyFrame KeyTime="0" Value="-1"/>
                </ObjectAnimationUsingKeyFrames>
                <ObjectAnimationUsingKeyFrames Storyboard.TargetName="Outer"
                Storyboard.TargetProperty="(ScaleTransform.ScaleY)">
                    <DiscreteObjectKeyFrame KeyTime="0" Value="1"/>
                </ObjectAnimationUsingKeyFrames>
            </Storyboard>
        </VisualState>
        <VisualState x:Name="Pressed">
            <Storyboard>
                <ObjectAnimationUsingKeyFrames Storyboard.TargetName="Inner"
                Storyboard.TargetProperty="(ScaleTransform.ScaleY)">
                    <DiscreteObjectKeyFrame KeyTime="0" Value="1"/>
                </ObjectAnimationUsingKeyFrames>
                <ObjectAnimationUsingKeyFrames Storyboard.TargetName="Outer"
                Storyboard.TargetProperty="(ScaleTransform.ScaleY)">
                    <DiscreteObjectKeyFrame KeyTime="0" Value="-1"/>
                </ObjectAnimationUsingKeyFrames>
            </Storyboard>
        </VisualState>
    </VisualStateGroup>
</VisualStateManager.VisualStateGroups>
```

This **XAML** is for the **Visual State Groups** that will represent the **States** for the **`Button`** including how it will behave when **`Normal`** and when it is **`Pressed`** for the **Custom Button**.

Step 5

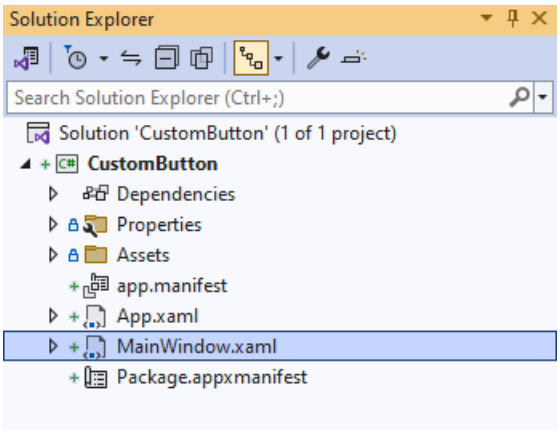
Then in the **XAML** for **App.xaml** below the **Comment** of **`<!-- Content -->`** type the following **XAML:**

```
<Ellipse Margin="4" Fill="{TemplateBinding Background}"
RenderTransformOrigin="0.5,0.5">
    <Ellipse.RenderTransform>
        <ScaleTransform ScaleY="1" x:Name="Outer"/>
    </Ellipse.RenderTransform>
</Ellipse>
<Ellipse Margin="20" Fill="{TemplateBinding Background}"
RenderTransformOrigin="0.5,0.5">
    <Ellipse.RenderTransform>
        <ScaleTransform ScaleY="-1" x:Name="Inner"/>
    </Ellipse.RenderTransform>
</Ellipse>
<ContentPresenter x:Name="Content"
HorizontalAlignment="Center"
VerticalAlignment="Center"/>
```

This **XAML** is the **Content** for the layout of a **`Button`** when the **`Style`** is applied for the **Custom Button**.

Step 6

Within **Solution Explorer** for the **Solution** double-click on **MainWindow.xaml** to see the **XAML** for the **Main Window**.



Step 7

In the **XAML** for **MainWindow.xaml** there be some **XAML** for a **`StackPanel`**, this should be **Removed** by removing the following:

```
<StackPanel Orientation="Horizontal"
HorizontalAlignment="Center" VerticalAlignment="Center">
    <Button x:Name="myButton" Click="myButton_Click">Click Me</Button>
</StackPanel>
```

Step 8

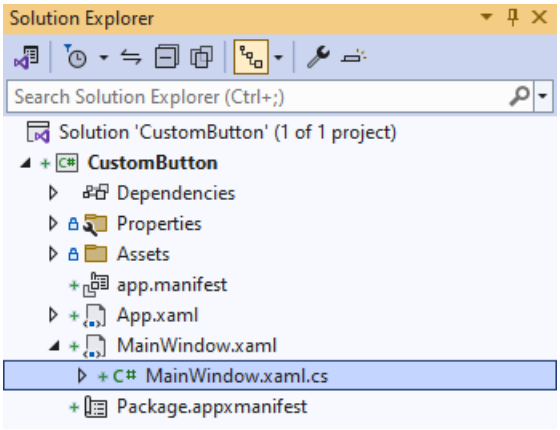
While still in the **XAML** for **MainWindow.xaml** above **`</Window>`**, type in the following **XAML**:

```
<Button HorizontalAlignment="Center" Content="Button"
Height="200" Width="200" Style="{StaticResource CustomButton}"/>
```

This **XAML** contains a **`Button`** with **`Style`** set to the **`StaticResource`** of **`CustomButton`** from **App.xaml**.

Step 9

Then, within **Solution Explorer** for the **Solution** select the arrow next to **MainWindow.xaml** then double-click on **MainWindow.xaml.cs** to see the **Code** for the **Main Window**.



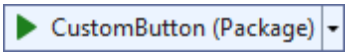
Step 10

In the **Code** for **MainWindow.xaml.cs** there be a **Method** of **`myButton_Click(...)`** this should be **Removed** by removing the following:

```
private void myButton_Click(object sender, RoutedEventArgs e)
{
    myButton.Content = "Clicked";
}
```

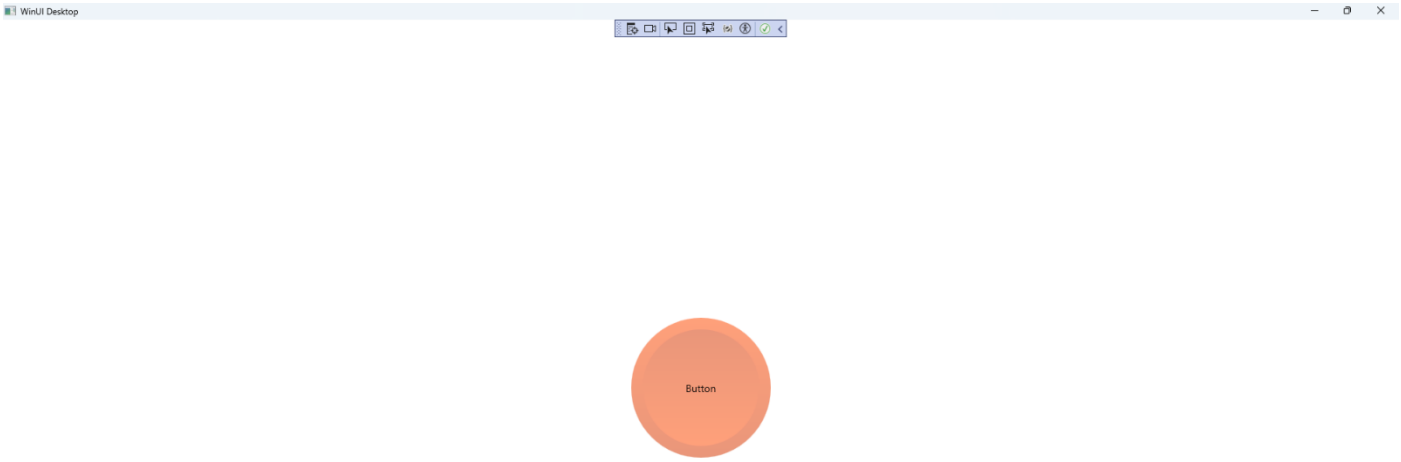
Step 11

That completes the **Windows App SDK** application. In **Visual Studio 2022** from the **Toolbar** select **CustomButton (Package)** to **Start** the application.



Step 12

Once running you will see the **Custom Button** displayed.



Step 13

To **Exit** the **Windows App SDK** application, select the **Close** button from the top right of the application as that concludes this **Tutorial** for **Windows App SDK** from tutorialr.com!