[C# WPF Tutorial #6 - Custom User Controls](https://www.youtube.com/watch?v=aB9Tgw2JZZI&list=PLih2KERbY1HHOOJ2C6FOrVXIwg4AZ-hk1&index=6)

This creates a reusable MenuBar by first building the MenuBar in the main xaml window and then moving the code into a separate file called View\UserControls\MenuBar.xaml.

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MainWindow.xaml

<Window x:Class="\_06\_WPF\_Tutorial.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial"

xmlns:userControls="clr-namespace:\_06\_WPF\_Tutorial.View.UserControls"

mc:Ignorable="d"

Title="MainWindow" Height="450" Width="800">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height="70" />

<RowDefinition/>

<RowDefinition Height="30" />

</Grid.RowDefinitions>

<userControls:MenuBar />

</Grid>

</Window>

View\UserControls\MenuBar.xaml

<UserControl x:Class="\_06\_WPF\_Tutorial.View.UserControls.MenuBar"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial.View.UserControls"

mc:Ignorable="d"

d:Height="70" d:DesignWidth="800">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height="30" />

<RowDefinition Height="40" />

</Grid.RowDefinitions>

<Menu>

<MenuItem Header="File" FontSize="16">

<MenuItem Header="Exit" />

</MenuItem>

<MenuItem Header="Edit" FontSize="16" />

</Menu>

<Grid Grid.Row="1">

<Grid.ColumnDefinitions>

<ColumnDefinition Width="auto" />

<ColumnDefinition Width="auto" />

</Grid.ColumnDefinitions>

<Button Width="50" Margin="5" />

<TextBox Grid.Column="1" Width="150" Margin="5" />

</Grid>

</Grid>

</UserControl>

Process:

# Start new WPF solution in Visual Studio.

A black screen with white text

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A black rectangular object with a black background

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# Name it:

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# Starting point. Build the GUI to look like this:

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# Add the following code to the .xaml file to create the GUI.

Build the MenuBar in the main xaml file first.

MainWindow.xaml

<Window x:Class="\_06\_WPF\_Tutorial\_v2.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v2"

mc:Ignorable="d"

Title="MainWindow" Height="450" Width="800">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height="70" />

<RowDefinition/>

<RowDefinition Height="30" />

</Grid.RowDefinitions>

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height = "30"/>

<RowDefinition Height = "40"/>

</Grid.RowDefinitions>

<Menu>

<MenuItem Header="File" FontSize="16">

<MenuItem Header="Quit"/>

</MenuItem>

<MenuItem Header="Edit" FontSize="16"/>

</Menu>

<Grid Grid.Row="1">

<Grid.ColumnDefinitions>

<ColumnDefinition Width="auto" />

<ColumnDefinition Width="auto" />

</Grid.ColumnDefinitions>

<Button Width="50" Margin="5" />

<TextBox Width="150" Grid.Column="1" Margin="5" />

</Grid>

</Grid>

</Grid>

</Window>

# Create the following folder structure:

View\UserControls\ and then add a User Control (WPF) file called MenuBar.xaml

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A screenshot of a computer menu

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# MenuBar.xaml starting code:

MenuBar.xaml

<UserControl x:Class="\_06\_WPF\_Tutorial\_v2.View.UserControls.MenuBar"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v2.View.UserControls"

mc:Ignorable="d"

d:DesignHeight="450" d:DesignWidth="800">

<Grid>

</Grid>

</UserControl>

# Change DesignHeight to Height=”70”

MenuBar.xaml

<UserControl x:Class="\_06\_WPF\_Tutorial\_v2.View.UserControls.MenuBar"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v2.View.UserControls"

mc:Ignorable="d"

d:Height="70" d:DesignWidth="800">

<Grid>

</Grid>

</UserControl>

# Move GUI code from MainWindow to MenuBar.xaml

MainWindow.xaml

<Window x:Class="\_06\_WPF\_Tutorial\_v2.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v2"

mc:Ignorable="d"

Title="MainWindow" Height="450" Width="800">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height="70" />

<RowDefinition/>

<RowDefinition Height="30" />

</Grid.RowDefinitions>

~~<Grid>~~

~~<Grid.RowDefinitions>~~

~~<RowDefinition Height = "30"/>~~

~~<RowDefinition Height = "40"/>~~

~~</Grid.RowDefinitions>~~

~~<Menu>~~

~~<MenuItem Header="File" FontSize="16">~~

~~<MenuItem Header="Quit"/>~~

~~</MenuItem>~~

~~<MenuItem Header="Edit" FontSize="16"/>~~

~~</Menu>~~

~~<Grid Grid.Row="1">~~

~~<Grid.ColumnDefinitions>~~

~~<ColumnDefinition Width="auto" />~~

~~<ColumnDefinition Width="auto" />~~

~~</Grid.ColumnDefinitions>~~

~~<Button Width="50" Margin="5" />~~

~~<TextBox Width="150" Grid.Column="1" Margin="5" />~~

~~</Grid>~~

~~</Grid>~~

</Grid>

</Window>

MenuBar.xaml

<UserControl x:Class="\_06\_WPF\_Tutorial\_v2.View.UserControls.MenuBar"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v2.View.UserControls"

mc:Ignorable="d"

d:Height="70" d:DesignWidth="800">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height = "30"/>

<RowDefinition Height = "40"/>

</Grid.RowDefinitions>

<Menu>

<MenuItem Header="File" FontSize="16">

<MenuItem Header="Quit"/>

</MenuItem>

<MenuItem Header="Edit" FontSize="16"/>

</Menu>

<Grid Grid.Row="1">

<Grid.ColumnDefinitions>

<ColumnDefinition Width="auto" />

<ColumnDefinition Width="auto" />

</Grid.ColumnDefinitions>

<Button Width="50" Margin="5" />

<TextBox Width="150" Grid.Column="1" Margin="5" />

</Grid>

</Grid>

</UserControl>

# Call MenuBar from MainWindow

Add the namespace for the MenuBar and identify it userControls.

Add the call to the MenuBar.

<Window x:Class="\_06\_WPF\_Tutorial\_v2.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v2"

xmlns:userControls="clr-namespace:\_06\_WPF\_Tutorial\_v2.View.UserControls"

mc:Ignorable="d"

Title="MainWindow" Height="450" Width="800">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height="70" />

<RowDefinition/>

<RowDefinition Height="30" />

</Grid.RowDefinitions>

<userControls:MenuBar/>

</Grid>

</Window>

Quicker way to do this #1

* Create basic window Grid.
* Create folder structure for the Custom User Control (reusable MenuBar).
* Create MenuBar.
* Add MenuBar namespace to MainWindow
* Add call to MenuBar.

# Starting code MainWindow.xaml

MainWindow.xaml

<Window x:Class="\_06\_WPF\_Tutorial\_v3.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v3"

mc:Ignorable="d"

Title="MainWindow" Height="450" Width="800">

<Grid>

</Grid>

</Window>

# Create basic grid in MainWindow

MainWindow.xaml

<Window x:Class="\_06\_WPF\_Tutorial\_v3.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v3"

mc:Ignorable="d"

Title="MainWindow" Height="450" Width="800">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height="70" />

<RowDefinition/>

</Grid.RowDefinitions>

</Grid>

</Window>

# Create folder structure and add MenuBar.xaml

View\UserControls\MenuBar.xaml

A screenshot of a computer menu

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# Starting code MenuBar.xaml

MenuBar.xaml

<UserControl x:Class="\_06\_WPF\_Tutorial\_v3.View.UserControls.MenuBar"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v3.View.UserControls"

mc:Ignorable="d"

d:DesignHeight="450" d:DesignWidth="800">

<Grid>

</Grid>

</UserControl>

# Create MenuBar.xaml

MenuBar.xaml

<UserControl x:Class="\_06\_WPF\_Tutorial\_v3.View.UserControls.MenuBar"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v3.View.UserControls"

mc:Ignorable="d"

d:Height="70" d:DesignWidth="800">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height = "30"/>

<RowDefinition Height = "40"/>

</Grid.RowDefinitions>

<Menu>

<MenuItem Header="File" FontSize="16">

<MenuItem Header="Quit"/>

</MenuItem>

<MenuItem Header="Edit" FontSize="16"/>

</Menu>

<Grid Grid.Row="1">

<Grid.ColumnDefinitions>

<ColumnDefinition Width="auto" />

<ColumnDefinition Width="auto" />

</Grid.ColumnDefinitions>

<Button Width="50" Margin="5" />

<TextBox Width="150" Grid.Column="1" Margin="5" />

</Grid>

</Grid>

</UserControl>

# Call MenuBar from MainWindow

Add the namespace for the MenuBar and identify it userControls.

Add the call to the MenuBar.

<Window x:Class="\_06\_WPF\_Tutorial\_v3.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v3"

xmlns:userControls="clr-namespace:\_06\_WPF\_Tutorial\_v3.View.UserControls"

mc:Ignorable="d"

Title="MainWindow" Height="450" Width="800">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height="70" />

<RowDefinition/>

</Grid.RowDefinitions>

<userControls:MenuBar/>

</Grid>

</Window>

Better MenuBar #1

* Create basic window Grid.
* Create folder structure for the Custom User Control (reusable MenuBar).
* Create MenuBar.
* Add MenuBar namespace to MainWindow
* Add call to MenuBar.

# Starting code MainWindow.xaml

MainWindow.xaml

<Window x:Class="\_06\_WPF\_Tutorial\_v4.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v4"

mc:Ignorable="d"

Title="MainWindow" Height="450" Width="800">

<Grid>

</Grid>

</Window>

# Create basic grid in MainWindow

MainWindow.xaml

<Window x:Class="\_06\_WPF\_Tutorial\_v4.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v4"

mc:Ignorable="d"

Title="MainWindow" Height="450" Width="800">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height="70"/>

<RowDefinition/>

</Grid.RowDefinitions>

</Grid>

</Window>

# Create folder structure and add MenuBar.xaml

View\UserControls\MenuBar.xaml

A screenshot of a computer menu

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# Starting code MenuBar.xaml

MenuBar.xaml

<UserControl x:Class="\_06\_WPF\_Tutorial\_v4.View.UserControls.MenuBar"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v4.View.UserControls"

mc:Ignorable="d"

d:DesignHeight="450" d:DesignWidth="800">

<Grid>

</Grid>

</UserControl>

# Create MenuBar.xaml with SubMenu and Separators

MenuBar.xaml

<UserControl x:Class="\_06\_WPF\_Tutorial\_v4.View.UserControls.MenuBar"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v4.View.UserControls"

mc:Ignorable="d"

d:Height="50" d:DesignWidth="800">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height="30"/>

</Grid.RowDefinitions>

<Menu>

<MenuItem Header="File">

<MenuItem Header="New"/>

<MenuItem Header="Open"/>

<MenuItem Header="Clone Repository..."/>

<MenuItem Header="Start Window"/>

<Separator/>

<MenuItem Header="Add"/>

<Separator/>

<MenuItem Header="Close"/>

<MenuItem Header="Close Solution"/>

<Separator/>

<MenuItem Header="Start Live Share Session"/>

<MenuItem Header="Join Live Share Session"/>

<Separator/>

<MenuItem Header="Save"/>

<MenuItem Header="Save As..."/>

<MenuItem Header="Save All"/>

<Separator/>

<MenuItem Header="Page Setup..."/>

<MenuItem Header="Printing..."/>

<Separator/>

<MenuItem Header="Account Setting..."/>

<Separator/>

<MenuItem Header="Recent Files"/>

<MenuItem Header="Recent Projects and Solutions"/>

<Separator/>

<MenuItem Header="Exit"/>

</MenuItem>

<MenuItem Header="Edit"/>

<MenuItem Header="Git"/>

<MenuItem Header="Project"/>

<MenuItem Header="Build"/>

<MenuItem Header="Debug"/>

<MenuItem Header="Test"/>

<MenuItem Header="Analyse"/>

<MenuItem Header="Tools"/>

<MenuItem Header="Extensions"/>

<MenuItem Header="Window"/>

<MenuItem Header="Help"/>

</Menu>

</Grid>

</UserControl>

# Call MenuBar from MainWindow

Add the namespace for the MenuBar and identify it userControls.

Add the call to the MenuBar.

<Window x:Class="\_06\_WPF\_Tutorial\_v4.MainWindow"

xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"

xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"

xmlns:d="http://schemas.microsoft.com/expression/blend/2008"

xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"

xmlns:local="clr-namespace:\_06\_WPF\_Tutorial\_v4"

xmlns:userControls="clr-namespace:\_06\_WPF\_Tutorial\_v4.View.UserControls"

mc:Ignorable="d"

Title="MainWindow" Height="450" Width="800">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height="70"/>

<RowDefinition/>

</Grid.RowDefinitions>

<userControls:MenuBar/>

</Grid>

</Window>