[C# WPF Tutorial #13 - ObservableCollection with ListView](https://www.youtube.com/watch?v=qqJUg-HXV3c&list=PLih2KERbY1HHOOJ2C6FOrVXIwg4AZ-hk1&index=13)

A screenshot of a computer

Description automatically generated

Full code below:

MainWindow.xaml

<Window x:Class="\_13\_WPF\_Tutorial\_v1.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:\_13\_WPF\_Tutorial\_v1"

mc:Ignorable="d"

Title="MainWindow" Height="400" Width="400">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height="75"/>

<RowDefinition/>

</Grid.RowDefinitions>

<Grid.ColumnDefinitions>

<ColumnDefinition/>

<ColumnDefinition/>

</Grid.ColumnDefinitions>

<ListView Name="lvEntries"

Grid.Row="1"

Grid.ColumnSpan="2"

SelectionMode="Extended"

ItemsSource="{Binding Entries}"

/>

<StackPanel Orientation="Horizontal"

Grid.ColumnSpan="2"

>

<TextBox Name="txtEntry"

Width="190"

Height="35"

FontSize="16"

Margin="5"

VerticalContentAlignment="Center"

/>

<Button Grid.Column="1"

Name="btnAdd"

Content="Add"

Width="50"

Height="50"

HorizontalAlignment="Left"

Margin="5"

Click="btnAdd\_Click"

/>

<Button Grid.Column="1"

Name="btnDel"

Content="Delete"

Width="50"

Height="50"

HorizontalAlignment="Left"

Margin="5"

Click="btnDel\_Click"

/>

<Button Grid.Column="1"

Name="btnClear"

Content="Clear"

Width="50"

Height="50"

HorizontalAlignment="Left"

Margin="5"

Click="btnClear\_Click"

/>

</StackPanel>

</Grid>

</Window>

MainWindow.xaml.cs

using System.Collections.ObjectModel;

using System.Windows;

namespace \_13\_WPF\_Tutorial\_v1

{

public partial class MainWindow : Window

{

public MainWindow()

{

DataContext = this;

Entries = new ObservableCollection<string>();

InitializeComponent();

}

private ObservableCollection<string> \_entries;

public ObservableCollection<string> Entries

{

get { return \_entries; }

set { \_entries = value; }

}

private void btnAdd\_Click(object sender, RoutedEventArgs e)

{

Entries.Add(txtEntry.Text);

txtEntry.Clear();

txtEntry.Focus();

}

private void btnDel\_Click(object sender, RoutedEventArgs e)

{

string selectedItem = (string)lvEntries.SelectedItem;

Entries.Remove(selectedItem);

}

private void btnClear\_Click(object sender, RoutedEventArgs e)

{

Entries.Clear();

}

}

}

# Start new WPF solution in Visual Studio.

A black screen with white text

Description automatically generated

A black rectangular object with a black background

Description automatically generated

# Name it:

A screenshot of a computer

Description automatically generated

# Starting point. Code looks like this initially.

MainWindow.xaml

<Window x:Class="\_13\_WPF\_Tutorial\_v1.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:\_13\_WPF\_Tutorial\_v1"

mc:Ignorable="d"

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

<Grid>

</Grid>

</Window>

MainWindow.xaml.cs

using System.Windows;

namespace \_13\_WPF\_Tutorial\_v1

{

public partial class MainWindow : Window

{

public MainWindow()

{

InitializeComponent();

}

}

}

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

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Description automatically generated

MainWindow.xaml

<Window x:Class="\_13\_WPF\_Tutorial\_v1.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:\_13\_WPF\_Tutorial\_v1"

mc:Ignorable="d"

Title="MainWindow" Height="400" Width="400">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height="75"/>

<RowDefinition/>

</Grid.RowDefinitions>

<Grid.ColumnDefinitions>

<ColumnDefinition/>

<ColumnDefinition/>

</Grid.ColumnDefinitions>

<ListView Name="lvEntries"

Grid.Row="1"

Grid.ColumnSpan="2"

SelectionMode="Extended"

/>

<StackPanel Orientation="Horizontal"

Grid.ColumnSpan="2"

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Height="50"

HorizontalAlignment="Left"

Margin="5"

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Content="Delete"

Width="50"

Height="50"

HorizontalAlignment="Left"

Margin="5"

Click="btnDel\_Click"

/>

<Button Grid.Column="1"

Name="btnClear"

Content="Clear"

Width="50"

Height="50"

HorizontalAlignment="Left"

Margin="5"

Click="btnClear\_Click"

/>

</StackPanel>

</Grid>

</Window>

MainWindow.xaml.cs

using System.Windows;

namespace \_13\_WPF\_Tutorial\_v1

{

public partial class MainWindow : Window

{

public MainWindow()

{

InitializeComponent();

}

private void btnAdd\_Click(object sender, RoutedEventArgs e)

{

}

private void btnDel\_Click(object sender, RoutedEventArgs e)

{

}

private void btnClear\_Click(object sender, RoutedEventArgs e)

{

}

}

}

# Add Binding to ListView

MainWindow.xaml

<Window x:Class="\_13\_WPF\_Tutorial\_v1.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:\_13\_WPF\_Tutorial\_v1"

mc:Ignorable="d"

Title="MainWindow" Height="400" Width="400">

<Grid>

<Grid.RowDefinitions>

<RowDefinition Height="75"/>

<RowDefinition/>

</Grid.RowDefinitions>

<Grid.ColumnDefinitions>

<ColumnDefinition/>

<ColumnDefinition/>

</Grid.ColumnDefinitions>

<ListView Name="lvEntries"

Grid.Row="1"

Grid.ColumnSpan="2"

SelectionMode="Extended"

ItemsSource="{Binding Entries}"

/>

<StackPanel Orientation="Horizontal"

Grid.ColumnSpan="2"

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<Button Grid.Column="1"

Name="btnDel"

Content="Delete"

Width="50"

Height="50"

HorizontalAlignment="Left"

Margin="5"

Click="btnDel\_Click"

/>

<Button Grid.Column="1"

Name="btnClear"

Content="Clear"

Width="50"

Height="50"

HorizontalAlignment="Left"

Margin="5"

Click="btnClear\_Click"

/>

</StackPanel>

</Grid>

</Window>

# Add DataContext

MainWindow.xaml.cs

using System.Windows;

namespace \_13\_WPF\_Tutorial\_v1

{

public partial class MainWindow : Window

{

public MainWindow()

{

DataContext = this;

InitializeComponent();

}

private void btnAdd\_Click(object sender, RoutedEventArgs e)

{

}

private void btnDel\_Click(object sender, RoutedEventArgs e)

{

}

private void btnClear\_Click(object sender, RoutedEventArgs e)

{

}

}

}

# Add full property

MainWindow.xaml.cs

using System.Collections.ObjectModel;

using System.Windows;

namespace \_13\_WPF\_Tutorial\_v1

{

public partial class MainWindow : Window

{

public MainWindow()

{

DataContext = this;

InitializeComponent();

}

private ObservableCollection<string> \_entries;

public ObservableCollection<string> Entries

{

get { return \_entries; }

set { \_entries = value; }

}

private void btnAdd\_Click(object sender, RoutedEventArgs e)

{

}

private void btnDel\_Click(object sender, RoutedEventArgs e)

{

}

private void btnClear\_Click(object sender, RoutedEventArgs e)

{

}

}

}

Next part should use Bindings but doesn’t in this example.

# Add functionality

using System.Collections.ObjectModel;

using System.Windows;

namespace \_13\_WPF\_Tutorial\_v1

{

public partial class MainWindow : Window

{

public MainWindow()

{

DataContext = this;

Entries = new ObservableCollection<string>();

InitializeComponent();

}

private ObservableCollection<string> \_entries;

public ObservableCollection<string> Entries

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get { return \_entries; }

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private void btnAdd\_Click(object sender, RoutedEventArgs e)

{

Entries.Add(txtEntry.Text);

txtEntry.Clear();

txtEntry.Focus();

}

private void btnDel\_Click(object sender, RoutedEventArgs e)

{

string selectedItem = (string)lvEntries.SelectedItem;

Entries.Remove(selectedItem);

}

private void btnClear\_Click(object sender, RoutedEventArgs e)

{

Entries.Clear();

}

}

}