

BCS 450 C# Lab – WPF ListView

Overview

Create a project in C# using Visual Studio. You will write a WPF application that contains a button and a ListView. The ListView will be used to show columns of video game data. This lab will also require you to get data from one control and insert it into another.

Part 1 – Create the project

Create a C# WPF application in Visual Studio. Name the project Lab-ListView.

Part 2 – Create VideoGame “Business Object”

Create a class named VideoGame. It should contain the following properties:

- GameName – String data type
- Rating – String data type
- Price – double data type

Part 3 – Data entry controls

Add controls for the user to enter data into the application (see screen shot in Part 6). You will need the following:

- Three Labels. Create the following labels: “Game Name”, “Rating”, “Price”. They should be placed one above the next (vertically).
- Three TextBoxes. One each for the name of the game, the price, and the parental rating. Change the Name property of each TextBox to something meaningful so you can easily refer to it in code. For example, textBoxGameName. They should be placed one above the next (vertically). They should be to the right of the label that they go with. The “Game Name” TextBox should be to the right of the “Game Name” Label.
- One button. Put the button below the last Label. Change the text on the button to “Add”.

See Part 6 below for a screen shot.

Part 4 – ListView

Add a ListView to the window. Make sure to add a ListView and not a ListBox (they are different controls). The ListView should be placed below the Add Button. The ListView should horizontally take up most of the space in the window. You can find the ListView control in the All WPF Controls section of the Toolbox window.

You need to do the following to the ListView control:

- Change the name to something meaningful so we can easily refer to it in code.
- Add columns to the ListView. There should be columns for “Game Name”, “Rating”, and “Price” (see screen shot in Part 6). Check the slides for instructions on how to do this.

Part 5 – Bind ListView Columns

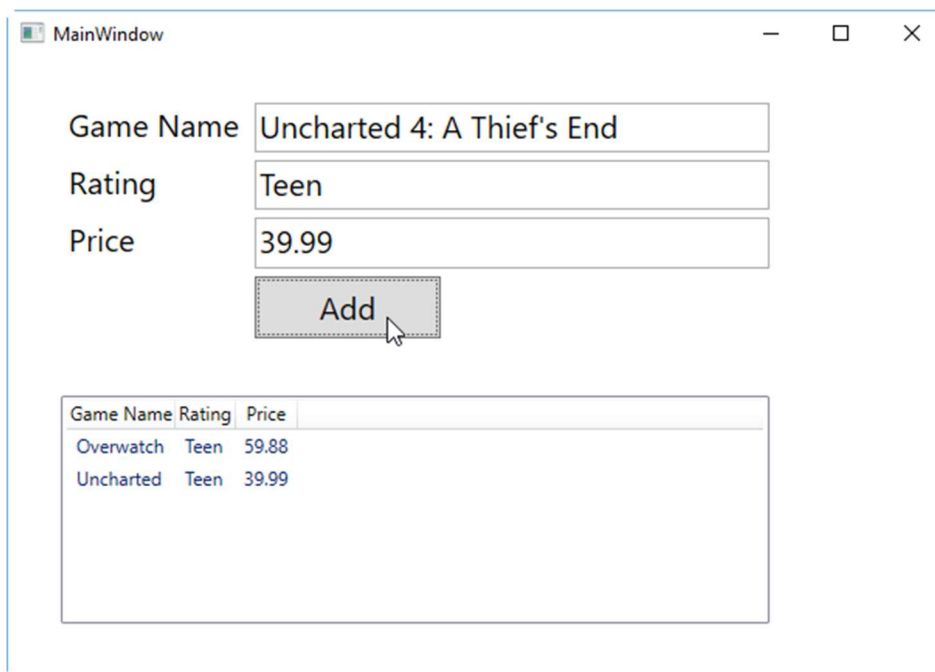
Bind the columns in the ListView control to the appropriate properties on the VideoGame object. Check slides for help with this.

Part 6 – Populating ListView

Add a Click event handler to the Add button. Inside the event handler write code that gets data from the TextBoxes and puts it into the ListView. You will be adding one row of data to the ListView. The combination of “Game Name”, “Rating”, and “Price” makes one row of data.

Hint: You will need to create an instance of the “business object” to easily add the data.

Here is a screenshot:



Part 7 – Test the program

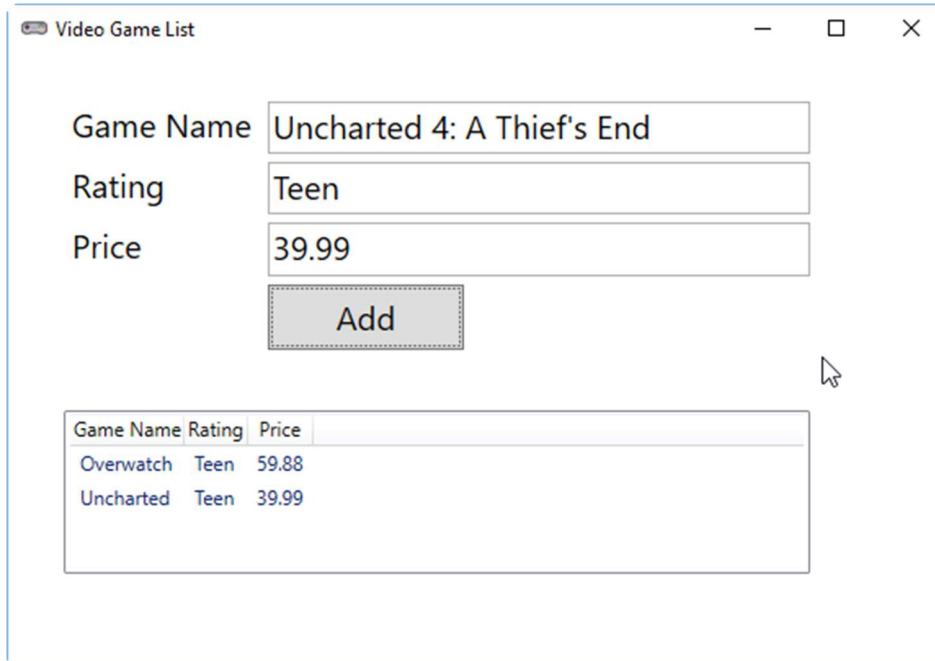
Run the program. Add data to the textboxes and make sure it appears in the ListView when the Add button is clicked.

Part 8 – Make the window cool

Do the following:

- Change the text that appears in the title bar of the window to “Video Game List”.
- Go on the Internet and find a suitable icon to put in the titlebar. You should find a .ico file. You can change the icon in the project settings.

Here is a screenshot:



Part 9 – Update the application

Do the following:

- After copying the data into the ListView when the Add button is pressed clear the TextBoxes and set the focus of control to the first TextBox.
- Add a Label and TextBox to display the count of the number of records in the ListView. This count should ALWAYS reflect the number of records being displayed in the ListView.
- Think of more data to keep track of and add more columns to the ListView to handle that data. You will also need to update the business object and add more controls for data entry.