

# Test abstract class

```
/*
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*/
using System;

abstract class Window
{
    // constructor takes two integers to
    // fix location on the console
    public Window(int top, int left)
    {
        this.top = top;
        this.left = left;
    }

    // simulates drawing the window
    // notice: no implementation
    abstract public void DrawWindow();

    protected int top;
    protected int left;
}

// ListBox derives from Window
class ListBox : Window
{
    // constructor adds a parameter
    public ListBox(
        int top,
        int left,
```

```

string contents):
base(top, left) // call base constructor
{

listBoxContents = contents;
}

// an overridden version implementing the
// abstract method
public override void DrawWindow()
{

Console.WriteLine ("Writing string to the listbox: {0}",
listBoxContents);
}

private string listBoxContents; // new member variable
}

class Button : Window
{
public Button(
int top,
int left):
base(top, left)
{
}

// implement the abstract method
public override void DrawWindow()
{
Console.WriteLine("Drawing a button at {0}, {1}
",
top, left);
}

}

public class TesterAbstractClass

```

```
{
static void Main()
{
Window[] winArray = new Window[3];
winArray[0] = new ListBox(1,2,"First List Box");
winArray[1] = new ListBox(3,4,"Second List Box");
winArray[2] = new Button(5,6);

for (int i = 0;i < 3; i++) { winArray[i].DrawWindow(); } } }
[/csharp]
```