

Intro to Programming

Sobkowicz

Name _____

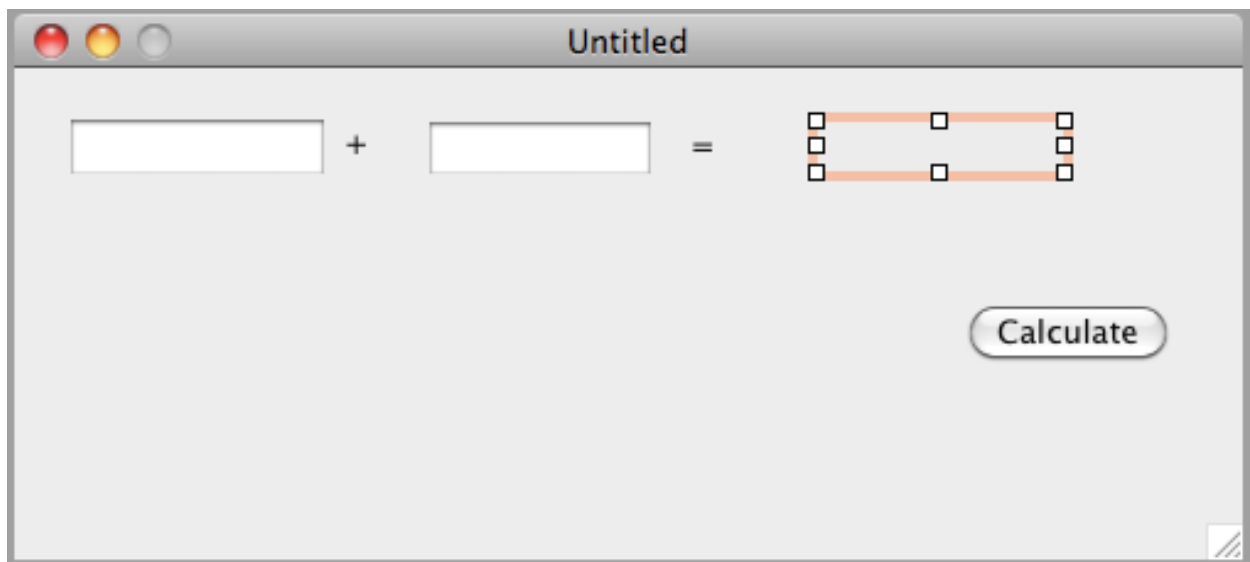
Calculator

In this assignment, we'll make explore the RealBasic environment, while creating a small calculator. You'll begin to learn some programming terms, which I'll put in bold.

When you open RealBasic, you get a blank application with a window. If you are already using RealBasic, and you choose New, and then Desktop Application, you get the same thing.

You are then in the Window Editor. On the left is a list of **controls**, some of which you will add to your window. In the middle is the window, and on the right you can see the **properties** of the currently selected **object**. At the beginning this is the window, but you can change it once you've added some **controls**.

Change the width property of your window to 500, and the height property to 200. Change the name of your window to "CalculatorWindow". Add editfield and statictext controls so that your window looks like this:



Change the names of your controls as follows:

Editfields: Number1Field, Number2Field

StaticTexts: You can leave these alone, except the empty one highlighted above should be "AnswerText"

Button: CalculateButton

Note that the name of each item tells you a little about what it is for, along with what it is. The statictexts for the = and + signs are only used for things that don't change, so they don't need names.

Now we're ready for some code. The code for this program goes in the Action **Event** of CalculateButton. To get to this, double click the button, and type the following.

```
Sub Action()  
    dim number1 as double  
    dim number2 as double  
    dim result as double  
  
    number1 = val(Number1field.text)  
    number2 = val(Number2field.text)  
  
    result = number1 + number2  
  
    AnswerText.text = str(result)
```

The first three lines are where the **variables** are defined. There are three **variables** of type **double**.

The next two lines are where the variables number1 and number2 are assigned the numbers the user types in. What do you think the "val" method does?

The next line assigns the sum of number1 and number2 to the result variable.

Finally, the last line puts the answer in the statictext control AnswerText. What do you think the “str” method does?

Once your calculator works, think about how you’d like to improve it. You could do one or some of the following:

Make it do subtraction, multiplication and/or division.

Make your calculator look nicer with colors, fonts, and or pictures.

Add a clear button which clears the two editfields and AnswerText.

Start (you probably can’t finish) a button based calculator.

Something else I haven’t thought of. Its always fun to look through the controls for interesting things.