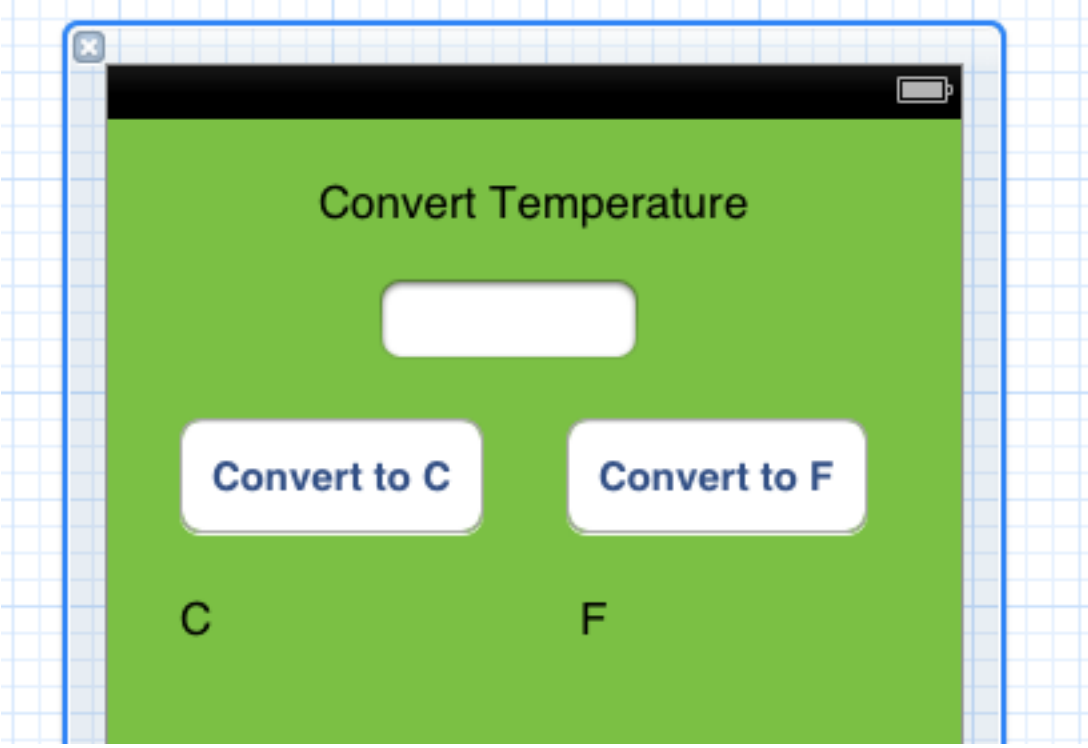
This iOS tutorial works with temperature conversions. We will see how strings can be converted to numbers for math purposes.

Step 1: Open a new **Single View Application** and call it **Converter** or something that you like. Use Auto Reference Counting (ARC). Don't select the storyboard option. Don't really need it for this application.

Step 2: Add two Buttons, a Text Field and a Label to the ViewController.xib file.

Step 3: Add 2 more labels for the output – these are hidden from the user initially. They show the converted output when the program is being used. The finished form should look something like this:



Step 4: Wire the elements to ViewController.h. Control + Drag the 2 labels to ViewController.h.

Label the two labels, **toF** and **toC**. The connections looks like this:

```
@property (weak, nonatomic) IBOutlet UILabel *toC;
@property (weak, nonatomic) IBOutlet UILabel *toF;
```

Control + Drag the Text Field to ViewController.h and call that **input**. The following code will be added:

```
@property (weak, nonatomic) IBOutlet UITextField *input;
```

Control + Drag the 2 button and connect the **Touch Down** action to ViewController.h. Label the buttons as **convertC** and **convertF**. The added code looks like this:

```
- (IBAction)convertC:(UIButton *)sender;
- (IBAction)convertF:(UIButton *)sender;
```

Step 6: Switch to ViewController.m and add the @synthesize for our data members.

```
@synthesize input, toC, toF;
```

Step 6: Add the following code for the two button actions.

```
- (IBAction)convertC:(UIButton *)sender {
    NSString *tocelsius = [input text];
    double c = (5.0/9.0)*([tocelsius doubleValue]-32.0);
    toC.text = [[NSString alloc]initWithFormat:@"%2.0f", c];
    }

- (IBAction)convertF:(UIButton *)sender {
    NSString *tofahrenheit = [input text];
    double f = (9.0/5.0*[tofahrenheit doubleValue])+32.0;
    toF.text = [[NSString alloc]initWithFormat:@"%2.0f", f];
}
```

Step 7: Run the program you are done!