

# Challenge 5.2 - Stop Watch: Connect Buttons and Format NSDate Objects

## Respond to Touch Input

We need to link our UI to the code using Interface Builder's Assistant Editor. You can Ctrl+Left-click + drag or Right-click + drag from the UI element (UILabel, UIButton, etc) to the code file.

1. Connect the UIButton objects to IBAction methods, and the UILabel to a IBOutlet. A quick way to see if something is working is to print out a message in the IBAction method using the NSLog() function.

## Tracking Time

1. Create NSDate instance variables to store the \_startDate and \_endDate. You'll want to set these values when the appropriate buttons are pressed.
2. Use the NSDateFormatter to display a date using a specific output format.
3. Read "Date Format Patterns" to setup a date string: [http://unicode.org/reports/tr35/tr35-10.html#Date Format Patterns](http://unicode.org/reports/tr35/tr35-10.html#Date_Format_Patterns)

```
NSDateFormatter *formatter = [[NSDateFormatter alloc] init];  
[formatter setDateFormat:@"HH:mm:ss.SSS"];
```

*Bonus 1: Customize the NSDateFormatter to display the full month name followed by the year. i.e. February,2014 15:32:17. Hint: Review the "Date Format Patterns" on the date format specifiers.*