

## Homework #3: Getting Started

Due: Feb. 8, 2018

### Preliminary

- Electronic submission of coding assignments will be through Canvas. Please upload a single .zip file containing project code. The zip file should be named with your (lowercase) first initial and last name, e.g. pdeleon.zip.
- Please submit a hardcopy of p. 2 of this assignment in class on the due date.
- Students responsible for the week's lecture should meet with Prof. De Leon during office hours the week *before* the lecture to review their lecture slides and receive feedback. This means completing the chapter the week before the meeting and creating the lecture slides.

### Notes

- For students in EE443, Chapters 7 and 8 are bonus material (required for students in EE593). In Chapter 8, *Auto Layout*, which is the core UIKit technology to support different screen sizes, is covered. If you are unable to complete Chapter 8 as a bonus in this assignment, you should nevertheless complete it as soon as possible.

### Week 4 Lectures

Kousei Richeson and Prof. DeLeon (Chapters 9 and 10)

### Assignment

Submit the app at the end of Chapter 6 (students in EE443) and Chapter 8 (students in EE593). The app portion of this assignment is worth 75% and the question portion of this assignment is worth 25%.

1. Read Chapter 4 and develop the Bull's Eye app.
2. Read Chapter 5 and develop the Bull's Eye app.
3. Read Chapter 6 and develop the Bull's Eye app.
4. Read Chapter 7 and develop the Bull's Eye app (+10% bonus for students in EE443)<sup>1</sup>.
5. Read Chapter 8 and develop the Bull's Eye app (+10% bonus for students in EE443)<sup>1</sup>.
6. Submit a hardcopy of p. 2 of this assignment

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<sup>1</sup>Students in EE443 should submit only one .zip file containing only one app at the end of Chapter 6, 7, or 8.

**Name:**

Please answer the following questions pertaining to Chapters 4-6.

1. Why does `slider` work in the code below (p. 76) but not in `viewDidLoad()`?

```
@IBAction func sliderMoved(_ slider: UISlider) {  
    currentValue = lroundf(slider.value)  
}
```

2. Why is the maximum value of `arc4random_uniform(100)` 99 (p. 82)?
3. What is the difference between an action method and a regular method?
4. Why is it sometimes better to use `let` over `var`?
5. You might have noticed (p. 111) that `title` is actually a constant and yet the code appears to set its value in multiple places. How does that work?
6. How can `difference` (p. 115), for example, have a different value every time the player taps the Hit Me button, even though it is a constant?
7. So, if your code execution can't wait in `showAlert()` until the popup is dismissed, then how do you wait for it to close?