

## Homework #4: Beginning iPhone Development with Swift

### Due: Feb. 15, 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. 2-3 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

- The user forum for the textbook, *iOS Apprentice Sixth Edition: Beginning iOS development with Swift 4* can be found at <https://forums.raywenderlich.com/c/books/ios-apprentice/>
- This forum includes corrections to the text including typos.

#### Week 5 Lectures

Jeremy Grajeda and Ashley Williams (Chapters 11 and 12)

#### Assignment

Submit the app at the end of Chapter 10. The app portion of this assignment is worth 75% and the question portion of this assignment is worth 25%.

1. Read Chapter 9 and develop the Checklists app.
2. Read Chapter 10 and develop the Checklists app.

**Name:**

Please answer the following questions pertaining to Chapters 9-10.

**Chapter 9**

1. A UITableView only has rows. Which UIKit object allows for rows and columns?
2. In a UITableView, what is a *cell*?
3. In a UITableView, what is the difference between a *row* and a *cell*?
4. What is a *prototype cell*?
5. In a table view cell, what accessories are available?
6. What is a *reuse identifier*?
7. What two methods are part of UITableView's data source protocol?
8. What is the *method signature*?
9. What does the method `tableView.dequeueReusableCellWithIdentifier(for:)` do?
10. What is an *index path*?

11. In the table view depicted on p. 206 there are 100 items. How many cells does this table view use?
12. What is a *breakpoint*? Give an example of a time when you may use one.
13. A *delegate* is also known as a helper object and is often described as an object that acts on behalf of another object. In the Ch. 9 Checklists app on p. 209, how does the `UITableViewDelegate` help the `UITableViewDataSource`?
14. In the method signature an underscore denotes what?

## Chapter 10

1. In the Model-View-Controller design pattern, what is the role of each of the model, view, and controller objects?
2. What the difference is between a *view* and *view controller*?
3. In `configureCheckmark(for: someCell, at: someIndexPath)` which are the external parameter names and which are the internal parameter names?
4. What the difference is between the terms *property* and *instance variable*?
5. Every object has an initializer and the `init` method is defined in the class. When is the `init` method called?
6. True or False: The following line of code will declare the variable `items`, and instantiate the object `CheckListItem`.  

```
var items: [CheckListItem]
```
7. What does it mean to *refactor* code?