



## Summer Internship

OSX App for Merchant Data

## 1 Introduction

Over the next twelve weeks we need you to develop an iPhone/iPad compatible App to display transactional data to our merchants. This data is *Restricted Data* and must only be available to merchants who have access to view it.

We will provide you with a data file that the App will use as a source. You must consider and discuss with the customers; Ian, Lee and Natalie; what data is to be displayed and the format(s) required.

The App must be fully tested and have developer and user documents written before it is presented to the customer at the end of the project.

## 2 Requirements

The following is a list of features that we suggest should be achieved by the end of the project; however please also bring your own ideas forward for the App.

	App runs on iPhone and iPad emulators.
	PIN authentication for users.
	Displaying Daily, Weekly and Monthly data options from the data file provided.
	Easy navigation between data.
	Automated unit tests.
	Manual acceptance tests.
	Developer and user documentation.

Once the app is complete it must be ported to a device using the developer licence provided.

In addition, the following features can be considered:

- // Fingerprint authentication.
- // Automated acceptance test.

## 3 Milestones

Over the twelve weeks we will set weekly milestones with you. We expect good progress with work over the course of the project and will expect you to bring forward your ideas during meetings.

## 4 Additional information



If you have any questions throughout the project ask Ian, Lee and Natalie.

### 4.1 Xcode and Swift

To get started with Xcode/Swift please read through the following and run any examples;  
<https://developer.apple.com/library/ios/referencelibrary/GettingStarted/DevelopiOSAppsSwift/Lesson1.html>

Useful information on Swift:

[https://developer.apple.com/library/ios/documentation/Swift/Conceptual/Swift\\_Programming\\_Language/index.html#//apple\\_ref/doc/uid/TP40014097-CH3-ID0](https://developer.apple.com/library/ios/documentation/Swift/Conceptual/Swift_Programming_Language/index.html#//apple_ref/doc/uid/TP40014097-CH3-ID0)

## 4.2 Test Driven Development

### 4.2.1 Unit testing

Unit testing is a great way to ensure a small piece of code works as expected from the developer's point of view.

Read the introduction and summary of testing using Xcode:

[https://developer.apple.com/library/tvos/documentation/DeveloperTools/Conceptual/testing\\_with\\_xcode/chapters/01-introduction.html#//apple\\_ref/doc/uid/TP40014132-CH1-SW1](https://developer.apple.com/library/tvos/documentation/DeveloperTools/Conceptual/testing_with_xcode/chapters/01-introduction.html#//apple_ref/doc/uid/TP40014132-CH1-SW1)

### 4.2.2 Acceptance testing

An Acceptance test is a test designed from the point of view of the customer. This doesn't need to know the internal working of the system, only that the inputs and outputs do the right thing in each case.

An Acceptance test should be defined *before* any code or unit tests are written.

Refer to the following for more information on acceptance tests:

<http://agilemodeling.com/artifacts/acceptanceTests.htm>

## 4.3 Version Control

It's important to keep track of your files. There are several reasons why:

- // Backup in case of power or hardware failure
- // Who changed the code and when/why?
- // Compare what changed if it used to work and now isn't working
- // Revert back to old revision if we decide what we changed wasn't a good idea
- // Allow multiple people to work collaboratively
- // Easily change machines

We would like you to use a GITHUB account as your version control, please set up a free account using your work email address.

To learn the basics of GIT please complete the codecademy course. Use your normal user name to log in, you will be provided with the password.

<https://www.codecademy.com/>

## 4.4 Releasing

Read through the following for information on how to release the App to the market for use of the devices provided to you:

[https://developer.apple.com/library/ios/documentation/IDEs/Conceptual/AppDistributionGuide/Introduction/Introduction.html#//apple\\_ref/doc/uid/TP40012582](https://developer.apple.com/library/ios/documentation/IDEs/Conceptual/AppDistributionGuide/Introduction/Introduction.html#//apple_ref/doc/uid/TP40012582)

## 4.5 Branding

Upon completion of the App it must feel like it belongs with the other interfaces we offer. We can provide any logos/images you require for the App to look the part.

The following colours are used throughout our sites and documentation:

Colour	RGB	HEX
White	255,255,255	ffffff
Cerise	231,27,90	e71b5a
Dark Grey	57,56,57	393839
Light Grey	228,228,228	e4e4e4
Pale Pink	255,245,250	fff5fa
Black	0,0,0	000000