

# iPhone App Dev

## Lesson 7

# Source

<https://github.com/bryanttang/iOS-Class-2015-6.git>

# Contact

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# Summary

- Navigation Controller (Review)
- MapKit
- User's Location
- UIAlertView
- Third Party SDK

# MapKit








Demo

# MapKit

- To show a map
- To show where you are
- To show places — pin annotation and information

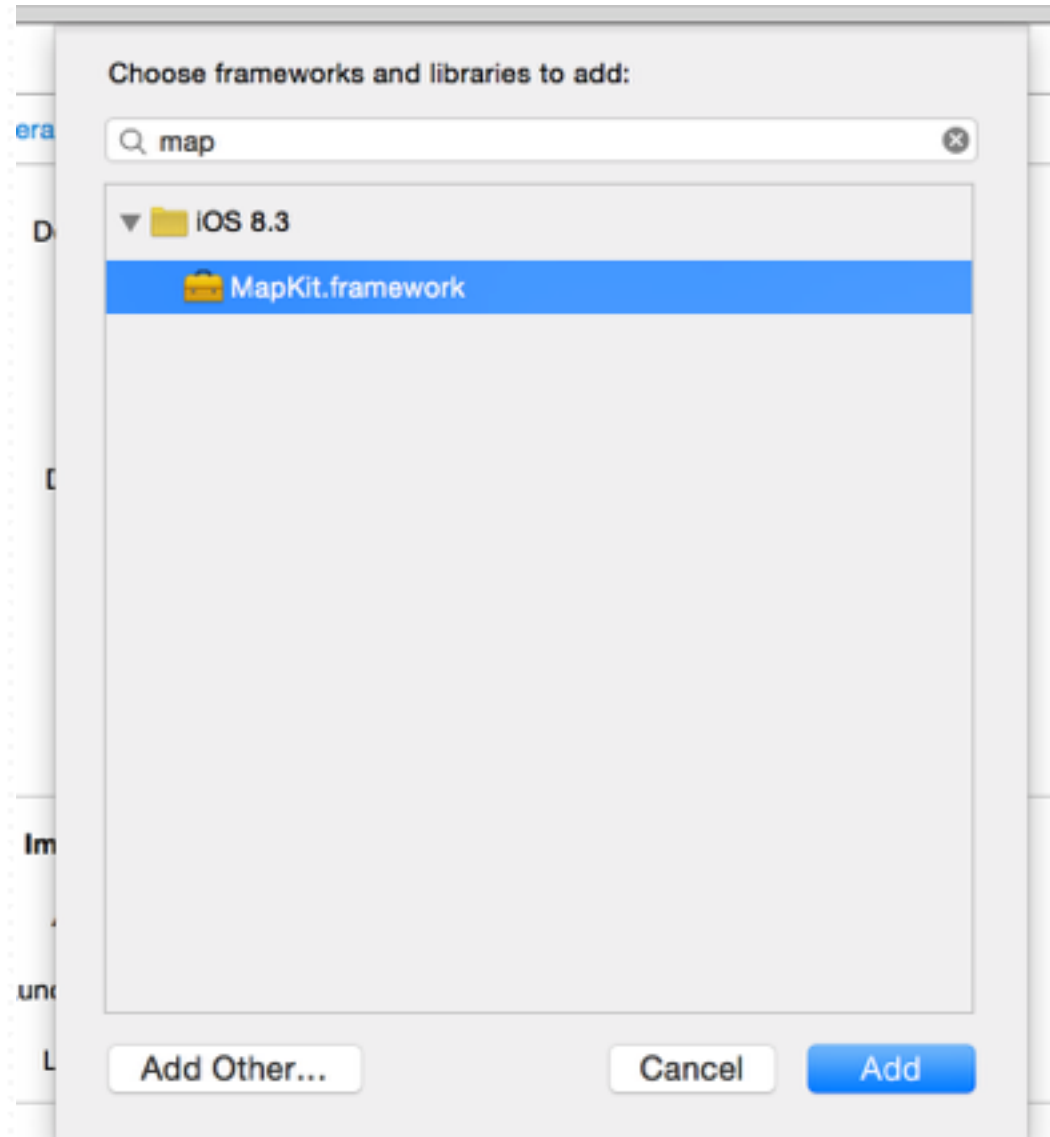
# MapKit

- To show a map

Name	Status
 CoreGraphics.framework	Required 
 UIKit.framework	Required 
 Foundation.framework	Required 
	



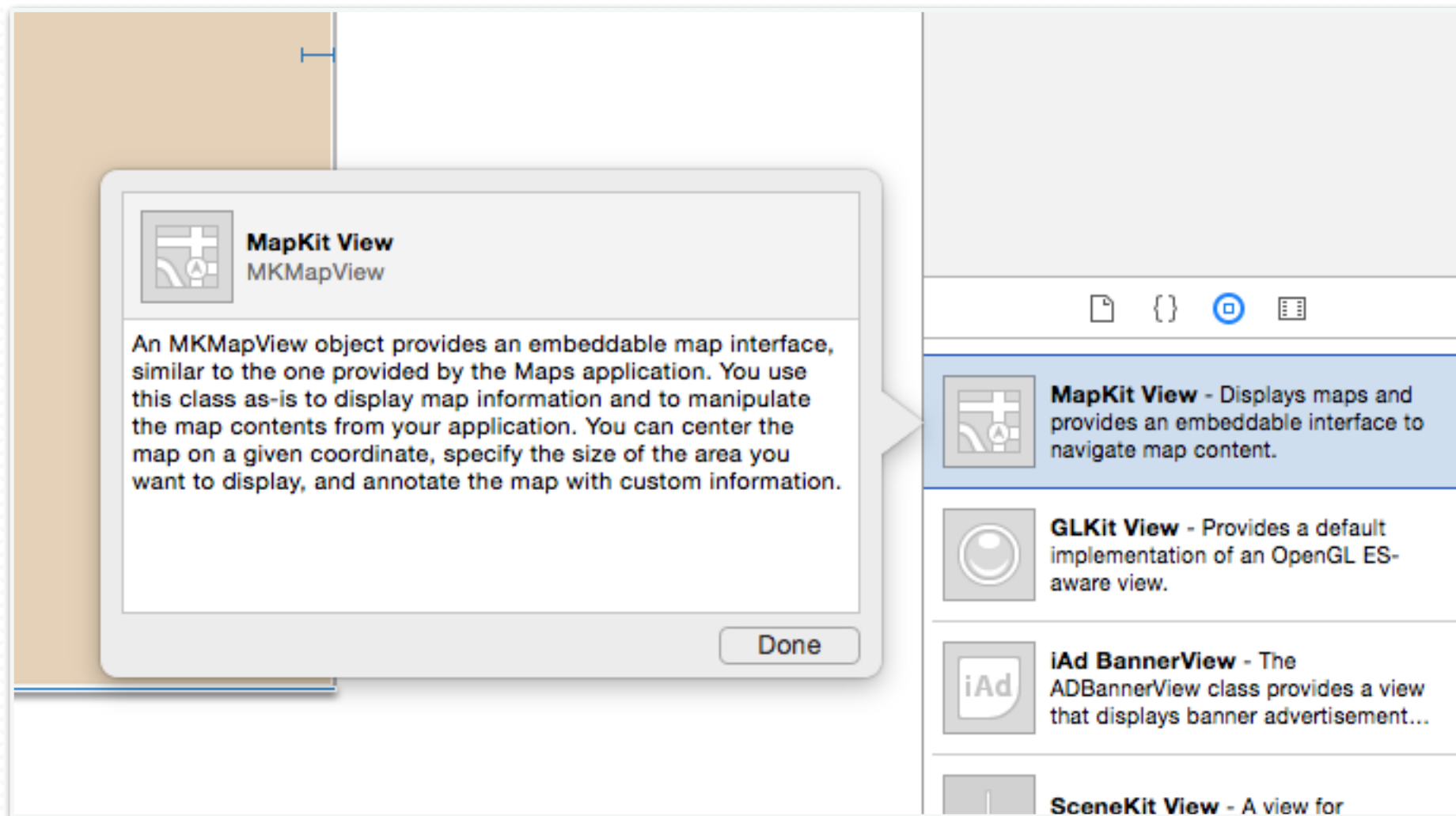
# MapKit



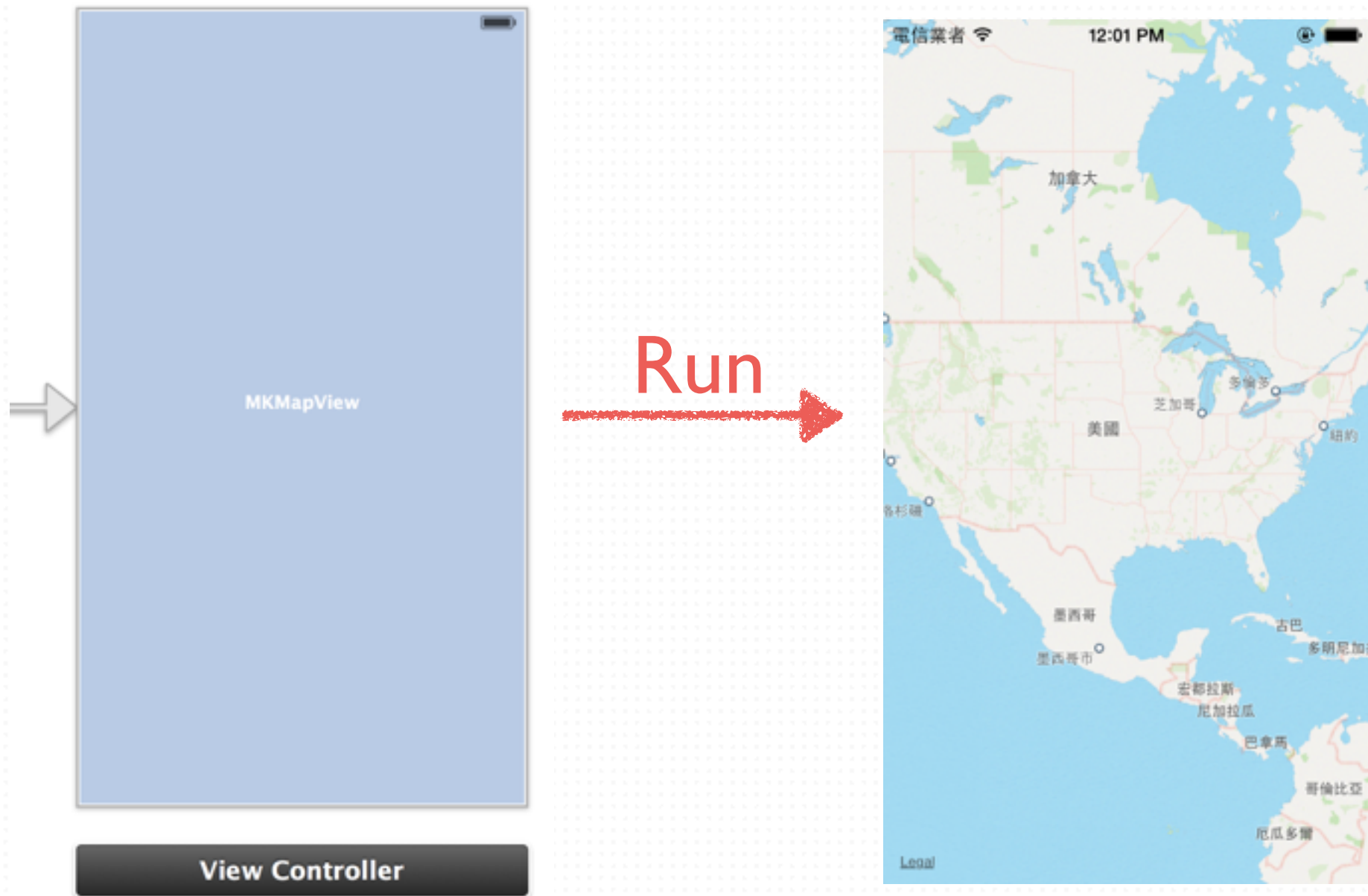
- Add framework in project

# MapKit

- Drag a map in storyboard



# MapKit



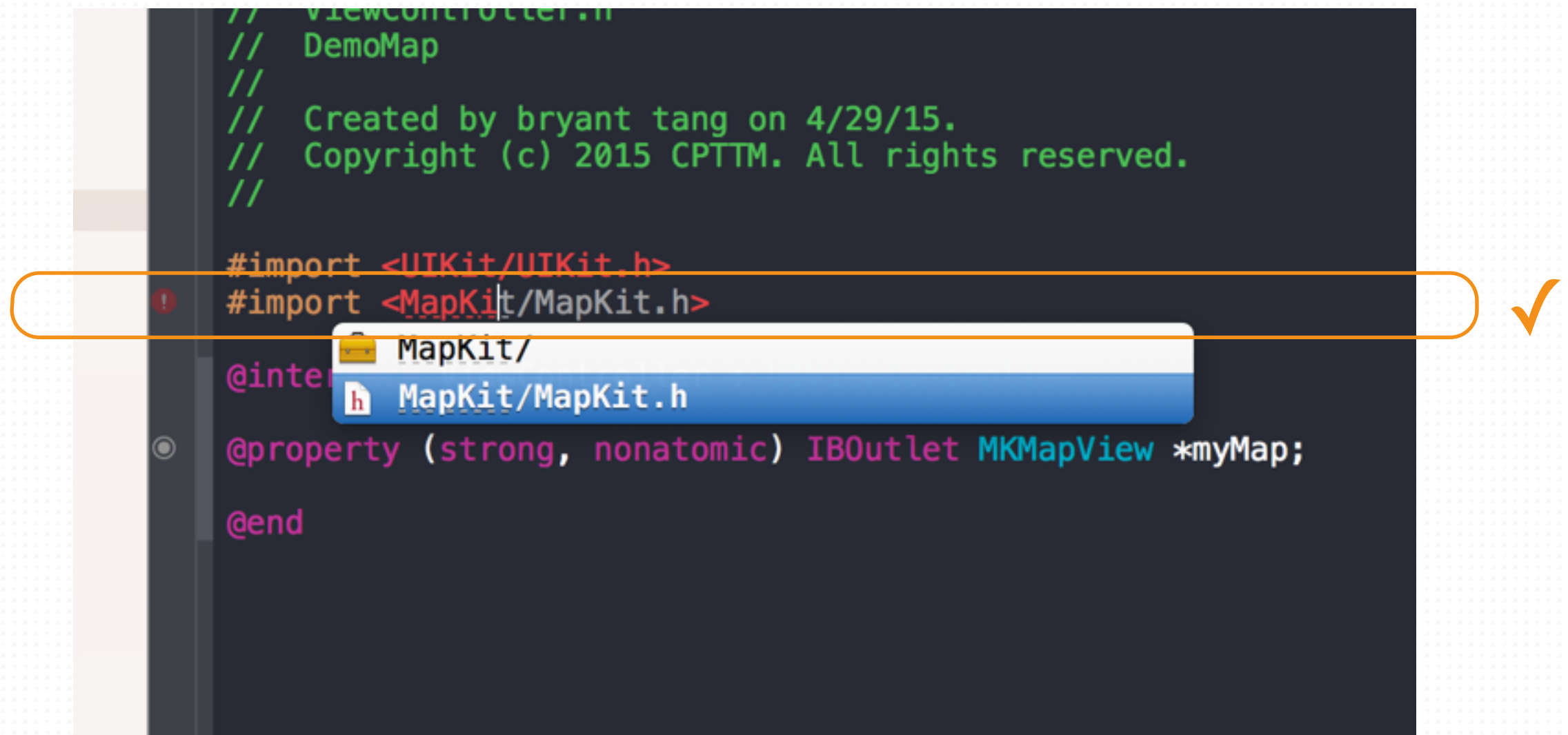
# MapKit

- Implement map in code

```
// ViewController.h
// DemoMap
//
// Created by bryant tang on 4/29/15.
// Copyright (c) 2015 CPTTM. All rights reserved.
//

#import <UIKit/UIKit.h>
#import <MapKit/MapKit.h>

@interface DemoMap : UIViewController
@property (strong, nonatomic) IBOutlet MKMapView *myMap;
@end
```



The screenshot shows the Xcode code editor with a Swift file named `ViewController.h`. The code includes comments, imports for `UIKit/UIKit.h` and `MapKit/MapKit.h`, and an interface definition for `DemoMap` with a property `myMap` of type `MKMapView`. An orange rounded rectangle highlights the `#import <MapKit/MapKit.h>` line, which has a red warning icon to its left. A dropdown menu is open below this line, showing `MapKit/` and `MapKit/MapKit.h` as options. A large orange checkmark is positioned to the right of the dropdown.

# MapKit

- Setting the Visible Portion of the Map
  - Set region
  - Set coordination

```
MKCoordinateRegion theRegion = mapView.region;
```

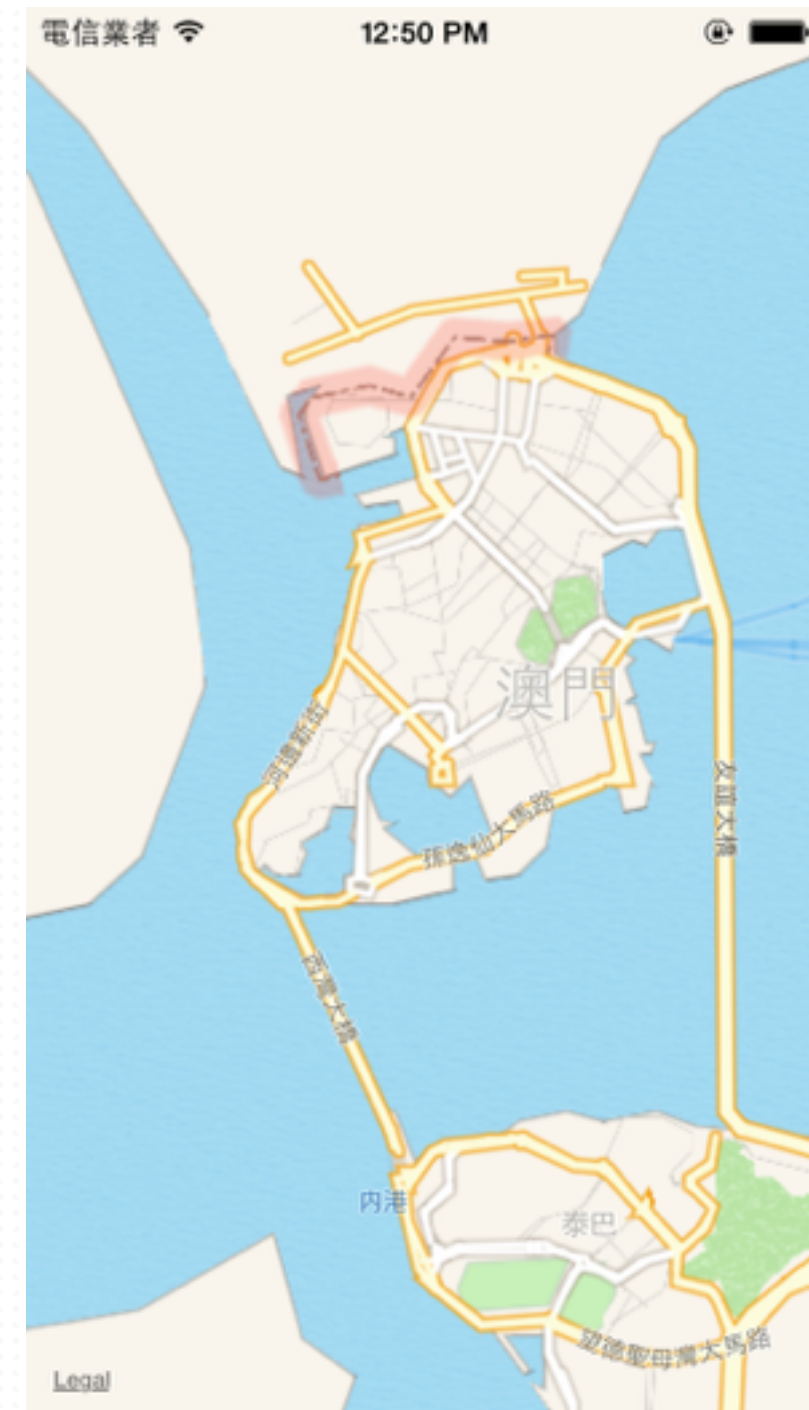
```
theRegion.center.latitude = 22.192344;  
theRegion.center.longitude = 113.542096;
```

```
theRegion.span.longitudeDelta *= 0.0001;  
theRegion.span.latitudeDelta *= 0.0001;
```

```
mapView.region = theRegion;
```

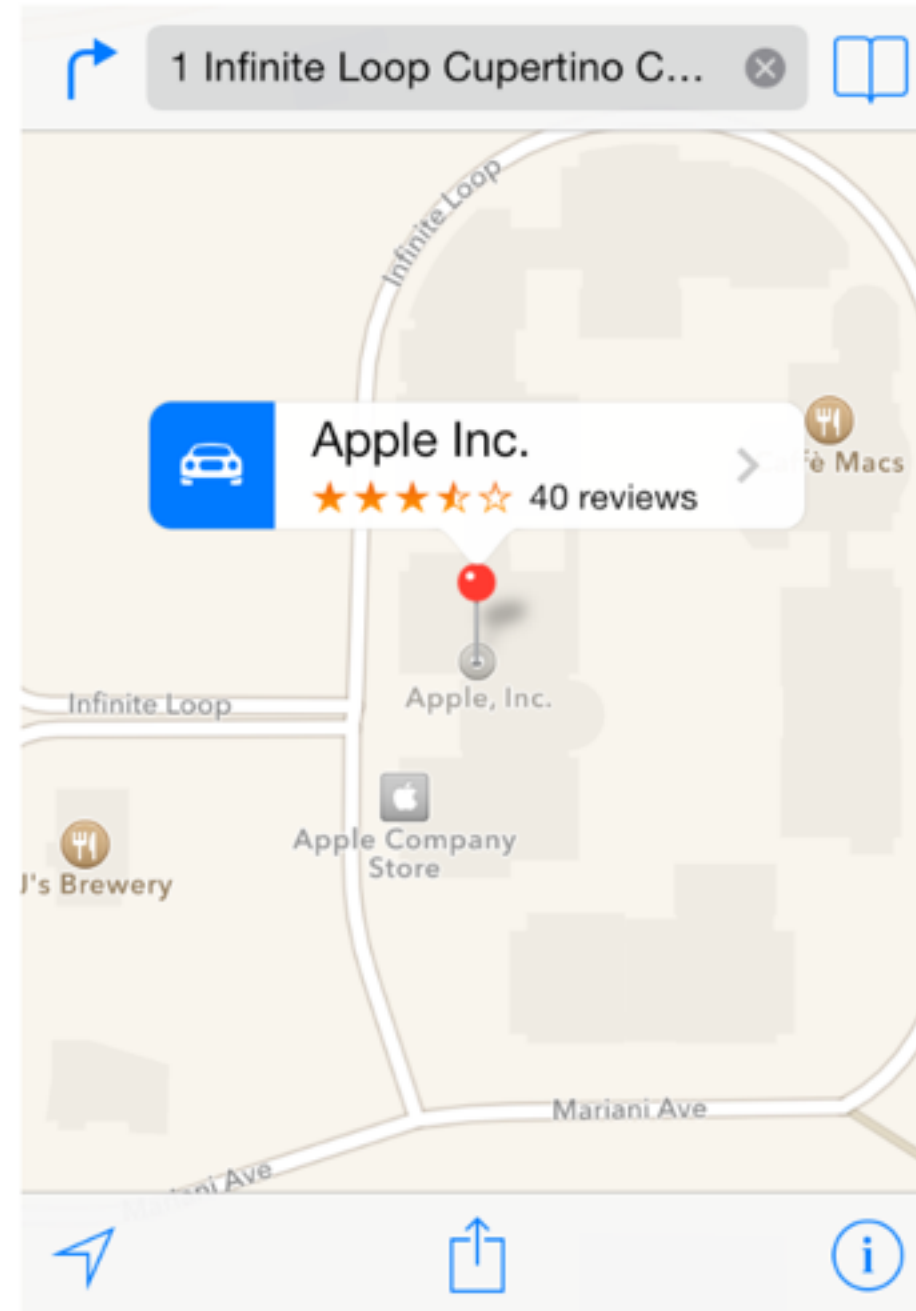


# MapKit



# MapKit

- Annotation



# MapKit

- Two options to define an annotation
  - PointAnnotation
  - Custom Annotation View



# MapKit

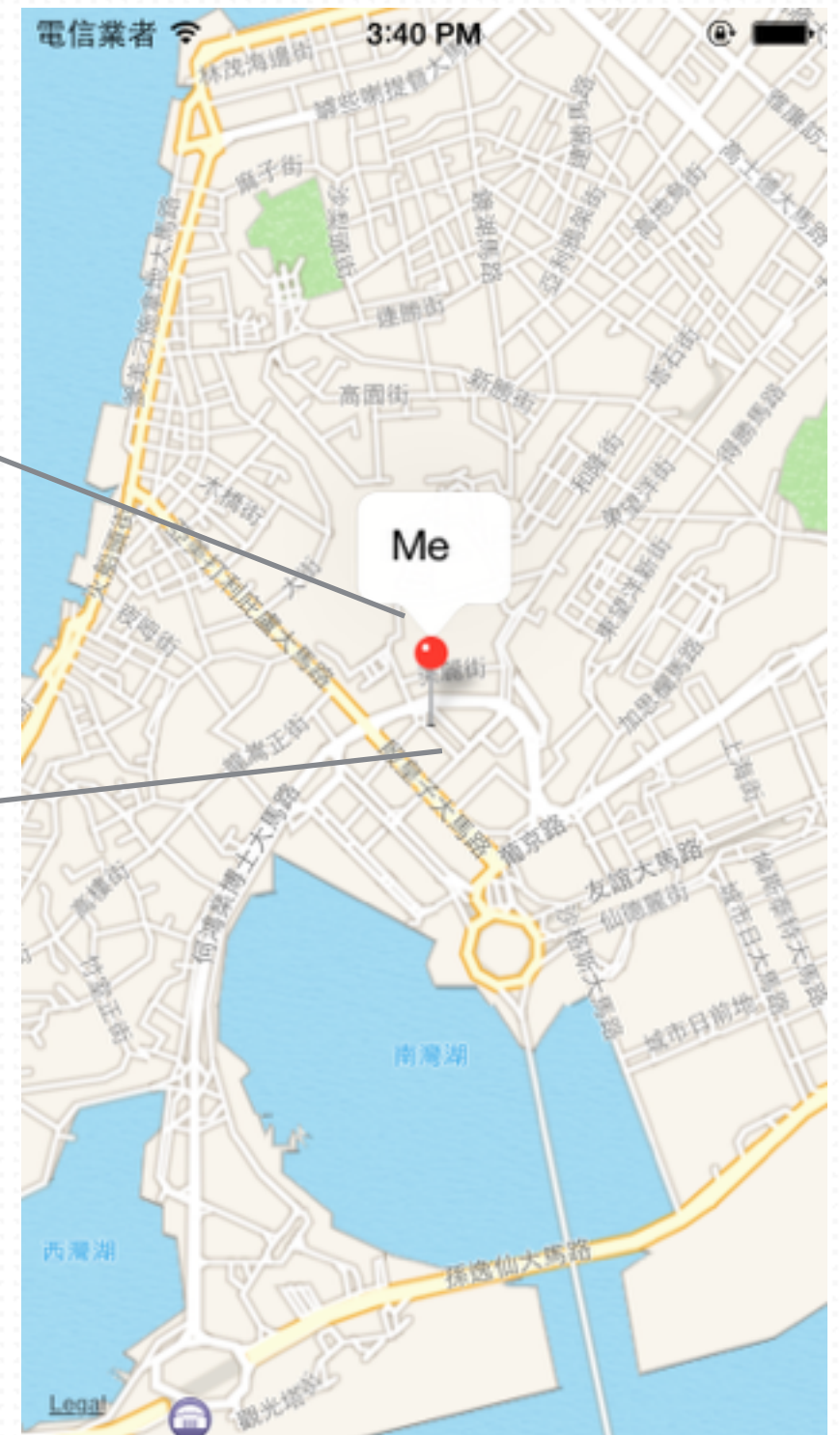
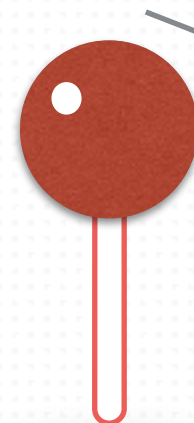
## ● MKPointAnnotation

```
MKPointAnnotation *myAnnotation = [[MKPointAnnotation alloc] init];  
myAnnotation.coordinate = CLLocationCoordinate2DMake(22.262769, 114.193054);  
myAnnotation.title = @"Bryant";
```

- Coordinate
- Title/Subtitle

## ● Add annotation to map

```
[mapView addAnnotation:annotation];
```



# MapKit

## ● Custom Annotation View

- Annotation( MKPointAnnotation)

Coordinate

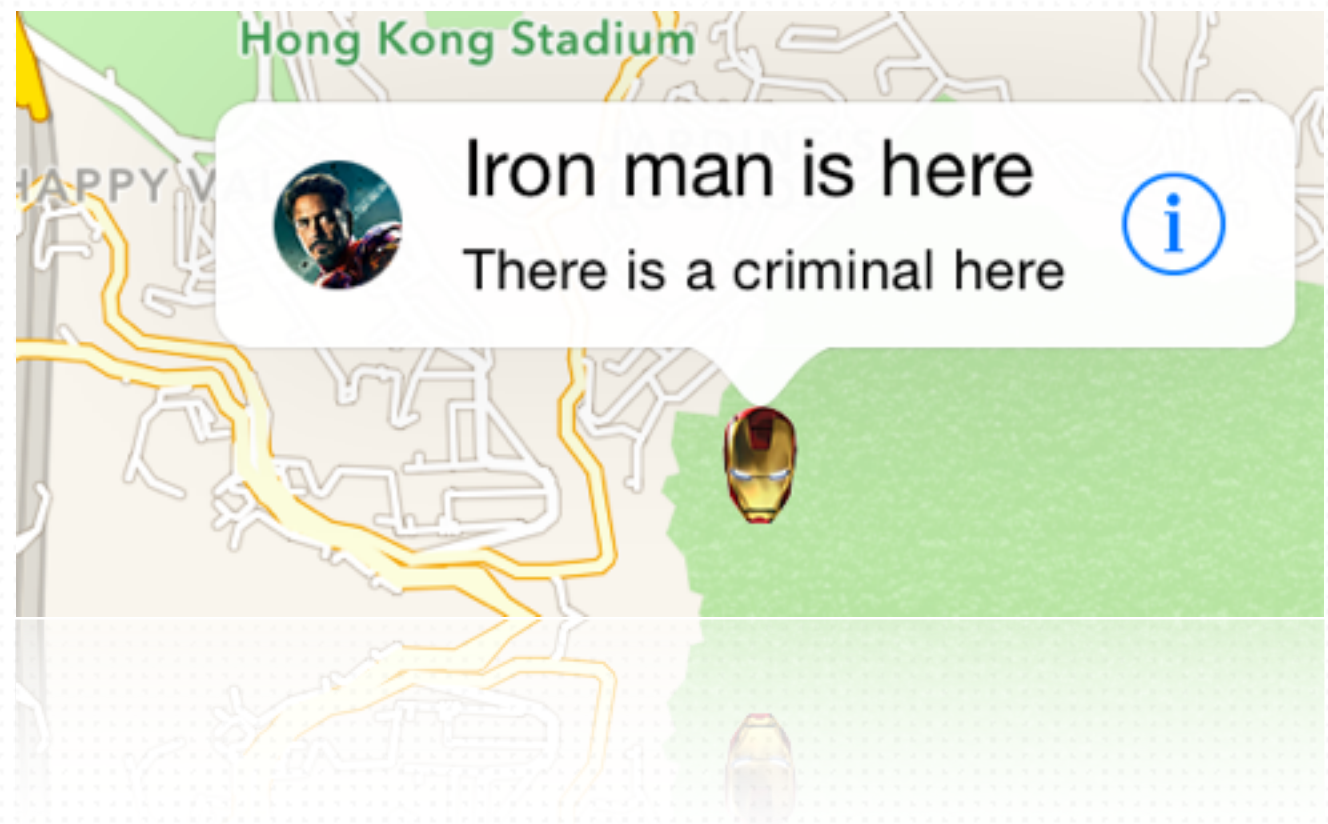
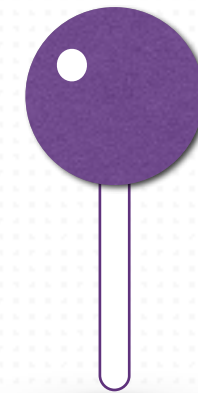
Data-info

- Annotation View

Color

Image of annotation

Callouts



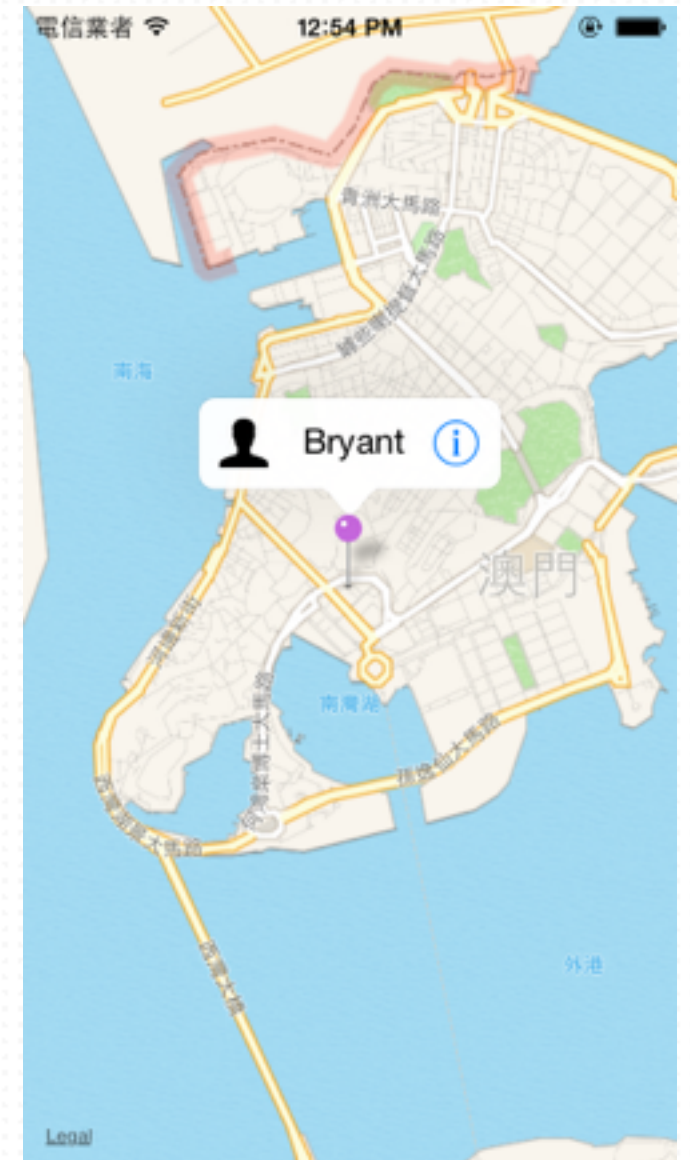
# MapKit

- Custom Annotation View

- Annotation View

Implement the delegate method:

```
-(MKAnnotationView*)mapView:(MKMapView *)mapView  
viewForAnnotation:  
(id<MKAnnotation>)annotation;
```



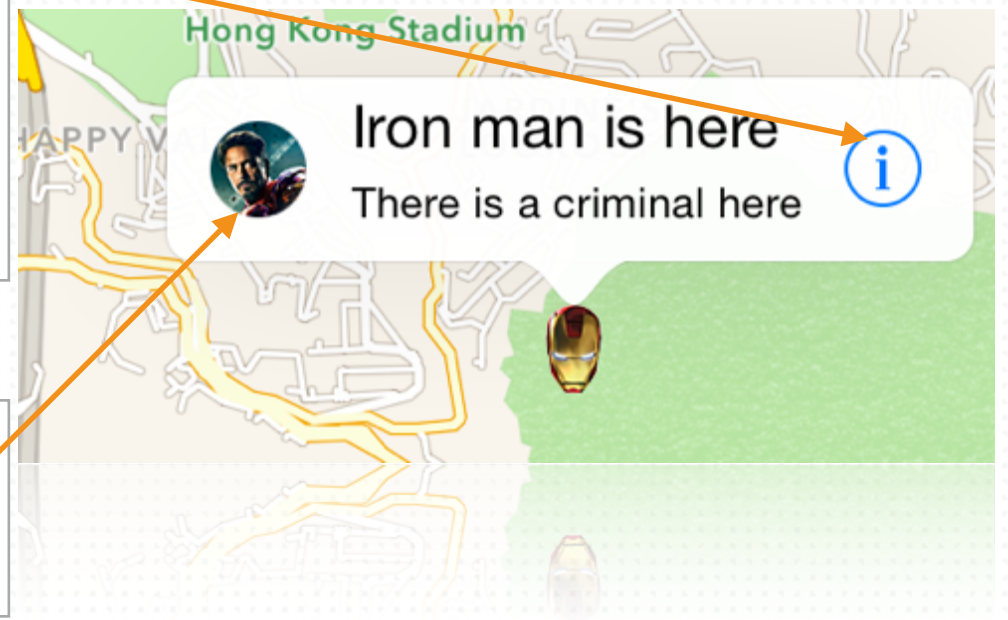


# MapKit

## ● Custom Callouts

```
UIButton *rightButton = [UIButton  
buttonWithType:UIButtonTypeDetailDisclosure];  
  
[rightButton addTarget:self action:@select(clickInfo:)  
forControlEvents:UIControlEventTouchUpInside];  
  
aView.rightCalloutAccessoryView = rightButton;
```

```
UIImageView *myCustomImage = [[UIImageView alloc]  
initWithImage:[UIImage imageNamed:@"person_head"]];  
  
aView.leftCalloutAccessoryView = myCustomImage;
```



My Location

# My Location









- Find user's location - (Facebook Check in)
- Track user's location - (Driving Navigation)

# My Location

- Standard location service
- Significant-change location service

# My Location

- Add CoreLocation framework
- `import <CoreLocation/CoreLocation.h>`

d Frameworks and Libraries	
Name	Status
 CoreLocation.framework	Required 
 MapKit.framework	Required 
 CoreGraphics.framework	Required 
 UIKit.framework	Required 



```
//  
// Created by bryant tang on 5/12/14.  
// Copyright (c) 2014 bryant. All rights reserved.  
//
```

```
#import "ViewController.h"  
#import "MyCustomAnnotation.h"  
#import <CoreLocation/CoreLocation.h>
```

```
@interface ViewController ()
```





# My Location

- Declare **location manager**

```
locationManager = [[CLLocationManager alloc] init];  
locationManager.delegate = self;
```

- Accuracy setting

```
locationManager.desiredAccuracy = kCLLocationAccuracyBest;  
locationManager.distanceFilter = 50; // meters
```

- Start location manager

```
[locationManager startUpdatingLocation];
```

# My Location

- Update location

```
- (void)locationManager:(CLLocationManager *)manager didUpdateLocations:(NSArray *)locations{
    CLLocation* location = [locations lastObject];

    NSLog(@"latitude %+.6f, longitude %+.6f\n",
          location.coordinate.latitude,
          location.coordinate.longitude);
}
```

# My Location

## ● Authorization (iOS 8)

Apparently in **iOS 8 SDK**,  
**requestAlwaysAuthorization** (for background location) or  
**requestWhenInUseAuthorization** (location only when foreground)  
call on CLLocationManager is needed before starting location updates

### Implement

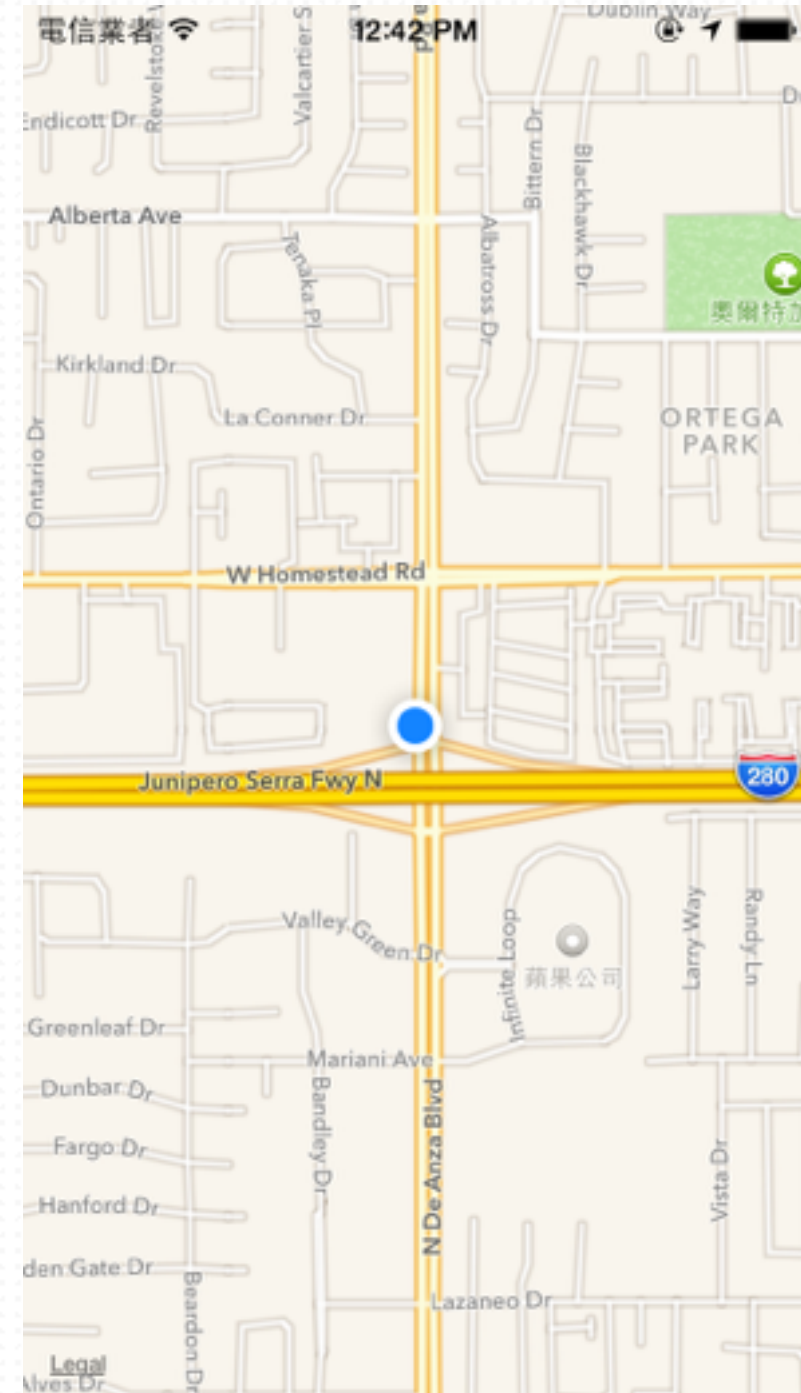
```
[locationManager requestWhenInUseAuthorization]; // For foreground access  
[locationManager requestAlwaysAuthorization]; // For background access
```

### Add Description

key	type	value
▼ Information Property List	Dictionary	(15 items)
NSLocationAlwaysUsageDescription	String	Do you want to enable core location?
Localization native development r...	String	en
Executable file	String	\$EXECUTABLE_NAME

# My Location

- Show location in map



# UIAlertView

- Create an alert view and show

```
UIAlertView *askProfile = [[UIAlertView alloc] initWithTitle:@"Add Profile"
    message:@"Enter Phone"
    delegate:self
    cancelButtonTitle:@"Cancel"
    otherButtonTitles:@"OK", nil];

askProfile.alertViewStyle = UIAlertViewStylePlainTextInput;

[askProfile addSubview:textf];

[askProfile show]; //Show if this code is written
```

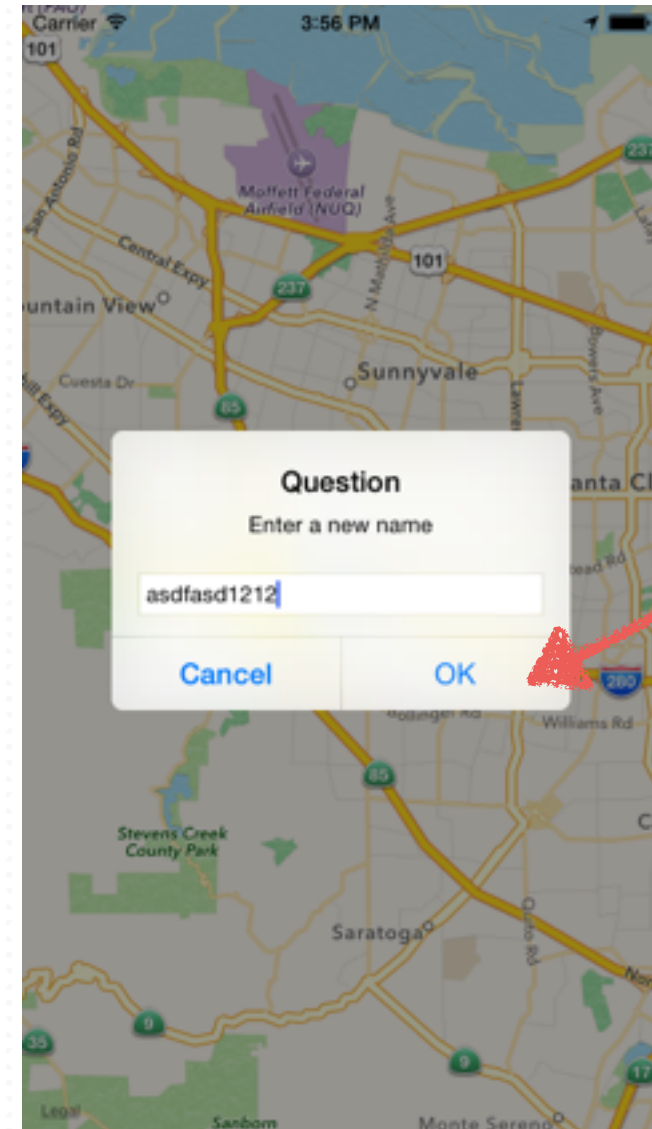
# UIAlertView

- Delegate function

```
- (void)alertView:(UIAlertView *)alertView
clickedButtonAtIndex:(NSInteger)buttonIndex{
    switch (buttonIndex) {

        case 0: // first button : Cancel
                //Do something
                break;
        case 1: // first button : OK
                //Do something
                break;

        default:
            break;
    }
}
```

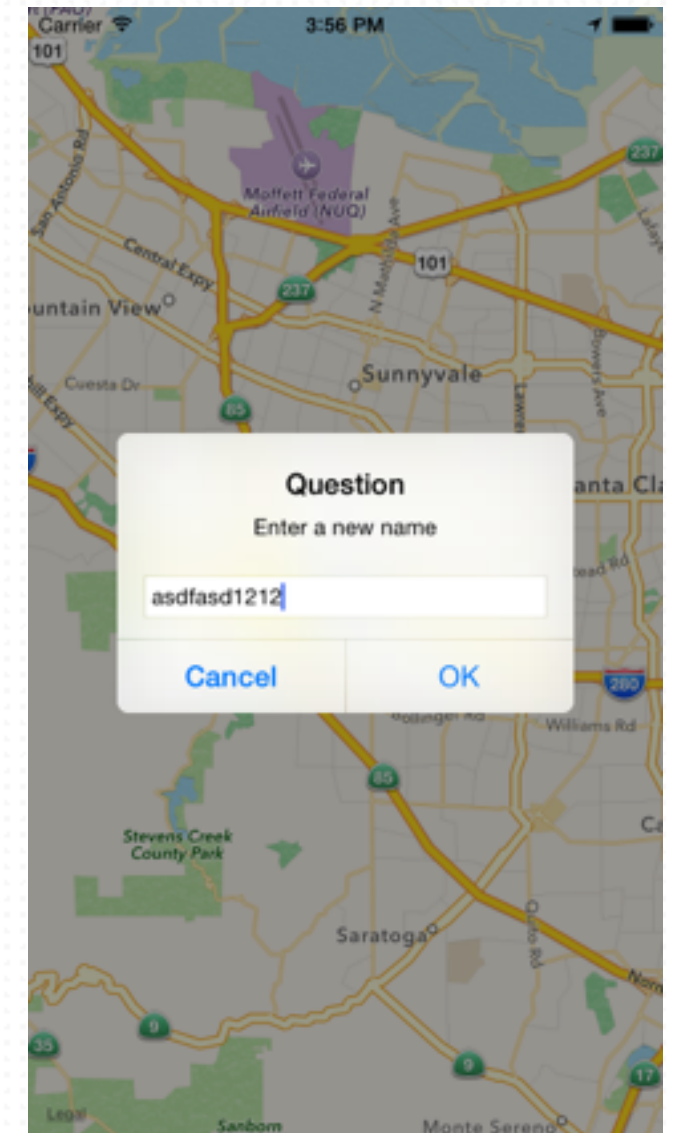
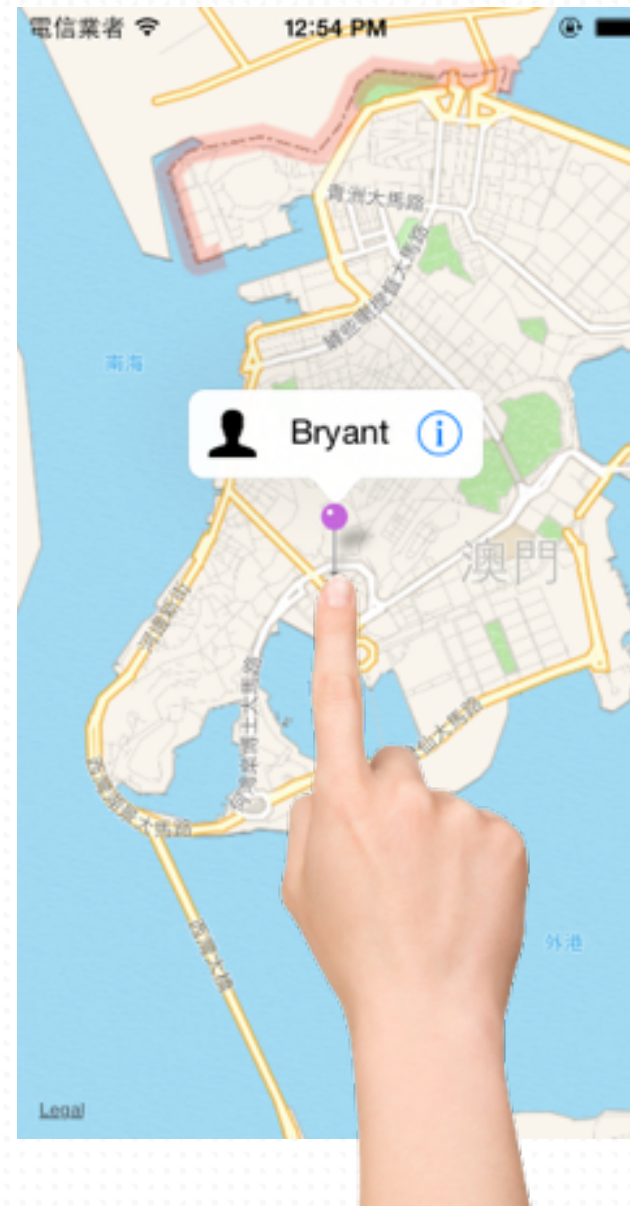


Click

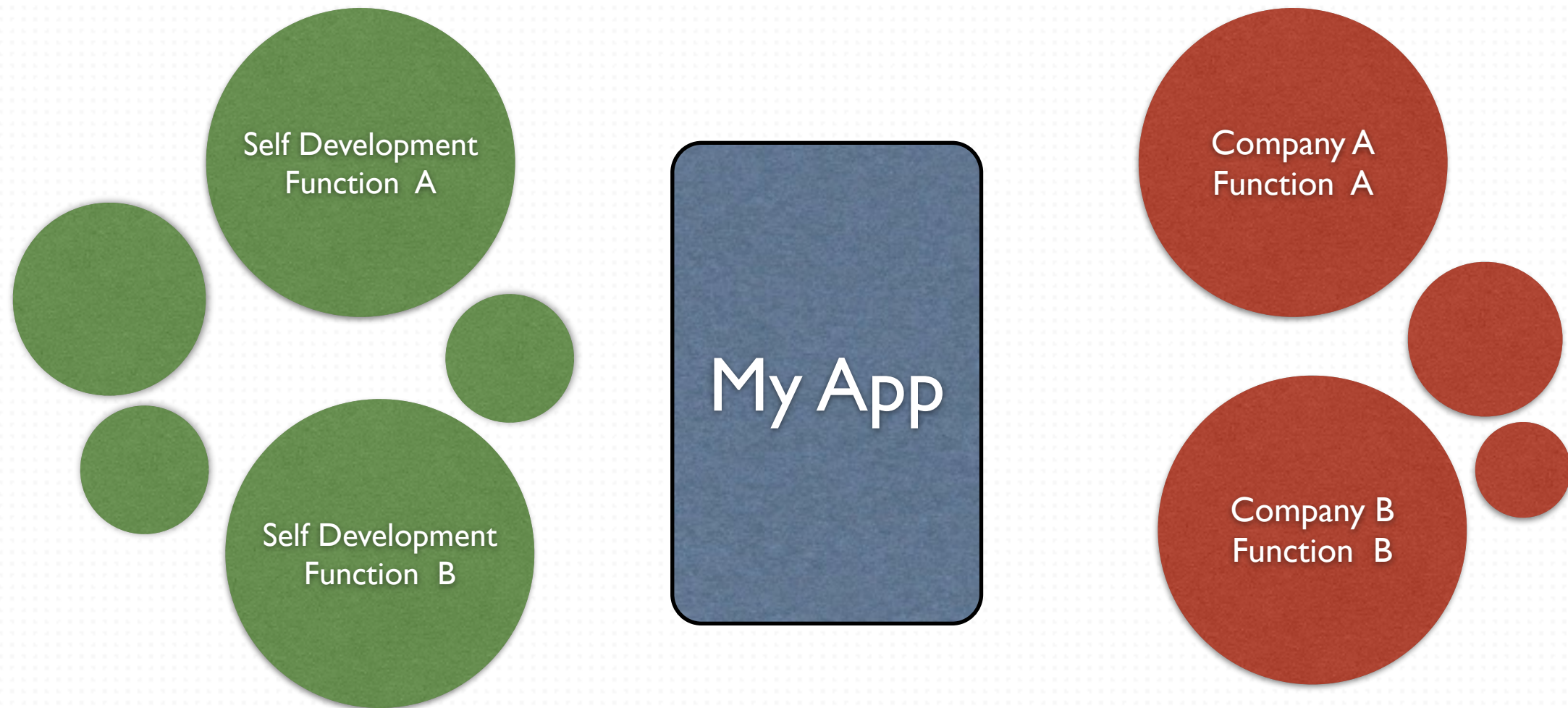


# Homework

- Add annotation at map
- Add on place where you point
- Enter a name for annotation



# Third Party SDK





# Third Party SDK

Must think about before using Third Party SDK

- Deprecated when Updated of iOS
- SDKs compatible
- New language

# Third Party SDK

- Google Map iOS SDK

# Third Party SDK

**Tutorial Website**

<https://developers.google.com/maps/>

# Third Party SDK

## Steps

- Download SDK
- Import SDK in your Project
- Register Key or licence
- Import Library in your Class
- Initial API