```
1. //
2. //  AppDelegate.h
3. //  CoreLocationExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import <UIKit/UIKit.h>
10.
11. @class ViewController;
12.
13. @interface AppDelegate : UIResponder <UIApplicationDelegate>
14.
15. @property (strong, nonatomic) UIWindow *window;
16.
17. @property (strong, nonatomic) ViewController *viewController;
18.
19. @end
```

```
1. //
2. //  AppDelegate.m
3. //  CoreLocationExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import "AppDelegate.h"
10.
11. #import "ViewController.h"
12.
13. @implementation AppDelegate
14.
15. @synthesize window = _window;
16. @synthesize viewController = _viewController;
17.
18. - (BOOL)application:(UIApplication *)application didFinishLaunchingWithOptions:(NSDictionary *)launchOptions
19. {
20.     self.window = [[UIWindow alloc] initWithFrame:[[UIScreen mainScreen] bounds]];
21.     // Override point for customization after application launch.
22.     self.viewController = [[ViewController alloc] initWithNibName:@"ViewController" bundle:nil];
23.     self.window.rootViewController = self.viewController;
24.     [self.window makeKeyAndVisible];
25.     return YES;
26. }
27.
28. - (void)applicationWillResignActive:(UIApplication *)application
29. {
30.     // Sent when the application is about to move from active to inactive state. This can occur for certain types of temporary interruptions
    (such as an incoming phone call or SMS message) or when the user quits the application and it begins the transition to the background state.
31.     // Use this method to pause ongoing tasks, disable timers, and throttle down OpenGL ES frame rates. Games should use this method to pause
    the game.
32. }
33.
34. - (void)applicationDidEnterBackground:(UIApplication *)application
35. {
36.     // Use this method to release shared resources, save user data, invalidate timers, and store enough application state information to
    restore your application to its current state in case it is terminated later.
37.     // If your application supports background execution, this method is called instead of applicationWillTerminate: when the user quits.
38. }
39.
40. - (void)applicationWillEnterForeground:(UIApplication *)application
41. {
42.     // Called as part of the transition from the background to the inactive state; here you can undo many of the changes made on entering the
    background.
43. }
44.
```

```
45. - (void)applicationDidBecomeActive:(UIApplication *)application
46. {
47.     // Restart any tasks that were paused (or not yet started) while the application was inactive. If the application was previously in the background, optionally refresh the user interface.
48. }
49. 
50. - (void)applicationWillTerminate:(UIApplication *)application
51. {
52.     // Called when the application is about to terminate. Save data if appropriate. See also applicationDidEnterBackground:.
53. }
54. 
55. @end
```

```
1. //
2. //  ViewController.h
3. //  CoreLocationExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import "CoreLocation/CoreLocation.h"
10. #import <UIKit/UIKit.h>
11.
12. @interface ViewController : UIViewController <CLLocationManagerDelegate>
13.
14. @property (nonatomic, retain) IBOutlet UILabel *latitudeLabel;
15. @property (nonatomic, retain) IBOutlet UILabel *longitudeLabel;
16.
17. @end
```

```
1. //
2. //  ViewController.m
3. //  CoreLocationExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import "CoreLocation/CoreLocation.h"
10. #import "ViewController.h"
11.
12. @implementation ViewController
13.
14. @synthesize latitudeLabel = _latitudeLabel;
15. @synthesize longitudeLabel = _longitudeLabel;
16.
17. - (void)viewDidLoad
18. {
19.     [super viewDidLoad];
20.
21.     // create location manager
22.     CLLocationManager *locationManager = [[CLLocationManager alloc] init];
23.     locationManager.delegate = self;
24.     locationManager.desiredAccuracy = kCLLocationAccuracyBest;
25.     locationManager.distanceFilter = kCLDistanceFilterNone;
26.
27.     // start polling for updates
28.     [locationManager startUpdatingLocation];
29. }
30.
31. /**
32.  * Fired when the user has changed location
33.  *
34.  */
35. - (void)locationManager:(CLLocationManager *)manager didUpdateToLocation:(CLLocation *)newLocation fromLocation:(CLLocation *)oldLocation
36. {
37.     // update UI with location information
38.     self.latitudeLabel.text = [NSString stringWithFormat:@"%g", newLocation.coordinate.latitude];
39.     self.longitudeLabel.text = [NSString stringWithFormat:@"%g", newLocation.coordinate.longitude];
40. }
41.
42. - (void)viewDidUnload
43. {
44.     [super viewDidUnload];
45. }
46.
47. - (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
48. {
```

```
49.     return (interfaceOrientation != UIInterfaceOrientationPortraitUpsideDown);
50. }
51.
52. @end
```

```objc
//
//  AppDelegate.h
//  CustomAnnotationsExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

#import <UIKit/UIKit.h>

@class ViewController;

@interface AppDelegate : UIResponder <UIApplicationDelegate>

@property (strong, nonatomic) UIWindow *window;

@property (strong, nonatomic) ViewController *viewController;

@end
```

```objc
//
//  AppDelegate.m
//  CustomAnnotationsExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

#import "AppDelegate.h"

#import "ViewController.h"

@implementation AppDelegate

@synthesize window = _window;
@synthesize viewController = _viewController;

- (BOOL)application:(UIApplication *)application didFinishLaunchingWithOptions:(NSDictionary *)launchOptions
{
    self.window = [[UIWindow alloc] initWithFrame:[[UIScreen mainScreen] bounds]];
    // Override point for customization after application launch.
    self.viewController = [[ViewController alloc] initWithNibName:@"ViewController" bundle:nil];
    self.window.rootViewController = self.viewController;
    [self.window makeKeyAndVisible];
    return YES;
}

- (void)applicationWillResignActive:(UIApplication *)application
{
    // Sent when the application is about to move from active to inactive state. This can occur for certain types of temporary interruptions (such as an incoming phone call or SMS message) or when the user quits the application and it begins the transition to the background state.
    // Use this method to pause ongoing tasks, disable timers, and throttle down OpenGL ES frame rates. Games should use this method to pause the game.
}

- (void)applicationDidEnterBackground:(UIApplication *)application
{
    // Use this method to release shared resources, save user data, invalidate timers, and store enough application state information to restore your application to its current state in case it is terminated later.
    // If your application supports background execution, this method is called instead of applicationWillTerminate: when the user quits.
}

- (void)applicationWillEnterForeground:(UIApplication *)application
{
    // Called as part of the transition from the background to the inactive state; here you can undo many of the changes made on entering the background.
}

```

```
45. - (void)applicationDidBecomeActive:(UIApplication *)application
46. {
47.     // Restart any tasks that were paused (or not yet started) while the application was inactive. If the application was previously in the background, optionally refresh the user interface.
48. }
49. 
50. - (void)applicationWillTerminate:(UIApplication *)application
51. {
52.     // Called when the application is about to terminate. Save data if appropriate. See also applicationDidEnterBackground:.
53. }
54. 
55. @end
```

```
1. //
2. //  CustomAnnotation.h
3. //  CustomAnnotationsExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import <Foundation/Foundation.h>
10. #import "MapKit/MapKit.h"
11.
12. @interface CustomAnnotation : NSObject <MKAnnotation>
13.
14. @property (assign, nonatomic) CLLocationCoordinate2D coordinate;
15. @property (copy, nonatomic) NSString *title;
16. @property (copy, nonatomic) NSString *subtitle;
17.
18. - (id)initWithCoordinate:(CLLocationCoordinate2D)coordinate;
19.
20. @end
```

```m
//
//  CustomAnnotation.m
//  CustomAnnotationsExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

#import "CustomAnnotation.h"
#import "MapKit/MapKit.h"

@implementation CustomAnnotation

@synthesize coordinate = _coordinate;
@synthesize title = _title;
@synthesize subtitle = _subtitle;

/**
 * Create a new annotation from a given coordinate
 *
 */
- (id)initWithCoordinate:(CLLocationCoordinate2D)coordinate
{
    self = [super init];

    if (self != nil) {
        self.coordinate = coordinate;
    }

    return self;
}

@end
```

```
//
//  ViewController.h
//  CustomAnnotationsExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

@class MKMapView;

#import <UIKit/UIKit.h>

@interface ViewController : UIViewController

@property (strong, nonatomic) IBOutlet MKMapView *mapView;

@end
```

```m
//
//  ViewController.m
//  CustomAnnotationsExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

#import "CustomAnnotation.h"
#import "MapKit/MapKit.h"
#import "ViewController.h"

@implementation ViewController

@synthesize mapView = _mapView;

- (void)viewDidLoad
{
    [super viewDidLoad];

    // define span for map: how much area will be shown
    MKCoordinateSpan span;
    span.latitudeDelta = 0.002;
    span.longitudeDelta = 0.002;

    // define starting point for map
    CLLocationCoordinate2D start;
    start.latitude = 42.36873056998856;
    start.longitude = -71.11504912376404;

    // create region, consisting of span and location
    MKCoordinateRegion region;
    region.span = span;
    region.center = start;

    // move the map to our location
    [self.mapView setRegion:region animated:YES];

    // create annotation for mather
    CustomAnnotation *mather = [[CustomAnnotation alloc] initWithCoordinate:start];
    mather.title = @"Mather House";
    mather.subtitle = @"The best house";

    // create location for dunster
    CLLocationCoordinate2D dunsterLocation;
    dunsterLocation.latitude = 42.36846289215954;
    dunsterLocation.longitude = -71.11598941345215;

```

```
49.     // create annotation for dunster
50.     CustomAnnotation *dunster = [[CustomAnnotation alloc] initWithCoordinate:dunsterLocation];
51.     dunster.title = @"Dunster House";
52.     dunster.subtitle = @"Not the best house";
53.
54.     // add annotations to map
55.     [self.mapView addAnnotation:mather];
56.     [self.mapView addAnnotation:dunster];
57.
58.     // create a C array of coordinates to pass to our polyline
59.     CLLocationCoordinate2D polylineCoordinates[] = { start, dunsterLocation };
60.
61.     // create polyline connecting both houses and add to map
62.     MKPolyline *line = [MKPolyline polylineWithCoordinates:polylineCoordinates count:2];
63.     [self.mapView addOverlay:line];
64.
65.     // create a circle around the center of the map (distance in meters)
66.     MKCircle *circle = [MKCircle circleWithCenterCoordinate:start radius:100.0];
67.     [self.mapView addOverlay:circle];
68. }
69.
70. - (void)viewDidUnload
71. {
72.     [super viewDidUnload];
73. }
74.
75. - (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
76. {
77.     return (interfaceOrientation != UIInterfaceOrientationPortraitUpsideDown);
78. }
79.
80. /**
81.  * Just like we did for table cells, define each annotation
82.  *
83.  */
84. - (MKAnnotationView *)mapView:(MKMapView *)mapView viewForAnnotation:(id<MKAnnotation>)annotation
85. {
86.     // try to re-use pin annotation view
87.     MKPinAnnotationView *pin = (MKPinAnnotationView *)[mapView dequeueReusableAnnotationViewWithIdentifier:@"Marker"];
88.
89.     // none available in the cache
90.     if (pin == nil) {
91.         // allocate new pin
92.         pin = [[MKPinAnnotationView alloc] initWithAnnotation:annotation reuseIdentifier:@"Marker"];
93.
94.         // add detail disclosure button
95.         pin.rightCalloutAccessoryView = [UIButton buttonWithType:UIButtonTypeDetailDisclosure];
96.     }
```

```
 97.
 98.     // change color to green (Red and Purple also available)
 99.     pin.pinColor = MKPinAnnotationColorGreen;
100.
101.     // animate pin dropping
102.     pin.animatesDrop = YES;
103.
104.     // show callout when tapped
105.     pin.canShowCallout = YES;
106.
107.     return pin;
108. }
109.
110. /**
111.  * Fired when user taps detail disclosure button
112.  * Show pop-up of house tapped
113.  *
114.  */
115. - (void)mapView:(MKMapView *)mapView annotationView:(MKAnnotationView *)view calloutAccessoryControlTapped:(UIControl *)control
116. {
117.     // annotation is a property of MKAnnotationView, and we are using our Marker class as the nnotation
118.     UIAlertView *alert = [[UIAlertView alloc] initWithTitle:@"Detail Button Tapped"
119.                                                     message:((CustomAnnotation *)view.annotation).title
120.                                                    delegate:nil
121.                                           cancelButtonTitle:@"Okay"
122.                                           otherButtonTitles:nil];
123.     [alert show];
124. }
125.
126. /**
127.  * Just as we did for annotations, define each overlay
128.  *
129.  */
130. -(MKOverlayView *)mapView:(MKMapView *)mapView viewForOverlay:(id)overlay
131. {
132.     // overlay is a polyline
133.     if ([overlay isKindOfClass:[MKPolyline class]]) {
134.         // create view for polyline
135.         MKPolylineView *polylineView = [[MKPolylineView alloc] initWithOverlay:overlay];
136.
137.         // set color and width
138.         polylineView.strokeColor = [UIColor blueColor];
139.         polylineView.lineWidth = 2.0;
140.
141.         return polylineView;
142.     }
143.
144.     // overlay is a circle
```

```
    else if ([overlay isKindOfClass:[MKCircle class]]) {
        // create view for circle
        MKCircleView *circleView = [[MKCircleView alloc] initWithOverlay:overlay];

        // set color and width
        circleView.strokeColor = [UIColor redColor];
        circleView.lineWidth = 5.0;

        return circleView;
    }

    return nil;
}

@end
```

```
1. //
2. //  AppDelegate.h
3. //  MapAnnotationExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import <UIKit/UIKit.h>
10.
11. @class ViewController;
12.
13. @interface AppDelegate : UIResponder <UIApplicationDelegate>
14.
15. @property (strong, nonatomic) UIWindow *window;
16.
17. @property (strong, nonatomic) ViewController *viewController;
18.
19. @end
```

```
1. //
2. //  AppDelegate.m
3. //  MapAnnotationExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
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7. //
8.
9. #import "AppDelegate.h"
10.
11. #import "ViewController.h"
12.
13. @implementation AppDelegate
14.
15. @synthesize window = _window;
16. @synthesize viewController = _viewController;
17.
18. - (BOOL)application:(UIApplication *)application didFinishLaunchingWithOptions:(NSDictionary *)launchOptions
19. {
20.     self.window = [[UIWindow alloc] initWithFrame:[[UIScreen mainScreen] bounds]];
21.     // Override point for customization after application launch.
22.     self.viewController = [[ViewController alloc] initWithNibName:@"ViewController" bundle:nil];
23.     self.window.rootViewController = self.viewController;
24.     [self.window makeKeyAndVisible];
25.     return YES;
26. }
27.
28. - (void)applicationWillResignActive:(UIApplication *)application
29. {
30.     // Sent when the application is about to move from active to inactive state. This can occur for certain types of temporary interruptions
    (such as an incoming phone call or SMS message) or when the user quits the application and it begins the transition to the background state.
31.     // Use this method to pause ongoing tasks, disable timers, and throttle down OpenGL ES frame rates. Games should use this method to pause
    the game.
32. }
33.
34. - (void)applicationDidEnterBackground:(UIApplication *)application
35. {
36.     // Use this method to release shared resources, save user data, invalidate timers, and store enough application state information to
    restore your application to its current state in case it is terminated later.
37.     // If your application supports background execution, this method is called instead of applicationWillTerminate: when the user quits.
38. }
39.
40. - (void)applicationWillEnterForeground:(UIApplication *)application
41. {
42.     // Called as part of the transition from the background to the inactive state; here you can undo many of the changes made on entering the
    background.
43. }
44.
```

```
45. - (void)applicationDidBecomeActive:(UIApplication *)application
46. {
47.     // Restart any tasks that were paused (or not yet started) while the application was inactive. If the application was previously in the background, optionally refresh the user interface.
48. }
49. 
50. - (void)applicationWillTerminate:(UIApplication *)application
51. {
52.     // Called when the application is about to terminate. Save data if appropriate. See also applicationDidEnterBackground:.
53. }
54. 
55. @end
```

```
1. //
2. //  ViewController.h
3. //  MapAnnotationExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import <UIKit/UIKit.h>
10.
11. @class MKMapView;
12.
13. @interface ViewController : UIViewController
14.
15. @property (strong, nonatomic) IBOutlet MKMapView *mapView;
16.
17. @end
```

```
1. //
2. //  ViewController.m
3. //  MapAnnotationExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import "MapKit/MapKit.h"
10. #import "ViewController.h"
11.
12. @implementation ViewController
13.
14. @synthesize mapView = _mapView;
15.
16. - (void)viewDidLoad
17. {
18.     [super viewDidLoad];
19.
20.     // define span for map: how much area will be shown
21.     MKCoordinateSpan span;
22.     span.latitudeDelta = 0.002;
23.     span.longitudeDelta = 0.002;
24.
25.     // define starting point for map
26.     CLLocationCoordinate2D start;
27.     start.latitude = 42.36873056998856;
28.     start.longitude = -71.11504912376404;
29.
30.     // create region, consisting of span and location
31.     MKCoordinateRegion region;
32.     region.span = span;
33.     region.center = start;
34.
35.     // move the map to our location
36.     [self.mapView setRegion:region animated:YES];
37.
38.     // create new annotation
39.     MKPointAnnotation *annotation = [[MKPointAnnotation alloc] init];
40.     annotation.coordinate = start;
41.     annotation.title = @"Mather House";
42.     annotation.subtitle = @"The best house";
43.
44.     // add annotation to map
45.     [self.mapView addAnnotation:annotation];
46. }
47.
48. - (void)viewDidUnload
```

```
49. {
50.     [super viewDidUnload];
51. }
52. 
53. - (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
54. {
55.     return (interfaceOrientation != UIInterfaceOrientationPortraitUpsideDown);
56. }
57. 
58. @end
```

```objc
/**
 *  AppDelegate.h
 *  MapCenterExample
 *
 *  Tommy MacWilliam <tmacwilliam@cs.harvard.edu>
 *
 */
#import <UIKit/UIKit.h>

@class ViewController;

@interface AppDelegate : UIResponder <UIApplicationDelegate>

@property (strong, nonatomic) UIWindow *window;

@property (strong, nonatomic) ViewController *viewController;

@end
```

```objc
/**
 *  AppDelegate.m
 *  MapCenterExample
 *
 *  Tommy MacWilliam <tmacwilliam@cs.harvard.edu>
 *
 */

#import "AppDelegate.h"

#import "ViewController.h"

@implementation AppDelegate

@synthesize window = _window;
@synthesize viewController = _viewController;

- (BOOL)application:(UIApplication *)application didFinishLaunchingWithOptions:(NSDictionary *)launchOptions
{
    self.window = [[UIWindow alloc] initWithFrame:[[UIScreen mainScreen] bounds]];
    // Override point for customization after application launch.
    self.viewController = [[ViewController alloc] initWithNibName:@"ViewController" bundle:nil];
    self.window.rootViewController = self.viewController;
    [self.window makeKeyAndVisible];
    return YES;
}

- (void)applicationWillResignActive:(UIApplication *)application
{
    // Sent when the application is about to move from active to inactive state. This can occur for certain types of temporary interruptions (such as an incoming phone call or SMS message) or when the user quits the application and it begins the transition to the background state.
    // Use this method to pause ongoing tasks, disable timers, and throttle down OpenGL ES frame rates. Games should use this method to pause the game.
}

- (void)applicationDidEnterBackground:(UIApplication *)application
{
    // Use this method to release shared resources, save user data, invalidate timers, and store enough application state information to restore your application to its current state in case it is terminated later.
    // If your application supports background execution, this method is called instead of applicationWillTerminate: when the user quits.
}

- (void)applicationWillEnterForeground:(UIApplication *)application
{
    // Called as part of the transition from the background to the inactive state; here you can undo many of the changes made on entering the background.
}

```

```
45. - (void)applicationDidBecomeActive:(UIApplication *)application
46. {
47.     // Restart any tasks that were paused (or not yet started) while the application was inactive. If the application was previously in the background, optionally refresh the user interface.
48. }
49. 
50. - (void)applicationWillTerminate:(UIApplication *)application
51. {
52.     // Called when the application is about to terminate. Save data if appropriate. See also applicationDidEnterBackground:.
53. }
54. 
55. @end
```

```h
/**
 *  ViewController.h
 *  MapCenterExample
 *
 *  Tommy MacWilliam <tmacwilliam@cs.harvard.edu>
 *
 */

#import <UIKit/UIKit.h>

@class MKMapView;

@interface ViewController : UIViewController

@property (strong, nonatomic) IBOutlet MKMapView *mapView;

@end
```

```m
/**
 *  ViewController.m
 *  MapCenterExample
 *
 *  Tommy MacWilliam <tmacwilliam@cs.harvard.edu>
 *
 */

#import "MapKit/MapKit.h"
#import "ViewController.h"

@implementation ViewController

@synthesize mapView = _mapView;

- (void)viewDidLoad
{
    [super viewDidLoad];

    // define span for map: how much area will be shown
    MKCoordinateSpan span;
    span.latitudeDelta = 0.2;
    span.longitudeDelta = 0.2;

    // define starting point for map
    CLLocationCoordinate2D start;
    start.latitude = 42.36873056998856;
    start.longitude = -71.11504912376404;

    // create region, consisting of span and location
    MKCoordinateRegion region;
    region.span = span;
    region.center = start;

    // move the map to our location
    [self.mapView setRegion:region animated:YES];
}

- (void)viewDidUnload
{
    [super viewDidUnload];
}

- (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
{
    return (interfaceOrientation != UIInterfaceOrientationPortraitUpsideDown);
}

```

```
49. @end
```

```
1. //
2. //  AppDelegate.h
3. //  MoviePlayerExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import <UIKit/UIKit.h>
10.
11. @class ViewController;
12.
13. @interface AppDelegate : UIResponder <UIApplicationDelegate>
14.
15. @property (strong, nonatomic) UIWindow *window;
16.
17. @property (strong, nonatomic) ViewController *viewController;
18.
19. @end
```

```
1. //
2. //  AppDelegate.m
3. //  MoviePlayerExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import "AppDelegate.h"
10.
11. #import "ViewController.h"
12.
13. @implementation AppDelegate
14.
15. @synthesize window = _window;
16. @synthesize viewController = _viewController;
17.
18. - (BOOL)application:(UIApplication *)application didFinishLaunchingWithOptions:(NSDictionary *)launchOptions
19. {
20.     self.window = [[UIWindow alloc] initWithFrame:[[UIScreen mainScreen] bounds]];
21.     // Override point for customization after application launch.
22.     self.viewController = [[ViewController alloc] initWithNibName:@"ViewController" bundle:nil];
23.     self.window.rootViewController = self.viewController;
24.     [self.window makeKeyAndVisible];
25.     return YES;
26. }
27.
28. - (void)applicationWillResignActive:(UIApplication *)application
29. {
30.     // Sent when the application is about to move from active to inactive state. This can occur for certain types of temporary interruptions
    (such as an incoming phone call or SMS message) or when the user quits the application and it begins the transition to the background state.
31.     // Use this method to pause ongoing tasks, disable timers, and throttle down OpenGL ES frame rates. Games should use this method to pause
    the game.
32. }
33.
34. - (void)applicationDidEnterBackground:(UIApplication *)application
35. {
36.     // Use this method to release shared resources, save user data, invalidate timers, and store enough application state information to
    restore your application to its current state in case it is terminated later.
37.     // If your application supports background execution, this method is called instead of applicationWillTerminate: when the user quits.
38. }
39.
40. - (void)applicationWillEnterForeground:(UIApplication *)application
41. {
42.     // Called as part of the transition from the background to the inactive state; here you can undo many of the changes made on entering the
    background.
43. }
44.
```

```
45. - (void)applicationDidBecomeActive:(UIApplication *)application
46. {
47.     // Restart any tasks that were paused (or not yet started) while the application was inactive. If the application was previously in the background, optionally refresh the user interface.
48. }
49. 
50. - (void)applicationWillTerminate:(UIApplication *)application
51. {
52.     // Called when the application is about to terminate. Save data if appropriate. See also applicationDidEnterBackground:.
53. }
54. 
55. @end
```

```
1. //
2. //  ViewController.h
3. //  MoviePlayerExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import <UIKit/UIKit.h>
10.
11. @class MPMoviePlayerController;
12.
13. @interface ViewController : UIViewController
14.
15. @property (strong, nonatomic) MPMoviePlayerController *moviePlayer;
16.
17. - (void)playbackDidFinish;
18. - (void)playbackStateDidChange;
19.
20. @end
```

```m
//
//  ViewController.m
//  MoviePlayerExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

#import "MediaPlayer/MediaPlayer.h"
#import "ViewController.h"

@implementation ViewController

@synthesize moviePlayer = _moviePlayer;

- (void)viewDidLoad
{
    [super viewDidLoad];

    // create URL for movie
    NSURL *url = [NSURL URLWithString:@"http://cdn.cs164.net/2012/spring/lectures/0/lecture0.mp4"];

    // create new movie player with set dimensions
    self.moviePlayer = [[MPMoviePlayerController alloc] initWithContentURL:url];
    self.moviePlayer.view.frame = CGRectMake(0, 0, 300, 300);

    // register notification
    [[NSNotificationCenter defaultCenter] addObserver:self selector:@selector(playbackDidFinish)
                                                 name:MPMoviePlayerPlaybackDidFinishNotification object:nil];
    [[NSNotificationCenter defaultCenter] addObserver:self selector:@selector(playbackStateDidChange)
                                                 name:MPMoviePlayerPlaybackStateDidChangeNotification object:nil];

    // add movie player to view and play movie
    [self.view addSubview:self.moviePlayer.view];
    [self.moviePlayer play];
}

- (void)viewDidUnload
{
    [super viewDidUnload];
}

- (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
{
    return (interfaceOrientation != UIInterfaceOrientationPortraitUpsideDown);
}

/**
```

```
 * Callback for playback finishing
 *
 */
- (void)playbackDidFinish
{
    UIAlertView *alert = [[UIAlertView alloc] initWithTitle:@"All done!"
                                                    message:@"Hope you liked it!"
                                                   delegate:nil
                                          cancelButtonTitle:@"I did!"
                                          otherButtonTitles:@"It was awful", nil];
    [alert show];
}

/**
 * Callback for playback state change
 *
 */
- (void)playbackStateDidChange
{
    UIAlertView *alert = [[UIAlertView alloc] initWithTitle:@"State Changed!"
                                                    message:@"Looks like you pressed a button!"
                                                   delegate:nil
                                          cancelButtonTitle:@"I did!"
                                          otherButtonTitles:@"Liar!", nil];
    [alert show];
}

@end
```

```
1. //
2. //  AppDelegate.h
3. //  NotificationCenterExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import <UIKit/UIKit.h>
10.
11. @class MainViewController;
12.
13. @interface AppDelegate : UIResponder <UIApplicationDelegate>
14.
15. @property (strong, nonatomic) UIWindow *window;
16.
17. @property (strong, nonatomic) MainViewController *mainViewController;
18.
19. @end
```

```
1. //
2. //  AppDelegate.m
3. //  NotificationCenterExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import "AppDelegate.h"
10.
11. #import "MainViewController.h"
12.
13. @implementation AppDelegate
14.
15. @synthesize window = _window;
16. @synthesize mainViewController = _mainViewController;
17.
18. - (BOOL)application:(UIApplication *)application didFinishLaunchingWithOptions:(NSDictionary *)launchOptions
19. {
20.     self.window = [[UIWindow alloc] initWithFrame:[[UIScreen mainScreen] bounds]];
21.     // Override point for customization after application launch.
22.     self.mainViewController = [[MainViewController alloc] initWithNibName:@"MainViewController" bundle:nil];
23.     self.window.rootViewController = self.mainViewController;
24.     [self.window makeKeyAndVisible];
25.     return YES;
26. }
27.
28. - (void)applicationWillResignActive:(UIApplication *)application
29. {
30.     // Sent when the application is about to move from active to inactive state. This can occur for certain types of temporary interruptions
    (such as an incoming phone call or SMS message) or when the user quits the application and it begins the transition to the background state.
31.     // Use this method to pause ongoing tasks, disable timers, and throttle down OpenGL ES frame rates. Games should use this method to pause
    the game.
32. }
33.
34. - (void)applicationDidEnterBackground:(UIApplication *)application
35. {
36.     // Use this method to release shared resources, save user data, invalidate timers, and store enough application state information to
    restore your application to its current state in case it is terminated later.
37.     // If your application supports background execution, this method is called instead of applicationWillTerminate: when the user quits.
38. }
39.
40. - (void)applicationWillEnterForeground:(UIApplication *)application
41. {
42.     // Called as part of the transition from the background to the inactive state; here you can undo many of the changes made on entering the
    background.
43. }
44.
```

```
45. - (void)applicationDidBecomeActive:(UIApplication *)application
46. {
47.     // Restart any tasks that were paused (or not yet started) while the application was inactive. If the application was previously in the background, optionally refresh the user interface.
48. }
49. 
50. - (void)applicationWillTerminate:(UIApplication *)application
51. {
52.     // Called when the application is about to terminate. Save data if appropriate. See also applicationDidEnterBackground:.
53. }
54. 
55. @end
```

```
//
//  FlipsideViewController.h
//  NotificationCenterExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

#import <UIKit/UIKit.h>

@class FlipsideViewController;

@protocol FlipsideViewControllerDelegate
- (void)flipsideViewControllerDidFinish:(FlipsideViewController *)controller;
@end

@interface FlipsideViewController : UIViewController

@property (weak, nonatomic) id <FlipsideViewControllerDelegate> delegate;

- (IBAction)buttonPressed:(id)sender;
- (IBAction)done:(id)sender;

@end
```

```m
//
//  FlipsideViewController.m
//  NotificationCenterExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

#import "FlipsideViewController.h"

@implementation FlipsideViewController

@synthesize delegate = _delegate;

- (void)viewDidLoad
{
    [super viewDidLoad];
}

- (void)viewDidUnload
{
    [super viewDidUnload];
}

- (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
{
    return (interfaceOrientation != UIInterfaceOrientationPortraitUpsideDown);
}

#pragma mark - Actions

- (IBAction)buttonPressed:(id)sender
{
    // send a new notification
    [[NSNotificationCenter defaultCenter] postNotificationName:@"FlipsideNotification"
                                                        object:self
                                                      userInfo:[NSDictionary dictionaryWithObject:@"Awesome!" forKey:@"data"]];
}

- (IBAction)done:(id)sender
{
    [self.delegate flipsideViewControllerDidFinish:self];
}

@end
```

```
1. //
2. //  MainViewController.h
3. //  NotificationCenterExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import "FlipsideViewController.h"
10.
11. @interface MainViewController : UIViewController <FlipsideViewControllerDelegate>
12.
13. - (void)respond:(NSNotification *)notification;
14. - (IBAction)showInfo:(id)sender;
15.
16. @end
```

```m
//
//  MainViewController.m
//  NotificationCenterExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

#import "MainViewController.h"

@implementation MainViewController


- (void)viewDidLoad
{
    [super viewDidLoad];

    // register for FlipsideNotification
    [[NSNotificationCenter defaultCenter] addObserver:self
                                             selector:@selector(respond:)
                                                 name:@"FlipsideNotification"
                                               object:nil];
}

- (void)viewDidUnload
{
    [super viewDidUnload];
}

- (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
{
    return (interfaceOrientation != UIInterfaceOrientationPortraitUpsideDown);
}

#pragma mark - Flipside View

- (void)flipsideViewControllerDidFinish:(FlipsideViewController *)controller
{
    [self dismissModalViewControllerAnimated:YES];
}

- (IBAction)showInfo:(id)sender
{
    FlipsideViewController *controller = [[FlipsideViewController alloc] initWithNibName:@"FlipsideViewController" bundle:nil];
    controller.delegate = self;
    controller.modalTransitionStyle = UIModalTransitionStyleFlipHorizontal;
    [self presentModalViewController:controller animated:YES];
}
```

```
49.
50. - (void)respond:(NSNotification *)notification
51. {
52.     UIAlertView *alert = [[UIAlertView alloc] initWithTitle:@"Notification received!"
53.                                                     message:[notification.userInfo valueForKey:@"data"]
54.                                                    delegate:nil
55.                                           cancelButtonTitle:@"Dismiss"
56.                                           otherButtonTitles:nil];
57.     [alert show];
58. }
59.
60. @end
```

```
1. //
2. //  AppDelegate.h
3. //  OverlayExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import <UIKit/UIKit.h>
10.
11. @class ViewController;
12.
13. @interface AppDelegate : UIResponder <UIApplicationDelegate>
14.
15. @property (strong, nonatomic) UIWindow *window;
16.
17. @property (strong, nonatomic) ViewController *viewController;
18.
19. @end
```

```
1. //
2. //  AppDelegate.m
3. //  OverlayExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import "AppDelegate.h"
10.
11. #import "ViewController.h"
12.
13. @implementation AppDelegate
14.
15. @synthesize window = _window;
16. @synthesize viewController = _viewController;
17.
18. - (BOOL)application:(UIApplication *)application didFinishLaunchingWithOptions:(NSDictionary *)launchOptions
19. {
20.     self.window = [[UIWindow alloc] initWithFrame:[[UIScreen mainScreen] bounds]];
21.     // Override point for customization after application launch.
22.     self.viewController = [[ViewController alloc] initWithNibName:@"ViewController" bundle:nil];
23.     self.window.rootViewController = self.viewController;
24.     [self.window makeKeyAndVisible];
25.     return YES;
26. }
27.
28. - (void)applicationWillResignActive:(UIApplication *)application
29. {
30.     // Sent when the application is about to move from active to inactive state. This can occur for certain types of temporary interruptions
    (such as an incoming phone call or SMS message) or when the user quits the application and it begins the transition to the background state.
31.     // Use this method to pause ongoing tasks, disable timers, and throttle down OpenGL ES frame rates. Games should use this method to pause
    the game.
32. }
33.
34. - (void)applicationDidEnterBackground:(UIApplication *)application
35. {
36.     // Use this method to release shared resources, save user data, invalidate timers, and store enough application state information to
    restore your application to its current state in case it is terminated later.
37.     // If your application supports background execution, this method is called instead of applicationWillTerminate: when the user quits.
38. }
39.
40. - (void)applicationWillEnterForeground:(UIApplication *)application
41. {
42.     // Called as part of the transition from the background to the inactive state; here you can undo many of the changes made on entering the
    background.
43. }
44.
```

```
45. - (void)applicationDidBecomeActive:(UIApplication *)application
46. {
47.     // Restart any tasks that were paused (or not yet started) while the application was inactive. If the application was previously in the background, optionally refresh the user interface.
48. }
49. 
50. - (void)applicationWillTerminate:(UIApplication *)application
51. {
52.     // Called when the application is about to terminate. Save data if appropriate. See also applicationDidEnterBackground:.
53. }
54. 
55. @end
```

```
1. //
2. //  CustomAnnotation.h
3. //  OverlayExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import <Foundation/Foundation.h>
10. #import "MapKit/MapKit.h"
11.
12. @interface CustomAnnotation : NSObject <MKAnnotation>
13.
14. @property (assign, nonatomic) CLLocationCoordinate2D coordinate;
15. @property (copy, nonatomic) NSString *title;
16. @property (copy, nonatomic) NSString *subtitle;
17.
18. - (id)initWithCoordinate:(CLLocationCoordinate2D)coordinate;
19.
20. @end
```

```m
//
//  CustomAnnotation.m
//  OverlayExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

#import "CustomAnnotation.h"

@implementation CustomAnnotation

@synthesize coordinate = _coordinate;
@synthesize title = _title;
@synthesize subtitle = _subtitle;

/**
 * Create a new annotation from a given coordinate
 *
 */
- (id)initWithCoordinate:(CLLocationCoordinate2D)coordinate
{
    self = [super init];

    if (self != nil) {
        self.coordinate = coordinate;
    }

    return self;
}

@end
```

```
1. //
2. //  ViewController.h
3. //  OverlayExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import <UIKit/UIKit.h>
10.
11. @class MKMapView;
12.
13. @interface ViewController : UIViewController
14.
15. @property (strong, nonatomic) IBOutlet MKMapView *mapView;
16.
17. @end
```

```m
//
//  ViewController.m
//  OverlayExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

#import "CustomAnnotation.h"
#import "MapKit/MapKit.h"
#import "ViewController.h"

@implementation ViewController

@synthesize mapView = _mapView;

- (void)viewDidLoad
{
    [super viewDidLoad];

    // define span for map: how much area will be shown
    MKCoordinateSpan span;
    span.latitudeDelta = 0.002;
    span.longitudeDelta = 0.002;

    // define starting point for map
    CLLocationCoordinate2D start;
    start.latitude = 42.36873056998856;
    start.longitude = -71.11504912376404;

    // create region, consisting of span and location
    MKCoordinateRegion region;
    region.span = span;
    region.center = start;

    // move the map to our location
    [self.mapView setRegion:region animated:YES];

    // create annotation for mather
    CustomAnnotation *mather = [[CustomAnnotation alloc] initWithCoordinate:start];
    mather.title = @"Mather House";
    mather.subtitle = @"The best house";

    // create location for dunster
    CLLocationCoordinate2D dunsterLocation;
    dunsterLocation.latitude = 42.36846289215954;
    dunsterLocation.longitude = -71.11598941345215;

```

```
49.     // create annotation for dunster
50.     CustomAnnotation *dunster = [[CustomAnnotation alloc] initWithCoordinate:dunsterLocation];
51.     dunster.title = @"Dunster House";
52.     dunster.subtitle = @"Not the best house";
53.
54.     // add annotations to map
55.     [self.mapView addAnnotation:mather];
56.     [self.mapView addAnnotation:dunster];
57.
58. }
59.
60. - (void)viewDidUnload
61. {
62.     [super viewDidUnload];
63. }
64.
65. - (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
66. {
67.     return (interfaceOrientation != UIInterfaceOrientationPortraitUpsideDown);
68. }
69.
70. /**
71.  * Just like we did for table cells, define each annotation
72.  *
73.  */
74. - (MKAnnotationView *)mapView:(MKMapView *)mapView viewForAnnotation:(id<MKAnnotation>)annotation
75. {
76.     // try to re-use pin annotation view
77.     MKPinAnnotationView *pin = (MKPinAnnotationView *)[mapView dequeueReusableAnnotationViewWithIdentifier:@"Marker"];
78.
79.     // none available in the cache
80.     if (pin == nil) {
81.         // allocate new pin
82.         pin = [[MKPinAnnotationView alloc] initWithAnnotation:annotation reuseIdentifier:@"Marker"];
83.
84.         // add detail disclosure button
85.         pin.rightCalloutAccessoryView = [UIButton buttonWithType:UIButtonTypeDetailDisclosure];
86.     }
87.
88.     // change color to green (Red and Purple also available)
89.     pin.pinColor = MKPinAnnotationColorGreen;
90.
91.     // animate pin dropping
92.     pin.animatesDrop = YES;
93.
94.     // show callout when tapped
95.     pin.canShowCallout = YES;
96.
```

```
 97.     return pin;
 98. }
 99.
100. /**
101.  * Fired when user taps detail disclosure button
102.  * Show pop-up of house tapped
103.  *
104.  */
105. - (void)mapView:(MKMapView *)mapView annotationView:(MKAnnotationView *)view calloutAccessoryControlTapped:(UIControl *)control
106. {
107.     // annotation is a property of MKAnnotationView, and we are using our Marker class as the nnotation
108.     UIAlertView *alert = [[UIAlertView alloc] initWithTitle:@"Detail Button Tapped"
109.                                                     message:((CustomAnnotation *)view.annotation).title
110.                                                    delegate:nil
111.                                           cancelButtonTitle:@"Okay"
112.                                           otherButtonTitles:nil];
113.     [alert show];
114. }
115.
116. @end
```

```
1. //
2. //  AppDelegate.h
3. //  WebViewExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import <UIKit/UIKit.h>
10.
11. @class MainViewController;
12.
13. @interface AppDelegate : UIResponder <UIApplicationDelegate>
14.
15. @property (strong, nonatomic) UIWindow *window;
16.
17. @property (strong, nonatomic) MainViewController *mainViewController;
18.
19. @end
```

```
1. //
2. //  AppDelegate.m
3. //  WebViewExample
4. //
5. //  Created by Tommy MacWilliam on 4/4/12.
6. //  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
7. //
8.
9. #import "AppDelegate.h"
10.
11. #import "MainViewController.h"
12.
13. @implementation AppDelegate
14.
15. @synthesize window = _window;
16. @synthesize mainViewController = _mainViewController;
17.
18. - (BOOL)application:(UIApplication *)application didFinishLaunchingWithOptions:(NSDictionary *)launchOptions
19. {
20.     self.window = [[UIWindow alloc] initWithFrame:[[UIScreen mainScreen] bounds]];
21.     // Override point for customization after application launch.
22.     self.mainViewController = [[MainViewController alloc] initWithNibName:@"MainViewController" bundle:nil];
23.     self.window.rootViewController = self.mainViewController;
24.     [self.window makeKeyAndVisible];
25.     return YES;
26. }
27.
28. - (void)applicationWillResignActive:(UIApplication *)application
29. {
30.     // Sent when the application is about to move from active to inactive state. This can occur for certain types of temporary interruptions
    (such as an incoming phone call or SMS message) or when the user quits the application and it begins the transition to the background state.
31.     // Use this method to pause ongoing tasks, disable timers, and throttle down OpenGL ES frame rates. Games should use this method to pause
    the game.
32. }
33.
34. - (void)applicationDidEnterBackground:(UIApplication *)application
35. {
36.     // Use this method to release shared resources, save user data, invalidate timers, and store enough application state information to
    restore your application to its current state in case it is terminated later.
37.     // If your application supports background execution, this method is called instead of applicationWillTerminate: when the user quits.
38. }
39.
40. - (void)applicationWillEnterForeground:(UIApplication *)application
41. {
42.     // Called as part of the transition from the background to the inactive state; here you can undo many of the changes made on entering the
    background.
43. }
44.
```

```
45. - (void)applicationDidBecomeActive:(UIApplication *)application
46. {
47.     // Restart any tasks that were paused (or not yet started) while the application was inactive. If the application was previously in the background, optionally refresh the user interface.
48. }
49. 
50. - (void)applicationWillTerminate:(UIApplication *)application
51. {
52.     // Called when the application is about to terminate. Save data if appropriate. See also applicationDidEnterBackground:.
53. }
54. 
55. @end
```

```objc
//
//  FlipsideViewController.h
//  WebViewExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

#import <UIKit/UIKit.h>

@class FlipsideViewController;

@protocol FlipsideViewControllerDelegate
- (void)flipsideViewControllerDidFinish:(FlipsideViewController *)controller;
@end

@interface FlipsideViewController : UIViewController

@property (weak, nonatomic) id <FlipsideViewControllerDelegate> delegate;
@property (strong, nonatomic) NSString *url;
@property (strong, nonatomic) IBOutlet UIWebView *webView;

- (IBAction)done:(id)sender;

@end
```

```m
//
//  FlipsideViewController.m
//  WebViewExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

#import "FlipsideViewController.h"

@implementation FlipsideViewController

@synthesize delegate = _delegate;
@synthesize url = _url;
@synthesize webView = _webView;

- (void)viewDidLoad
{
    [super viewDidLoad];
}

- (void)viewDidUnload
{
    [super viewDidUnload];
}

/**
 * Remember, viewWillLoad is NOT called every time the view will appear!
 *
 */
- (void)viewWillAppear:(BOOL)animated
{
    [super viewWillAppear:animated];

    // load URL specified by other controller
    [self.webView loadRequest:[NSURLRequest requestWithURL:[NSURL URLWithString:self.url]]];
}

- (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
{
    return (interfaceOrientation != UIInterfaceOrientationPortraitUpsideDown);
}

#pragma mark - Actions

- (IBAction)done:(id)sender
{
    [self.delegate flipsideViewControllerDidFinish:self];
```

```
49. }
50.
51. @end
```

```
//
//  MainViewController.h
//  WebViewExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

#import "FlipsideViewController.h"

@interface MainViewController : UIViewController <FlipsideViewControllerDelegate>

- (IBAction)showPdf;
- (IBAction)showMovie;
- (IBAction)showYoutube;
- (IBAction)showWord;
- (IBAction)showSpreadsheet;
- (void)showUrl:(NSString *)url;

@end
```

```m
//
//  MainViewController.m
//  WebViewExample
//
//  Created by Tommy MacWilliam on 4/4/12.
//  Copyright (c) 2012 __MyCompanyName__. All rights reserved.
//

#import "MainViewController.h"

@implementation MainViewController

- (void)viewDidLoad
{
    [super viewDidLoad];
}

- (void)viewDidUnload
{
    [super viewDidUnload];
}

- (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
{
    return (interfaceOrientation != UIInterfaceOrientationPortraitUpsideDown);
}

#pragma mark - Flipside View

- (void)flipsideViewControllerDidFinish:(FlipsideViewController *)controller
{
    [self dismissModalViewControllerAnimated:YES];
}

/**
 * Fired when user taps "Show PDF" button
 *
 */
- (IBAction)showPdf
{
    [self showUrl:@"http://cdn.cs164.net/2012/spring/projects/2/project2.pdf"];
}

/**
 * Fired when user taps "Show Movie" button
 *
 */
- (IBAction)showMovie
```

```
49. {
50.     [self showUrl:@"http://cdn.cs164.net/2012/spring/lectures/0/lecture0.mp4"];
51. }
52.
53. /**
54.  * Fired when user taps "Show YouTube" button
55.  *
56.  */
57. - (IBAction)showYoutube
58. {
59.     [self showUrl:@"http://www.youtube.com/watch?v=XZ5TajZYW6Y"];
60. }
61.
62. /**
63.  * Fired when user taps "Show Word document" button
64.  *
65.  */
66. - (IBAction)showWord
67. {
68.     [self showUrl:@"http://accelerateu.org/assessments/ELA6/Penguins%20Are%20Funny%20Birds.doc"];
69. }
70.
71. /**
72.  * Fired when user taps "Show Excel spreadsheet" button
73.  *
74.  */
75. - (IBAction)showSpreadsheet
76. {
77.     [self showUrl:@"http://www.pitt.edu/~kiesling/dude/DudeSurveyData.xls"];
78. }
79.
80. /**
81.  * Send a URL to the FlipsideViewController
82.  *
83.  */
84. - (void)showUrl:(NSString *)url
85. {
86.     // create new instance of FlipsideViewController nothing new here
87.     FlipsideViewController *controller = [[FlipsideViewController alloc] initWithNibName:@"FlipsideViewController" bundle:nil];
88.     controller.delegate = self;
89.     controller.url = url;
90.
91.     // show new view controller, nothing new here either
92.     controller.modalTransitionStyle = UIModalTransitionStyleFlipHorizontal;
93.     [self presentModalViewController:controller animated:YES];
94. }
95.
96. @end
```