Introduction to Apple Maps and the Map Kit Framework

In the previous chapter I walked you through the two basic ingredients for creating native geo apps for iOS: location services, which is managed through the Core Location framework, and Apple Maps cartography, which is managed through the Map Kit framework. In this chapter I illustrate the basic procedures to integrate Apple Maps into your native apps. I demonstrate two ways to perform the procedures: using the Xcode Storyboard interface and coding them directly. In the chapter I show you how to: Link the Map Kit framework to your project. Create a map view using the storyboard. Set the map type, enable and disable pan and zoom, and show user location using the storyboard. Create a map view using the MKMapView class. Set the map type, enable and disable pan and zoom, and show user location. Center the map on a given set of coordinates and set its zoom level. MapKit was based on Google Maps through iOS 5.1. Starting with iOS 6, Apple Maps took the place of Google Maps, so let’s start with a quick look at the change.

Apple Maps vs. Google Maps

When iOS 6 was officially released in September 2012, the substitution of Google Maps with Apple Maps generated criticism against Apple’s choice because Apple Maps services had many flaws and limitations compared to Google Maps (cartography errors, scarcity of map data, fewer overlays available, to name a few). At the time of writing, Apple Maps cartography is less accurate and offers less richness of data compared to Google Maps. In Figure 9-1 I show a simple example: an area of Dublin (Grand Canal Docks) mapped in Google Maps (left) and in Apple Maps (right). You can clearly see the differences between the two maps in terms of level of detail and information. The Apple map is less rich in detail (for example, no building outlines are drawn, streets and roads are not well differentiated, etc.).
The difference in quality between the two services is quite understandable since Google has been implementing its maps services for almost 7 years, putting all together an amount of specialists, expertise and geographic data unrivaled until now (just think about the street level photo coverage made available in the Street View function and not available in Apple Maps). Although Google Maps would have been a better cartographic base to use for developing native apps, because Apple substituted it with Apple Maps, we have no choice but to use this service. However, if you do not need to create native apps, you can refer back to the part of the book where I explain how to develop geo web apps taking full advantage of the power and richness of data provided by Google Maps through its JavaScript API.