

Title: Ottawa Parking IOS App

1. What the App exactly is?

This app can help to find parking areas (on-street parking and parking lots) in Ottawa. This app is for IOS. The user can input a destination, then all on-street parking areas and parking lots around the destination within a specified distance will be found and marked on the map. For each on-street parking area or parking lot showed to the user, there is information of it for the user to check. The information includes parking rates, parking duration and some thing about the parking. The user can select one and then use Google map or something like that to navigate to this place. Moreover, users can report incorrect information or supplement parking information by sending messages to a manager, and these information can help refine the app. For the data of parking areas, all data of on-street parking and parking lots will be stored in a database. The app sends a request to a web server, which will retrieve parking data from the database according to the request, and then the retrieved data will be manipulated and returned to the app, which will show all found parking areas on the map.

The pictures below show the on-street parking and parking lots:



on-street parking sign



Parking lots

2. Why it is important

It is very convenient if a person finds the parking area in advance. That is, if a person goes to a strange place and he does not find the parking area in advance, it will be very inconvenient when he is arriving there, because it is difficult to find a parking area on himself. Hence, an app which can show the parking areas (on-street parking and parking lots) around a destination is necessary. More importantly, this app can show on-street parking areas, which is exclusive, because there are no apps which show on-street parking areas. However, the number of on-street parking areas is considerable, and parking on the street is very convenient and economical. Therefore, the function

showing on-street parking areas is very practical. In a word, this app can provide a lot of convenience to drivers, so it is important and practical.

3. Implementation

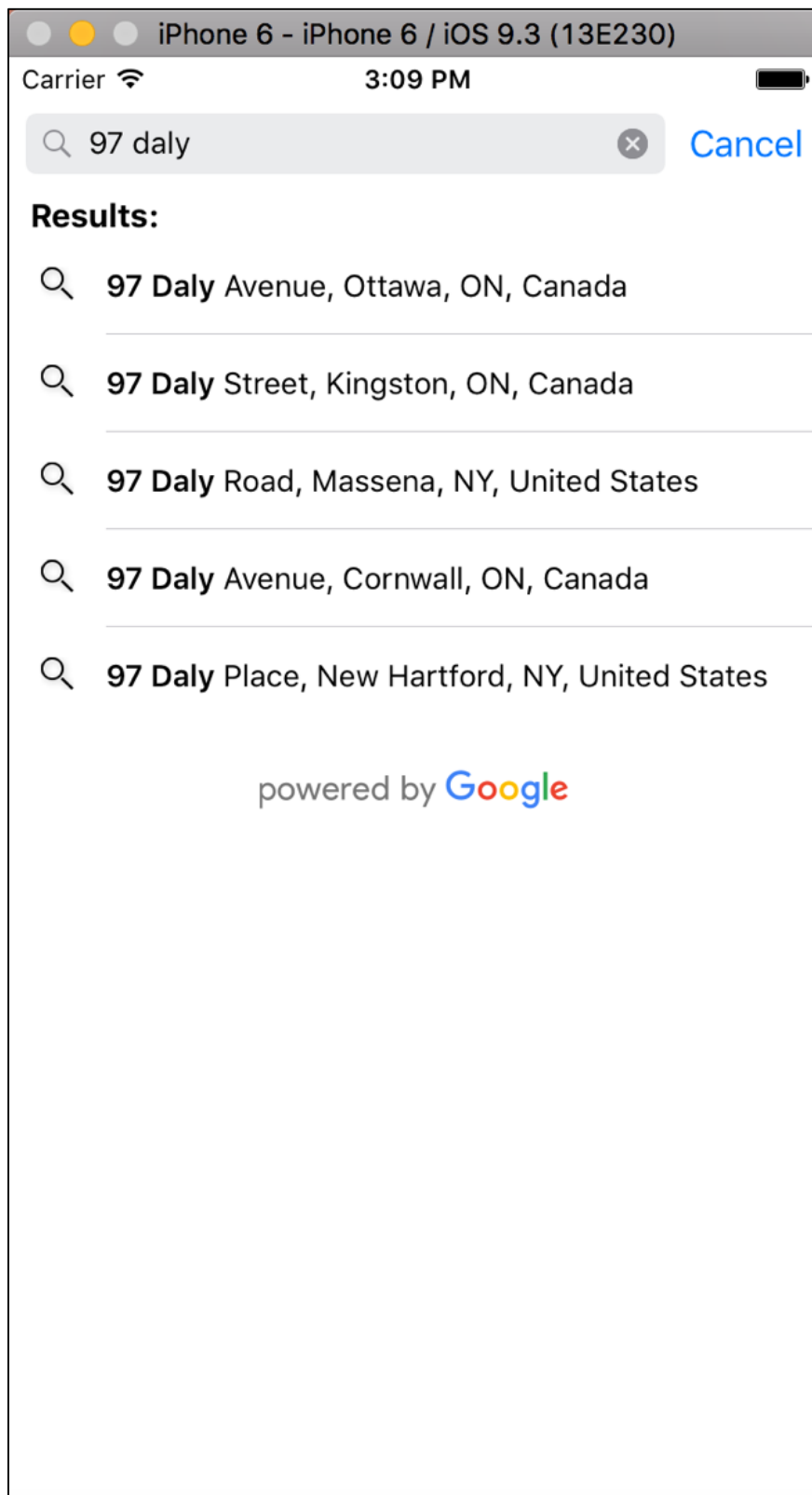
1. The IOS app is implemented on Xcode 7.3.1 using programming language Swift.
2. Using PHP scripting language to query data from the database and manipulate the retrieved data. For database and web server, Google Cloud Platform and MySQL are applied.
3. Because the data of on-street parking areas of Ottawa are not available on the Internet, the data are collected in person street by street. And for parking lots, the data are collected online.

Snapshots of the Application

➤ Main Window (Map View)



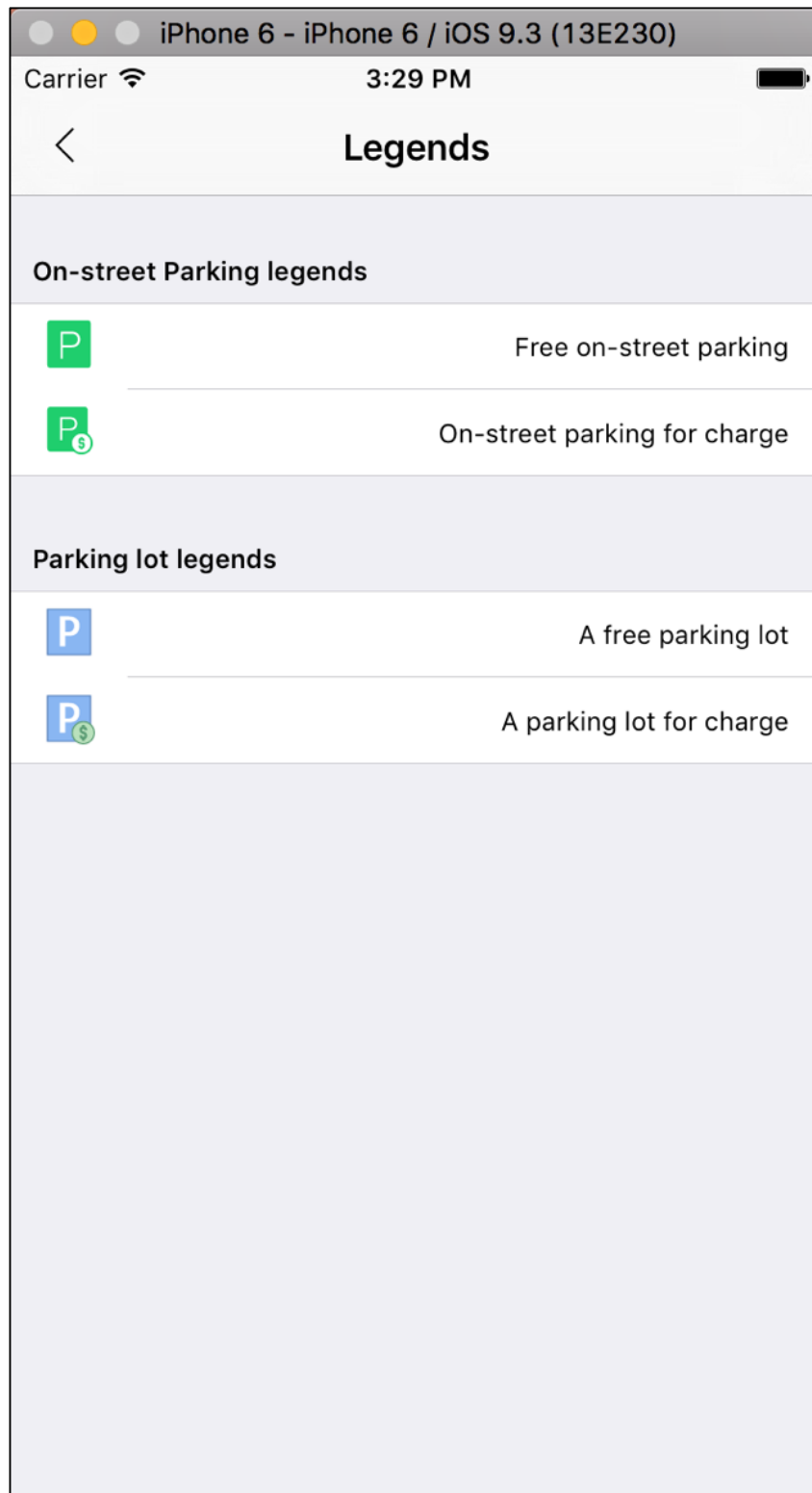
➤ Searching places view



➤ Showing found parking areas on map



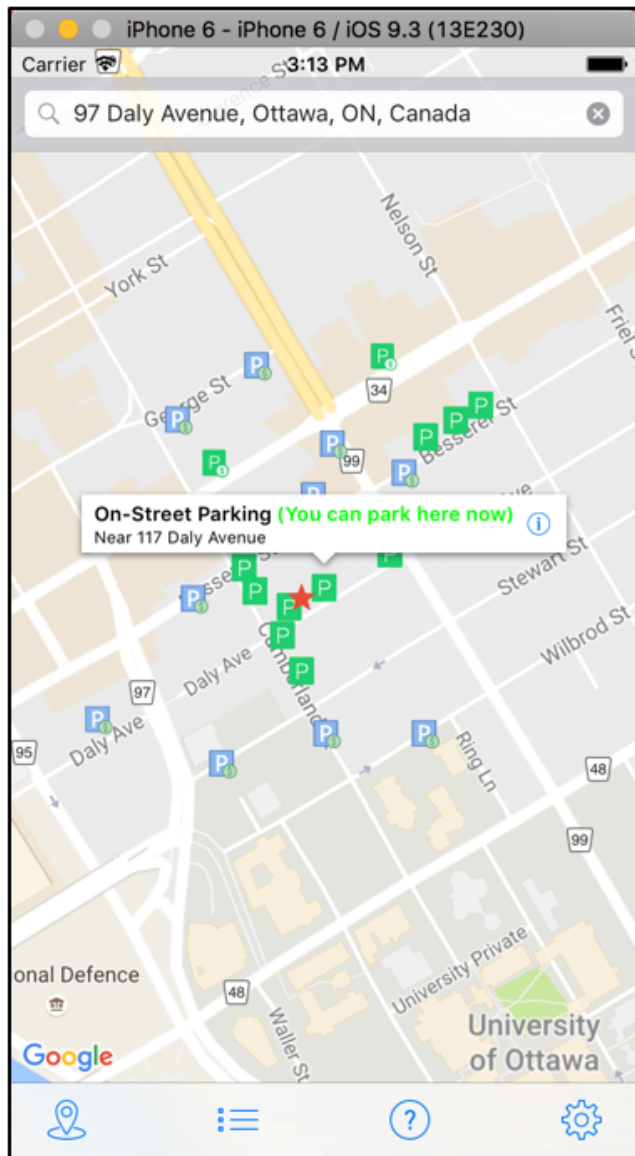
➤ Showing found parking areas on map



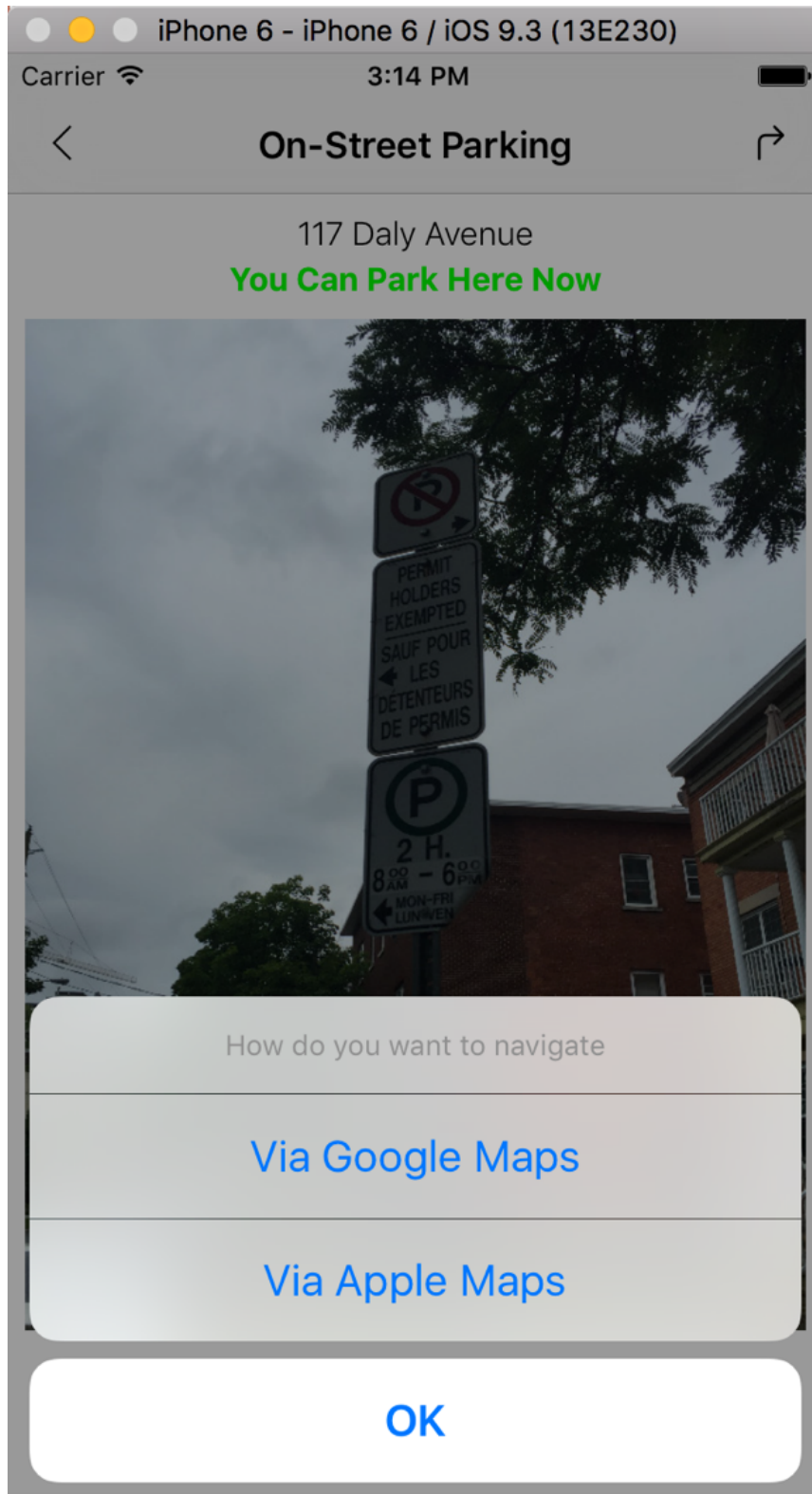
➤ Found parking areas showed in a list

iPhone 6 - iPhone 6 / iOS 9.3 (13E230)	
Carrier 	3:12 PM 
<div>  <div>List</div> </div>	
Name/Address	Distance
485 Cumberland Street	78m
On Street Parking (✓) 122 Daly Avenue	99m
CAPITAL Parking (✓) 235 Besserer Street	104m
Gilad Parking (✓) 444 Cumberland Street	109m
On Street Parking (✓) 425 Cumberland Street	109m
University of Ottawa (✓) 499 Cumberland Street	138m
Target Park (✓) 400 King Edward Avenue	158m
On Street Parking (✓) 245 Rideau Street	161m
1350825 Ontario Inc. (✓) 250 Besserer Street	163m
University of Ottawa (✓) 1 Stewart Street	184m
PRECISE PARKLINK St. Josephs Church (✓) 183 Wilbrod Street	184m
On Street Parking (✓) 245-275 Besserer Street	204m
INDIGO Parking (✓) 403 Cumberland Street	219m
On Street Parking (✓) 245-275 Besserer Street	236m
INDIGO Park (✗) 195 George Street	238m

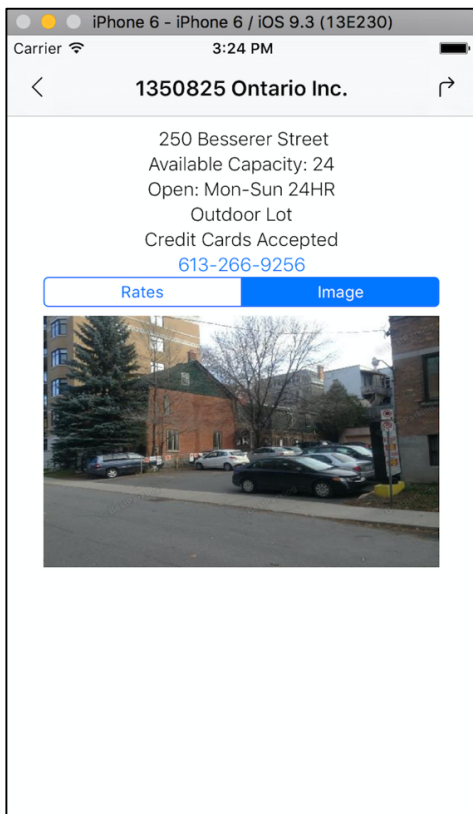
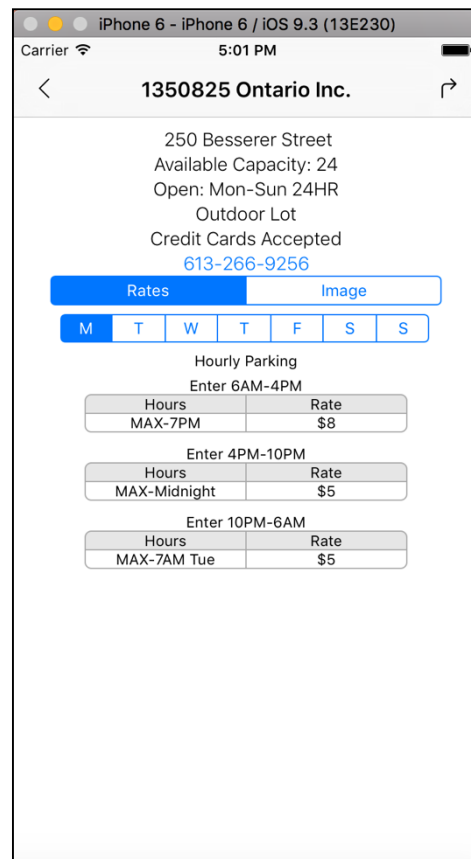
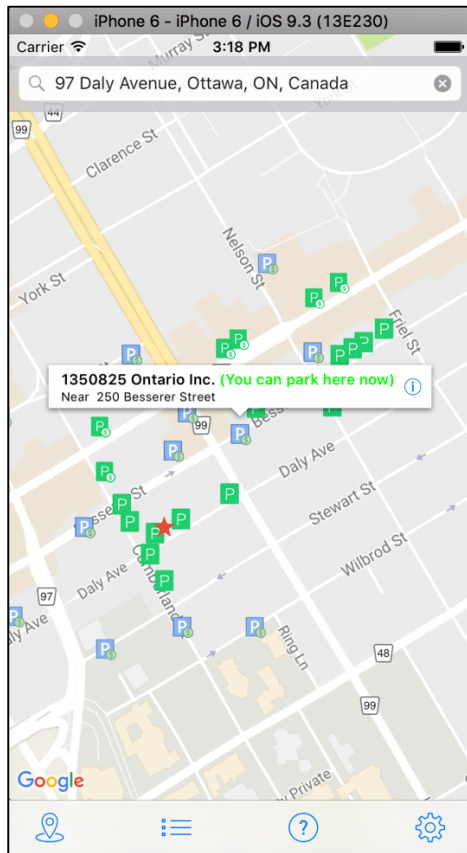
➤ On street parking



➤ Navigation



➤ Parking lots



➤ Settings

