# **ParkMyCar**

A Report

Submitted to

The School of Engineering and Computing

National University

In Partial Fulfillment of the Requirements

For the Degree of Master of Science in Computer Science

By

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A report submitted to the School of Engineering and Computing, National University, in partial fulfillment of the requirements for the Degree of Master of Science in Computer Science by:

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**Abstract**

The goal of the project is to develop a mobile application to make parking easy in downtowns especially paid parking. The app would also provide other features like timing the park, providing directions back to the parking spot. We will use crowdsourcing techniques to improve the quality of the search results which is the main focus of the project. To test this application we would find 10-20 parking lots in San Diego downtown and test the app by driving around San Diego downtown as we search for parking lots, park the car and provide feedback and rating. This would also help us test the crowdsourcing feature. This information can also be used to provide real time approximate number of people who parked their car in different parking lots in last 1 hr.

**Main Features:**

1. Show nearest parking lots when provided with an address
2. This feature aims to show public/private/paid parking lots near a specified address by filtering results based on crowdsourcing feedback. It will also provide stats like how many app users parked their vehicle in a parking lot in last 1 hour. We will show results on google maps. These are the additional features unique to this application.
3. This feature also includes navigating the user to the selected parking lot using google directions API
4. Provide directions back to your parked location
5. Store the parked location of the vehicle when parking is done.
6. Use google maps direction API to provide directions back to the parking lot
7. Parking time reminder
8. Start timer when parked, which always shows how long the car has been parked, optionally user can opt for reminders before the parking end time.
9. Admin account to add/remove/edit parking locations and change prices.

**Existing mobile applications and their features:**

1. **Parkdroid [2] & Car Locator [3] apps**: These apps provide features to navigate back to the parked car and also the parking timer but lack the feature to search for nearby parking lots.
2. **Park Me Right: Free Car Locator [4]:** This app provides search for parking and uses Yelp ratings which are not real time which we would like to add to our application.

**References:**

[1] " Software Engineering: A Practitioner's Approach," Pressman, Roger S., McGraw Hill, 7th Edition.

[2]<https://play.google.com/store/apps/details?id=com.parkdroid&hl=en>, 01/07/2015

[3]<https://play.google.com/store/apps/details?id=com.edwardkim.android.carlocatorfull&hl=en>, 01/07/2015

[4]<https://play.google.com/store/apps/details?id=com.parkmeright&hl=en>, 01/09/2015