

Park Me: Project Description and Goals

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Abstract

This document outlines the description of the proposed project known as **Park Me**. Several goals have been listed as well as some "stretch" goals that are not expected to be delivered but would be impressive to achieve as well.

1 Description

A common issue drivers experience when going shopping, especially at a mall establishment is finding a parking space efficiently. Often this is done by driving around until they can either see someone leaving or see an open space available. This is extremely frustrating and can be solved with an application that provides parking data before they even arrive at the lot.

Park Me is an Android mobile application that tracks in real-time the availability of parking spaces in a parking lot. Additionally, the application will provide navigation to the desired parking area based on optional user preferences. This application will pair with a hardware solution that will track parking space availability and send data to the server which in turn will update the client side application.. Our project will also include functionality for an analytics engine to help users and business owners see trends and patterns given the data collected.

2 Goals

2.1 Accessibility

Since our application will be primarily used while the user is driving, making sure the application has hands-free and distraction-free accessibility features is important.

2.2 Navigation

One of the main features of our application will be the assistance of navigation to help lead drivers to the approximate area of the parking spot. (The accuracy of the area will be determined at a further point.)

2.3 Analytics

The data gathered by our hardware solution will be analyzed to provide useful statistics and trends to both users and businesses.

2.4 Real-Time

We will develop a hardware solution that provides data to our application in real-time to ensure accurate and up to date information. This will contribute to the accuracy of the analytics provided.

2.5 Customization

To provide a personalized user experience, we will allow for custom preferences to be set by the user such as selecting parking spots for accessible parking, expectant mothers, etc.

3 Stretch Goals

- **Parking Space Memory**

Allow users to save their parking space location so they do not forget where they parked.

- **Safety Warnings**

Warns users to be cautious in certain conditions such as icy weather, construction or if the user walking alone to their car late at night.

- **Parking Time Limit**

Warns drivers about expiring parking time limit and notifies business owners of customers who have stayed parked past their time limit