

## Questions

- How do you detect the free spaces for parking.
- How will you calculate distance from the car to the free slot
- How will the placement be done i.e. S,so, L,so or?
- ~~How~~ The model to connect all the individuals involved.  
e.g. car, parking slot, payment method  
Entrance mechanism, etc
- How will it connect to geo-maps, what APIs are required do you need permission for such integration etc.
- The API which you will create How will it work, what are the challenges, data needed etc.
- The GUI, you will create using which language, methodology etc.
- Integration & payment method don't limit to MPesa be open How will you make it secure.



## Problem Definition

Location of available parking slots a kilometre radius in both new and familiar places to the client, in order to save on costs.

## Why IPA is necessary?

Drivers encounter difficulty in finding parking areas and mostly have to rely on the residents of a given area for information on where to park. However, this may be dangerous and/or inconvenient. In the case that they get misleading information or they cannot get the opportunity to stop and ask.

In other cases, drivers do not know how to get to the parking locations. IPA will be able to provide directions to the client.

Drivers also tend to break traffic rules, while trying to get directions to a parking area. IPA would assist in minimizing such traffic irregularities.

## Objectives

### Software-based

- A friendly user interface and experience – should be easy to navigate
- Integrate Google Earth and Google Maps
- Integrate M-PESA
- Create a REST-API

### Client-based

- Reduce time spent finding parking area.
- Provide direction to the available parking area.
- Save on fuel cost.
- Gain information on distribution of parking areas
- Gain information on how payments are made

This falls perfectly in the justification of the system.

you can retain this but expand the problem or just use it as a guide to expand.

its precise but give a bigger description of the problem.

what is IPA

How??

Break down the objectives in two parts-

The 1st known as general objective which is the main idea / problem to be solved

The 2nd known as specific objectives which is the general objectives broken into part workable & achievable parts

Limitations what Airtel money, orange, visa etc.

How will this be created

use romans to Number any list.

1.0 → General objective

1.0.1 → specific objective

500

450

150

23

↓

Do you mean locate?

This thing is not the smart to do  
This is a good set of specific objectives

500

499

6

150

## Proposed Solution.

To solve this problem, we propose creating a mobile application.

It will be integrated with google earth and google maps to offer the directions required to get to the parking slot. Google earth helps triangulate the location of the parking slot and offer the coordinates to google map.

We will create a user-friendly user interface using reactjs.

The pages will include sign in, and a landing page to start the search.

For the backend we will use django and django rest framework to setup accounts for the users and facilitate membership.

In addition, we will use postgres SQL to setup the database.

I'm sure you can describe this in a better way.  
But it's good currently.

When writing the methodology let the specific objectives guide you.

Since they are achievable\* there is a method that can be linked to it.

Conceptual model.



Free Parking SPACES

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## PROJECT PROPOSAL

# AN INTELLIGENT PARKING ASSISTANT

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