PARKING SPACES AROUND MAKERERE UNIVERSITY

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2 Acknowledgements

I wish to thank Makerere University for allowing me access and to document their PARKING LOT INFORMATION. In particular, I wish to thank Professor Engineer Bainomugisha. the Head of Department Computer Science, for his keen interest and guidance in the development of this study.

I also wish to thank my supervisor, Professor Earnest Mwebaze for the academic support and assistance throughout the writing of the report.

3 Acronyms

XML Extensible Mark-up Language
ODK Open Data Kit

4 Executive Summary

4.1 Background

The system mainly collects data from colleges, schools AND halls of residence and with all these places, the parking space are enough. i.e if for example a student drives he OR she can park at a hall of residence and when they go for lectures, they can park at the college parking areas.

4.2 Methodology

The data in this research was collected using electronic methods. An XML (Extensible Mark-up Language) was created and uploaded on the (aggregate) server, the link to the aggregate entered in an android application(ODK collect) to link up the smart phone application to the server.

4.3 Key Findings

Some people really do not where the most parking lots so they end up parking in very crowded areas which may lead to increased insecurity of the cars and the property inside the cars.

Some parking lots are not safe for the night because they lack security or security guards hence cars can be vandalised.

5 Introduction

Makerere University is a big place indeed thus the need to collect data of ample parking spaces where staff and students can park vehicles around the University. And since it is big, the people need to know the various areas where to park because they cant all park in one place.

5.1 Objectives

To help people find parking areas (spaces) around Makerere University.
To find out the maximum amount of cars can take when full
To find out the location of the parking area either college or school or hall of residence:

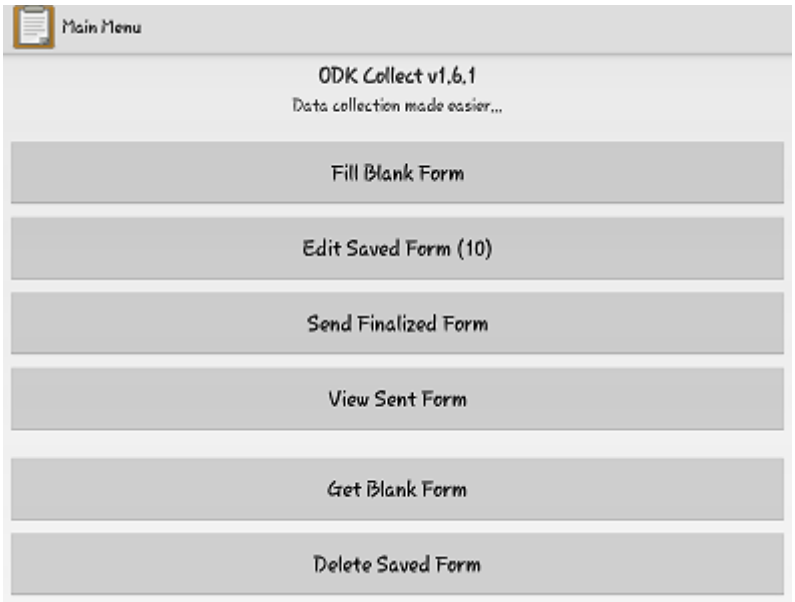
6 Methodology

6.1 Instruments

Aggregate server: this was used a platform to centrally manage the data, and every data that was collected was sent to this server and can later be used for visualization.

ODK collect: A mobile application that was used to enter the data collected including geo position of each entry and a picture of the parking lots from which data was obtained.

XML FORM BUILDER: this is an online plat form that created the form named wifi form and giving data values to each entry.

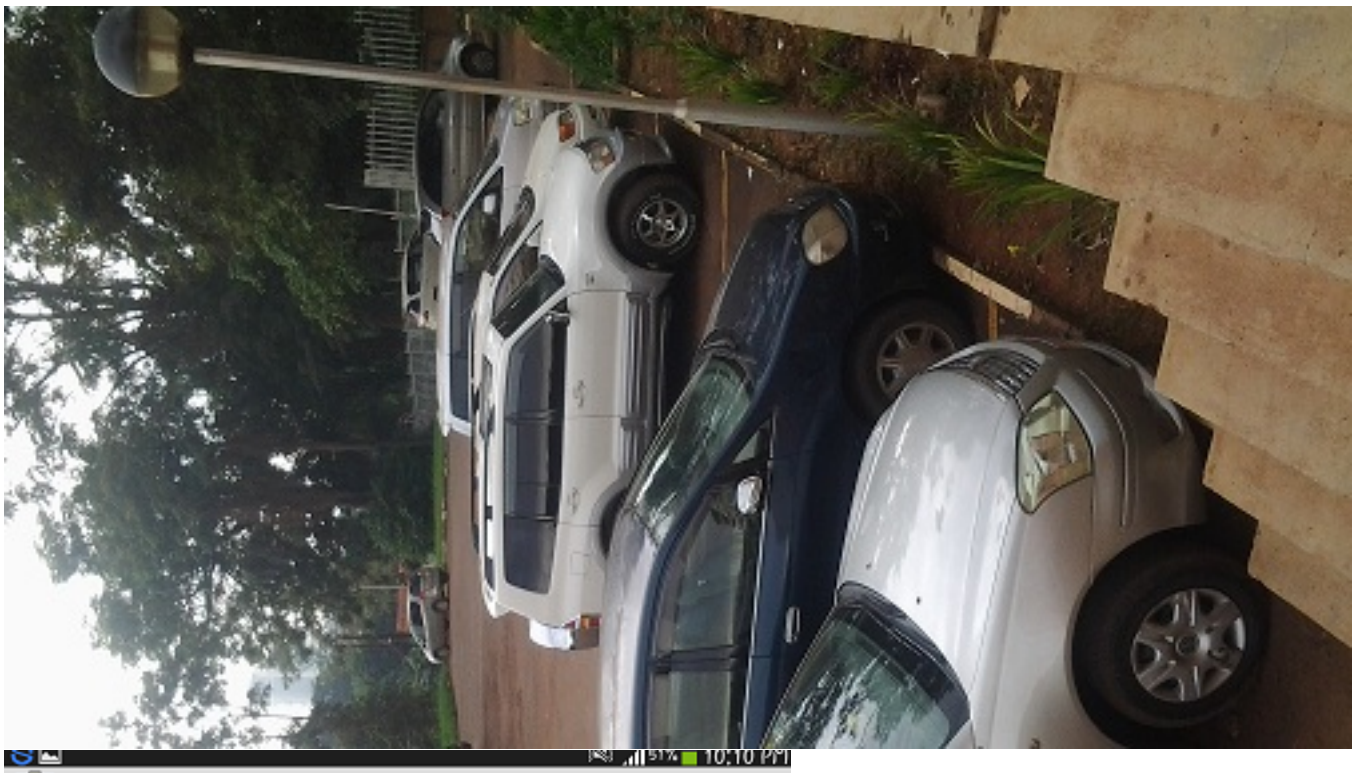


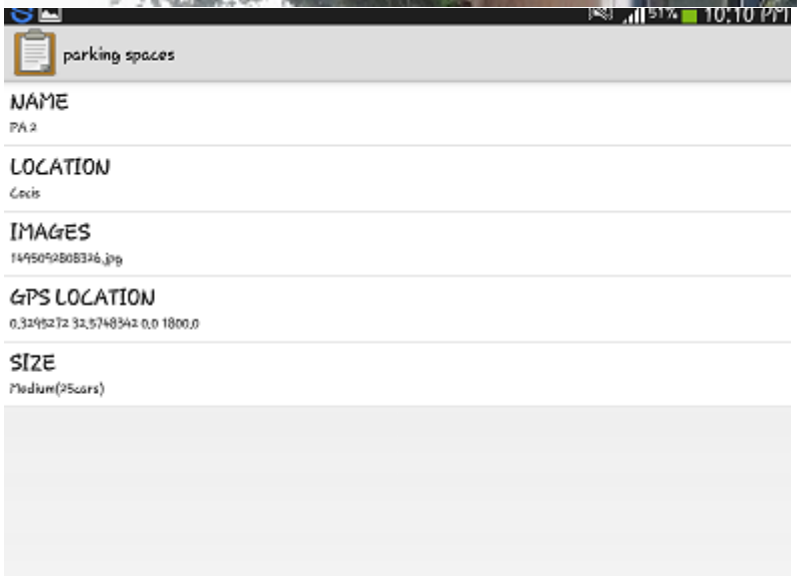
6.2 Data Collection

The data was collected a by phone where the researcher (me) walked around makerere university taking pictures with my phone with the help of the odk form.

Geo position was obtained using the satellite readings on the application while running on the smart phone.

The maximum number of cars each parking lot can take i.e below is the COCIS parking lot.(the max number of cars of each parking lot is found in the form)





6.3 Data Analysis

After collecting the data using the ODK collection tool, an internet connection would later be used to upload the obtained entries directly on the aggregate server which is on the site http://project-167919.appspot.com. On the same site, the data visualization of bar graphs, pie charts and map view of the coordinates

7 Results

The results of the research can be found at the aggregate server where they can be uploaded.

8 References

The FEMA NIGHT GUARD(names witheld) who gave me some information about the FEMA parking lot.