LA 558 Final Project Proposal

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Title:

Address location and the management of urban facilities in the Kumasi Metropolitan Area in Ghana.

Overview

This project specifically deals with the creation of an interactive map on address geocoding and development of an address database for the downtown area of the Kumasi Metropolis in Ghana. Using field data on street addresses and the coordinates of available landmarks (properties/businesses, institutions as well as emergency services/facilities), I will develop an interactive map to show the location of these address points with accompanying markers and popups.

Abstract

The contribution of effective street naming and property addressing systems towards urban management cannot be gainsaid. Without a simple description of where an individual lives or where a facility is located, makes access to critical services such as mail deliveries, emergency services, as well as census data difficult to obtain. Hence, using the google geocoding API and google plus codes, I would like to develop an interactive webpage with a map for the downtown area of Kumasi. The goal of this project is to ensure easy identification of people and places by individuals without necessarily having an extensive local knowledge of the place.

Using field data in a csv format and shape files which I converted to geojson using geojson.io and QGIS, I am planning of developing a map with appropriate buttons/hyperlinks that will show the location of properties/businesses, institutions, and emergency facilities/units and their corresponding street addresses as well as plus codes.

Technology to be used

Geojson.io

QGIS

Leaflet

Google geocoding API/Google Plus codes

jQuery and AJAX

GeoJSON

HTML, CSS and JavaScript

Potential Challenges

One greatest challenge I think I will encounter will be the creation of jQuery /JavaScript functions depending on the format and how the whole data will be synchronized.