**CLASSIFICATION OF CITIES IN NIGERIA USING FOURSQUARE LOCATION DATA**

**INTRODUCTION**

**Background of the study**

Nigeria is the largest country in West Africa and the most populous country in Africa as a whole, with over 206 million people. Nigeria’s population makes up 2.64% of the total world population. The population density in Nigeria is 226 per km2, that is 586 people per mile2. The total land area is 910,770km2 (351,650sq miles). 52% of the Nigeria population is urban and the rest rural.

As a resident and citizen of Nigeria, I have decided to use Nigeria as a whole in my project.

Nigeria is a very beautiful country brimmed with many inspiring natural attractions such as mountains, beaches, forests, city skylines, deserts, local landscapes, to mention but a few. It is a country that is blessed with so many natural resources such as petroleum, natural gas, tin, iron ore, coal, limestone, lead, zinc and arable land. The oil and gas sector accounts for about 10% of gross domestic product, and petroleum exports revenue represents around 86% of total exports revenue ([www.opec.org](http://www.opec.org)).

Nigeria also has excellent cuisines which consists of food items and dishes from the hundreds of ethnic groups that comprise Nigeria.

**Business Problem**

For the above stated facts, Nigeria is a country that has attracted foreign investors and tourists but there is no readily available information to guide potential investors and tourists on the cities to invest in or visit. The target stakeholders for this project are investors and tourists.

To solve the above problem, we can create a map that shows major cities in Nigeria clustered according to the venues that surround these cities. This will enable investors know cities to invest in and enable tourists know which cities to visit according to their interests and preferences.

**Data Description**

It was almost impossible to get any data for locations in Nigeria with their geographical coordinates. However, I was able to come across data containing location of all the major cities in Nigeria and their geographical coordinates.

The data used in this project include:

1. List of major cities in Nigeria and their geographical coordinates scraped from <https://www.latlong.net/category/cities-160-15.html>
2. The foursquare API location data will be used to explore venues surrounding each city.