




THE BATTLE OF NEIGHBORHOOD IN THE CITY OF NEW YORK



Predicting an
optimal location
for An African
Restaurant in the
City of New York



INTRODUCTION

I- Introduction

In this capstone project, we'll target an optimal location for a restaurant company.

a well known company namely AfricaFood in the restaurant domain would like to open an agency in the city of New York.

But the problem is knowing New York a very big city perhaps the biggest in the world, plus the financial capital of the USA.

There is arguably a very high competition among restaurant companies out there. so we would like exploring areas distant from existing restaurants and crowded.

METHODOLOGY

In order to predict an optimal location for the restaurant, we have downloaded the following libraries

```
import numpy as np # library to handle data in a vectorized manner

import pandas as pd # library for data analysis
pd.set_option('display.max_columns', None)
pd.set_option('display.max_rows', None)

import json # library to handle JSON files

#!conda install -c conda-forge geopy --yes # uncomment this line if you haven't completed the Foursquare API Lab
!pip install geopy
from geopy.geocoders import Nominatim # convert an address into latitude and longitude values

import requests # library to handle requests
from pandas.io.json import json_normalize # tranform JSON file into a pandas dataframe

# Matplotlib and associated plotting modules
import matplotlib.cm as cm
import matplotlib.colors as colors

# import k-means from clustering stage
from sklearn.cluster import KMeans

#!conda install -c conda-forge folium=0.5.0 --yes # uncomment this line if you haven't completed the Foursquare API Lab
import folium # map rendering library
```

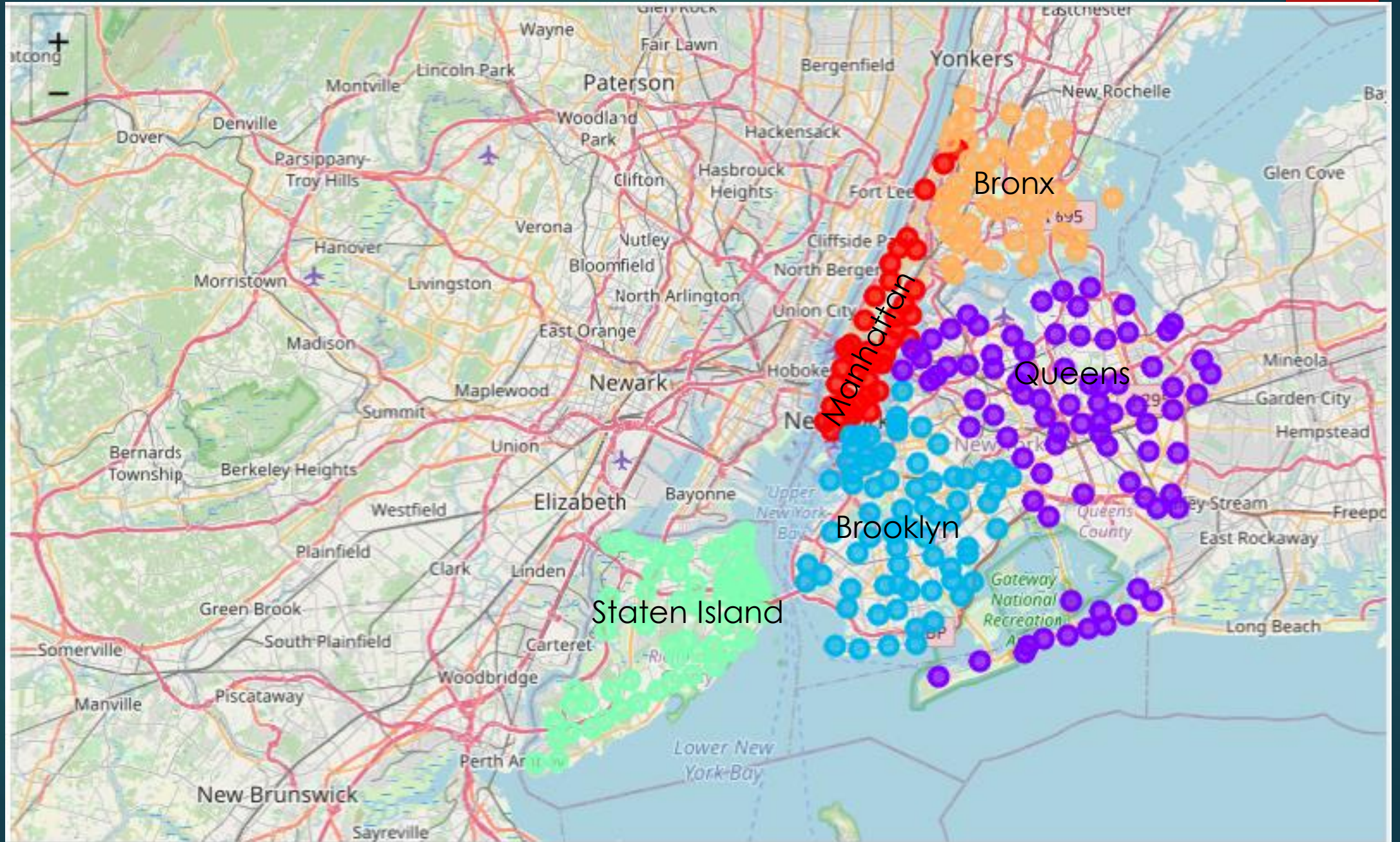
After proceeding with the dataset, we obtain the neighborhoods of the City of New York.

The dataset contain 5 borough

Manhattan-Brooklyn-Queens-

Bronx-Staten Island and 306

Neighborhoods



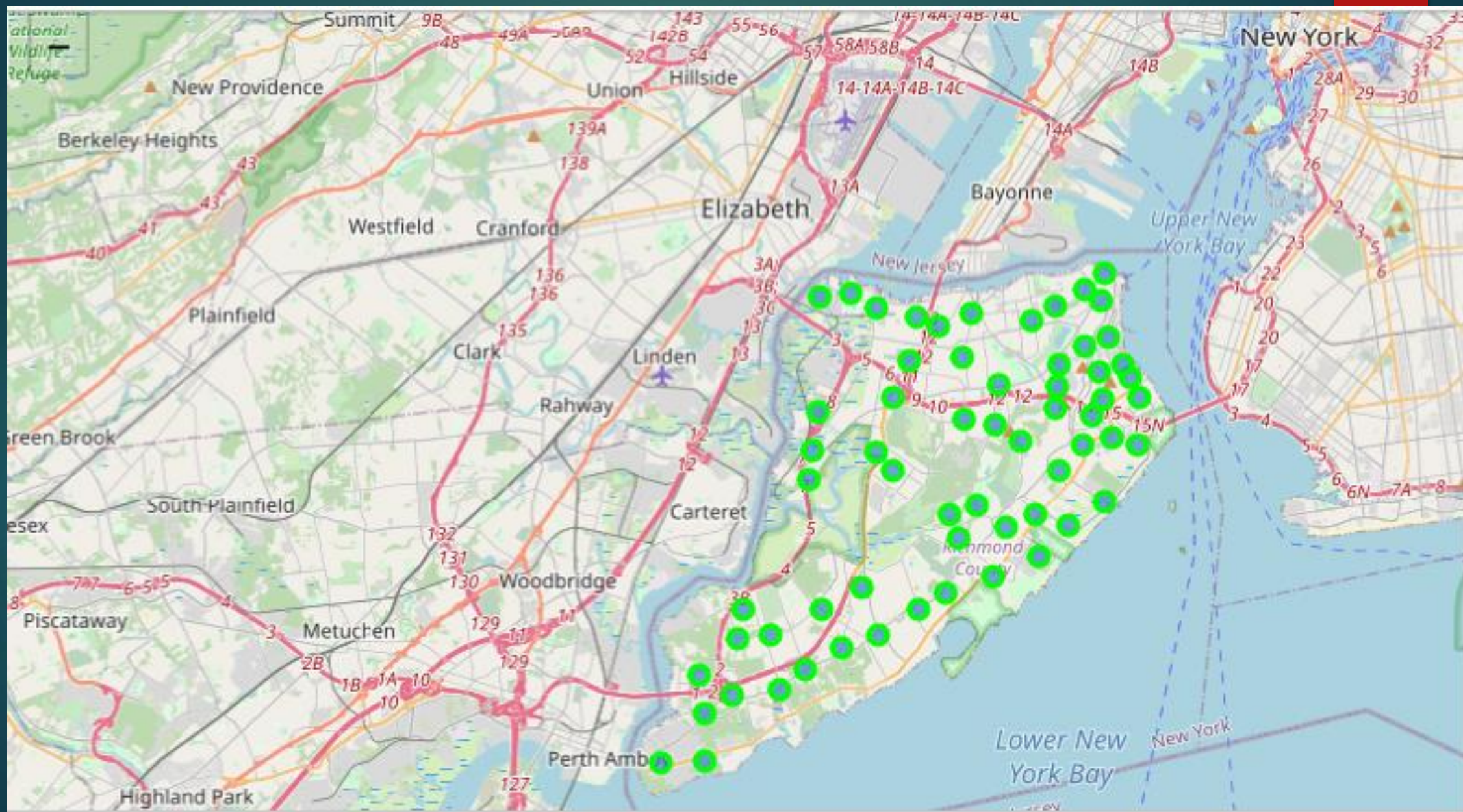



RESULT

The goal of the result section is to determine where to install our AfricaFood Restaurant in New York, either Bronx, Brooklyn, Manhattan, Queens or Staten Island.

now we have clustered neighborhoods, based on map_newyork and after a thorough examination of all the neighborhoods let's focus our analysis in the staten island SW New York in green

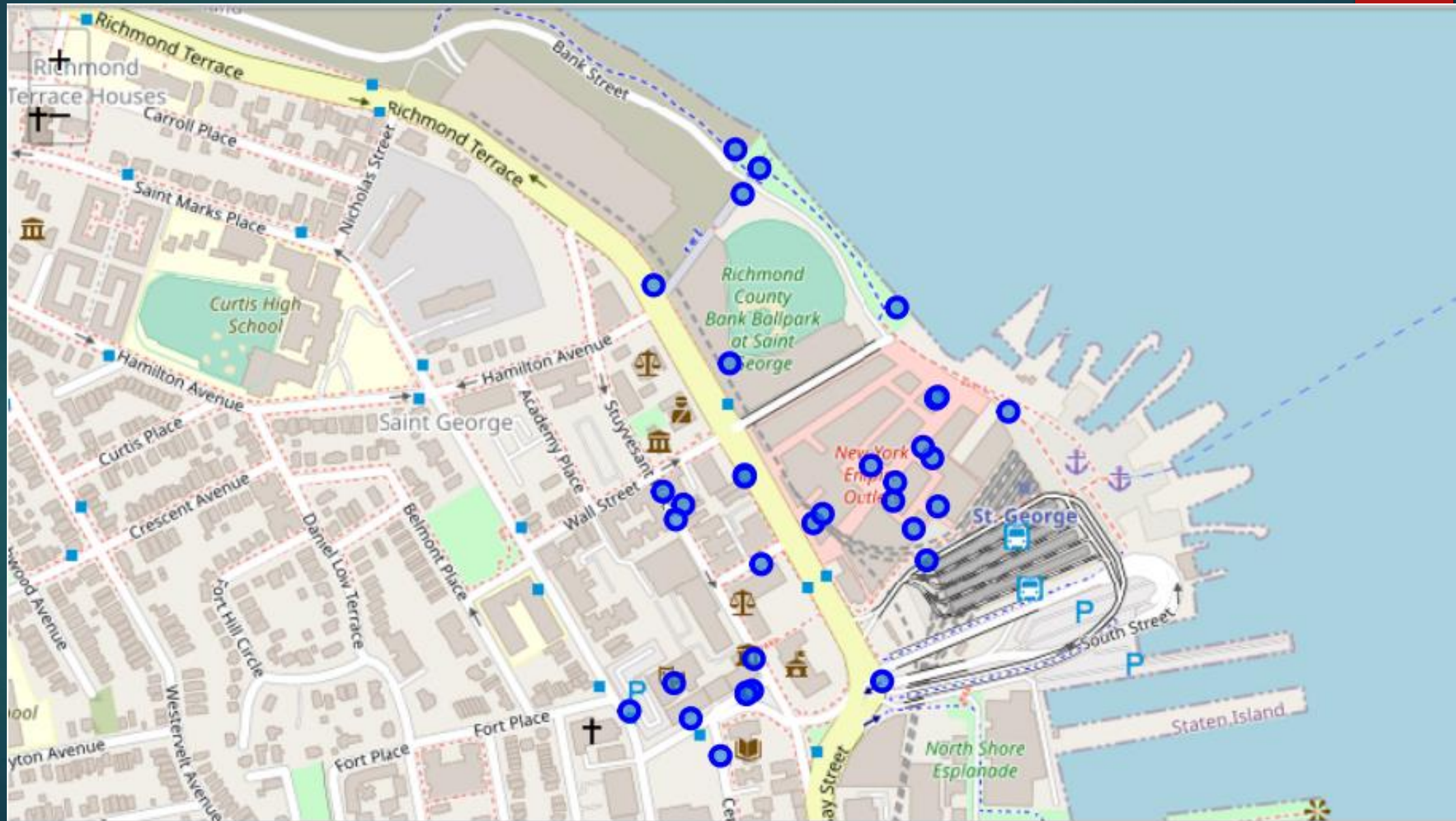
Staten Island Neighborhoods






After a thorough
examination of Staten
Island Neighborhood, we
choose to explore venues
around Westerleigh in a
radius of 200 m

Venues around Westerleigh in a radius of 200m





CONCLUSION



In this Capstone Project, the goal was to locate a suitable address to launch an African Restaurant in the City of New York. To that end, we first downloaded all the dependencies for the analysis, then we have downloaded the dataset. After we have been using the Foursquare API to explore neighborhoods in the city of New York, we focused our analysis in the Staten Island after a thorough examination of the data. The audiences for this capstone project are namely business leaders in the restaurant domain, Tourists visiting the City of New York.