# Top 5 Bukkas for Investors in Lagos, Nigeria

Coursera-IBM Data Science Capstone Project
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#### Introduction

**Business Problem** 

Find Bukkas with the potentials of becoming high-class restaurants, within a 3km radius of the administrative capital of each local government area of Lagos State.

Recommend top 10 Bukkas for investment.

## Description of Datasets

- The datasets used for this project were acquired from Wikipedia and Macrotrends.
- Wikipedia dataset consists of the names and administrative capitals of all the local government areas in Lagos State.
- Macrotrends dataset consist of the growth rate of Lagos State

# Wikipedia Data and Macrotrends Data

	LGA name	Area (km2)	Census 2006 population	Administrative capital	Postalcode
0	Agege	11	459939	Agege	100.0
1	Alimosho	185	1277714	lkotun	100.0
2	lfako-ljaye	27	427878	Ifako	100.0
3	Ikeja	46	313196	Ikeja	100.0
4	Kosofe	81	665393	Kosofe	100.0

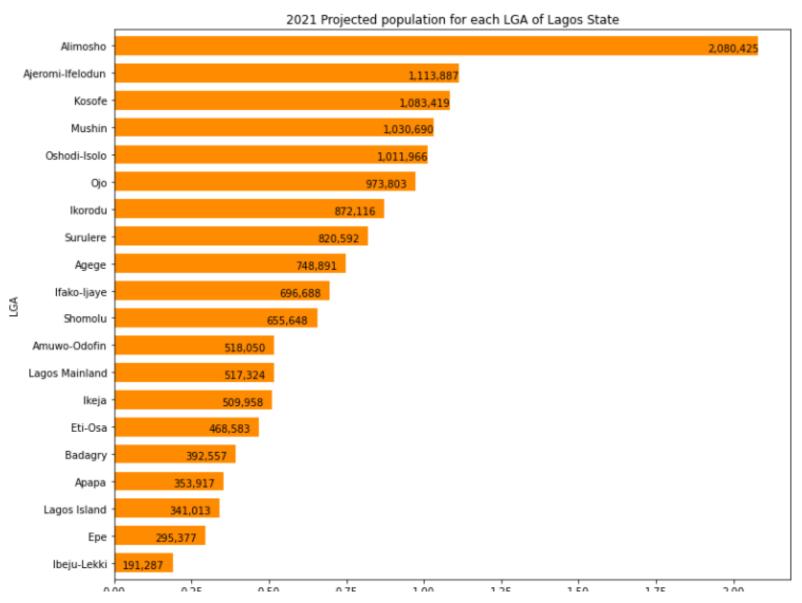
	Year	Population	Growth Rate
0	2021	14862000	3.44%
1	2020	14368000	3.34%
2	2019	13904000	3.28%
3	2018	13463000	3.23%
4	2017	13042000	3.23%

# Data Cleaning and Feature Selection

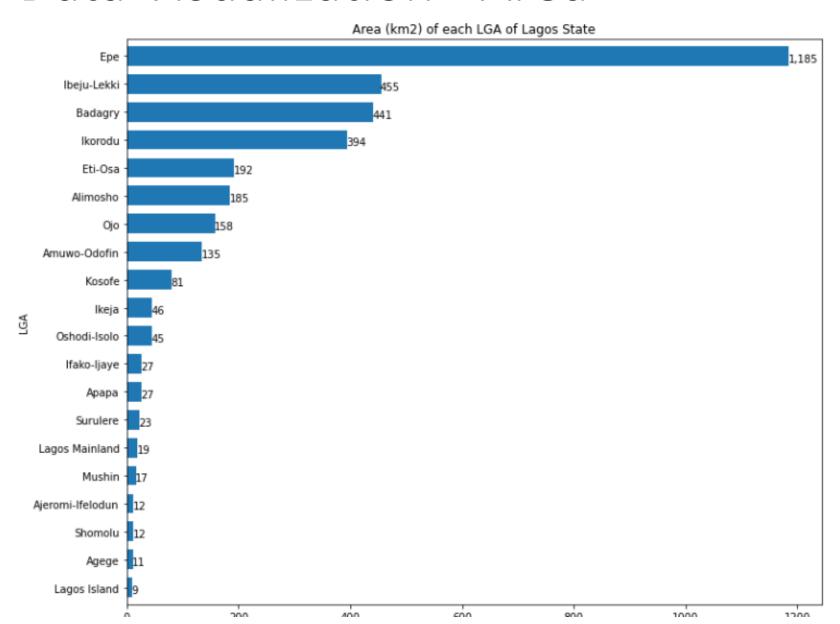
Lagos State projected population for year 2021 is 14676191

	Administrative capital	Area (km2)	Projected 2021 population
LGA name			
Alimosho	lkotun	185	2080425
Ajeromi-Ifelodun	Ajeromi/lfelodun	12	1113887
Kosofe	Kosofe	81	1083419
Mushin	Mushin	17	1030690
Oshodi-Isolo	Oshodi/Isolo	45	1011966

#### Data Visualization – Population



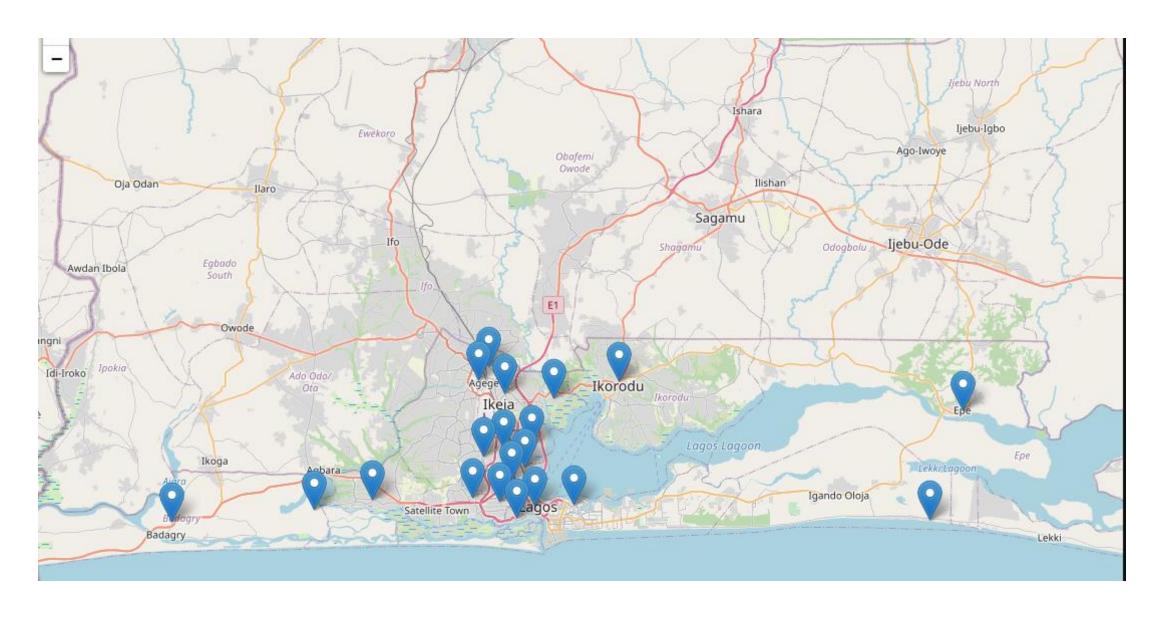
#### Data Visualization - Area



# Lagos LGA Coordinates

	Administrative capital	Area (km2)	Projected 2021 population	Latitude	Longitude
LGA name					
Alimosho	lkotun	185	2080425	6.44972	3.08744
Ajeromi-Ifelodun	Ajeromi/lfelodun	12	1113887	6.45941	3.34055
Kosofe	Kosofe	81	1083419	6.59999	3.41509
Mushin	Mushin	17	1030690	6.53174	3.34701
Oshodi-Isolo	Oshodi/Isolo	45	1011966	6.52135	3.31863
Ojo	Ojo	158	973803	6.46262	3.16696
Ikorodu	lkorodu	394	872116	6.62356	3.50483
Surulere	Surulere	23	820592	6.48932	3.35800
Agege	Agege	11	748891	6.62561	3.31262
lfako-ljaye	lfako	27	696688	6.64394	3.32643
Shomolu	Shomolu	12	655648	6.53785	3.38534
Amuwo-Odofin	Festac Town	135	518050	6.46566	3.30346
Lagos Mainland	Lagos Mainland	19	517324	6.50643	3.37553
Ikeja	lkeja	46	509958	6.60776	3.34854
Eti-Osa	lkoyi	192	468583	6.45606	3.44222
Badagry	Badagry	441	392557	6.43216	2.89265
Арара	Арара	27	353917	6.43795	3.36436
Lagos Island	Lagos Island	9	341013	6.45470	3.38876
Epe	Epe	1185	295377	6.58375	3.97553
lbeju-Lekki	Akodo	455	191287	6.43546	3.93027

## Lagos LGA on the Map



#### Restaurants within a 3km radius returned by API for all the LGA

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0 restaurant(s) found in 3km radius of Ikotun.
5 restaurant(s) found in 3km radius of Ajeromi/Ifelodun.
4 restaurant(s) found in 3km radius of Kosofe.
14 restaurant(s) found in 3km radius of Mushin.
4 restaurant(s) found in 3km radius of Oshodi/Isolo.
1 restaurant(s) found in 3km radius of Ojo.
3 restaurant(s) found in 3km radius of Ikorodu.
19 restaurant(s) found in 3km radius of Surulere.
4 restaurant(s) found in 3km radius of Agege.
7 restaurant(s) found in 3km radius of Ifako.
13 restaurant(s) found in 3km radius of Shomolu.
7 restaurant(s) found in 3km radius of Festac Town.
22 restaurant(s) found in 3km radius of Lagos Mainland.
44 restaurant(s) found in 3km radius of Ikeja.
41 restaurant(s) found in 3km radius of Ikovi.
1 restaurant(s) found in 3km radius of Badagry.
6 restaurant(s) found in 3km radius of Apapa.
11 restaurant(s) found in 3km radius of Lagos Island.
0 restaurant(s) found in 3km radius of Epe.
0 restaurant(s) found in 3km radius of Akodo.
```

#### Top 5 restaurants in Bukka category

Total number of Bukkas found in the LGAs of Lagos State is 5

	Administrative capital	Restaurant	ID	Address	Latitude	Longitude	Category
LGA name							
Ikorodu	Ikorodu	Fatmot Restaurant	50374439e4b05b4c79f8f7da	5, Lagos Rd	6.630483	3.510461	African Restaurant
Lagos Mainland	Lagos Mainland	White House	4d344e1098336dcb474236f0	Commercial Avenue Yaba (Yaba)	6.506143	3.375522	African Restaurant
Lagos Mainland	Lagos Mainland	Olaiya Amala	4f64f3e7e4b03a7ce173376d	Akerele rd	6.503535	3.358119	African Restaurant
Ikeja	Ikeja	Goat Hunters	4d090df300e6b1f79acf10d7	Adelelke Street	6.601134	3.351368	African Restaurant
Lagos Island	Lagos Island	Ghana High Buka	51dbe2c8498e3264a8aa5bc4	McCarthy Street	6.446439	3.405491	African Restaurant

## Top 5 Bukka according to their ratings

	Resturant	Address	Rating
LGA name			
Lagos Mainland	White House	Commercial Avenue Yaba (Yaba)	8.0
Ikorodu	Fatmot Restaurant	5, Lagos Rd	7.4
Lagos Mainland	Olaiya Amala	Akerele rd	7.2
Lagos Island	Ghana High Buka	McCarthy Street	7.2
Ikeja	Goat Hunters	Adelelke Street	6.6

#### Conclusion

- I recommend these bukkas according to their ratings for investment
- I will recommend opening new branches for any of these bukkas in the most populated LGAs like Alimosho, Ajeromi-Ifelodun and Kosofe. These 3 most populated LGAs have no or few restaurants within a 3km radius of their Administrative Capitals.
- I will also recommend opening new branches at Epe and Ibeju-Lekki because they have no restaurants sited within a 3km radius of their Administrative Capitals. Though they have the lowest population, they have high standards of living and the largest areas of land.