

Applied Data Science Captstone Project

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Introduction

Success for any business is, performing proper ground work before start the business. Know the market (area) is a key for restaurant business, especially if we intend to open an ethnic restaurant in foreign country. By this project, identifying the best place to open an Indian Restaurant in London region.

Business Problem:

To identify the best area to open an Indian Restaurant in London region, based on analyzing Indian population and number of Indian restaurants already in that London region.

Target Audience:

Entrepreneur planning to open a restaurant

Stakeholders:

Entrepreneurs and Investors.

Data description

Data set detail and its source

Dataset1 from UK government:

UK residents by individual countries of birth and citizenship, broken down by UK country, local authority, unitary authority, metropolitan and London boroughs, and counties. (Link : <https://data.london.gov.uk/download/ethnic-group-ward-2001/884e5228-107c-4d91-812b-ccd2ae778e31/ethnic-group-ward-2001.csv>)

Dataset 2 from FourSquare:

Indian restaurant detail from FourSquare location data API. This project will use this API to fetch data for a location based on Latitude, Longitude and search criteria "Indian Restaurant".

Methodology

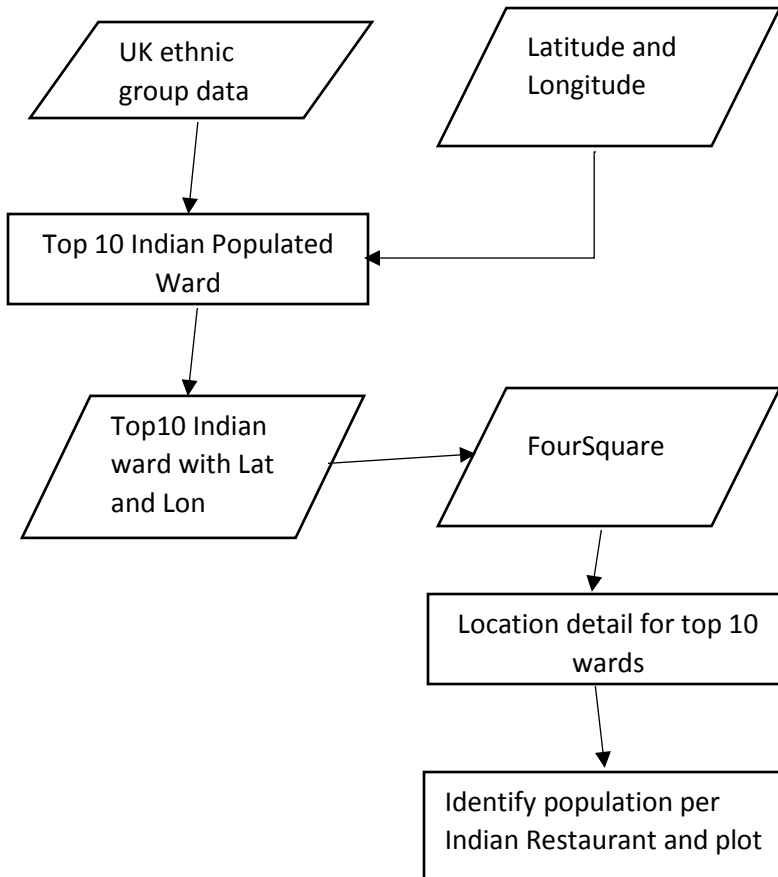
Exploratory Data Analysis:

Uk resident's dataset contains ward wise data for various ethnic people. Based on exploratory data analysis, utilized only Indian data.

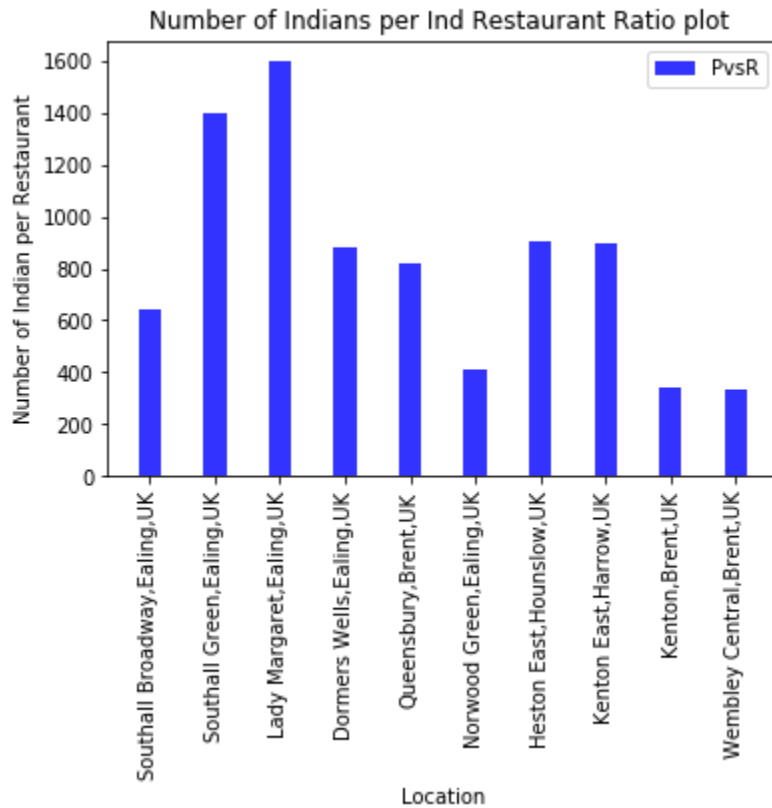
ward code	Borough	Ward	All people	White	Mixed	Asian	Black	Chinese/Other	White British	...	% Mixed Other	% Asian or Asian British Indian	% Asian or Asian British Pakistani	% Asian or Asian British Bangladeshi	% Asian or Asian British Other Asian	% Black or Black British Caribbean	% Black or Black British Black African	% Black or Black British Other Black	% Chinese or other ethnic group Chinese	% Chinese or other ethnic group Other Ethnic Group
01AA	City of London	City of London	7177	6075	161	488	182	271	4909	...	0.8	2.2	0.3	3.8	0.4	0.7	1.6	0.2	2.0	1.7
01BY	Barking	Barking	4000	2500	300	200	100	100	2700	...	0.8	0.8	1.2	1.2	0.4	1.2	0.8	0.8	0.7	1.4

And FourSquare data results were analyzed to get only Indian Restaurant detail within 2500 sq. mtr. Average ward area was calculated based on 265 wards in London total 1594 sq. mtr.

Workflow:



Results:



Conclusion:

Based on results, Ward which has a greater number of people per restaurant is the ideal place to open a new restaurant. Recommend to open a restaurant in ward Lady Margaret, Ealing, London, UK.

Further to add, this project can be reused to perform for any other ethnic group and restaurant or any other ethnic dependent business or investments.