The choice of the best neighborhood to install a Vegan restaurant based on african origin products in Toronto

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I-Introduction

I-i Context

Over the last twenty years, the contribution of african descent or black origin immigrants to overall immigration to Canada have raised increasingly. As time pass by the aim of returning to roots have raised upon this african-canadian community coming up with the need of african stamped products in all living aspects from clothing to home assets and foods.

As shown in this report on candadian population ethnocultural diversity availaible here , african-born individuals, representing 13.4% of the total recent immigrants and the second largest group after the european descent immigrants contain the largest group of youth population in 2016.

The vegan mouvement born in the UK and theorised by Donald Watson which diet is therefore to refuse any animal product, not only meat, but also products from animals such as milk, cheese, butter or yogurts, honey or eggs. It is therefore necessary to carefully balance its diet by not neglecting the protein and vitamin B12 in particular, to avoid the deficiencies that can be created by such a diet.

As this ideology is gaining more followers among young people, therefore a need of specialised restaurant to meet the need of this specific portion of the population have raised.
The combination of thoses two factors and studies have lead us to choose the suitable neighborhood in Toronto to create an african product based Vegan restaurant.

I-ii The business problem to be solved

As an african descent newly arrived immigrant in Canada, we are searching for a suitable neighborhood to start our activity.

Using data science to explore and cluster Toronto neighborhood, cluster venues and analysing insights will give as the best choice to pick the neighborhood where to install our african products based vegan restaurant.

I-iii The scope of our project

The main interest in achieving this project will be to determine a suitable venue which can combine two specific portion of a population which are actual large portions and to meet their need at the best place possible. The outcome will be to target african-descent immigrants and vegans and capture the large part as possible of this business segment.

II – The choice of data and exploration methods

- **Source :** our main source of data will be the Toronto neighborhood data available on Wikipedia, that we have scraped and transform in a dataframe earlier in this course. We will use Foursquare location data to identifiate venues accross Toronto neighborhood , how they are clustered and which venue is located where. We will concentrate on already existing Vegan restaurant and other specific venues making them interesting choice or not.

- **Feature selection :** we will analyze neighborhood by venues, by clustering , we will identifiate the most common venue for each cluster and the insight wil be be to keep the cluster where vegan or african restaurant are about the rare venue to decide of our implatation.

III – The data science methodology used in our project

In other to reach our goal, that is to find the most suitable venue for our restaurant to be implemented. Our path will consist on :

- gathering information about all venue in Toronto neighborhood after getting the geospatial coordinate by the Foursquare Api and thus to come up with a dataframe showing neighborhood and relevant venues with their locations data.

- All redondant information will be dropped to come up with a clean dataset with all uniques informations about neighborhoods and the categories our kind of places that can be found around.

- After finding up the top 5 most common venues for each neighborhood , we will build another dataframe raising up the top 10 venue for each neighborhood, this will lead us to a clustering of the venue on a map for a deep anaysis.

- We will analyze each defined cluster to find the where vegan restaurant is uncommon.

IV- Results of the data analysis

The results confirmed our intinial prediction : apart from some african country stamped restaurant (mainly ethiopian) and some neighborhood as Downton Toronto, where Vegan seem to be common, the need of a widely african stamped Vegan restaurant is real in a lot of neighborhood. There is a place to be filled.

V – Discussion

Based on our observation and data exploration, we will highly recommend to establish a Vegan restaurant based on african dishes mainly in Central Toronto where the need seem to be more high.

VI- Conclusion

Using data anlyse methods and means learning along the path of this course have been a great achievement to realise this project .

Toronto neighborhood analyse and clusering have brought us with insight about venues concentration and highliths where here is a need for a specific venue to fill and empty business place.

The course have been a great opportunity for me as a Compliance officer who haven't touched any coding langage before to leverage skills that would help me in my field of work