#### WHERE TO GO TO EAT FOOD WHEN YOU WISH TO?

#### INTRODUCTION

When someone comes for the very first time to Australia and the would like to have fast food when you are there. So you would like to go to place where there is a wide variety of fast food, quickest time of preparation, where there is quality fast food and in a location where there would be high densities of restaurants with fast food. The aim is to solve the problem of which fast food store location would be the best for tourists or visitors to go and have there delicious fast food in Australia. The intended audience would be the people who would be travelling to Australia for leisure or work purposes and have not been previously been there.

#### **DATA SECTION**

The locations of stores and to collect data I would be using the FourSquare API for fast food stores or restaurants in the 5 Cities in Australia which are: Melbourne, Sydney, Brisbane, Adelaide, and Perth. This are nearly the highly most visited cities by tourists and visitors and I am optimistic that they would be able to contain the best fast food in the main cities that they visit. The data that would be obtained from the FourSquare API would be the name of the restaurant, latitude and longitude which would be the location of the restaurant.

#### **METHODOLOGY**

The main aim was to assess which city in Australia would have the highest density of food stores or restaurants. I used FourSquare API. I used the categoryID to show only the places where food is available.

The link below shows an example of the request that was made:

 $\frac{\text{https://api.foursquare.com/v2/venues/explore?\&client id={}\&client secret={}\&v={}\&near={}\&limit={}\&categoryld={}}$ 

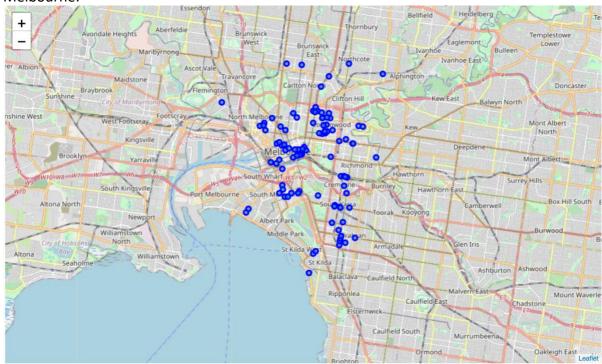
This is the categoryID that was used 4d4b7105d754a06374d81259.it shows the places where food is available. Also limit was set of 50 venues to be shown per query. Furthermore, I repeated the process for 5 cities to get the top 50 venues and then saved the latitude and longitude. Further plotted them on a visual map so that it can be used for visual inspection.

Then to get how far the density of food places are I calculated the center of the top 50 venues to get average longitude and latitude. Then I calculated the average of the Euclidean distance from the center of to each venue.

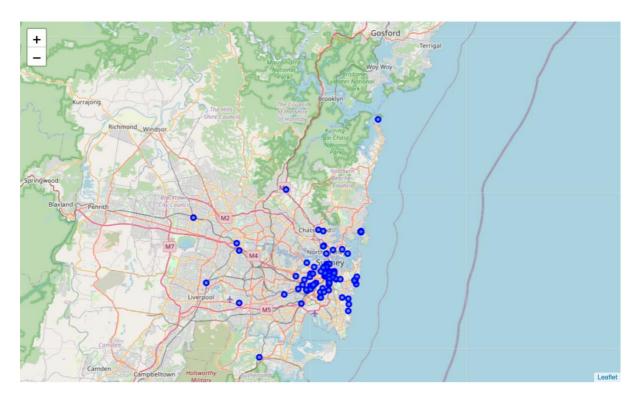
#### **RESULTS**

The following geoplot generated to show the venues that show where food would be available.

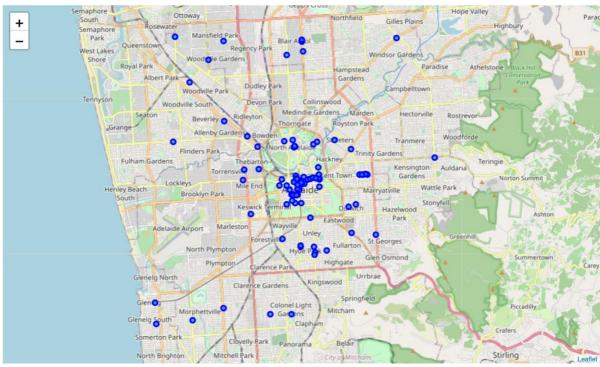
# Melbourne:



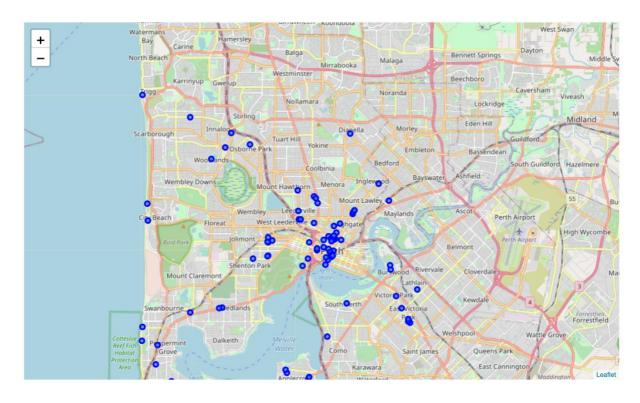
# Sydney



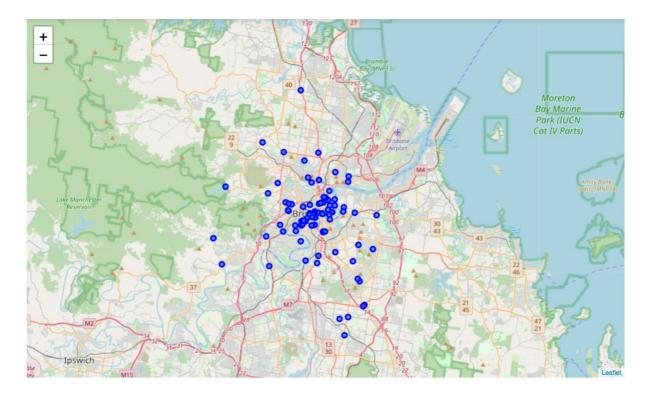
## Adelaide



#### Perth

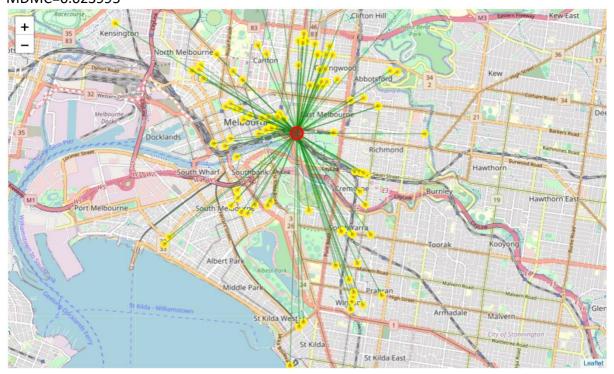


## Brisbane

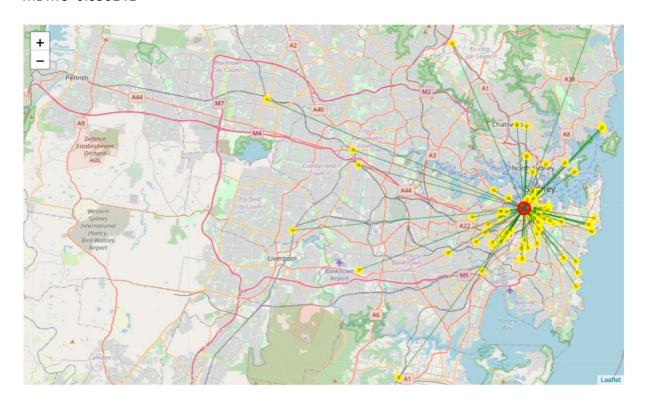


After the visual inspection from the above geoplots in the next step we have calculated the mean coordinate and the mean distance to mean coordinate (MDMC). They are being shown mean coordinate by red circles and distances in green lines.

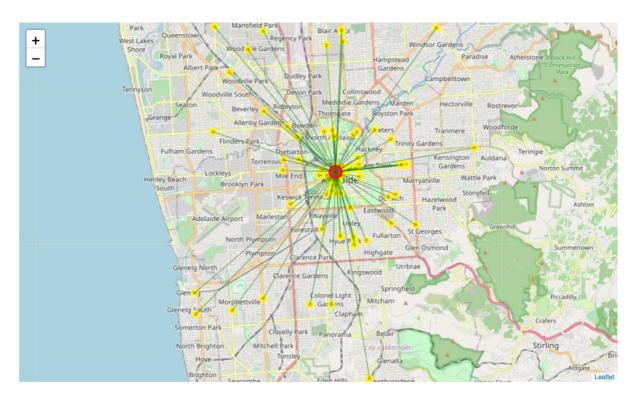
## Melbourne MDMC=0.023995



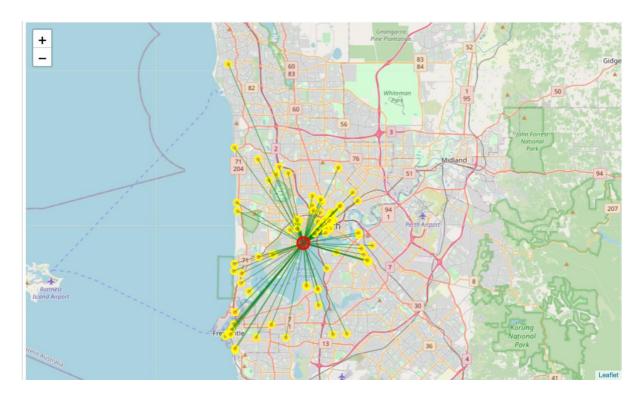
Sydney MDMC=0.056141



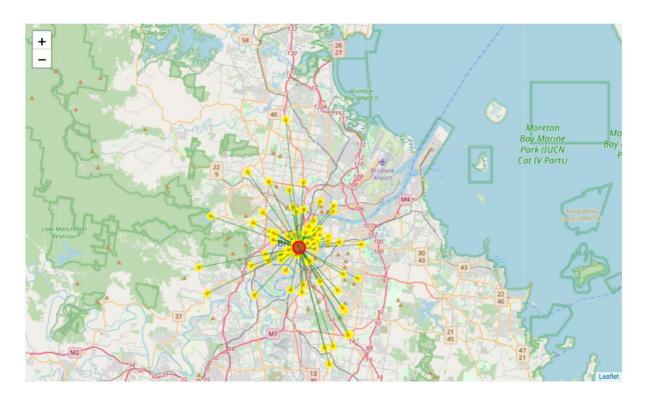
## Adelaide MDMC=0.027041



Perth MDMC=0.059961



Brisbane MDMC=0.0360346



#### **DISCUSSION**

There are some venues of food that are far away from the center and hence this increases the overall MDMC. Another examination to do further work is to move the location of the FourSquare API until we can determine all food venues in each city.

#### **CONCLUSION**

Without any doubt Melbourne is the best place to try food venues in Australia. Also as it has lower MDMC this means that there is high density o venues in a very small area and hence this would mean that tourist would able to try a variety of food in a small area. I would recommend that tourist to book place of stay, place of residence or hotel close to the center of the venues.