BATTILE OF NEIGHBOURHOODS

Applied Datascience Capestone

- B Vijay Kumar

Introduction and Business Problem

- A person Srikanth, wants to open a new burger joint in Bangalore,Karnataka.
- Due to Bangalore’s high diversity and very large size, he asked me for help in order to find the best spot to place the burger joint.
- Bangalore has nearly 50 different Localities and we aim to find the best one.
- We need to choose a Locality that has good amount of customers and low amount of competition.

Data

- The Localities of a Bangalore website :

https://www.thrillophilia.com/destinations/bangalore/places-to-visit

- The coordinates (latitude, longitude) of these Localities of Bangalore from Open Street Map API.
- From Foursquare we will need following venues data:
  - the burger joint venues of the Localities
  - the offices venues of the Localities
  - the high schools venues of the Localities
  - the universities venues of the Localities
- We will then leverage the data in order to determine which locality is the most appropriate in order to locate the burger joint.

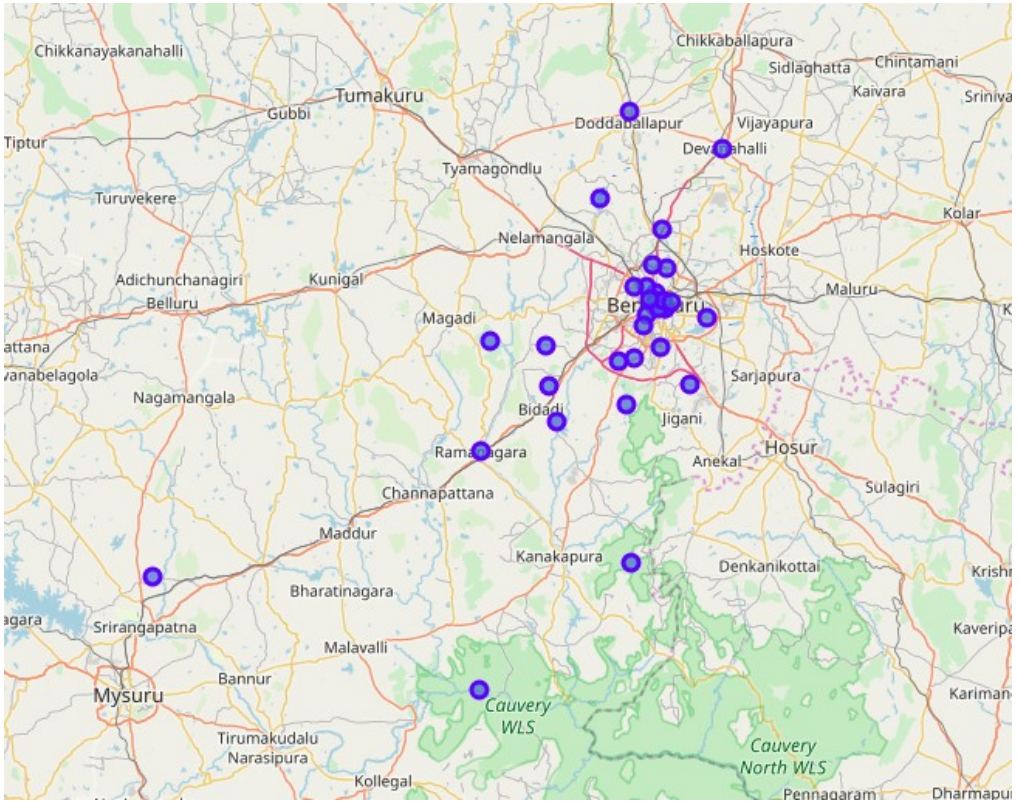
Methodology

- For each locality, all office, school, university and burger joints venues data have been collected from Foursquare.
- Then for each locality, the sums of the office, school, university and burger joints were computed.
- For each of this 4 categories, a weight (or penalty) has been defined according to what Srikanth considers the most important.
  - Burger Joints have been weighted with -1, since he wants to avoid concurrence.
  - Schools have been weighted with 1.5, since student are good customers.
  - Universities have been weighted with 2, since students are good customers.
  - Offices have been weighted with 2.5, since employees are even better customers.

Methodology

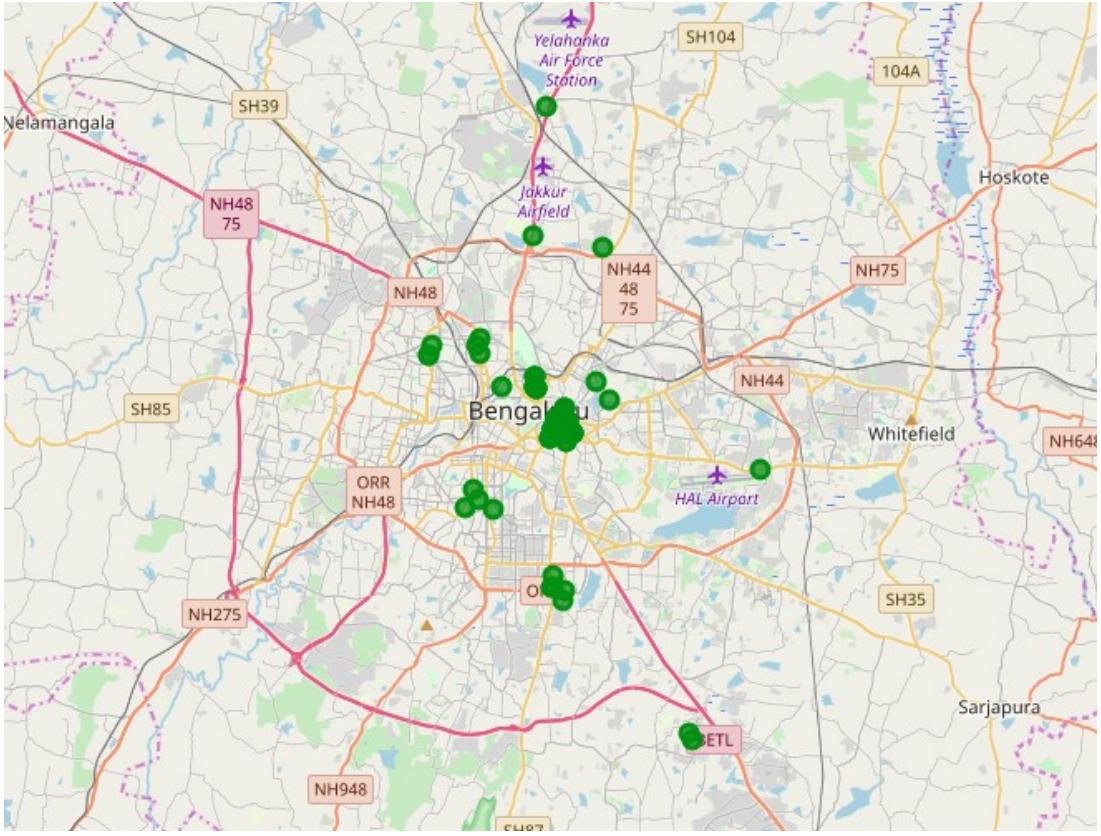
- Note that the weights can be modified according to the importance of each category.
- Lastly, a score was computed for each locality as the weighted sum of the number of venues in each of the 4 categories (school, university, office, burger joints).

- **Localities of Bangalore, Karnataka**

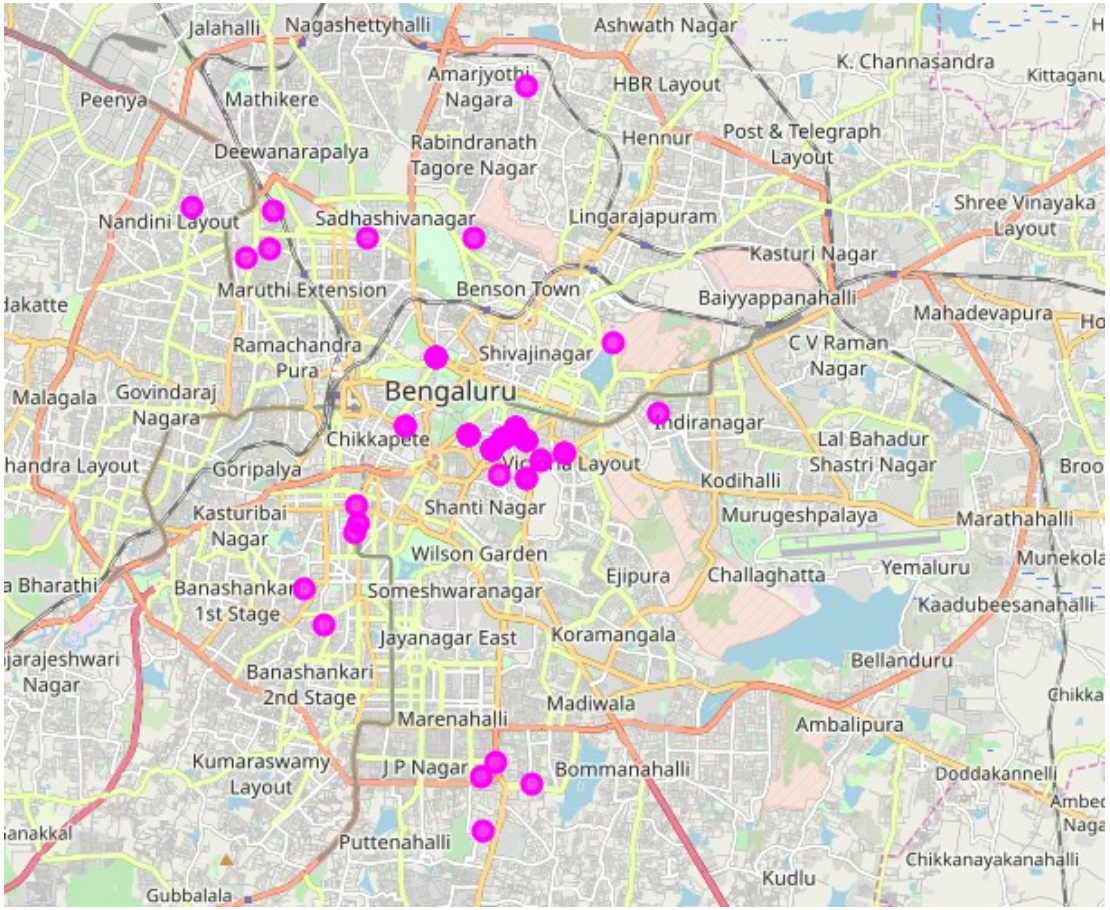


Localities	Latitude	Longitude
Cubbon Park	12.974226	77.592202
Nandi Hills	13.313019	77.544713
Bannerghatta National Park	12.532906	77.546191
Bangalore Palace	12.998596	77.592009
Vidhana Soudha	12.979745	77.590617
Venkatappa Art Gallery	12.974259	77.595208
Wonderla	12.838254	77.402680
Devanahalli Fort	13.249171	77.708543
Kunti Betta	12.508243	76.698265
Snow City	12.973006	77.607426
Ramanagara	12.725277	77.280480
HAL Aerospace Museum	12.955129	77.680740
Innovative Film City	12.776916	77.415903
Bangalore Fort	12.962941	77.575760
Savandurga	12.915961	77.297772
Brigade Road	12.973613	77.607472

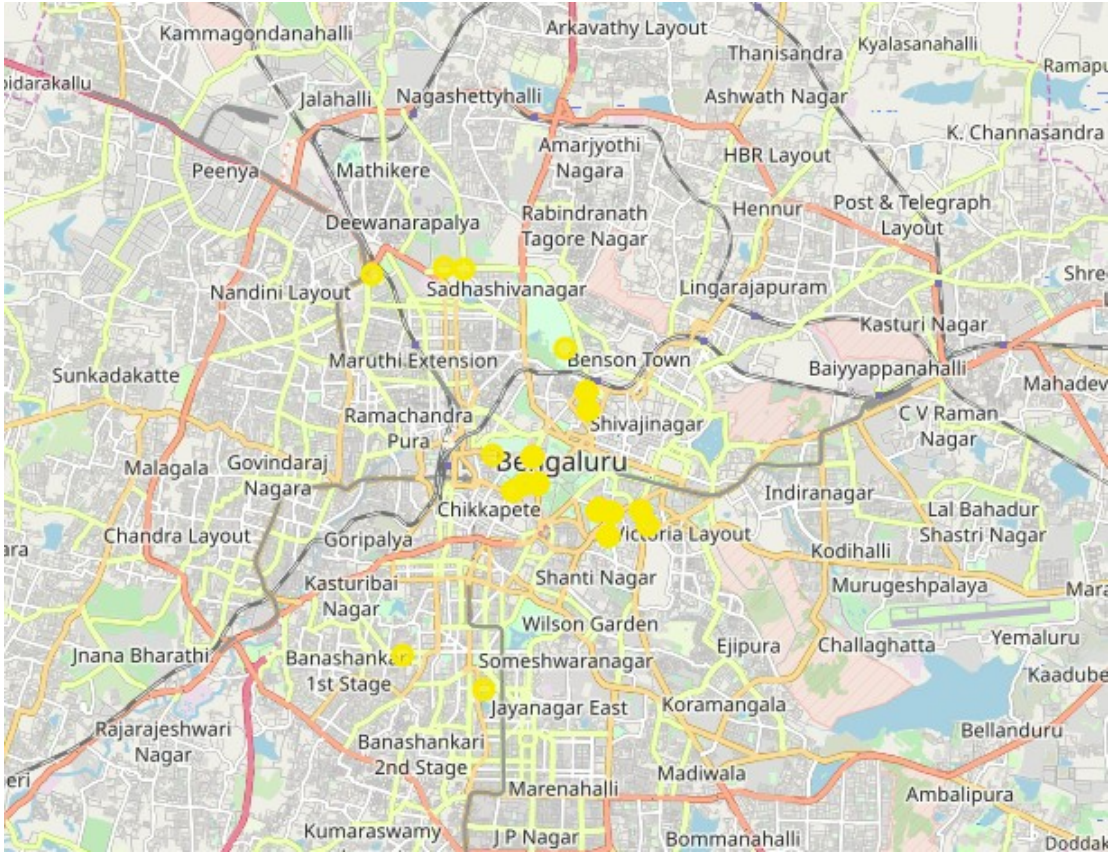
- **Burger Joints in Bangalore Localities**



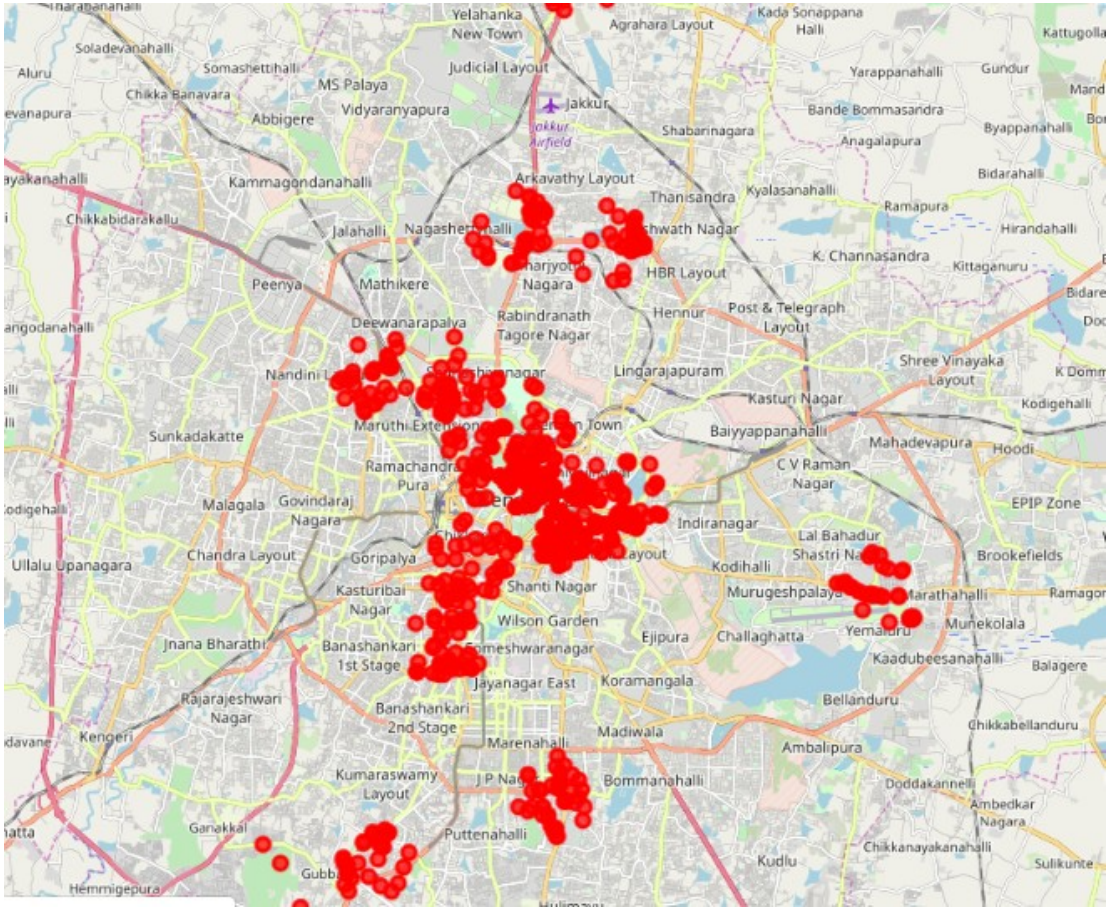
High Schools in Bangalore Localities



Universities in Bangalore Localities



Offices in Bangalore Localities

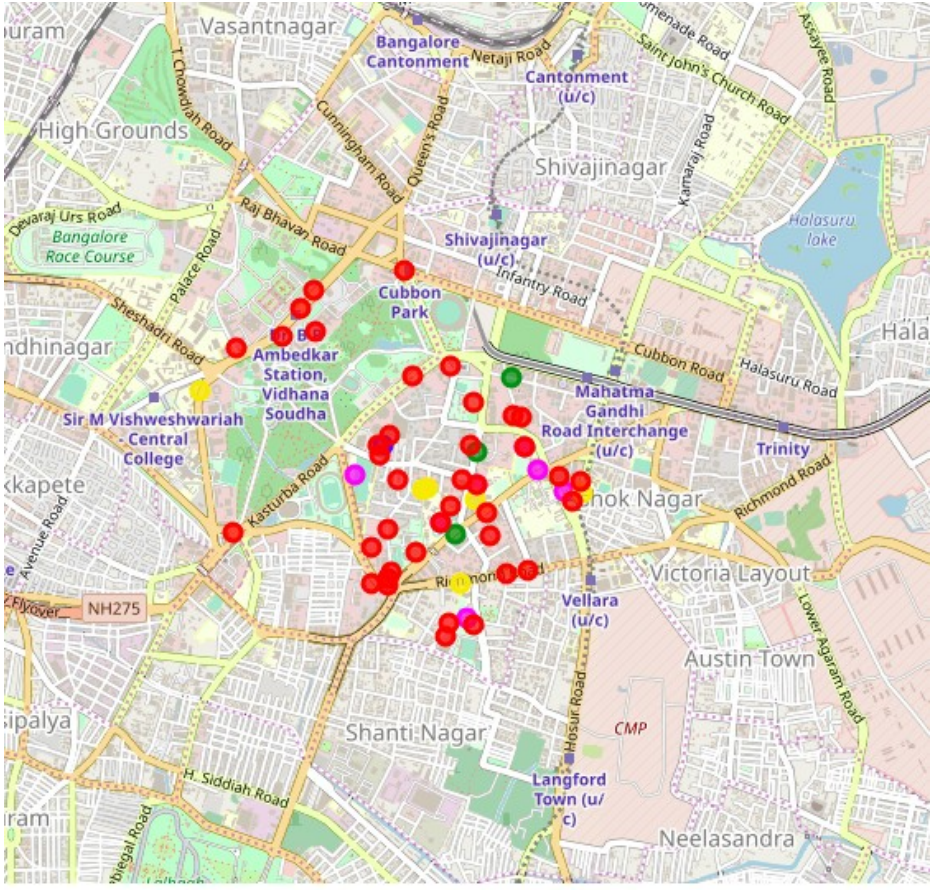


Results

Locality	Score
UB City Mall	119.5
Cubbon Park	115.5
Snow City	115.0
Venkatappa Art Gallery	114.5
Visvesvaraya Industrial and Technological Museum	114.5
Brigade Road	113.0
Vidhana Soudha	105.5
Freedom Park	105.0
Gandhi Bhavan	104.5
Jawaharlal Nehru Planetarium	104.5
Bugle Rock Park	103.0
Sankey Tank	102.5
Bangalore Palace	102.0
Indira Gandhi Musical Fountain Park	102.0
Iskcon Temple Bangalore	100.0
Ulsoor Lake	98.5

- The Locality with the best score is “UB city Mall” with 119.5 score, being the best option.
- Follows closely “Cubbon park” with 115.5. These options maximizes the number of potential customers from offices and universities and at the same time have not too large competence.

Best Place for the Burger Joint in Bangalore is “UB city Mall”



Recommendation

The following analysis can be improved with following extensions:

- Consider more categories. For example like "Night life" which is also a good source for customers. But also like "Restaurants", which even if not burger joints may be some concurrence if too many.
- In the Locality itself, it can also be computed the distance between all the venues in order to find a place with the most number of potential customers.
- Using smaller geographical areas like Neighborhoods could improve the accuracy for the scores.