# The Battle of the Neighborhoods

The Taste of Boston



# The Battle of the Neighborhoods

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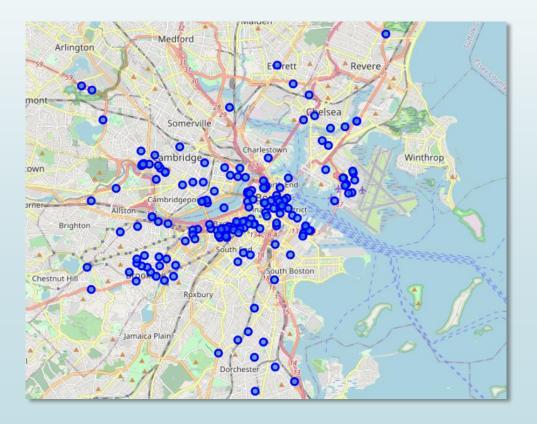
Taste

Everytime we go to another city and need to book a hotel, it is difficult to know what would be the best hotel in terms of location. What if we can have the big picture of the sorroundings of each hotel? What is the "taste" of the city sorrounding the hotel?



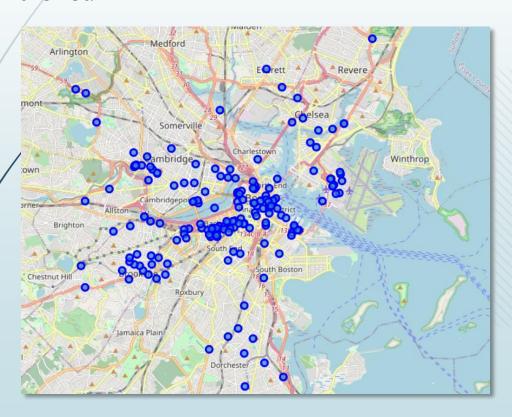
#### Take a Walk and Get the List

What if we can visit each Hotel of the city and take a walk taking notes of every venue we find? Well, we can't do that. This task can take us months to get it done and we need that information before going to the new city. But what if we let Foursquare to go for a walk on the sorroundings of each hotel in the city and get that information for us? That is the idea. So first thing we need to get a list of every hotel in the city:



# Filtering Venues

Once we have the list, next step is to get all the types of venues sorrounding each hotel. We want only some types of venues, the most relevant ones when you visit a new city. What is relevant for me maybe is irrelevant for others, but we have to start with something. So here is the list:

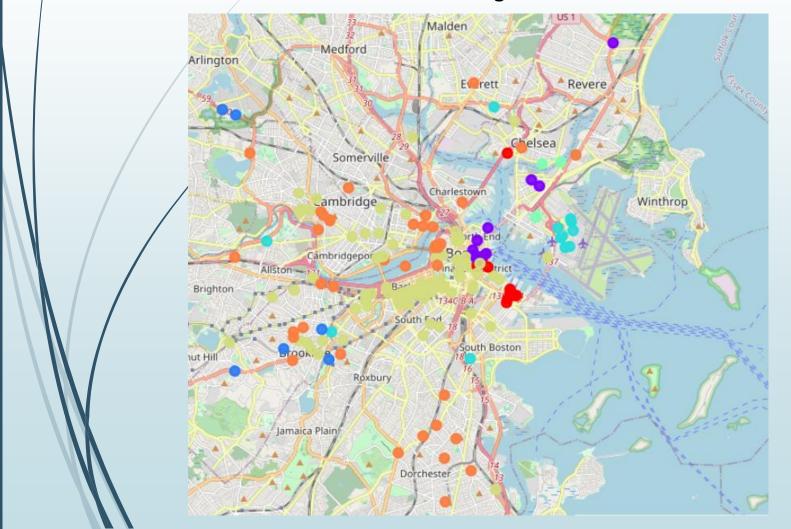




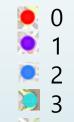
- Monument / Landmark
- Historic Site
- Restaurants
- Coffee Shop
- Food & Drink Shop
- Bakery
- Park
- Museums
- River
- Irish Pub
- Steakhouse
- Lake
- Breakfast Spot
- Rental Car Location
- Pharmacy
- Harbor / Marina
- Street Food Gathering
- Train Station
- Bus Line

# Clustering Hotel

With the list of venues and using the K Means Algorithmn we define seven cluster of hotels with similar venues sorrounding them:



#### **Clusters**

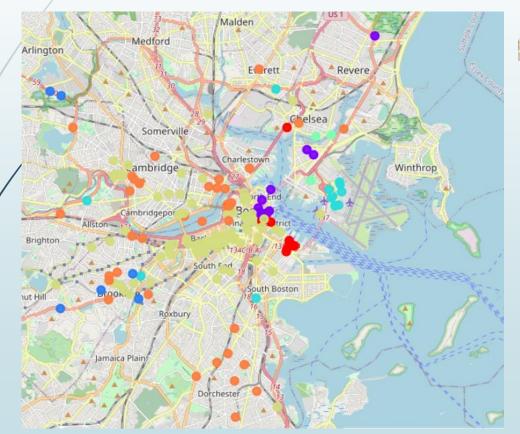




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### And the "Taste"

The idea here is to use wordmaps to get the big picture of each cluster. For example, hotels linked to cluster zero are next to the sea and the taste is:



Cluster 0

```
Art_Museum Italian_Restaurant

American_Restaurant
Harbor_ _Marina Park _vegan_Restaurant

Seafood_Restaurant

Steakhouse Mexican_Restaurant

Restaurant Coffee_Shop _Irish_Pub_
Fast_Food_Restaurant _Landmark Food_
```

## **Conclusions**

As this is only a first approach, using wordclouds and the K Means algorithm we can get the big picture of the sorrounding áreas of every hotel in a city.

This information can help us choosing one hotel when we have to travel to a new city.

To be Continued...