Japanese Restaurant in Madrid

Where and why?



Business Problem

There are not so many Japanese restaurants in Madrid (<5% of total)

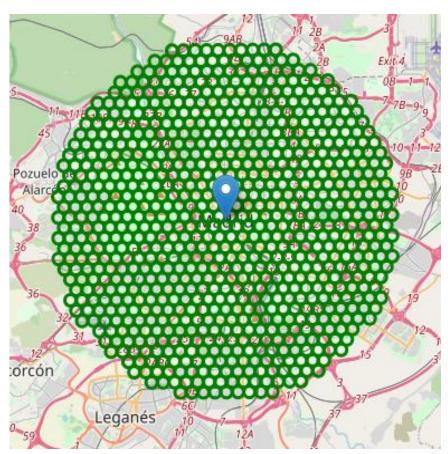
- Find optimal location for a Japanese restaurant in Madrid
- Detect locations that are not already crowded with restaurants
- No Japanese restaurants in vicinity
- Close to city center as possible

Data

- Centers of candidate areas will be generated algorithmically and approximate addresses of centers of those areas will be obtained using Google Maps API reverse geocoding
- Number of restaurants and their type and location in every neighborhood will be obtained using Foursquare API
- Coordinate of Madrid center will be obtained using Google Maps API geocoding of well known Madrid location (Puerta del Sol)

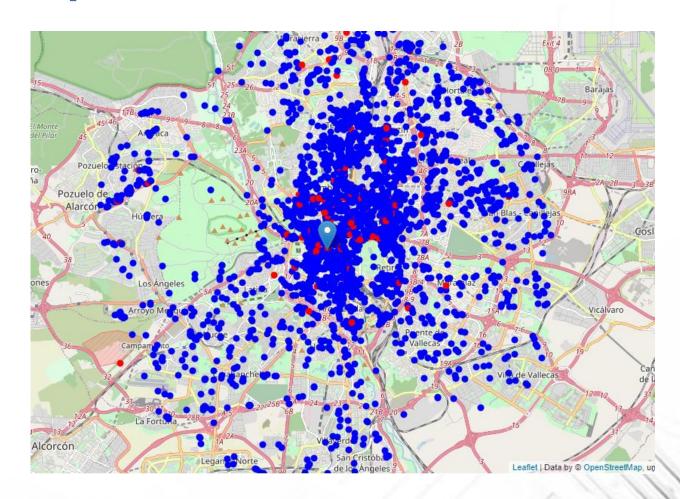
Cell grid

- Cell grid for further analysis. Marker is located at Madrid center (Puerta del Sol)
- 9 km radius
- Covers approx. full city area



Restaraunt map

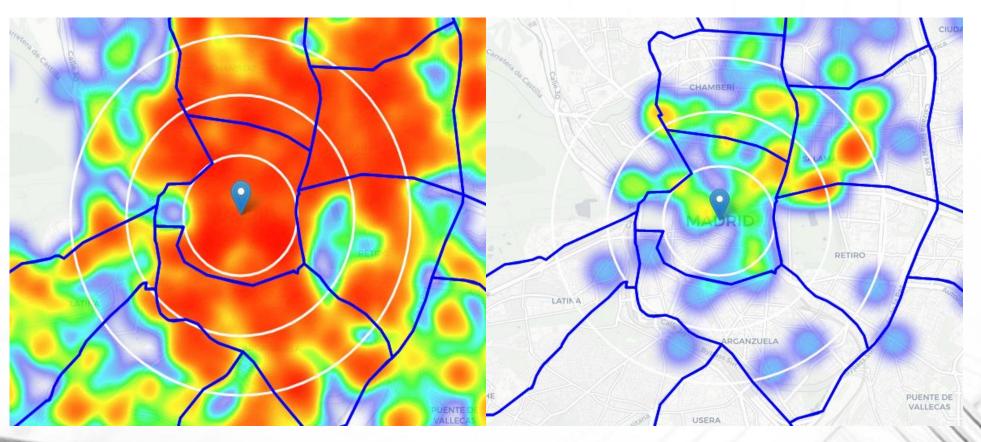
- Blue all categories
- Red Japanese



Heatmaps, city center

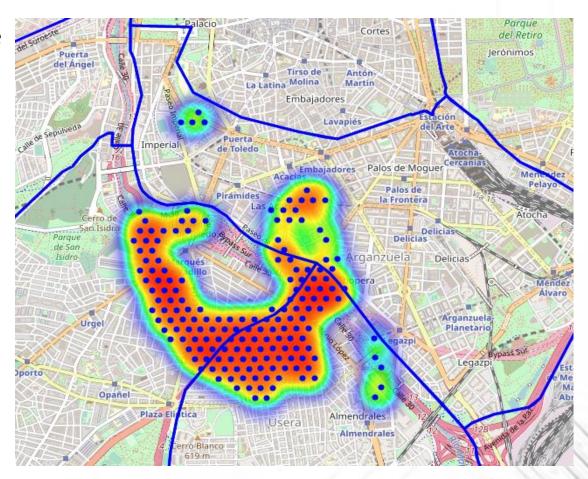
All restaraunts

Japanese restaraunts



Possible locations

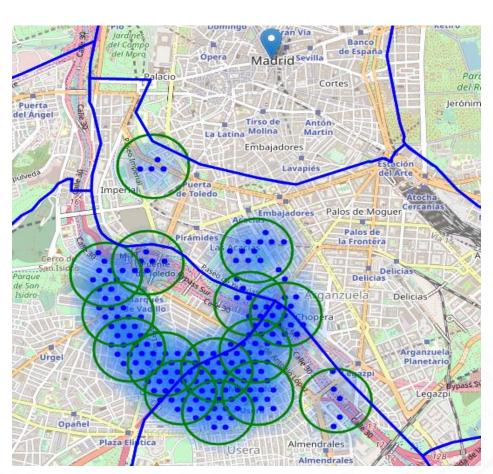
- Locations with no more than two restaurants nearby: 187
- Locations with no Japanese restaurants within 400m: 419
- Locations with both conditions met: 171



Clustering

• K-Means, 15 clusters

- Districts:
- Arganzuela,
- Carabanchel,
- Usera



Conclusions

- Extensive collection of locations which satisfy some basic requirements regarding existing nearby restaurants was generated
- K-Means clustering of those locations was performed (major zones of interest created)
- 15 potential locations for Japanese restaurant was estimated for stakeholders
- Final exploration required