Finding a good neighborhood in New York City

Why a suitable neighborhood is important

- Higher Work Productivity

- More Emotional Estability

- Improved Family Welfare

- Higher Personal and Familiar Happiness

Our Mission

Find neighborhoods in New York City that might be of interest of someone moving to this city

Potential Stakeholders

- **Public Offices in Change of Establishment of:**
  - Immigrants
  - Refugees
- **Private Businesses**
  - Real State Companies
  - Global Corporations

Data Acquisition and Cleaning

- **Borough and neighborhood data provided by Coursera**
  - https://cocl.us/new_york_dataset
- **Foursquare category data provided by Foursquare**
  - https://api.foursquare.com/v2/venues/categories
- **Venues data provided by Foursquare API**
  - https://api.foursquare.com/v2/venues/search
- **Parameters (categories and priorities) informed by user**

Data Acquisition and Cleaning

- 5 available Boroughs

- 306 available Neighborhoods

- 457 available categories for user selection, so far

- Categories non specified by user were dropped

- Number of final features depends on the user's choices

- Number of final neighborhoods dependes on the user's choices

Premises for This Presentation

- **In this presentation, we are considering the same example found in Jupyter Notebook and Full Report**
  - The tool searches for a suitable solution for each case, NOT a closed one-size-fits-all solution

- **Categories**

Category	Importance	Category	Importance
Fruit & Vegetable Store	3	Market	3
Laundry Service	2	Drugstore	1
Athletics & Sports	2	Metro Station	2
Bus Stop	2	Pharmacy	1
Italian Restaurant	2	Pizza Place	2

KMeans Clusters

- **Only Manhattan area**

  Prevalences by color

- 🔴 **Metro Stations**

- 🟣 **Bus Stops**

- 🔵 **Fruit and Vegetable stores**

- 🟢 **Italian restaurants**

- 🟠 **Markets**
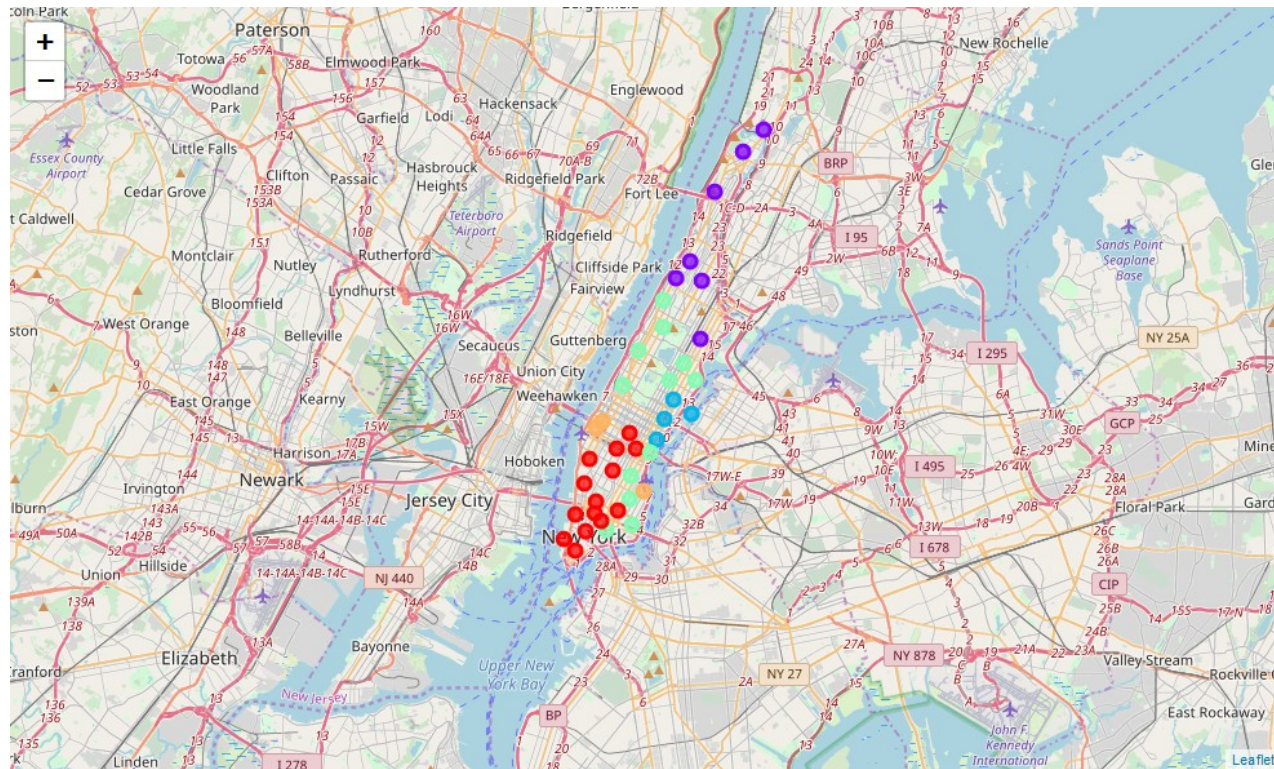
Ratings

- **Only Manhattan area**

  <u>Color Meaning</u>

- 🔴 **Very bad place**

- 🟠 **Bad place**

- 🟡 **Regular place**

- 🔵 **Good place**

- 🟢 **Very good place**
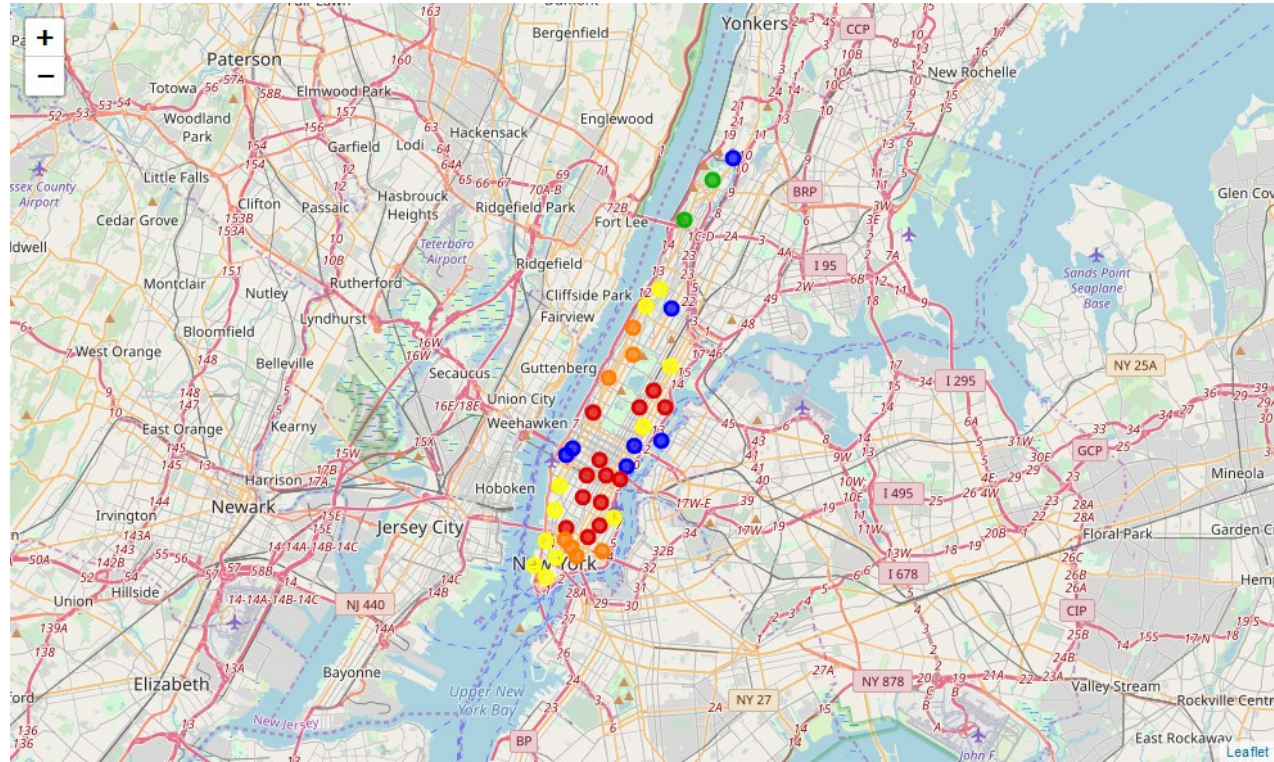
Conclusion and Future Improvements

- **A very flexible tool to help people moving to New York City has been developed**

- **Easy to adapt for other metropolitan area**

- **Future enhancements includes:**

  - Criminal data

  - Real state indicators per neighborhood data

  - Demographics data