Creating a Machine Learning AdsBot

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Agenda

- Business Problem
- Data Sources
- Data Analysis
- Classification
- Prediction
- Conclusion
- Way Forward

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Business Problem

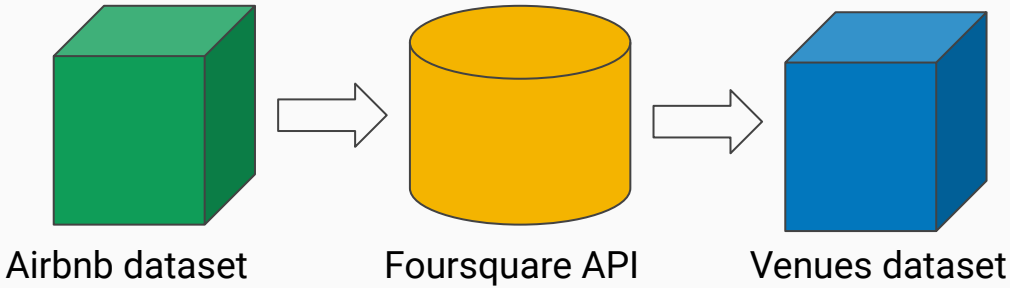
Monetizing mobile and web applications a challenging task.

Creating a fit-to-purpose and a highly-customized AdsBot with Machine Learning.

Data Sources

Airbnb rentals in Manhattan from 2019.

Venues from Foursquare API.

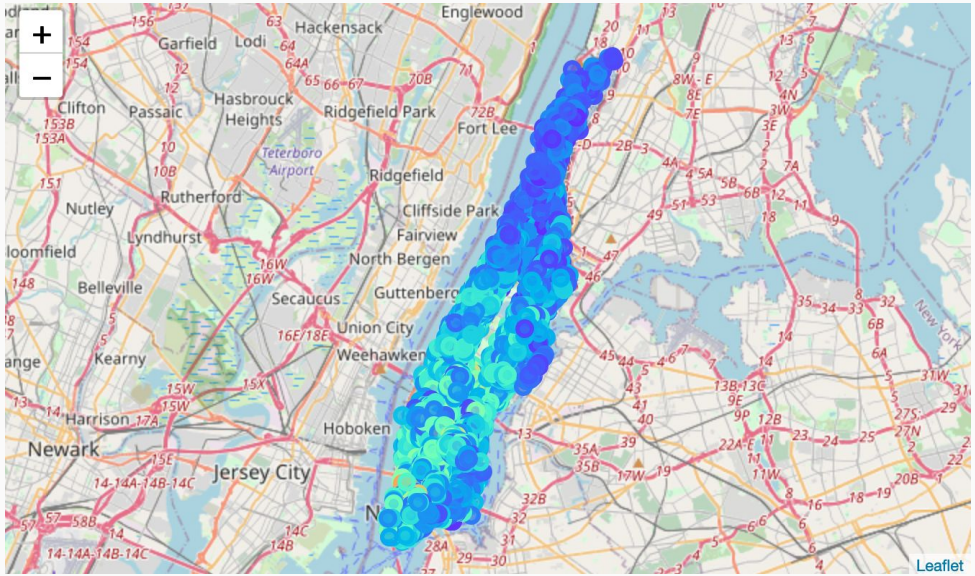


Data Analysis

Data cleaned:

Abnormal Prices &

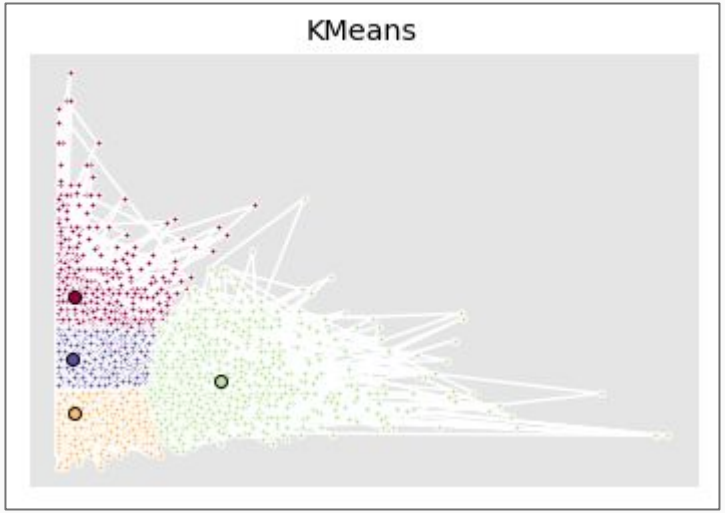
Rentals with no Reviews.



Rental locations colored by Price

Classification

Four types of rentals found:
Expensive, Average Price,
Budget and Very Popular.



Most Common Venues

Venues -> Grouped and Ranked by Cluster.

Cluster	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
0	Italian Restaurant	Pizza Place	Coffee Shop	Cocktail Bar	Sandwich Place	Ice Cream Shop	American Restaurant	Thai Restaurant	Mediterranean Restaurant	Café
1	Italian Restaurant	Coffee Shop	Bakery	Ice Cream Shop	Pizza Place	Sandwich Place	Cocktail Bar	Chinese Restaurant	Café	Mexican Restaurant
2	Pizza Place	Coffee Shop	Italian Restaurant	Cocktail Bar	Bakery	Sandwich Place	Wine Shop	Ice Cream Shop	American Restaurant	Wine Bar
3	Italian Restaurant	Pizza Place	Coffee Shop	Sandwich Place	Ice Cream Shop	Bakery	Chinese Restaurant	Cocktail Bar	Café	Wine Bar

Prediction

Random rentals from Airbnb.

Bot suggests Venues Category to Advertise:

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Rental is categorized in Cluster # 2 (Very Popular Rental)

Advertising business category: Ice Cream Shop is suggested
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Conclusions

Our bot able to suggest venues categories.

Directly related to the visitors profile and hunting rental type.

Capable to adapt to changes into the data.

Way Forward

For future work there are many improvements to be done to this project.

Few improvements have been mentioned in the stakeholder's report.