

# Applied Data Science Capstone Project:

## Pet Venues in Manhattan

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- April 18, 2020

# Most Pet Friendly Areas in Manhattan?

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- Useful information for pet owners residing in Manhattan
- Pet related businesses can target highly pet-centric neighborhoods
- Can Foursquare's API be utilized to identify these areas?

# Data Acquisition

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- Manhattan neighborhood data obtained from NYU Spatial Data Repository
- Foursquare API used to obtain venue data in proximity to Manhattan neighborhood coordinates
- Venue data filtered for pet-related categories listed below:

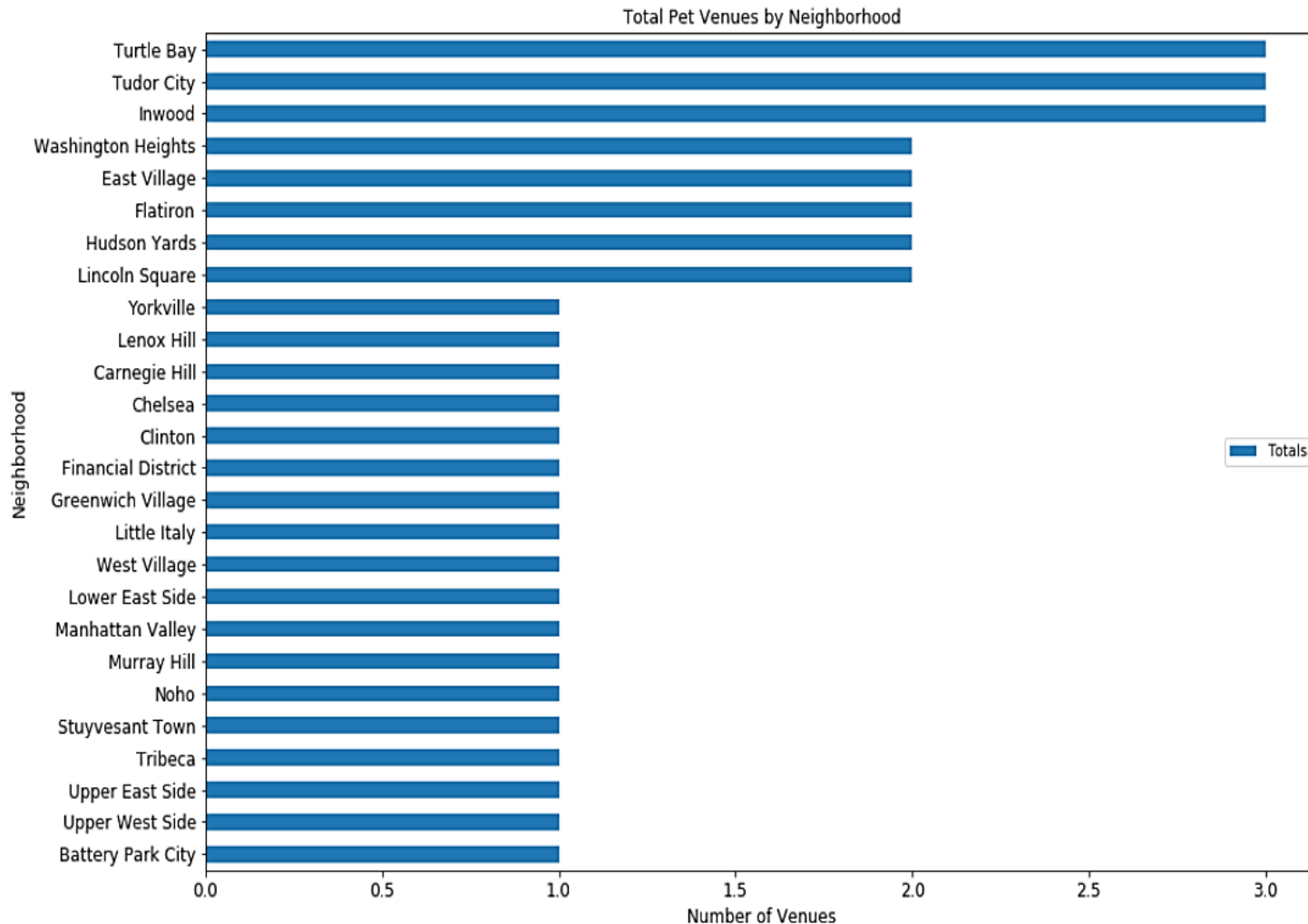
<b>Pet Store</b>	<b>Dog Run</b>	<b>Pet Service</b>	<b>Pet Café</b>	<b>Veterinarian</b>
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# Data Sorting in Pandas Dataframe

Neighborhood	Dog Run	Pet Café	Pet Service	Pet Store	Veterinarian	Totals
Battery Park City	0	0	0	1	0	1
Upper West Side	1	0	0	0	0	1
Upper East Side	0	0	0	1	0	1
Tribeca	1	0	0	0	0	1
Stuyvesant Town	0	0	1	0	0	1
Noho	0	0	0	1	0	1
Murray Hill	0	0	1	0	0	1
Manhattan Valley	1	0	0	0	0	1
Lower East Side	0	1	0	0	0	1
West Village	0	0	0	1	0	1
Little Italy	0	0	0	1	0	1
Greenwich Village	1	0	0	0	0	1
Financial District	1	0	0	0	0	1
Clinton	1	0	0	0	0	1
Chelsea	0	0	0	1	0	1
Carnegie Hill	0	0	0	1	0	1
Lenox Hill	0	0	0	1	0	1
Yorkville	1	0	0	0	0	1
Lincoln Square	1	0	0	1	0	2
Hudson Yards	2	0	0	0	0	2
Flatiron	0	0	0	2	0	2
East Village	1	1	0	0	0	2
Washington Heights	0	1	0	1	0	2
Inwood	1	0	0	1	1	3
Tudor City	2	0	0	1	0	3
Turtle Bay	2	0	0	1	0	3

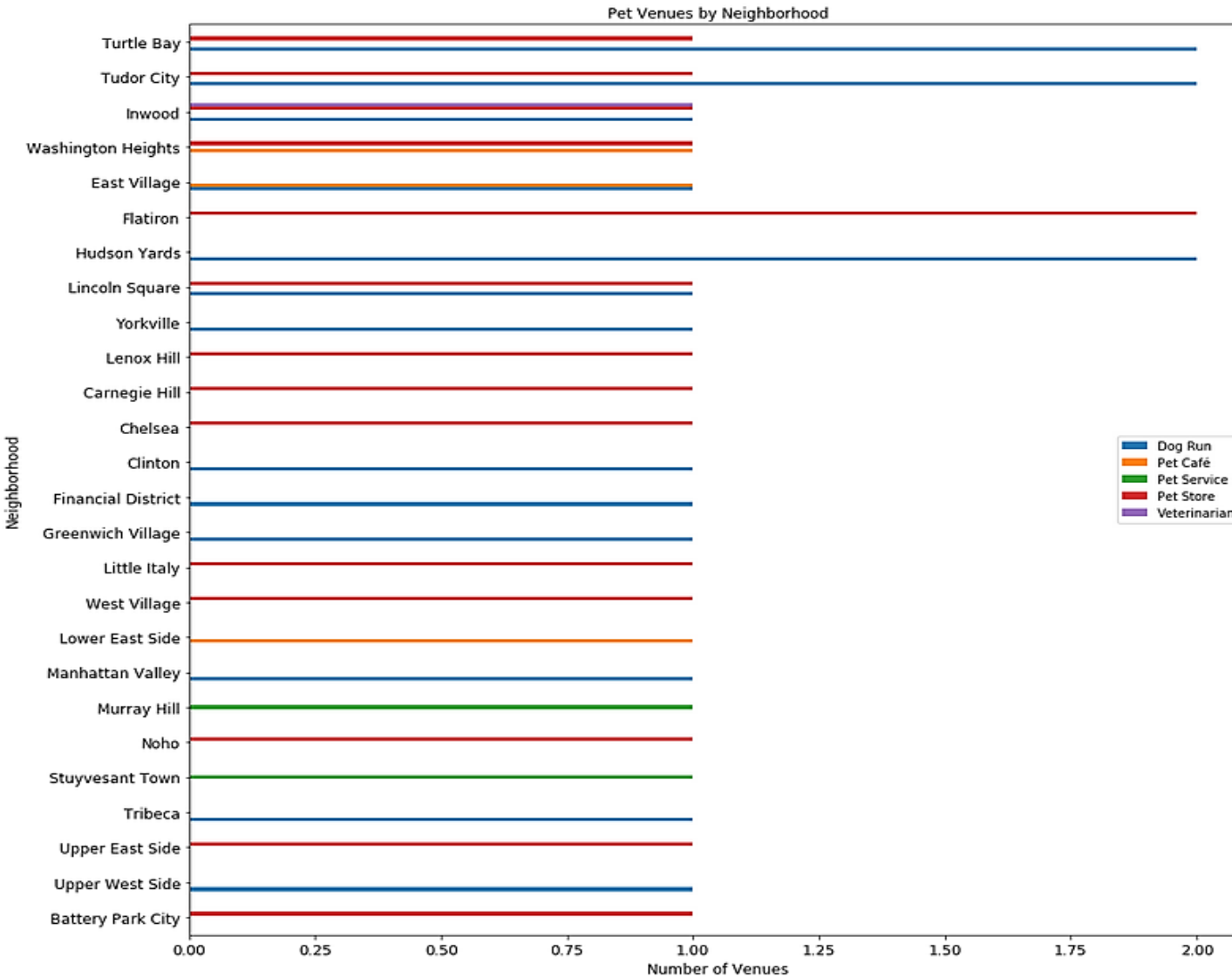
- Number of relevant venues quantified per neighborhood
- Venue numbers totaled for each neighborhood
- Neighborhoods with venue totals < 1 omitted

# Pet Friendly Neighborhood Rankings



- 26 Neighborhoods ranked by total pet venues
- Turtle Bay/Tudor City area and Inwood ranked highest overall

# Pet Venue Breakdown by Neighborhood



- Inwood shows highest diversity in venues
- Pet Store and Dog Run are most frequent reported categories
- Veterinarian is least reported category

# Conclusions

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- Turtle Bay/Tudor City and Inwood tied for highest amount of pet-related venues
- 26 out of 40 Manhattan neighborhoods contain pet relevant venues reported by Foursquare API
- Only one veterinarian office reported by API, suggests lack of information in this category and possibly others
- Recommended that this data be supplemented with other sources to support accuracy of findings