

ANALYSING AIRBNB IN NEW YORK

dashboard built with Tableau

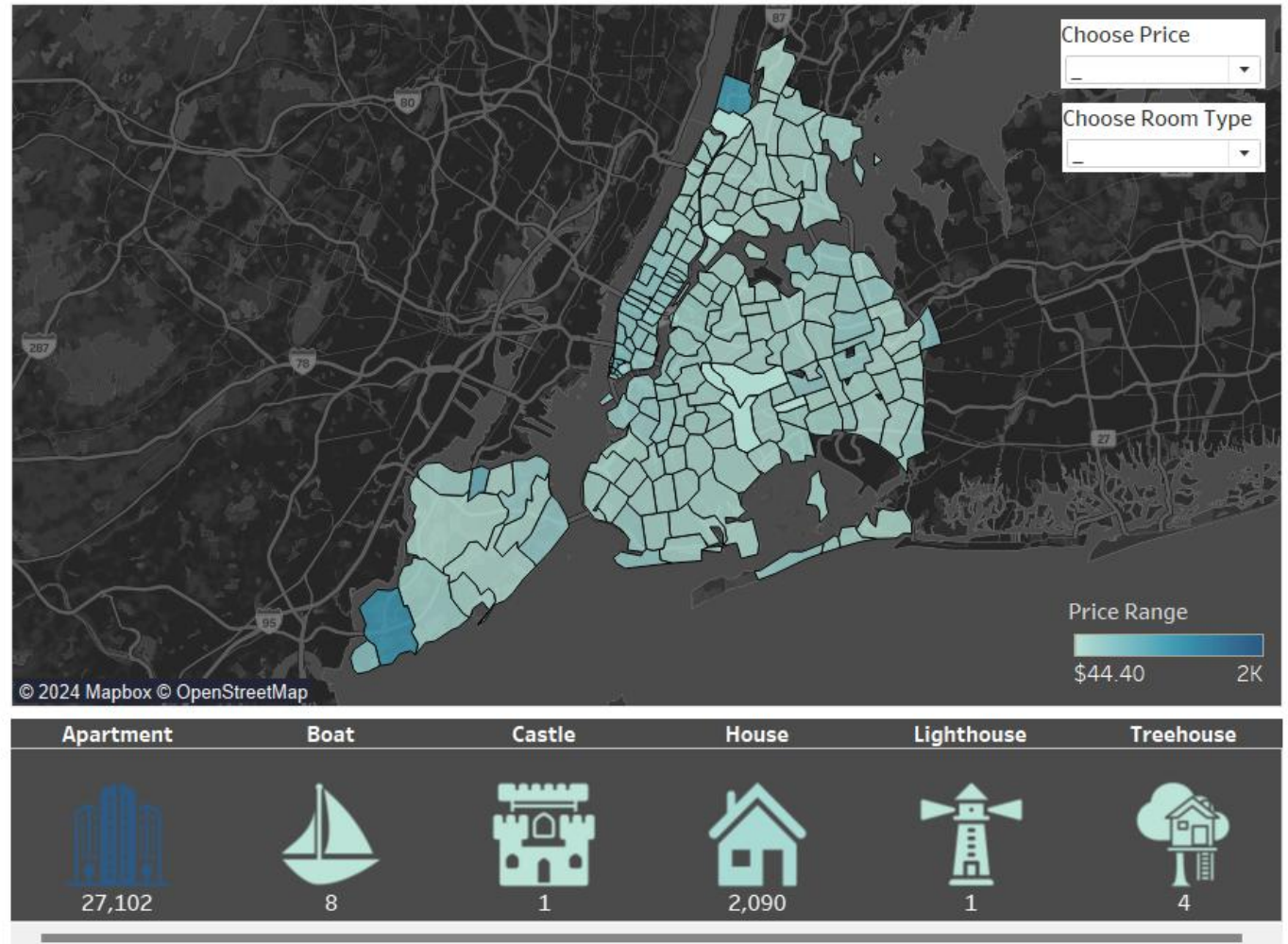
Author: AMP

Lighthouse Labs Data Analytics Bootcamp



PROJECT FLOW

- Data Transformation
- Loading data to Tableau
- Choosing features for visualizations based on available data
- Creating:
 - interactive map
 - correlation charts
 - distribution of property types across neighborhoods
- Answering questions



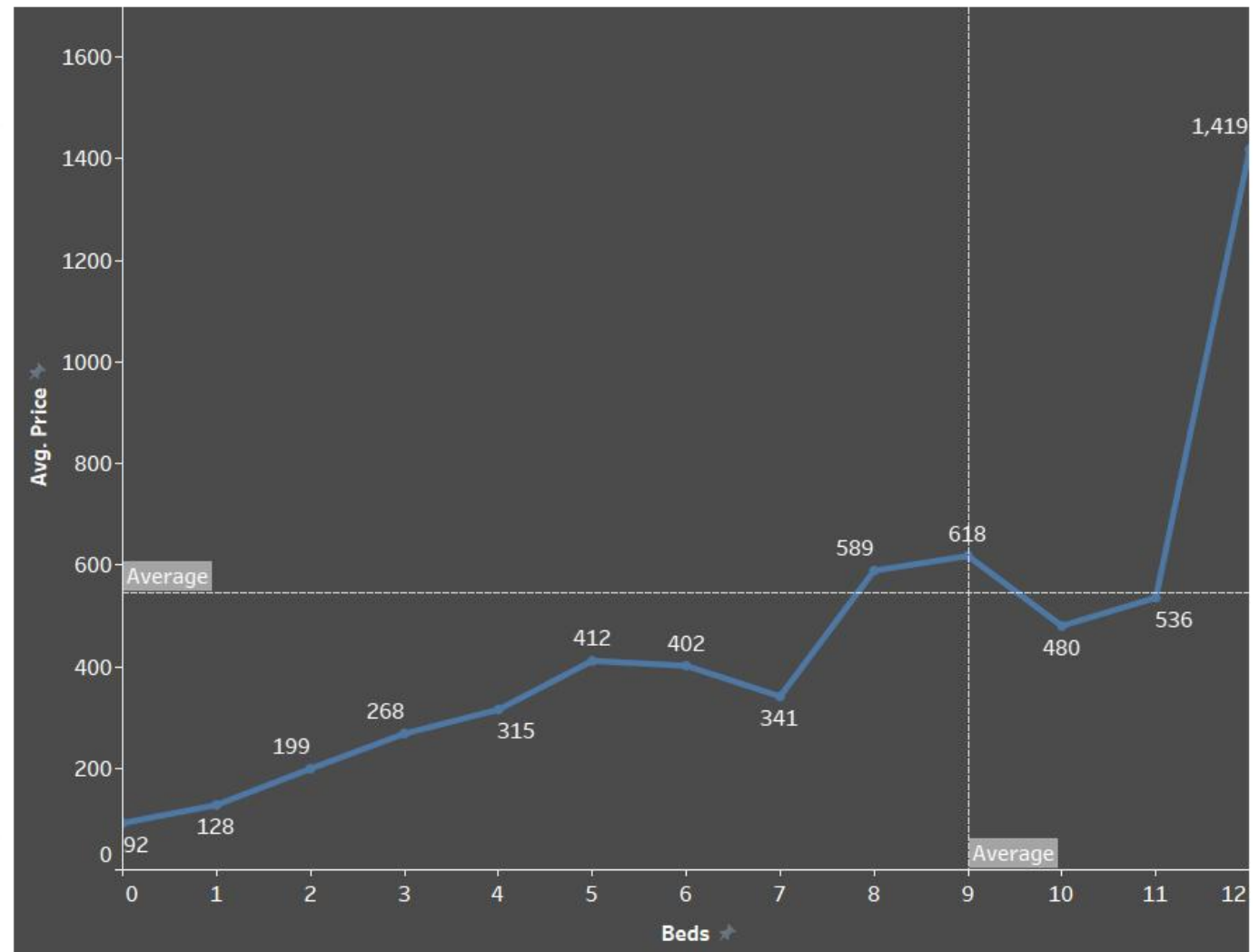
RESULTS

1. How does the average price of Airbnb listings vary across different neighborhoods in New York City?

Answer: An interactive map reveals that Airbnb prices are generally higher in Manhattan, with notable exceptions based on property type. "Entire homes/apts" and "Shared rooms" dominate Manhattan listings [10,268 and 436 respectively], while "Private rooms" are more common in Brooklyn [5,726 listings]. Apartments are a significantly larger property category (27K listings) than other chosen property types.

2. Is there a correlation between the number of beds and the price of listings?

Answer: Analyzing the bed/price chart shows that prices typically rise with the number of beds. Notably, properties with 8 or 12 beds see significant price increases. For new market entrants, opting for 8 beds may be more advantageous than 4-7 beds, although this could vary by property type.



RESULTS

3. How has the number of Airbnb listings grown over time, based on the "Host Since" dates?

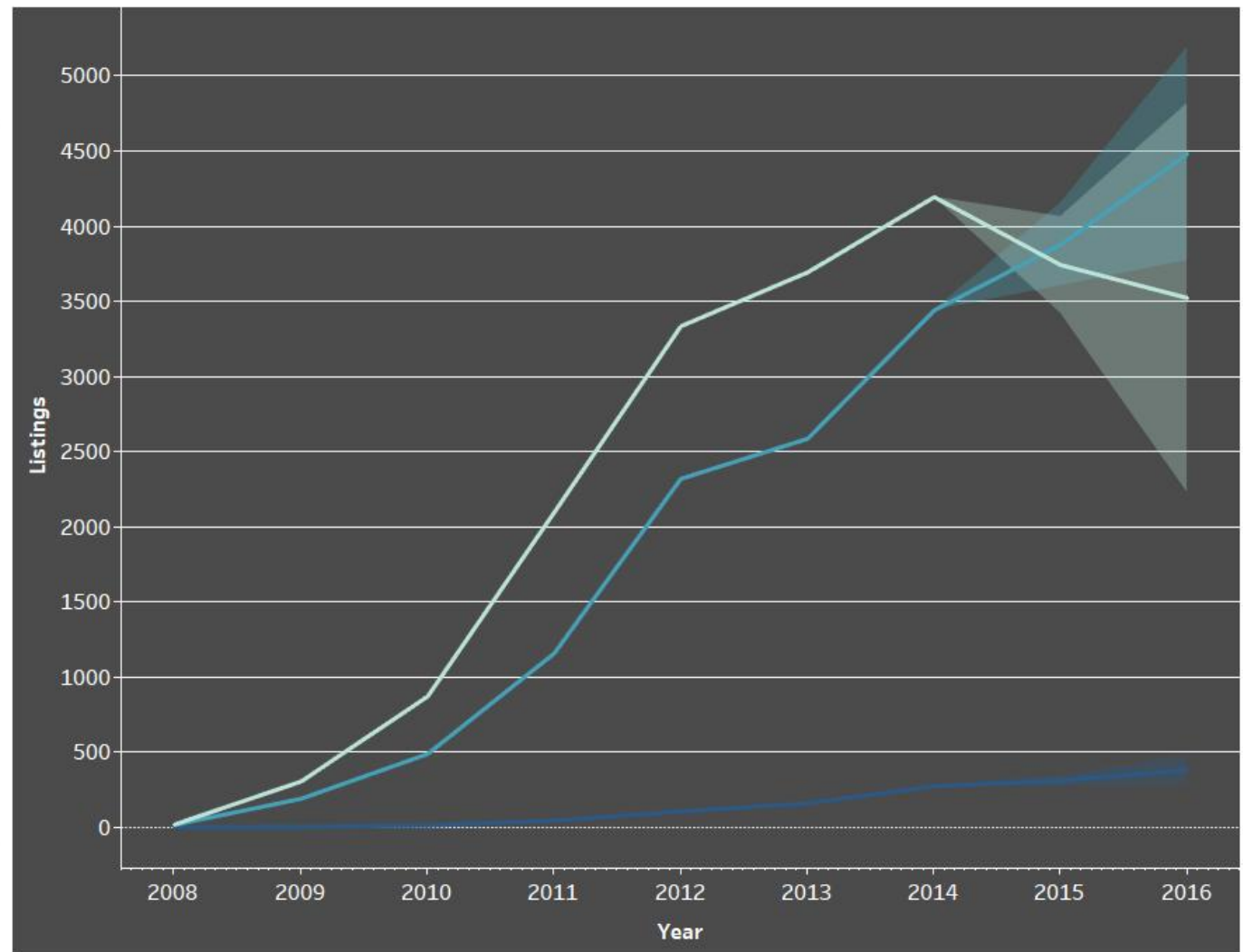
Answer: While "Entire home/apt" and "Private room" were steadily growing over time, "Shared room" growth was almost unnoticeable (see chart on the right). Forecast shows expected steady growth of "Private Room" type, and decline of "Entire room/apt" starting in 2014.

4. Which property types command the highest average number of reviews?

Answer: Among chosen property types, most "popular" is (surprisingly) a boat (avg number of reviews: 18.25). Then comes House (14.91) and apartment (14.91).

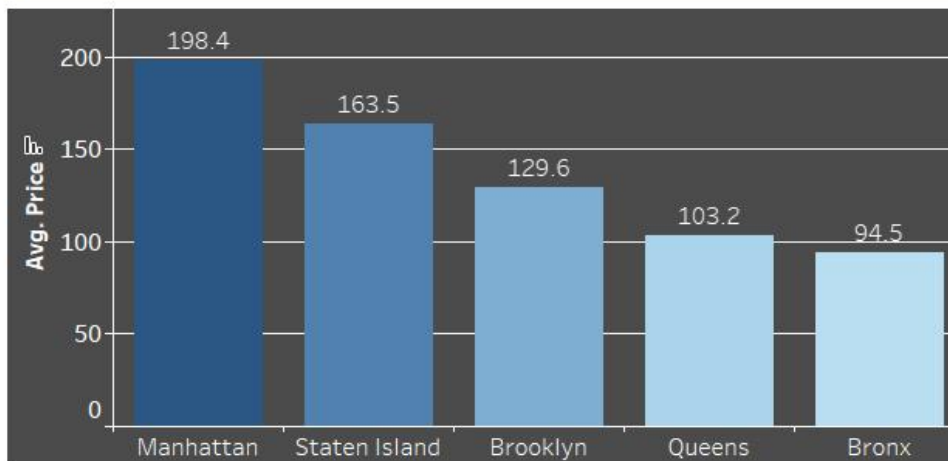
5. How many property types there are in each neighborhood?

Answer: interactive map in a dashboard allows to view which property types are listed there. For instance, Bronx has only houses and apartments, and Manhattan offers these + one castle, 2 boats, and 2 treehouses.





Business Insights



Property Type	avg
Boat	18.25
House	14.91
Apartment	11.73
Treehouse	10.00
Townhouse	4.34
Lighthouse	4.00
Castle	2.00

Price range

average prices per zip code, 2008-2015

Popular Neighbourhoods & Properties

occupancy rate based on number of reviews



CHALLENGES



- **Tableau functionality and limits** (custom icons; geo issue: is Manhattan a neighbourhood, a borough, a county, or a city?)
- **inconsistencies in data** (missing values, incorrect zip codes, no date for actual listing bookings, seasonality)
- **limited Story features in Tableau** (editing slides beforehand, "containers" limiting flexibility)

Link to Github repo:

github.com/ankamercier/Mapping-Airbnb

Don't forget to check the dashboard on next slide!



Airbnb Listings in New York City

