

airbnb

Option 2 – AirBnB Dataset
Tableau Project

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Project Objective

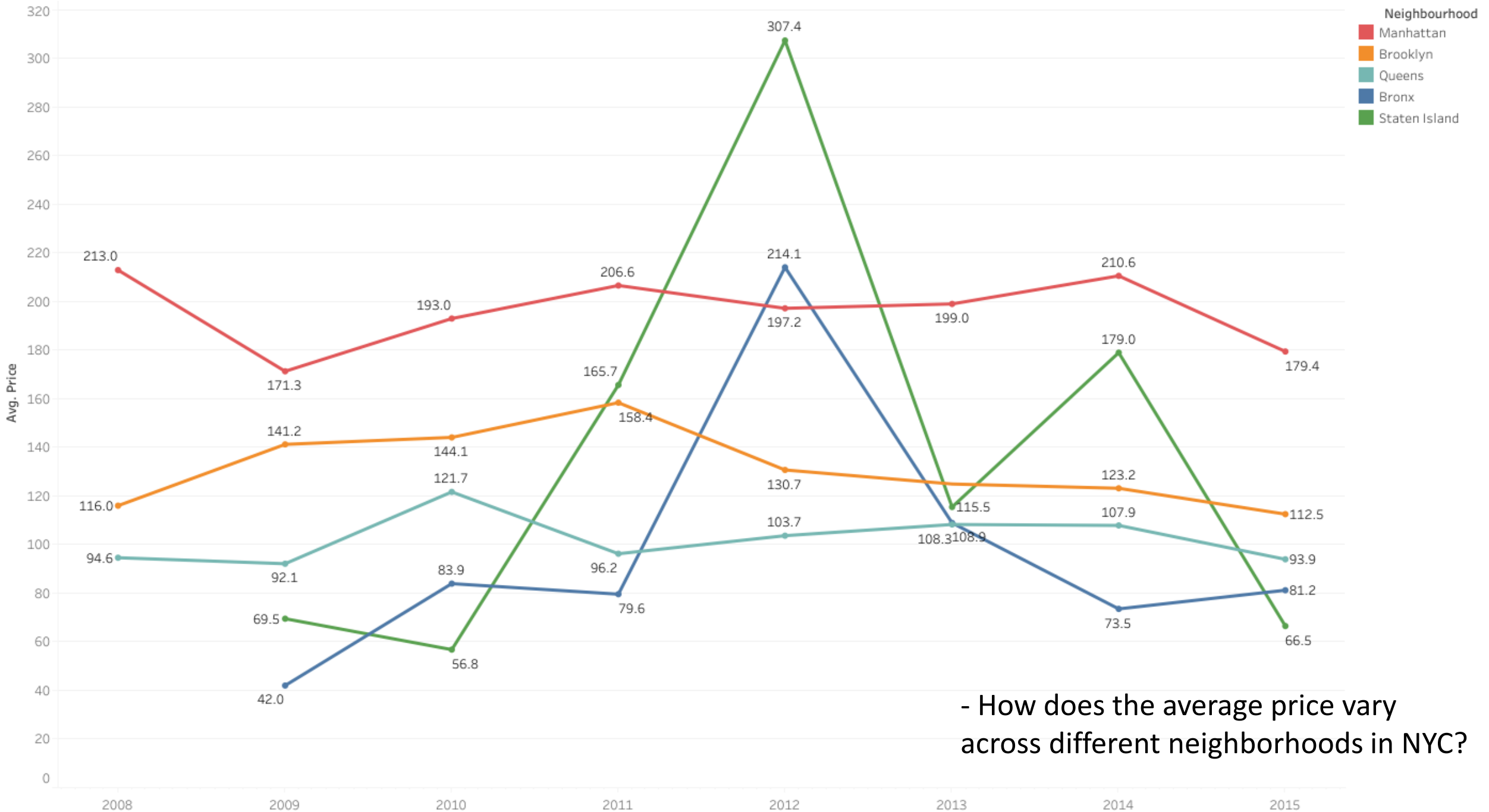
My overall objectives of this project are:

- Identify trends and patterns in pricing across different neighborhoods and property types.
- Forecast the number of new hosts over time to anticipate market growth.
- Cluster property types based on pricing to gain insights into market segments.
- Visualize the density and distribution of records to identify areas of high activity.
- Explore the distribution of beds across room types to understand accommodation preferences.
- Finally, create a dashboard to present the analyzed data and visualizations in a clear and concise manner.

Process

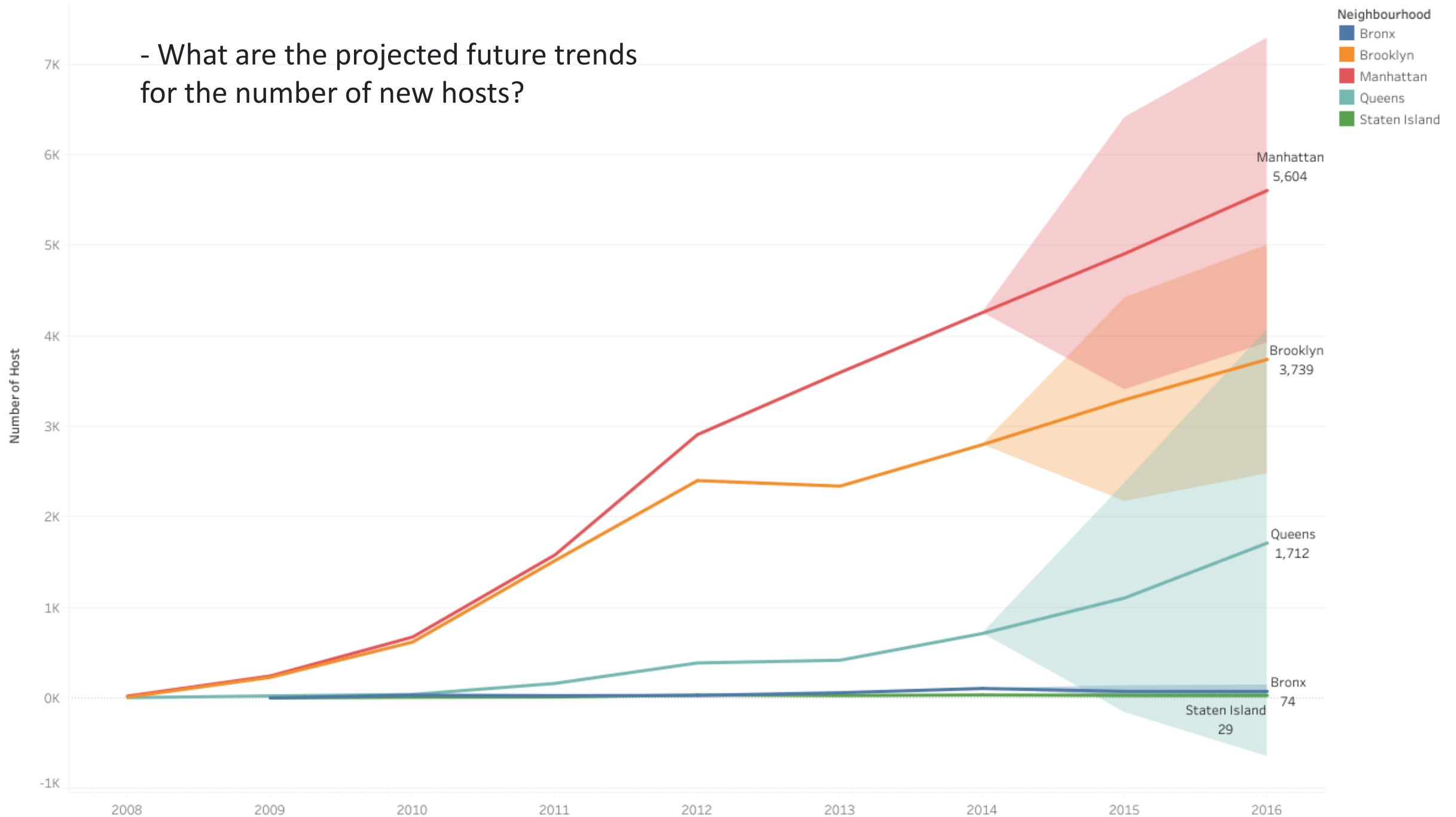
- Step 1: Data import
- Step 2: Created the following visualizations
 - Line chart showing the average price for each neighborhood over time
 - Line chart with forecasting to predict the number of new hosts over time
 - Clustering visualization to analyze the average price based on property types
 - Heatmap to visualize the number of records
 - Pie chart showing the percentage of number of beds based on room
- Step 3: Created a dashboard that combines all the above charts
 - The dashboard provides a comprehensive view of the data, allowing for easy comparison and analysis of different aspects of the Airbnb listings in NYC.

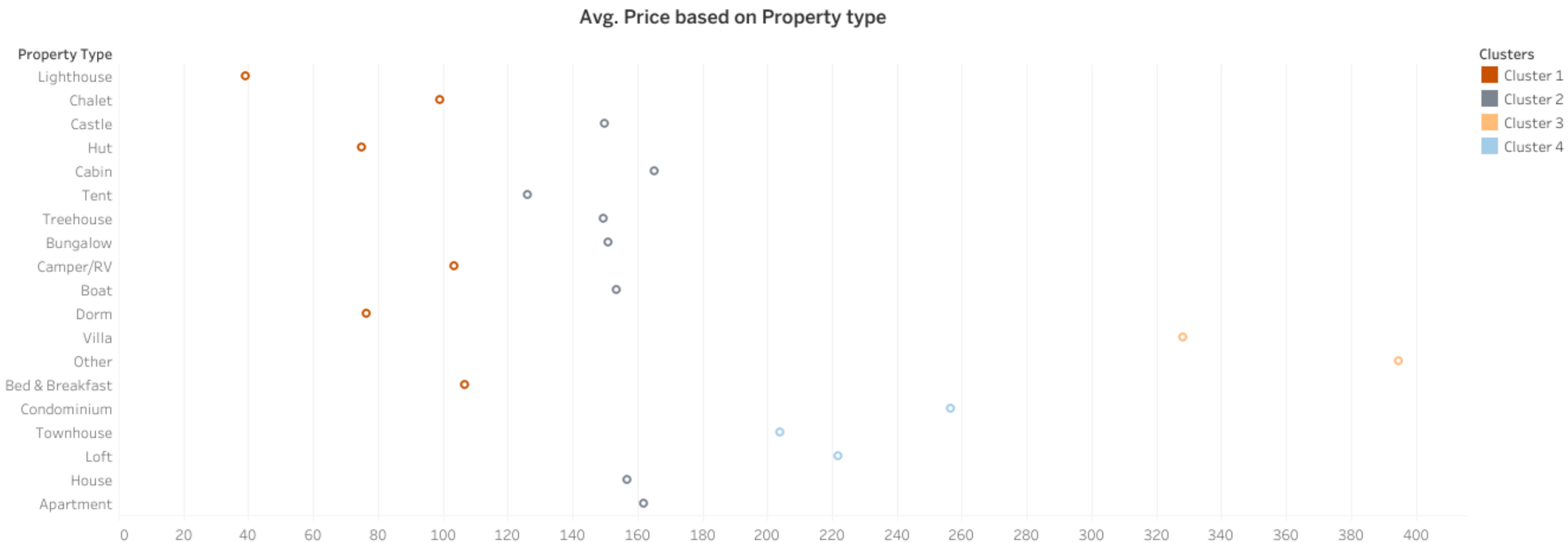
Avg. Price each neighbourhood over time



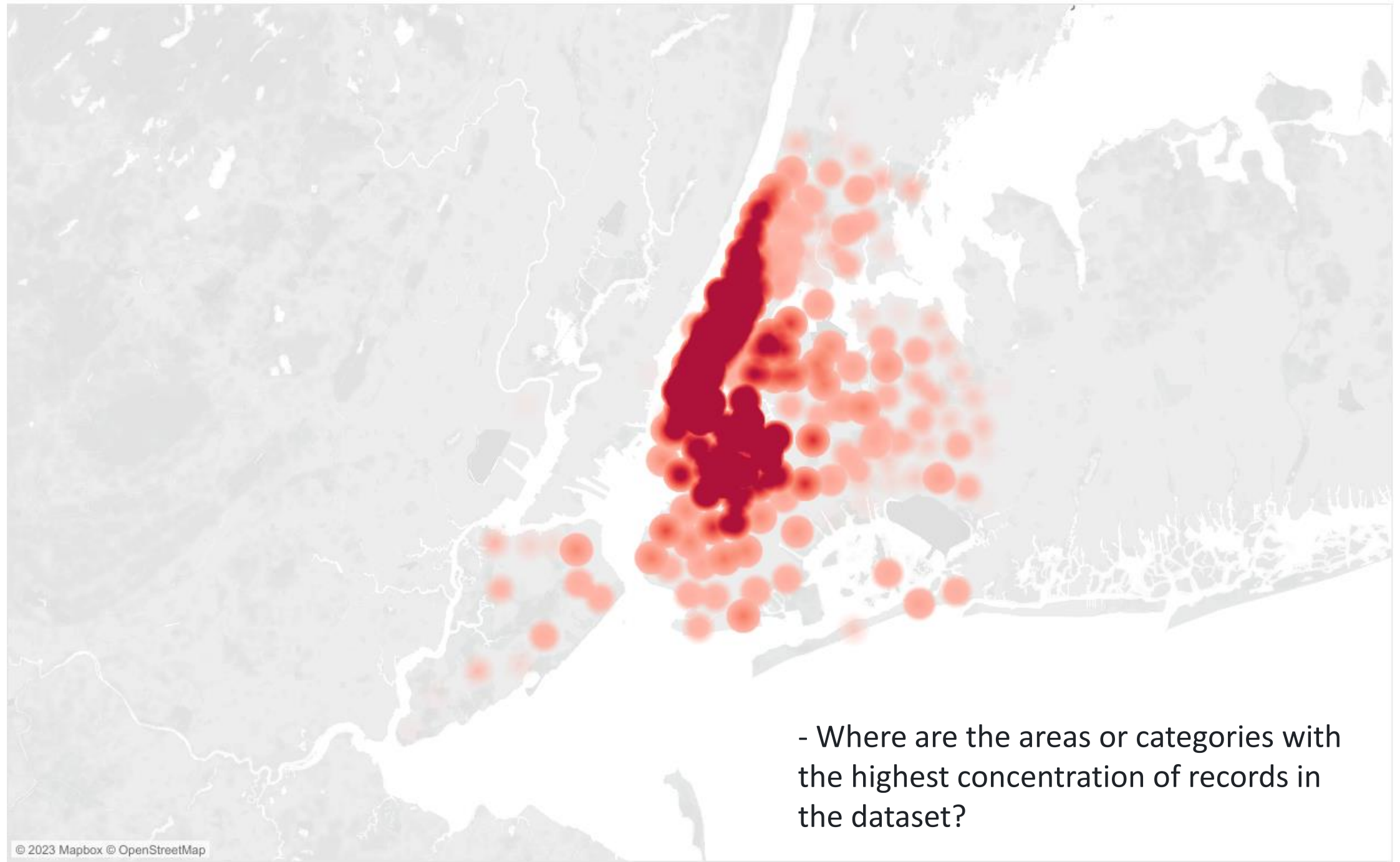
Forecast number of new hosts over time

- What are the projected future trends for the number of new hosts?



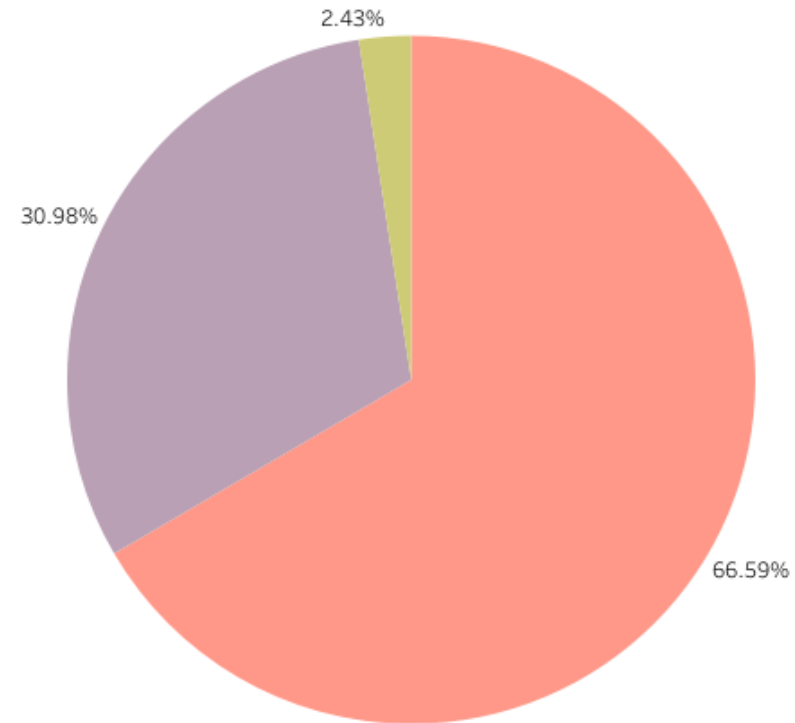


- How do the average prices differ among different property types?



- Where are the areas or categories with the highest concentration of records in the dataset?

Percentage of Beds based on Room type



100.00%

Room Type

Entire home/apt

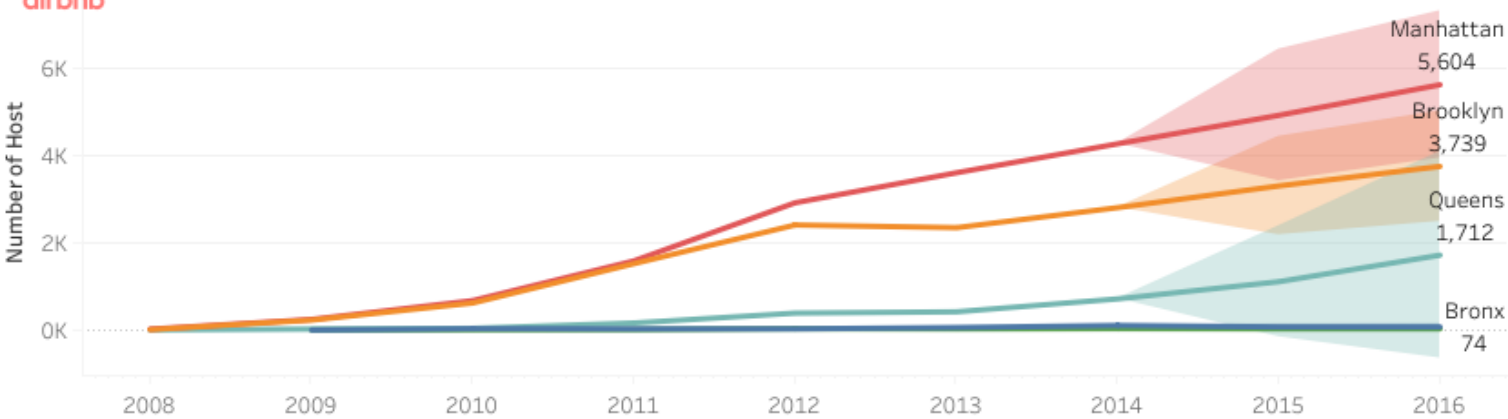
Private room

Shared room

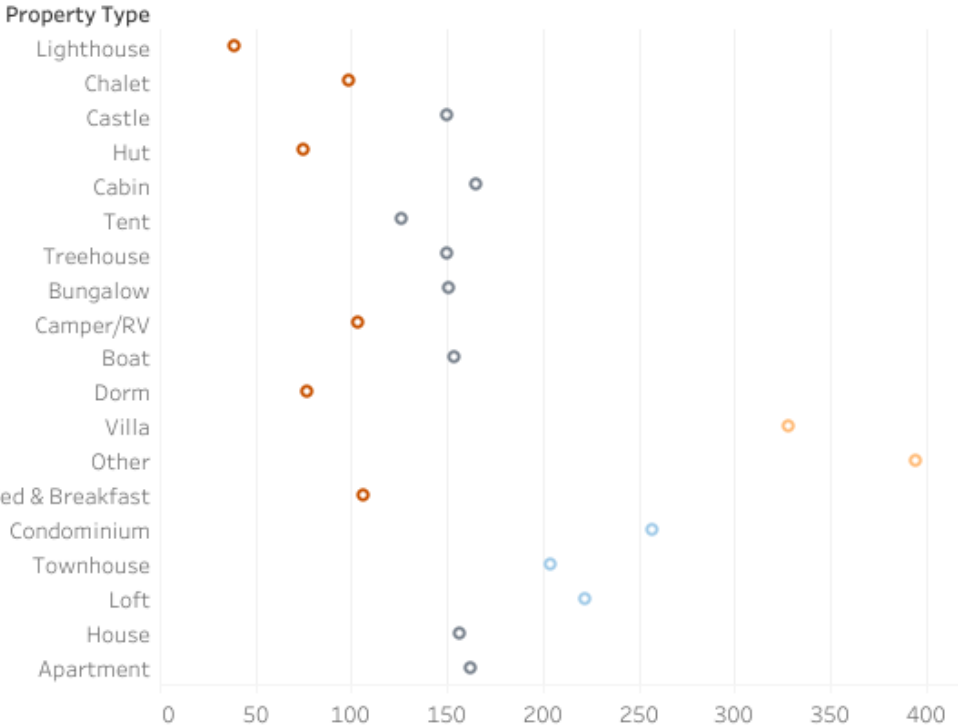
- How does the distribution of percentage of beds vary across different types of rooms?



Forecast number of new hosts over time



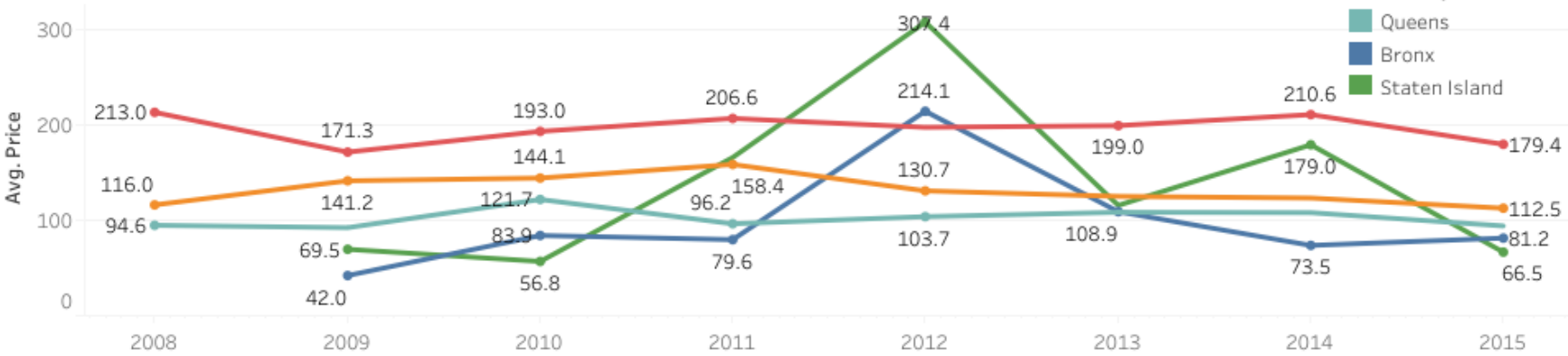
Avg. Price based on Property type



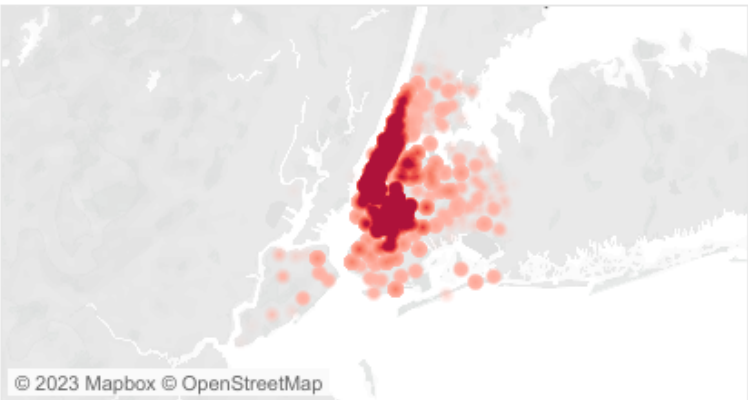
Percentage of Beds based on Room type



Avg. Price each neighbourhood over time



Number of Records



Challenges

- Option 1: uncleaned dataset and difficulty to find common keys. Took me a lot of time to understand the questions
- Quite time consuming to come up with ideas and choose suitable charts

If I had more time...

- creating more charts and conducting additional experiments to extract further insights from the data.

(And maybe I would like to continue to work on Option 1 to solve it)