Agenda

- Objective
- Background
- Data preparation
- Key findings
- Recommendations
- Appendix:
  - Data methodology
  - Data assumptions

Objective

- Improve shared understanding about the Airbnb listings

- Prepare for the next best steps that Airbnb needs to take as a business

- Provide recommendations to **Data Analysis Managers** and **Lead Data Analyst**

Background

- For the past few months, Airbnb has suffered a great decline in revenue

- The restrictions have started lifting and people have started to travel more, Airbnb wants to make sure that it is fully prepared for this change

- Analysis has been done on a dataset consisting of various Airbnb listings in New York

Data Preparation

This dataset has around 48,895 observations in it with 16 columns and it is a mix of categorical and numeric values

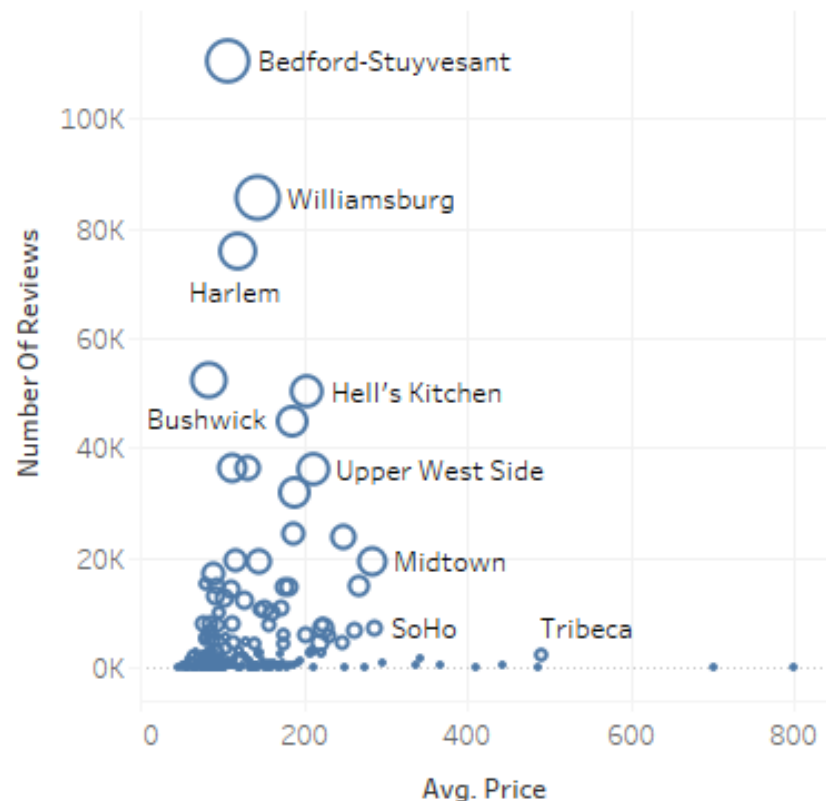Last_review and reviews_per_ month columns are blank when number_of_reviews column is 0

There are 17,533 out of 48,895 records (35% of the dataset) which have zero day of available for booking

# Customers prefer some specific neighborhoods than others

Correlation of average price and number of reviews

- **Bedford-Stuyvesant** and **Williamsburg** are the top 2 areas that have a high number of reviews and competitive average price
- **Woodrow** and **Fort Wadsworth** are the 2 neighborhoods have the highest average price but the lowest number of reviews

Average Availability per neighborhood
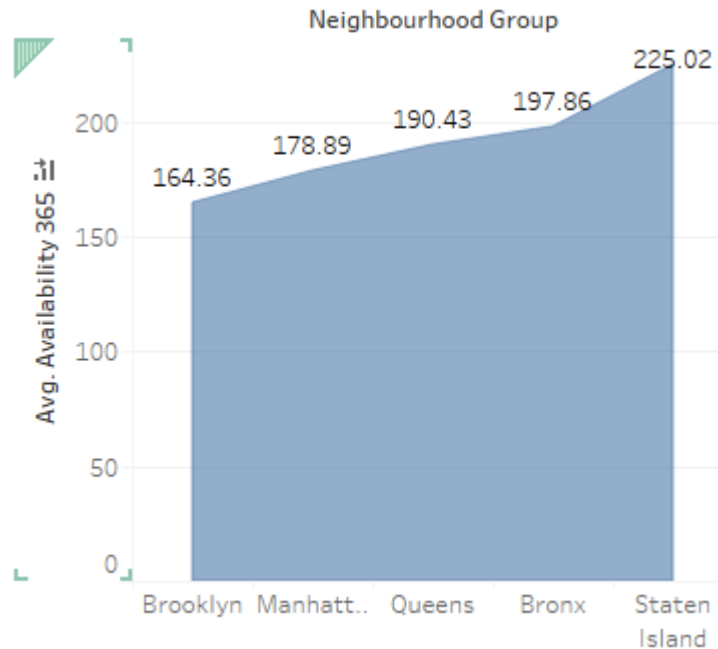
- The data is filtered on Availability 365, which ranges from 1 to 365
- Listings in Brooklyn have the least average availability with about 164 days available for booking
- Listings in Manhattan have an average of 179 days available for booking

Customers tend to give more reviews in Staten Island and Queens but these 2 neighborhood do not have a lot of available listings
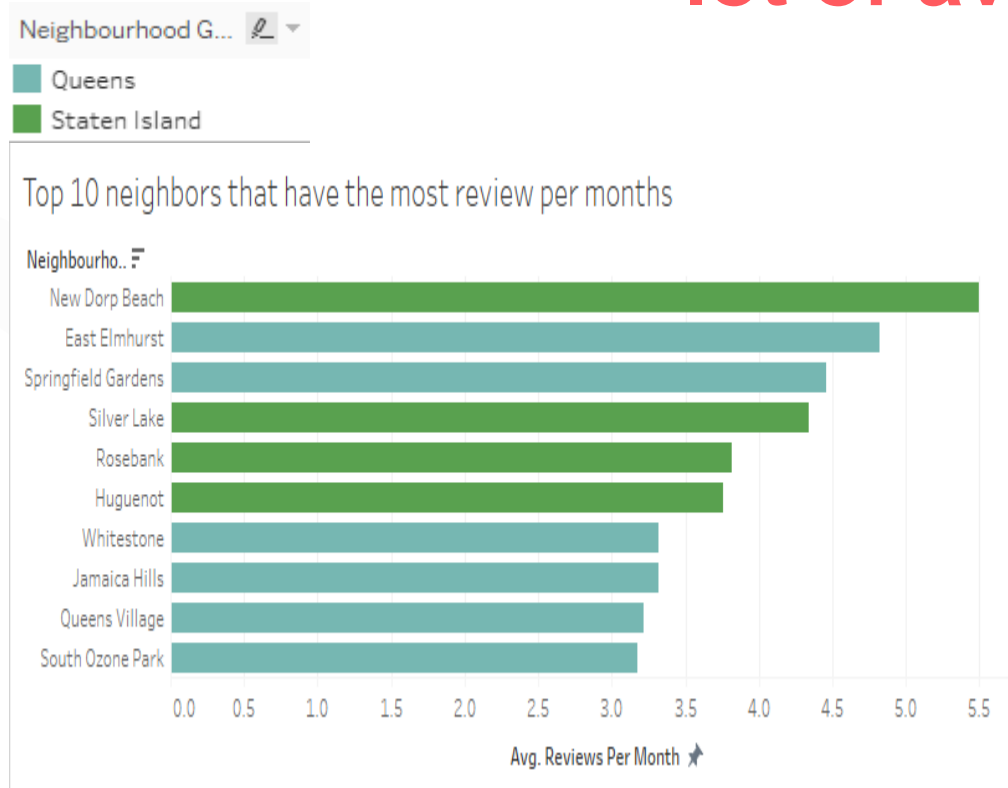
- Listings in Staten Island and Queens have the most reviews per month.
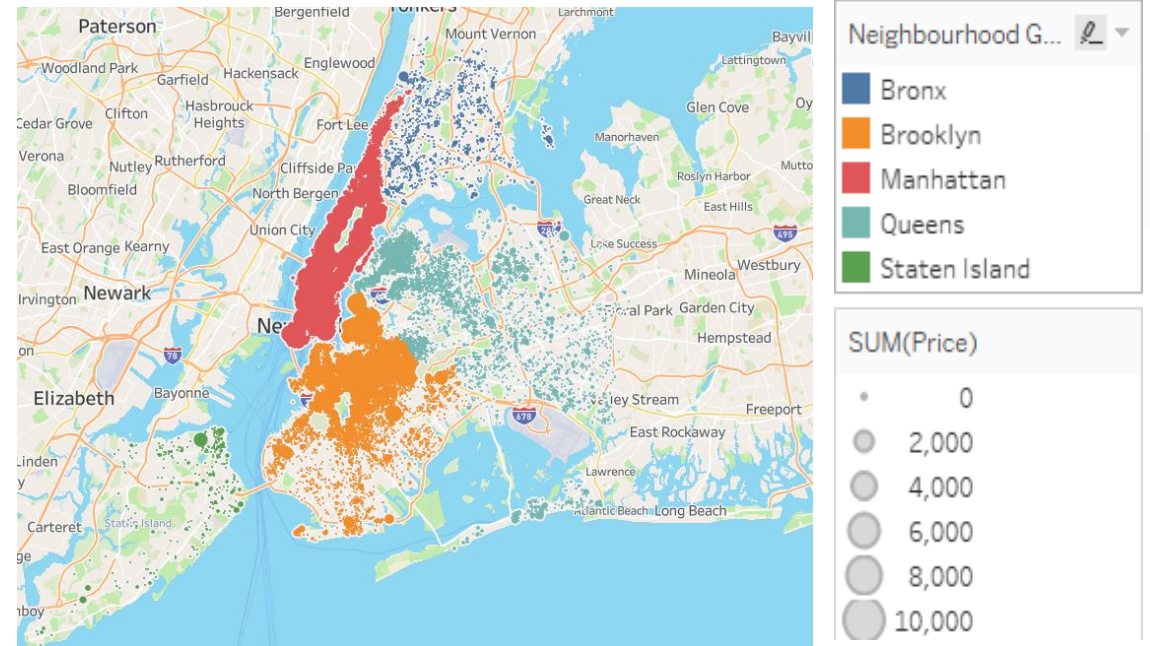
- The density of listings is mostly in Manhattan and Brooklyn
- Staten Island and Queens can be discovered more since the price is low and not many listings are available

8

Recommendations

- Check further on the reasons why there are listings that have zero-day available for booking (35% of the dataset)

- Focus on improving the price per night and number of reviews for the listings in the neighborhood like Woodrow and Fort Wadsworth

- Improve the availability of listings in Brooklyn and Manhattan

Appendix – Data Methodology

- Using Excel and Python to identify missing values, duplicates, and outliers
- Conducting exploratory data analysis and visualizing using Tableau to obtain meaningful insights
- Using PPT for data storytelling

Appendix – Data Assumptions

○ Assumed null values have no effect on the analysis

○ Assumed that listings have zero-day available during the whole year are those already closed or under maintenance

○ Assumed that a higher number of reviews reflects better customer satisfaction