

Storytelling Case Study: Airbnb, NYC

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Introduction

Airbnb, Inc. is an American company that operates an online marketplace for lodging, primarily homestays for vacation rentals, and tourism activities. Airbnb provides a platform for hosts to accommodate guests with short-term lodging and tourism-related activities.

New York City is the most diverse and populated city in the United States. The city is made up of 5 burrows: Manhattan, Brooklyn, Queens, the Bronx and Staten Island, all of which were “grouped” together into a single city. It is widely recognized as the global center for the financial services industry. It’s also the heartbeat of the American media, entertainment (along with California), telecommunications, law and advertising industries.

Objective:

- ▶ Airbnb is an online platform using which people can rent their unused accommodations.
- ▶ During the covid time, Airbnb incurred a huge loss in revenue.
- ▶ People have now started travelling again and Airbnb is aiming to bring up the business again and they ready to provide services to customers.

Background

- ▶ For the past few months, Airbnb has seen a major decline in revenue.
- ▶ Now that 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.
- ▶ So, analysis has been done on a dataset consisting of various Airbnb listings in New York.

Data Preparation

- ▶ Cleaned data to remove any missing values and duplicates.
- ▶ Dropped insignificant columns.
- ▶ Identified outliers

Key Insights

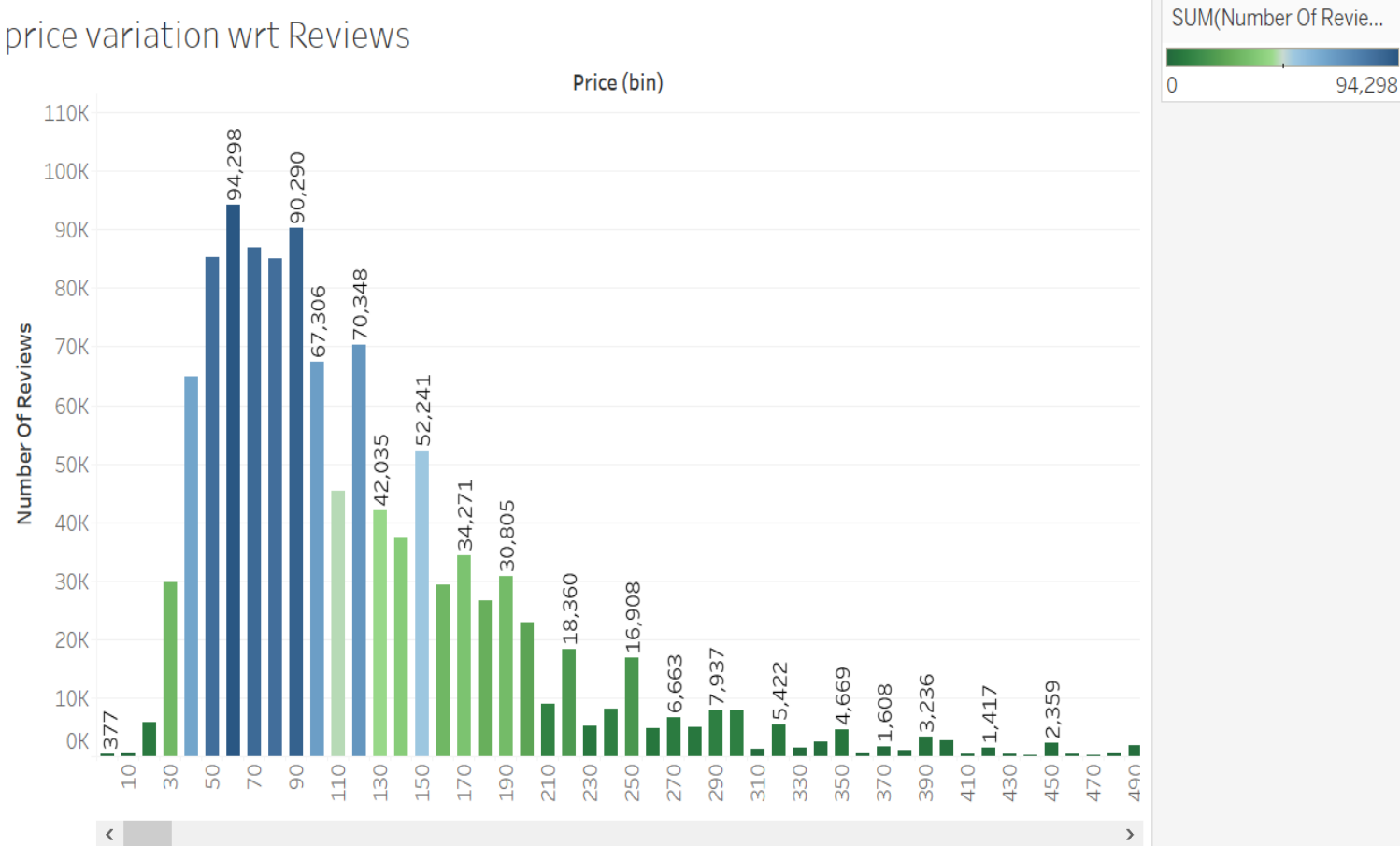
To understand some important insights we have explored the following questions:

- What are the pricing range preferred by Customers w r t to Review?
- Which Room Types available for more minimum night stay contradicting their price range?
- Understanding Price variation w.r.t Room Type & Neighbourhood group
- Neighbourhood vs Availability
- Types of Rooms available for N number of days in a year based on their price range ?
- Popular Neighbourhoods
- Which Locations that have received the highest number of the Reviews?

What are the pricing range preferred by Customers w r t to Review?

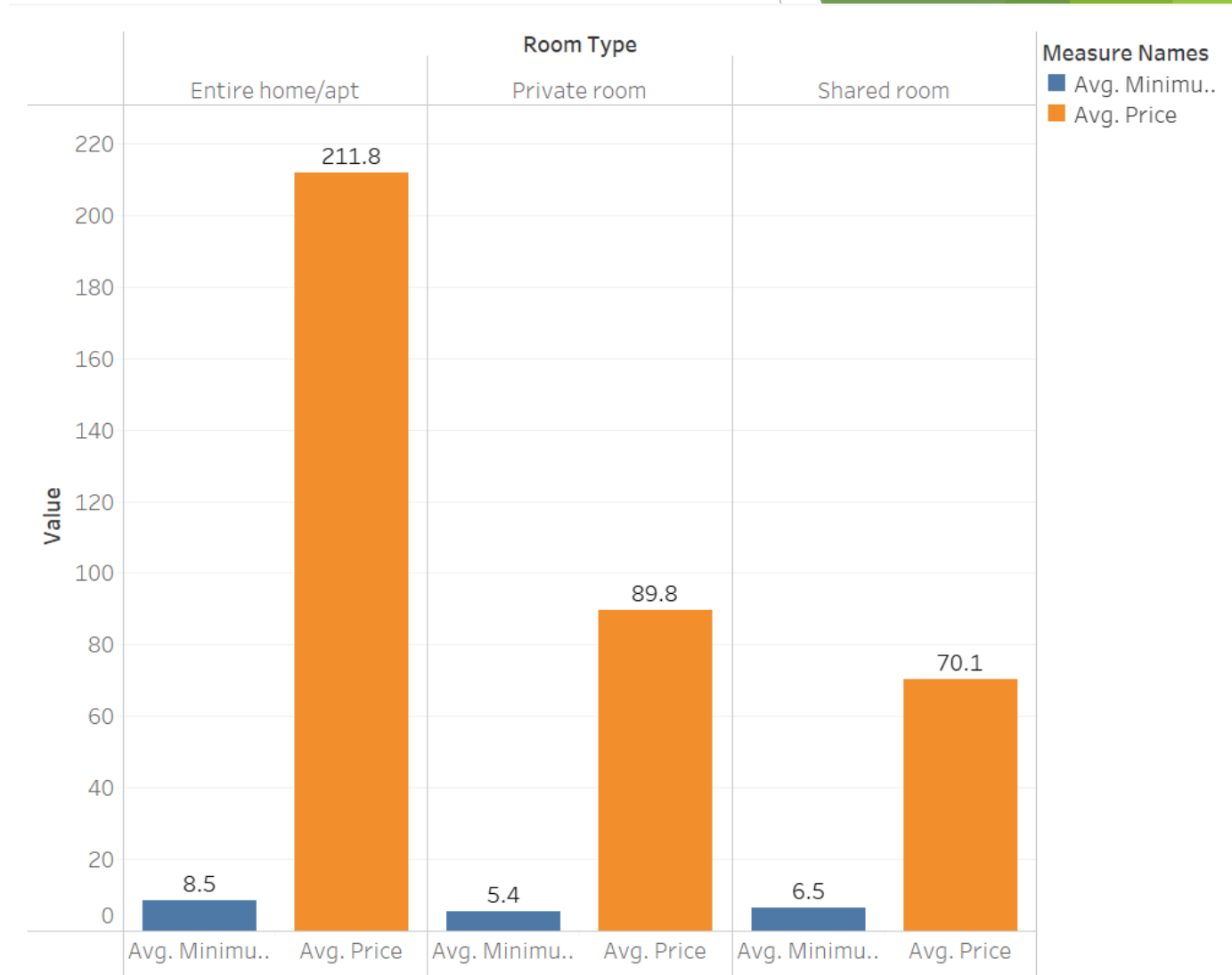
- ❑ We have taken pricing preference based on two parameters - volume of bookings done in a price range and number of reviews in a price range. From both the graphs, the favourable price range is \$60- \$190. This is the price range most preferred by most customers.
- ❑ **Recommendation:** New acquisitions and expansion can be done in the price range of \$60 - \$190 as it satisfies both parameters of volume of customer traffic and customer satisfaction.

price variation wrt Reviews



Which Room Types available for more minimum night stay contradicting their price range?

- ❑ On average Entire home/apt types are preferred more by the customers followed by Private rooms and then Shared Rooms. Mostly because they are also available for a higher number of minimum night's stay window booking as compared to Private and Shared rooms.



Understanding Price variation w.r.t Room Type & Neighbourhood group

- ❑ Manhattan is costliest overall and the cheapest are:
 - Entire apt :- Bronx
 - Private room :- Staten Islands
 - Shared room :- Brooklyn
- ❑ Entire home/apt is highest average price w.r.t properties

Room Type	Avg. Price	Properties
Entire home/apt	212	25,409
Private room	90	22,326
Shared room	70	1,160

Understanding Price Variation w.r.t Room Type & Neighbourhood

Room Ty..	Neighb..	Price
Entire home/apt	Manhattan	249.2
	Brooklyn	178.3
	Staten Island	173.8
	Queens	147.1
	Bronx	127.5
Private room	Manhattan	116.8
	Brooklyn	76.5
	Queens	71.8
	Bronx	66.8
	Staten Island	62.3
Shared room	Manhattan	89.0
	Queens	69.0
	Bronx	59.8
	Staten Island	57.4
	Brooklyn	50.5

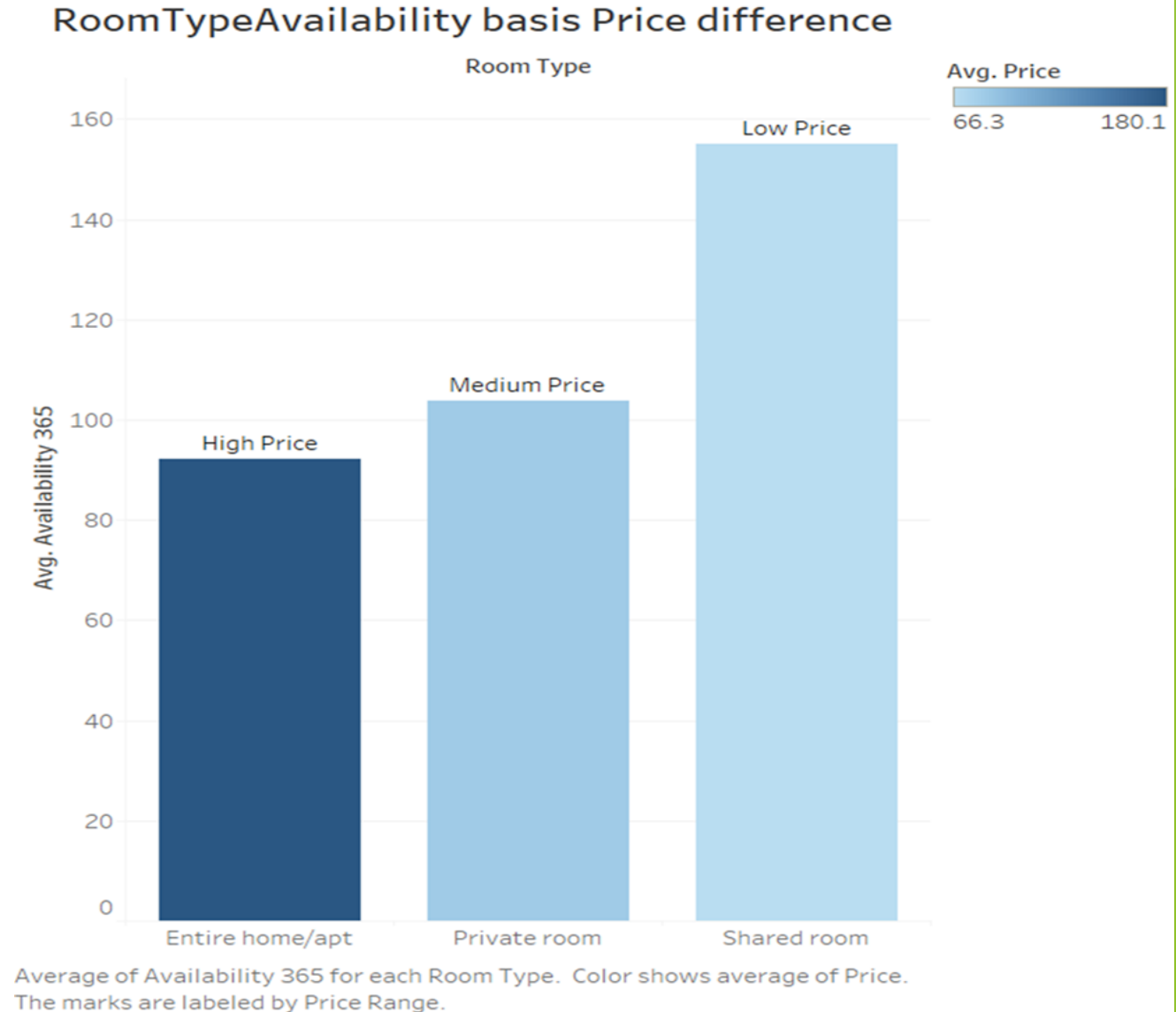
Neighbourhood vs Availability

- ❑ Availability of Bedford is highest and its price is on the lower side. It is a good choice for customers.
- ❑ After Bedford, Harlem follows the same trend.
- ❑ East Village availability low but it is costly.
- ❑ On the other hand, William's price is high and has average availability.



Types of Rooms available for N number of days in a year based on their price range ?

- ❑ Having a high price range, Entire home/apt types of rooms are available for less than 100 days on average followed by Private rooms on an average of 105 days and Shared rooms around 155 days on average being the lowest in price.



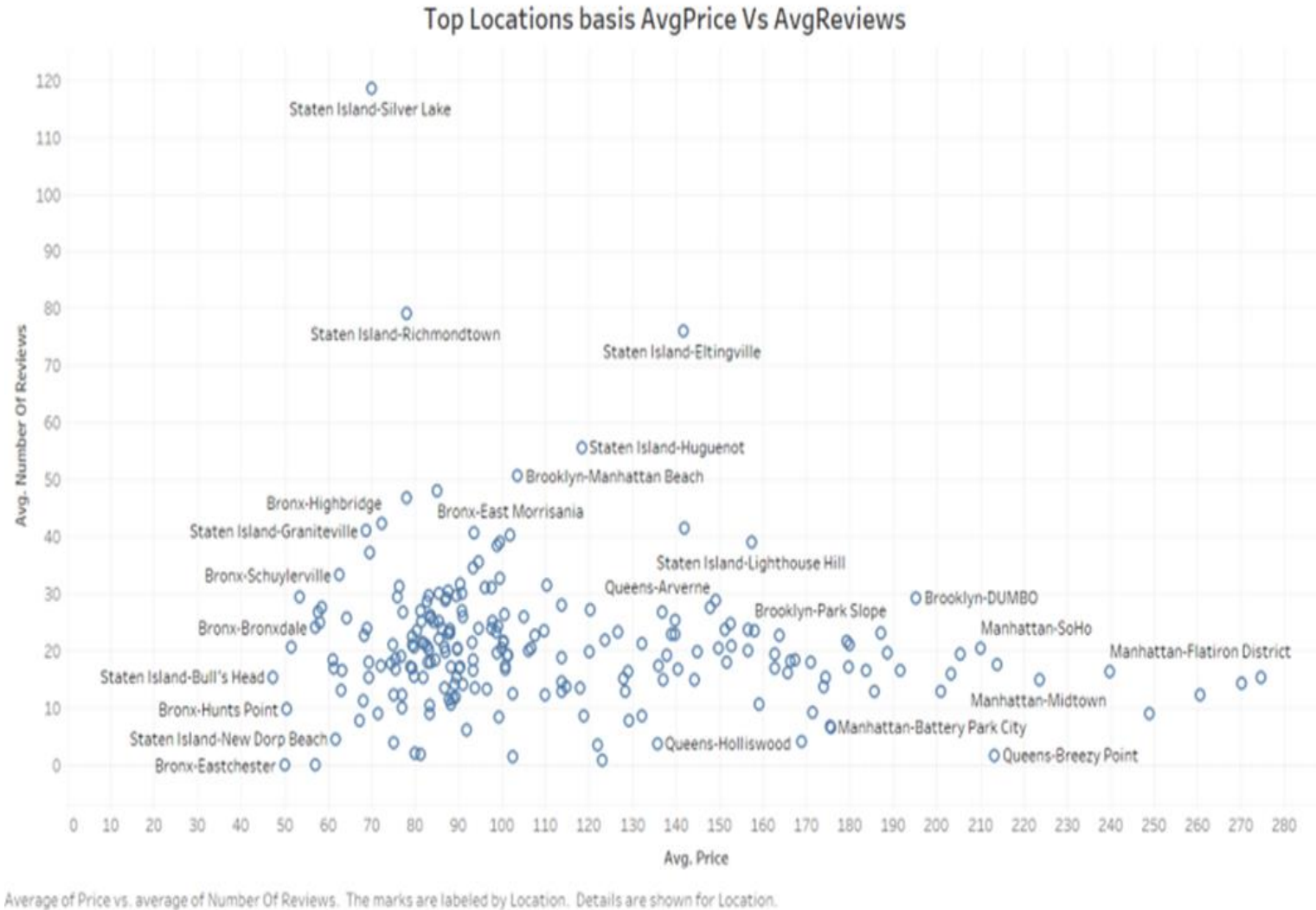
Popular Neighborhoods

- ❑ We see that Bedford-Stuyvesant from Brooklyn is the highest popular with 1,10,352 no of reviews in total followed by Williamsburg.
- ❑ Harlem from Manhattan got the highest no of reviews followed by Hell's kitchen.
- ❑ The higher number of customer reviews imply higher satisfaction in these localities.



Which Locations that have received the highest number of the Reviews?

Staten Island — Silver Lake, Staten Island — Richmond town, Staten Island — Eltingville, Staten Island — Huguenot, and Brooklyn — Manhattan Beach are the Top 5 locations with Low Price ranges that have received the highest number of reviews on average being the lowest in the Price range. On the contrary, Queens — Nereis, Manhattan — NoHo, Manhattan — Tribeca, Staten Island — Willowbrook, and Manhattan — Flatiron District is the highest in the Price range and have received a low number of reviews.



THANKYOU