Travelezy Case Study

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Objective

Use drill up/down, pivot, slice, dice techniques to:

- Explore, find insights, and facilitate the decision-making process
- Explore and discover patterns, recognize, and analyze trends
- Discoveries and corresponding analysis, identifying the problem(s) or issue(s) you found.
- Use any root-cause analysis techniques to solve the problem and/or improve performance

Data cleaning

Before creating the operational dashboards, upon looking carefully at the chosen dataset using Tableau Prep Builder, we found many significant issues with the raw data including but not limited to:

- Replacement and removal of the null values in fields including beds, zip codes, neighbourhood, ratings, etc.
- Correction of the correct format of the zip codes

Insights and patterns

Average price in Manhattan is the highest and Bronx has the lowest mean price. Some other property type has the highest prices and Villas are on second, on other side Lighthouses are cheapest. Surprisingly overall rent prices of apartments, cabins, lofts, and condominiums are higher than on houses and castles.

The rent of the entire home/apt is highest, then Private room and shared rooms are cheapest which is to be expected but rent price of Entire home/apt are significantly higher more than two times. Rent prices in Manhattan are highest for most of the property types, but Villa, Treehouse, Other, Hut.

Also, there are most of the property types located in Manhattan, Brooklyn, and Queens, although the Bronx and Staten Island offer about a third of property types. As we know, Manhattan, Brooklyn, and Queens have most of the property types to offer, Queens and Brooklyn property average prices are significantly less than in Manhattan, Queens and Brooklyn's bars seem higher mostly because of Villas in Brooklyn and because of other property types in Queens.

Overall Manhattan rent prices are tremendously higher than in other Neighbourhoods. Although Brooklyn and Queens offer Villas, Treehouses, Other property types, and Huts for a much higher price. Bronx and Staten Island property prices are lower, and these areas offer fewer types of properties.

When comparing Customer Ratings vs. Neighbourhoods, it is seen Brooklyn to have the highest average customer rating with a score of 92.355, and the lowest average rating belonging to Staten Island with an average customer rating of 90.842.

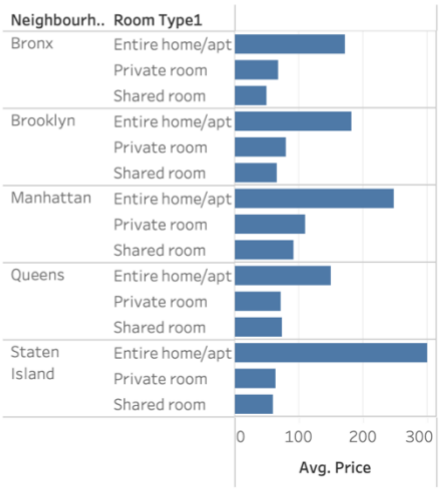
Visualizations

Daniyar Kurmanbayev

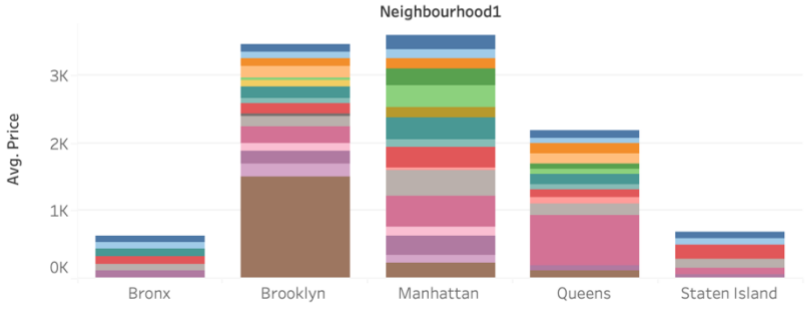
Table: Price by Neighbourhoods and Property Types

	Neighbourhood1				
Property Ty..	Bronx	Brooklyn	Manhattan	Queens	Staten Island
Apartment	82	124	194	101	99
Bed & Brea..	94	99	136	77	95
Boat		100	155	164	
Bungalow		172		144	
Cabin			250	80	
Camper/RV		45	325	71	
Castle			150		
Chalet		99			
Condominiu..	115	174	317	156	
Dorm		65	110	80	
House	118	159	303	102	209
Hut			50	100	
Lighthouse		39			
Loft	104	151	386	172	135
Other		246	437	731	82
Tent		118	150		
Townhouse	108	175	286	91	62
Treehouse		198	102		
Villa		1,500	231	108	

Bar graph 2: Price by Room Type, Neighbourhood



Bar graph 1: Price by Neighbourhoods and Property Types



Purvi Jain

Purvi Dashboard

Average price of room in different areas of New York City by property type

	Area in New York				
Property Type	Bronx	Brooklyn	Manhatt..	Queens	Staten Isl..
Apartment	82	124	194	101	99
Bed & Breakfast	94	99	136	77	95
Boat		100	155	164	
Bungalow		172		144	
Cabin			250	80	
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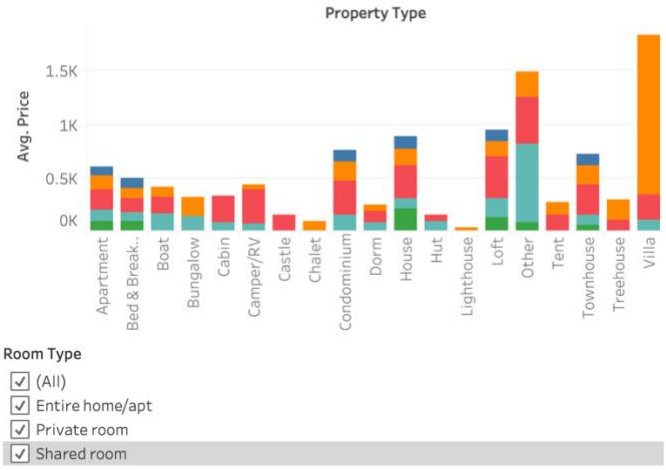
Average price filter for different cities

Average price with Room type filter



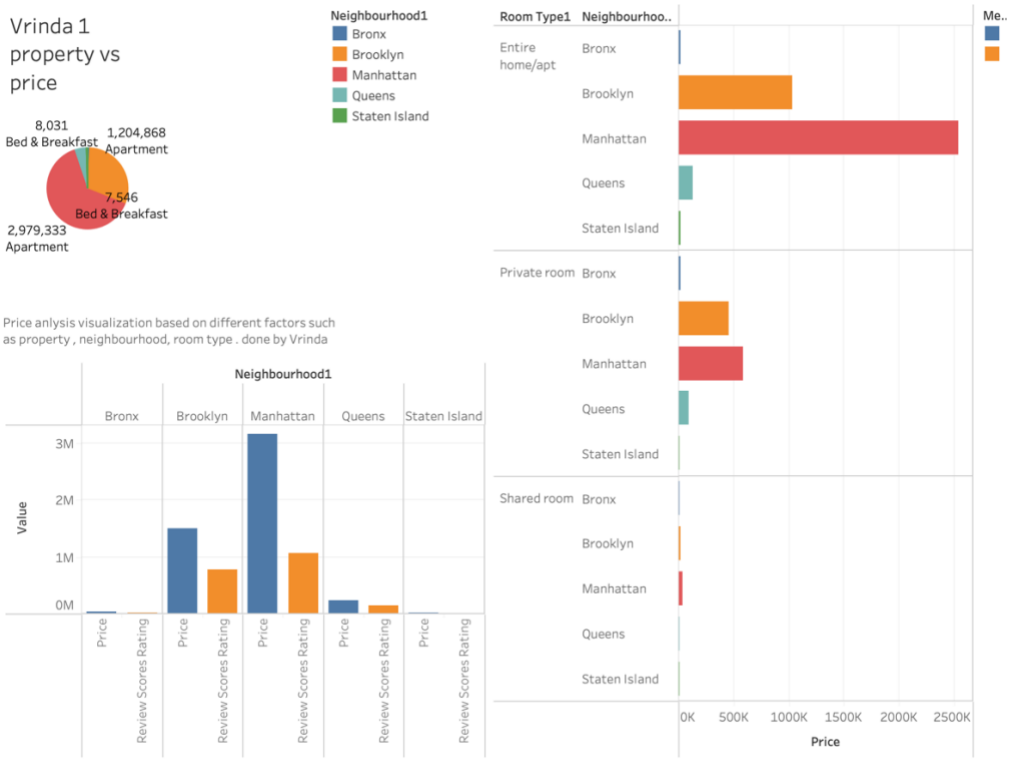
Room Type
- [x] (All)
- [x] Entire home/apt
- [x] Private room
- [x] Shared room

Area in New York
- Bronx
- Brooklyn
- Manhattan
- Queens
- Staten Island

Avg. Price
94.7 — 198.4

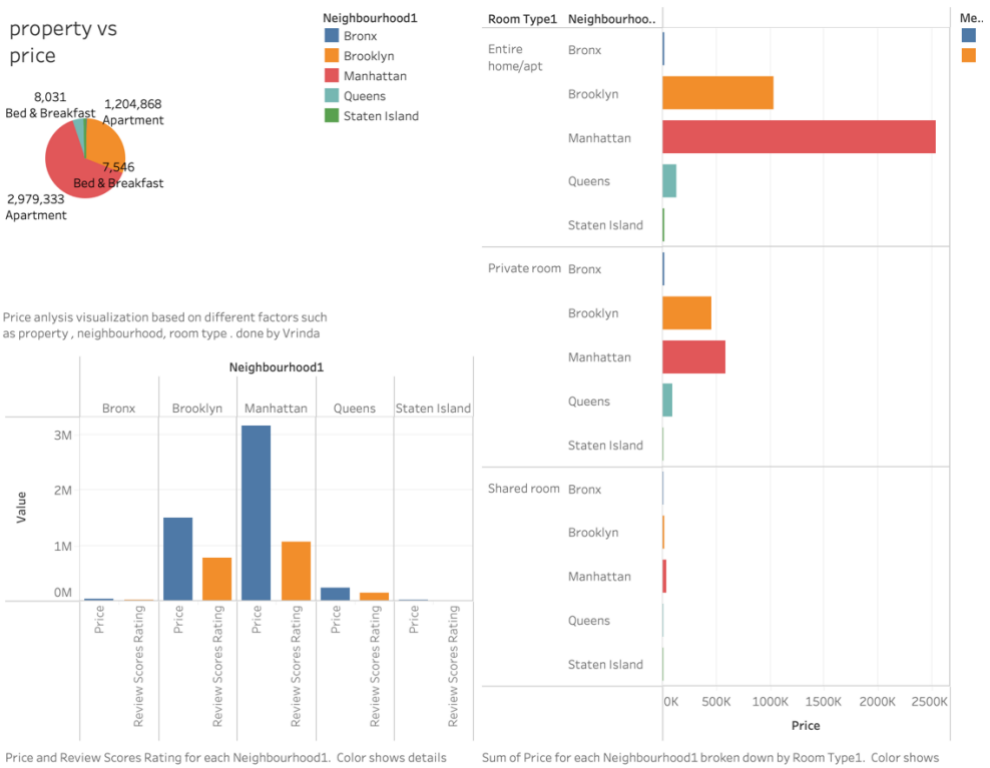
Avg. Price
94.7 — 198.4

Vrinda Parameswaran



Price and Review Scores Rating for each Neighbourhood1. Color shows details about Price and Review Scores Rating.

Sum of Price for each Neighbourhood1 broken down by Room Type1. Color shows details about Neighbourhood1.

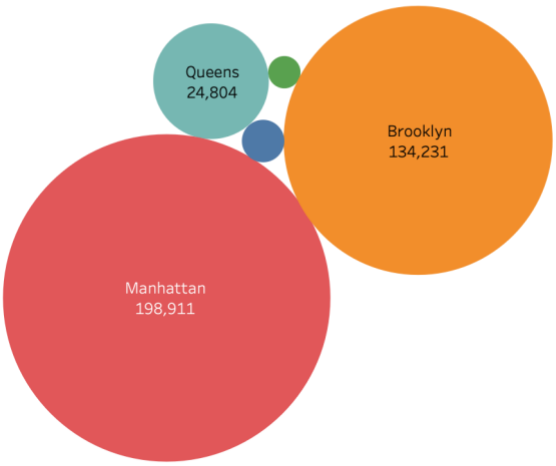


Price and Review Scores Rating for each Neighbourhood1. Color shows details about Price and Review Scores Rating.

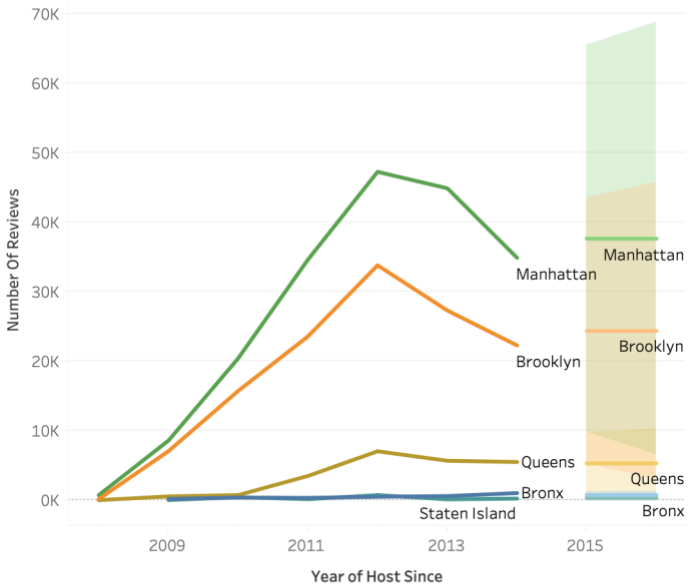
Sum of Price for each Neighbourhood1 broken down by Room Type1. Color shows details about Neighbourhood1.

Tanvir Singh Ahuja

Total Number of Reviews Based on Neighbourhoods in NYC



Review Forecast for various neighbourhoods in NYC region



Total Number of Reviews Based on Room Types in NYC

	Bronx	Brooklyn	Manhattan	Queens	Staten Island
Entire home/apt	694	69,974	123,365	9,036	668
Private room	2,520	62,663	70,878	14,727	1,270
Shared room	128	1,594	4,668	1,041	0

Average Price of Properties based on different Room types in various neighbourhoods in NYC

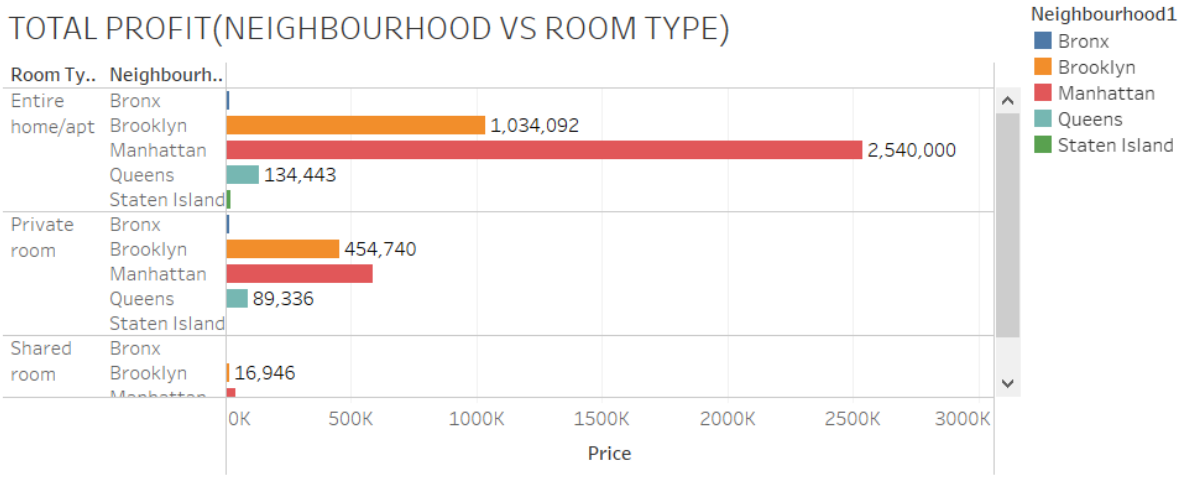
Number Of Reviews
0 123,365

Neighbourhood
Bronx Brooklyn Manhattan Queens Staten Island

Visualizations Generated by Tanvir Singh Ahuja

Shanka Attanayake

TOTAL PROFIT(NEIGHBOURHOOD VS ROOM TYPE)



AVERAGE RATING PROPERTY TYPE

INDEX	Property Type1	
1	Castle	100.00
2	Lighthouse	100.00
3	Chalet	99.00
4	Boat	94.83
5	Hut	94.00
6	Townhouse	93.81
7	Loft	93.51
8	Condominium	92.71
9	Apartment	92.05
10	Villa	91.83
11	Bungalow	91.33
12	House	90.85
13	Bed & Breakfast	90.54

AVERAGE RATING NEIGHBOURHOOD

INDEX	Neighbourh..	
1	Brooklyn	92.355
2	Manhattan	91.805
3	Bronx	91.707
4	Queens	91.504
5	Staten Island	90.842

SHANKA ATTANAYAKE

Problems And Issus Found

1. Bed type with Null Values so grouped it with Bed Type-0 using Tableau prep
2. Name has lot of punctuation and empty spaces, so remove those extra spaces
3. The dataset does not include viable regions that is detectable in Tableau which makes it difficult to create any analysis on mapping.

Root Cause Analysis

1. Why is Manhattan the largest profit region?
   Most customers rent Manhattan.

    - Why do customers rent in Manhattan?
      Manhattan is the center of New York?

        - Why does customers prefer Manhattan over other Regions?
          Manhattan can meet the customer demands.

2. Why Queens and Bronx prices are low?
   Queens and Bronx have less demand as compared to Brooklyn or Manhattan

    - Why Queens and Bronx have less demand?
      Queens and Bronx are less popular for tourists and prefer living closer to the center of the city.

        - Why Queens and Bronx are less popular for tourists?
          Tourists think that locations of properties in Queens and Bronx are d dangerous

            - Tourists think that locations of properties in Queens and Bronx are dangerous?
              Properties are located in criminal areas