

# Pillow palooza NYC Airbnb data analysis

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## Summary:

The main objective is to provide insights on short-term rental markets in New York City by using Airbnb listings data, which will in turn help pillow palooza in making informed business decisions. Data cleaning was done in python, analysis in SQL and Visualization using Tableau.

I recommend investing in an entire home/apt as those room types are preferred more and the revenue generated is highest. Manhattan and Brooklyn boroughs have the highest revenue and the bookings are also more.

## Context:

The Airbnb listings data collected from various resources was provided. There were 3 tables: prices, reviews and room\_types.

prices	reviews	room_types
<b>listing_id</b> the listing ID	<b>listing_id</b> the listing ID	<b>listing_id</b> the listing ID
<b>price</b> price in dollar	<b>host_name</b> name of the host	<b>description</b> the description of the listing
<b>borough</b> Name of the borough	<b>last_review</b> date of the last review	<b>room_type</b> listing space type
<b>neighborhood</b> Name of the neighborhood	<b>number_of_reviews</b> number of reviews	
<b>price_per_month</b> price per month in dollars	<b>reviews_per_month</b> number of reviews per month	
<b>latitude</b> latitude coordinates	<b>calculated_host_listings_count</b> amount of listing per host	
<b>longitude</b> longitude coordindantes	<b>availability_365</b> number of days when listing is available for booking in the next 365 days	
	<b>booked_days_365</b> Amount of booked days in the next 365 days	

Approximately 25200 rows of data in each table. The analysis of this data was done mainly to uncover key insights on popular borough/neighborhood, room\_type, average price per night, minimum nights booked, so that these insights will be helpful to make informed business decisions.

## Results:

Data cleaning was done using python. There was an outlier in the prices data which was removed. The tables were merged and then the analysis was done using SQL.

1. What is the most popular room\_type in short-term rental market to invest in and attain maximum profit?

Entire home/apartment is the most popular room\_type as 52.62% of the total NYC Airbnb listings are entire home/apartment and also the minimum nights booked and total revenue generated is highest with \$543,790,921 for the same.

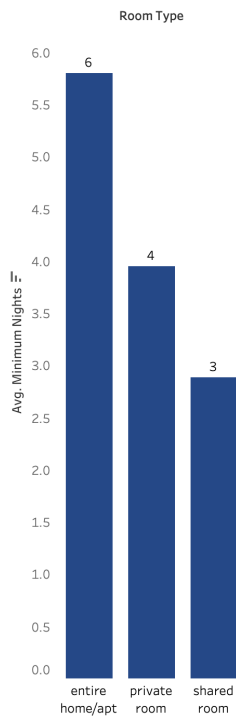
Entire home/apt room type contribute to 52.62% of the total room types in NYC listing



Revenue across room\_types

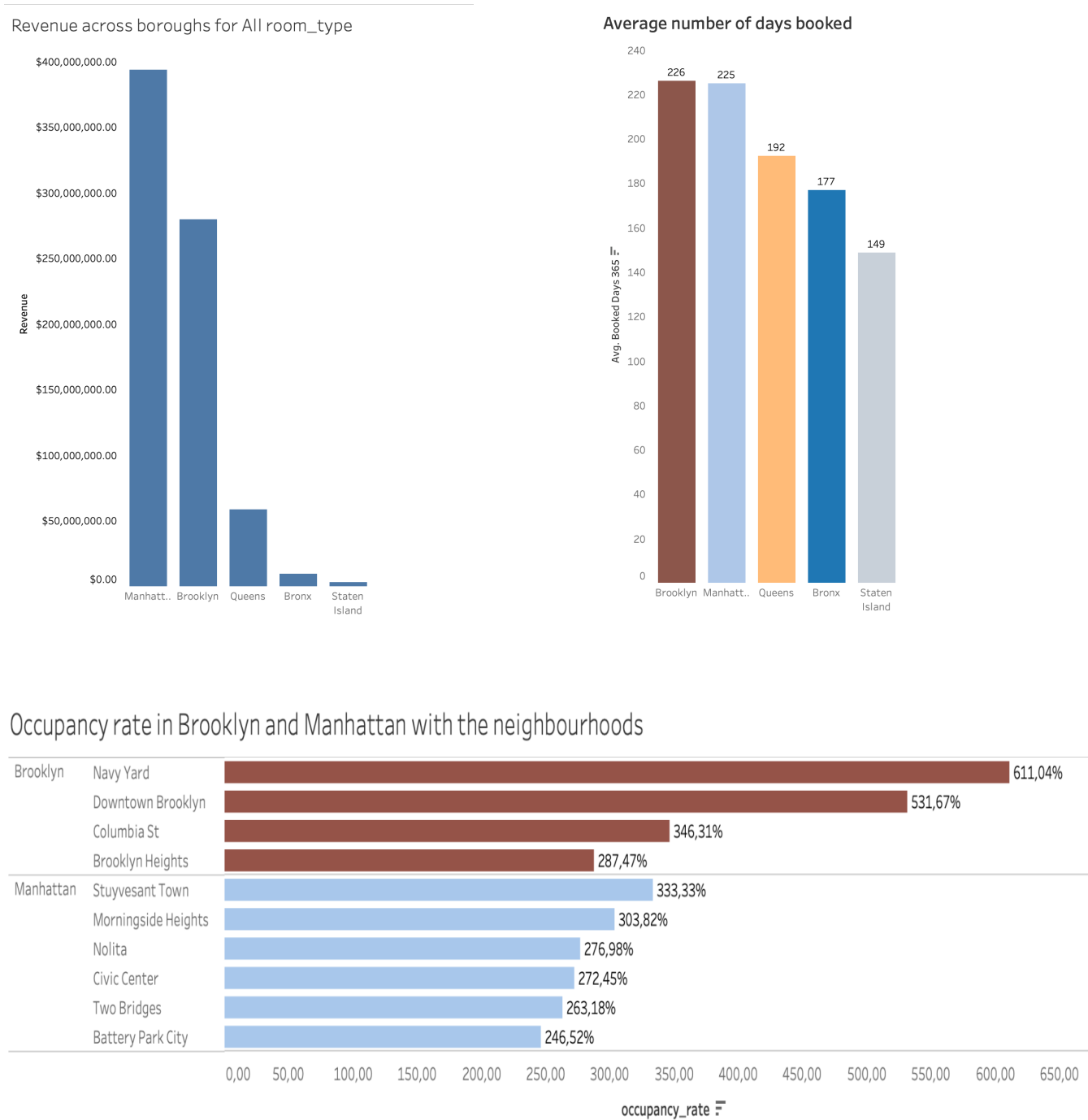
entire home/apt	private room	shared room
\$543,790,921.00	\$194,230,549.00	\$5,701,519.00

Average minimum nights booked



2. Which is a popular borough and neighborhood to invest in so as to attain maximum growth and profit?

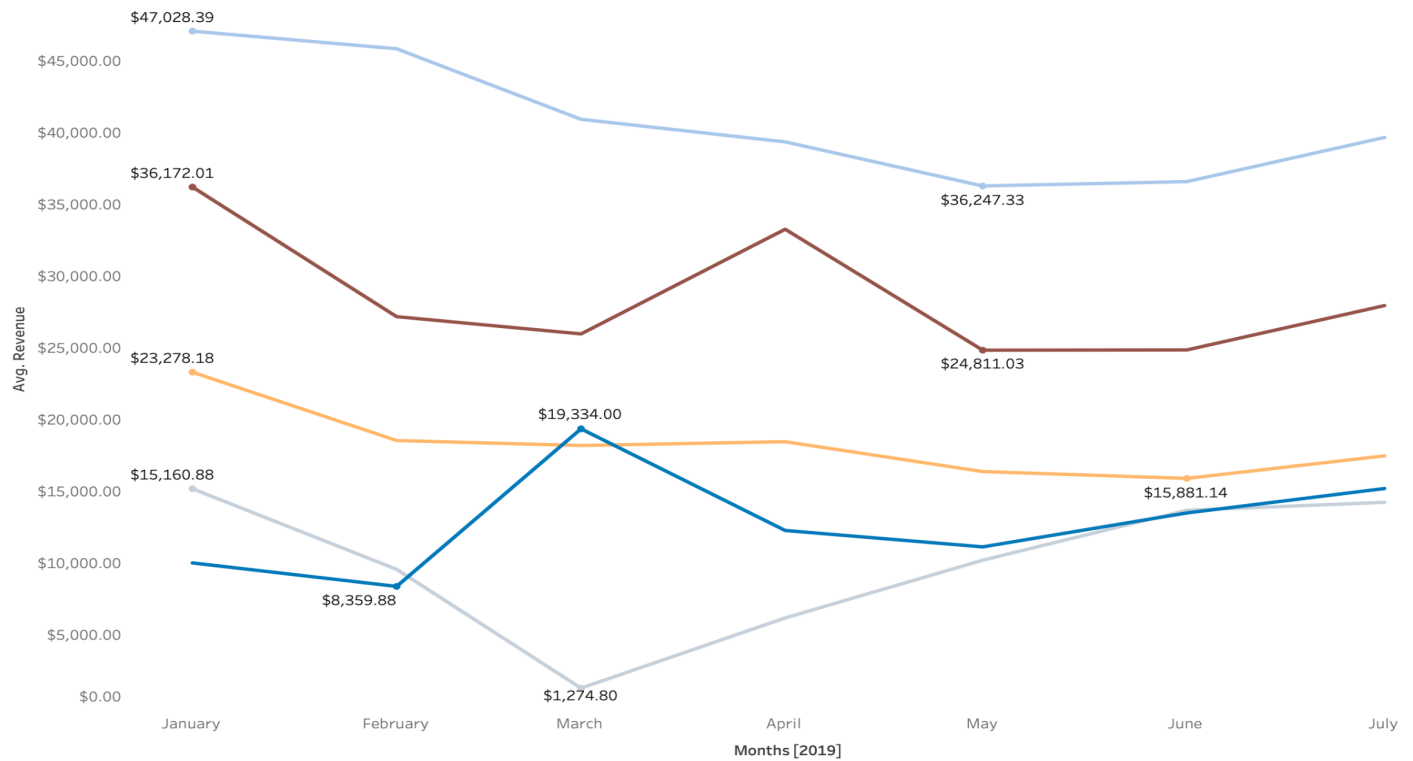
It is good to invest in Manhattan and Brooklyn boroughs as the revenue generated in these boroughs are high and occupancy rate is also more compared to the other boroughs. And also the average number of booked days are also high for Brooklyn and Manhattan with 226 days and 225 days respectively.



Occupancy rate in Brooklyn and Manhattan with the neighbourhoods

Borough	Neighborhood	Occupancy Rate
Brooklyn	Navy Yard	611.04%
	Downtown Brooklyn	531.67%
	Columbia St	346.31%
	Brooklyn Heights	287.47%
Manhattan	Stuyvesant Town	333.33%
	Morningside Heights	303.82%
	Nolita	276.98%
	Civic Center	272.45%
	Two Bridges	263.18%
	Battery Park City	246.52%

Revenue over months in different boroughs



## Recommendations

Based on the above results, the short-term rental market is performing well in Manhattan and Brooklyn boroughs with entire home/apartments. So I think it would be good to invest initially in these boroughs and entire home/apt room type.

## Appendix:

Link to Tableau :

[https://public.tableau.com/app/profile/jayanthi.rao.hosbett.ramesh/viz/NYC\\_Airbnb\\_project/NYCA\\_nalysis?publish=yes](https://public.tableau.com/app/profile/jayanthi.rao.hosbett.ramesh/viz/NYC_Airbnb_project/NYCA_nalysis?publish=yes)