Pillow palooza project report.

Focus of the project:

In my project I focused on presenting my recommendations based on raw revenue, and the reason for that is because pillow palooza is a startup company that I think should get most revenue with as little investment as possible.

After basing my area of research, I started by looking at the big picture which is the boroughs in NYC.

Est. revenue in each borough:

borough TEXT	est_revenue NUMERIC
Manhattan	393420567
Brooklyn	279130240
Queens	58404083
Bronx	9324180
Staten Island	3443919

as we can see the most revenue generating boroughs are Manhattan and Brooklyn. We can see that these two boroughs generate a considerable amount of revenue, more than the rest of the boroughs.

Est. revenue in neighborhoods:

After looking at the boroughs I decided to look at the top 10 most revenue generating neighborhoods.

This is what I found:

neighbourhood TEXT	borough TEXT	est_revenue NUMERIC
Williamsburg	Brooklyn	65364074
Bedford-Stuyvesant	Brooklyn	47723357
Hell's Kitchen	Manhattan	44905347
East Village	Manhattan	38549165
Harlem	Manhattan	36807908
Upper West Side	Manhattan	30677786
Upper East Side	Manhattan	29909038
Midtown	Manhattan	28148436
Bushwick	Brooklyn	24229860
Chelsea	Manhattan	23813509

If we analyze what we see above, we can conclude that Williamsburg generates the most revenue followed by Bedford-Stuyvesant which are both located in Brooklyn. The rest of the leading neighborhoods are located mostly in Manhattan. From that we can conclude that we should focus on these neighborhoods depending on the amount of money that we can invest.

To further backup my claim I checked the total revenue generated in the top 10 neighborhoods in comparison to the rest.

These are the results:

total_rev_top10
NUMERIC

370128480

total_rest_of_nh
NUMERIC

373594509

We should keep in mind that the data that we collected form AIR B&B are from 216 neighborhoods in NYC and we can see that the top 10 generating neighborhoods generated an est. revenue of 370 million dollars, compared to the rest of the 206 neighborhoods that generated an est. of 373 million dollars (only 3 million dollars more).

From the above we can conclude that we should make an investment more in the top 10 neighborhoods.

View of focus in terms of months of the year:

After finding our area of focus we should look at the time of focus, to be more specific the busiest months of the year in the NYC short-term rental industry.

After analyzing the booked days each month these are the results that we got:
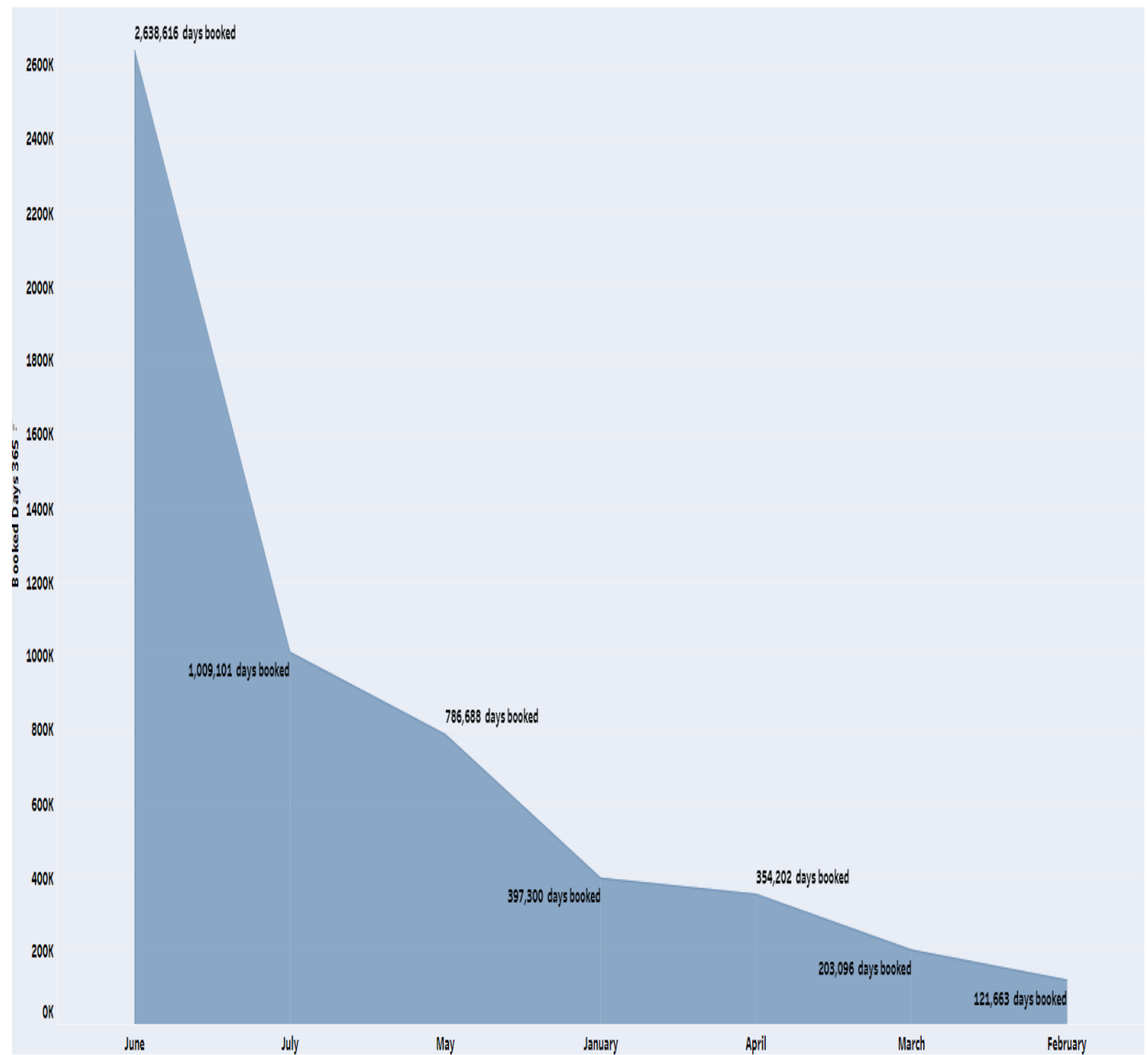
We can see from the area chart that the summertime is the busiest time with the month of June topping the chart with 2.6 million booked days in total almost tripling July which comes after with 1.1 million booked days.

From the above we should take into consideration that summertime is when we should invest more, especially in June.

SQL QUERIES:

```sql
WITH t1 AS
(
SELECT  neighbourhood, price * booked_days_365 as revenue
FROM prices p
LEFT JOIN reviews r
ON p.listing_id = r.listing_id
)
, t2 AS    (
SELECT neighbourhood AS rest, SUM (revenue) AS est_revenue
FROM t1
GROUP BY 1
ORDER BY est_revenue
limit 206 )


SELECT SUM (est_revenue) AS total_rest_of_NH
FROM t2 ;
```

```sql
WITH t1 AS

(

SELECT  neighbourhood, price * booked_days_365 as revenue

FROM prices p

LEFT JOIN reviews r

ON p.listing_id = r.listing_id

)

, t2 AS    (

SELECT neighbourhood AS top_10_nh, SUM (revenue) AS est_revenue

FROM t1

GROUP BY 1

ORDER BY est_revenue DESC

limit 10 )


SELECT SUM (est_revenue) as total_rev_top10

FROM t2 ;
```

```sql
WITH t1 AS
(
SELECT  neighbourhood ,borough, price * booked_days_365 as revenue
FROM prices p
LEFT JOIN reviews r
ON p.listing_id = r.listing_id
)

SELECT neighbourhood ,borough, SUM (revenue) AS est_revenue
FROM t1
GROUP BY 1 ,2
ORDER BY est_revenue DESC
limit 10 ;
```

```sql
WITH t1 AS

(

SELECT  borough, price * booked_days_365 as revenue

FROM prices p

LEFT JOIN reviews r

ON p.listing_id = r.listing_id

)

SELECT borough, SUM (revenue) AS est_revenue

FROM t1

GROUP BY 1;
```

LINK TO TABLEAU STORY:

https://public.tableau.com/app/profile/rwad7818/viz/NYCppproject/pillowpaloozaproject#1