A decorative graphic on the left side of the slide consisting of two overlapping parallelograms. The front one is blue and the back one is a light green. They are positioned diagonally, with the blue one partially covering the green one.

# Should Our Investor Invest in an AirBnB hotel in Washington, D.C.?

Nancy Tran


How much revenue do  
successful hosts  
generate?





# Data Cleansing


- First, hiding the columns that's not needed, which makes it easier for me to check my columns when I need to calculate. Did not delete just in case if I have to go back to it.
- Wrap the text, and centered and middle aligned, and froze the first row.
- Changed all the Washington, D.C. to just Washington, took out Washington from Capitol Hill, took out middle of DC! From Columbia Heights, and capitalized the first letter in Chevy Chase from the city column.
- Changed all Mt and Mt. to Mount and St to Saint in the neighborhood column



# First, calculate the daily revenue for each listing

- We can assume that 50% of customers who stayed left a review, so we can calculate an estimate number of stays for each listing
- We can also assume that each of the booking always has two guests, unless the listing accommodates only one.
- The listing is for only one person if there's only one guest included and it accommodates one, which means it is just the price for the one person.
- We would have to add the extra cost if the listing is for one guest included and it accommodates more than one.
- If the guest included is more than one, then we only charge the price because the price includes more than one person and we are assuming each booking always has two guests.

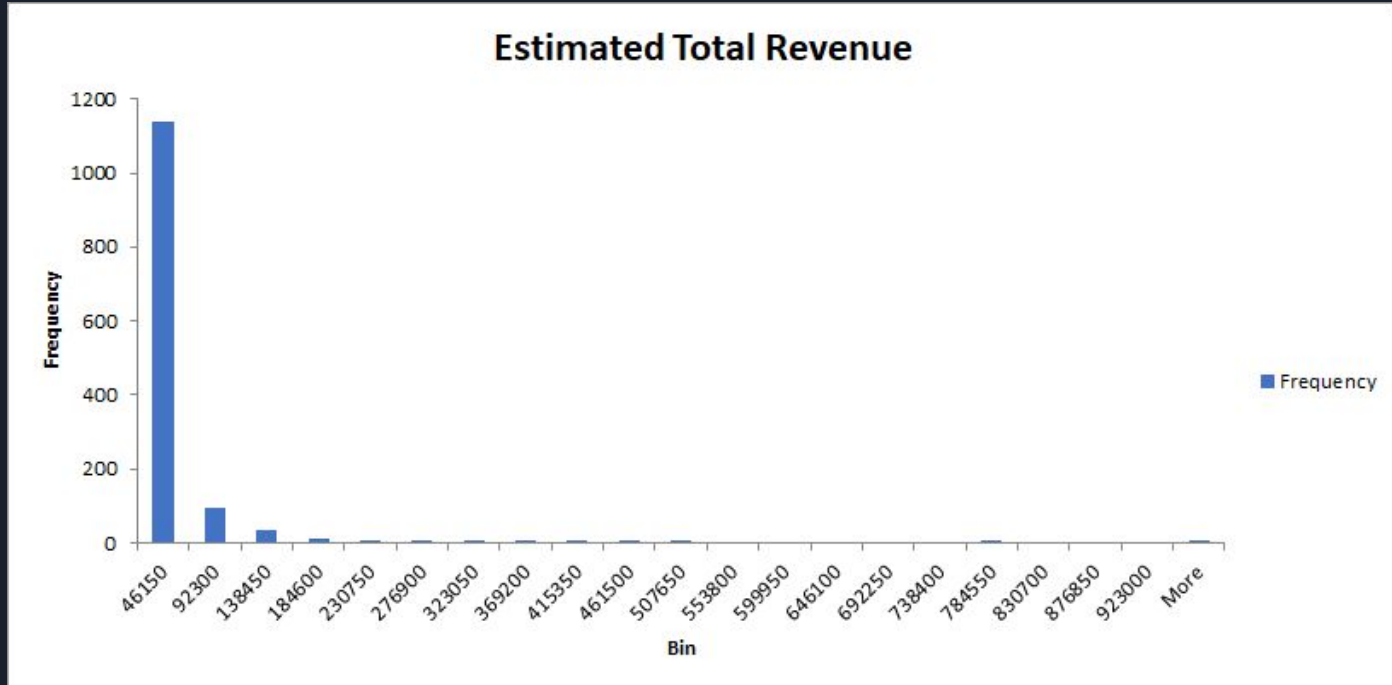




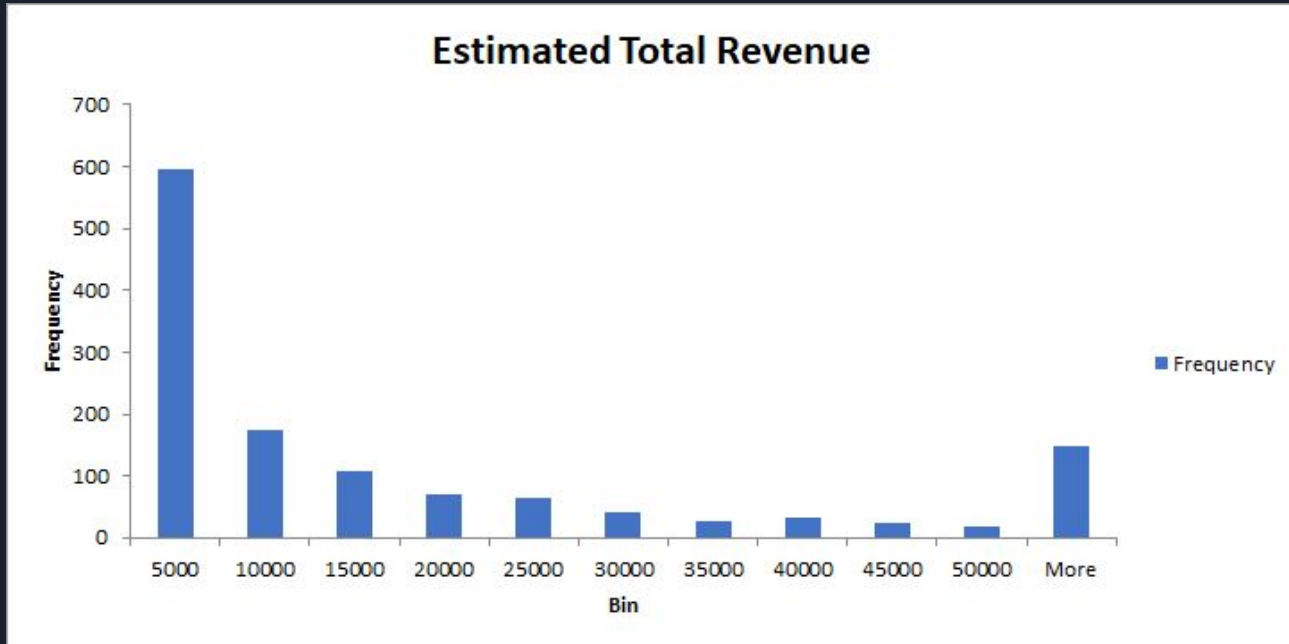
## Now to calculate total revenue!

- Multiply the daily revenue by the minimum of nights to calculate an estimated revenue per booking
- Multiply the estimated revenue per booking with the estimated number of stays that we calculated on the very first step
- Time to get rid of the listings we don't need!

Let's take a look on the histogram with all the estimated total revenue...

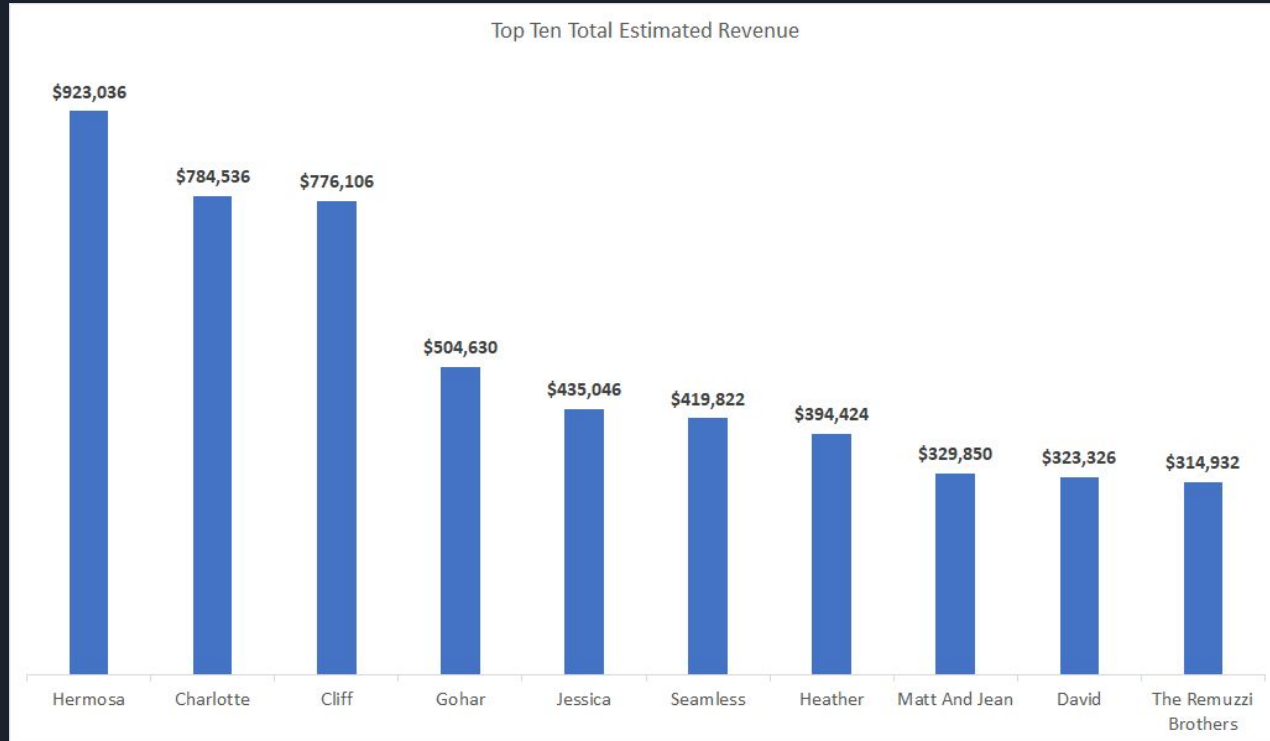


Much better! Now what does this tell us?






Now let's look at who are our top 10 hosts who generated the most revenue within D.C.







## Comparing the top 10 hosts for all of D.C. vs. Washington, D.C.

Row Labels	Sum of est_total_rev	Count of id
Charlotte	\$784,536	31
Cliff	\$776,106	26
David	\$323,326	33
Gohar	\$504,630	4
Heather	\$394,424	13
Hermosa	\$923,036	2
Jessica	\$435,046	12
Matt And Jean	\$329,850	2
Seamless	\$419,822	42
The Remuzzi Brothers	\$314,932	2

Row Labels	Sum of est_total_rev	Count of id
Charlotte	\$784,536	31
Cliff	\$776,106	26
David	\$315,046	32
Gohar	\$504,630	4
Heather	\$394,424	13
Hermosa	\$923,036	2
Jessica	\$435,046	12
Matt And Jean	\$329,850	2
Seamless	\$419,822	42
The Remuzzi Brothers	\$314,932	2



## Sum vs. Average

Row Labels	Sum of est_total_rev	Count of id
Charlotte	\$784,536	31
Cliff	\$776,106	26
David	\$315,046	32
Gohar	\$504,630	4
Heather	\$394,424	13
Hermosa	\$923,036	2
Jessica	\$435,046	12
Matt And Jean	\$329,850	2
Seamless	\$419,822	42
The Remuzzi Brothers	\$314,932	2

Row Labels	Average of est_total_rev	Count of id
Christine + Mike	\$139,200	1
Daryl	\$119,970	1
Gohar	\$126,158	4
Helen And Gabe	\$106,920	1
Hermosa	\$461,518	2
Matt And Jean	\$164,925	2
Micha	\$111,300	1
Nat	\$116,708	1
Serge	\$196,716	1
The Remuzzi Brothers	\$157,466	2



# Entire D.C. versus Washington, D.C.

**Statistical Data for All AirBnB**

Mean-Average:	\$10,870
Median:	\$3,542
Mode:	\$600
Standard Deviation:	\$27,487
Top Revenue:	\$920,192
Neighborhood:	Bloomingdale
Host Name:	Hermosa
ID:	234431

**Statistical Data for Washington D.C.**

Mean-Average:	\$10,896
Median:	\$3,567
Mode:	\$600
Standard Deviation:	\$27,550
Top Revenue:	\$920,192
Neighborhood:	Bloomingdale
Host Name:	Hermosa
# of Listings:	2
ID:	234431



# Top Performing Hosts Recommendations

<b>Top 4 Performing Hosts:</b>	<b>Hermosa</b>	<b>Gohar</b>	<b>Matt And Jean</b>	<b>The Remuzzi Brothers</b>
<b># of Listings:</b>	2	4	2	2
<b>ID:</b>	234431	2954961	458046	32584
<b>Revenue:</b>	\$920,192	\$475,200	\$181,800	\$186,792
<b>Neighborhood:</b>	Bloomingdale	Dupont Circle	Capitol Hill	Shaw
<b>City:</b>	Washington	Washington	Washington	Washington



# Should our investor invest in an AirBnB hotel in Washington, D.C.?

Washington, D.C.	
Total listings in Washington, D.C.:	2876
% Washington D.C.:	99.4%
% Neighborhood in Downtown/Penn Quarter:	1.4%
% Neighborhood in Berkley:	0.1%
% Neighborhood in Shaw	3.4%
% Neighborhood in Capitol Hill:	9.7%
% Neighborhood in Bloomingdale:	2.3%
% Neighborhood in Dupont Circle:	5.7%
% review rating score of 100:	26.9%
% Revenue Above Mean-Average:	24.9%
% more than 100 stays:	9.9%



# Which neighborhood in Washington, D.C. should they invest?

Row Labels	Sum of est_total_rev	Count of id
Adams Morgan	\$1,000,518	111
Bloomingdale	\$1,431,474	65
Capitol Hill	\$4,917,980	278
Columbia Heights	\$1,788,702	209
Dupont Circle	\$3,074,280	163
Logan Circle	\$1,753,360	156
Near Northeast/H Street Corridor	\$1,067,662	106
Shaw	\$1,506,946	98
U Street Corridor	\$1,175,964	146
(blank)	\$1,458,378	239

Row Labels	Average of est_total_rev	Count of id
Benning Heights	\$40,800	1
Berkley	\$26,867	3
Bloomingdale	\$22,023	65
Capitol Hill	\$17,691	278
Downtown/Penn Quarter	\$22,391	40
Dupont Circle	\$18,861	163
Hillcrest	\$23,560	1
Langdon	\$38,687	5
LeDroit Park	\$17,405	27
North Michigan Park	\$21,408	4

Bloomingdale would be the best fit!