Sheet 1: Start Here

	A
1	**Executive Summary:**
2	
3	The following is an analysis of the Manhattan vacation rental market for the past twelve months using Airbnb data.
4	
5	A. The top 10 Neighborhoods in Manhattan for vacation rentals in order are:
6	1. Lower East Side
7	2. Hells Kitchen
8	3. Harlem
9	4. Midtown
10	5. Upper West Side
11	6. Chelsea
12	7. East Village
13	8. East Harlem
14	9. West Village
15	10. Upper East Side
16	
17	B. The most popular property size (# of bedrooms) in each neighborhood are 1- bedroom listings in all of the top 10 neighborhoods except for Midtown, whose most popular size is studios.
18	
19	C. The listings which matched the criteria for most popular properties in the top 10 neighborhoods generated a grand total of $5,474,281.00, with the 10 highest earning listings generating
20	between $13,500 to $29,940.00 in the prvious 12 months.
21	
22	
23	
24	
25	**Table of Contents:**
26	
27	Data Cleaning, Assumptions & Changes Log
28	
29	Data Dictionary
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31	Raw Data
32	
33	Processed Data
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35	Calendar
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37	Pivot Table: Top 10 Neighborhoods
38	
39	Pivot Table: Popular Property Sizes
40	
41	Pivot Table: Top Earning Listings
42	
43	**Conclusion:**
44	Based on the data, the client would achieve the highest profitability by focusing investments on 1-bedroom properties within the top 10 neighborhoods, with the exception of Midtown, where the most favored property size is studios.

Tabs: Start Here | Data Cleaning Steps | data_dictionary | Raw_Data_Listings | Processed_Data_listings | calendar | Top 10 Neigborhood Table | Popular Property Sizes Table | Top Earning Listings

Sheet 2: Data Cleaning Steps

	A
1	**Data Cleaning Steps**
2	Cleared inconsistent data city and state/country.
3	trimmed white space.
4	Added "berooms_cleaned" column to incorporate studio apartment listings at a value of "0" bedrooms. (SEE Processed Data Column: "AL")
5	Added "neighborhood_clean" column to standardize neighborhoods names. (SEE Processed Data Column: "AC")
6	Added "top_listing" column to value each listing which contains the most popular specific property sizes by neighborhoods in top 10 as "1," and all others as "0." (SEE Processed Data Column: "AN")
7	
8	
9	**Assumptions & Changes**
10	To assess listing attractiveness utilized data available from number_of_reviews_ltm from the last 12 month period as criterion of attractiveness.
11	Added "revenue_earned" column to calendar to estimated adjusted revenue per night if listing is available.
12	Added "top_bedrooms" Columns (SEE Processed Data Column: "AO")
13	Added "top_neighborhood" column (SEE Processed Data Column: "AP")
14	Added "revenue_earned" column apply calendar values to listings. (SEE Processed Data Column: "AT")
15	Added "potential_yearly_revenue" column (SEE Processed Data Column: "AU")

Tabs: Start Here | Data Cleaning Steps | data_dictionary | Raw_Data_Listings | Processed_Data_listings | calendar | Top 10 Neigborhood Table | Popular Property Sizes Table | Top Earning Listings

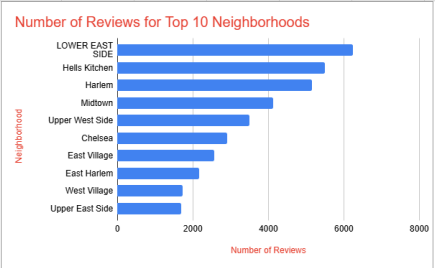|	A	B	C	D	E	F	G	H	I	J
1	**Data Dictionary for Listings**									
2	**Field**	**Type**	**Calculated**	**Description**						
3	id	integer		Airbnb's unique identifier for the listing						
4	listing_url	text	y							
5	scrape_id	bigint	y	Inside Airbnb "Scrape" this was part of						
6	last_scraped	datetime	y	UTC. The date and time this listing was "scraped".						
7	source	text		One of "neighbourhood search" or "previous scrape". "neighbourhood search" means that the listing was found by searching the city, while "previous scrape" means that the listing was seen in another scrape performed in the last 65 days, and the listing was confirmed to be still available on the Airbnb site.						
8	name	text		Name of the listing						
9	description	text		Detailed description of the listing						
10	neighborhood_overview	text		Host's description of the neighbourhood						
11	picture_url	text		URL to the Airbnb hosted regular sized image for the listing						
12	host_id	integer		Airbnb's unique identifier for the host/user						
13	host_url	text	y	The Airbnb page for the host						
14	host_name	text		Name of the host. Usually just the first name(s).						
15	host_since	date		The date the host/user was created. For hosts that are Airbnb guests this could be the date they registered as a guest.						
16	host_location	text		The host's self reported location						
17	host_about	text		Description about the host						
18	host_response_time									
19	host_response_rate									
20	host_acceptance_rate			That rate at which a host accepts booking requests.						
21	host_is_superhost	boolean [t=true; f=false]								
22	host_thumbnail_url	text								
23	host_picture_url	text								
24	host_neighborhood	text								
25	host_listings_count	text		The number of listings the host has (per Airbnb calculations)						
26	host_total_listings_count	text		The number of listings the host has (per Airbnb calculations)						
27	host_verifications									
28	host_has_profile_pic	boolean [t=true; f=false]								
29	host_identity_verified	boolean [t=true; f=false]								
30	neighborhood	text	y	The neighbourhood as geocoded using the latitude and longitude against neighborhoods as defined by open or public digital shapefiles.						
31	neighbourhood_group	text	y	The neighbourhood group as geocoded using the latitude and longitude against neighborhoods as defined by open or public digital shapefiles.						
32	latitude	numeric		Uses the World Geodetic System (WGS84) projection for latitude and longitude.						
33	longitude	numeric		Uses the World Geodetic System (WGS84) projection for latitude and longitude.						
34	property_type	text		Self selected property type. Hotels and Bed and Breakfasts are described as such by their hosts in this field						
	room_type	text		All homes are grouped into the following three room types: Entire places are best if you're seeking a home away from home. With an entire place, you'll have the whole space to yourself. This usually includes a bedroom, a bathroom, a kitchen, and a separate, dedicated entrance. Hosts should note in the							

	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	edrooms	bedrooms_clean	top_listing	Top_bedroom	top_neighborhoc	beds	amenities	price	revenue_earned	Potential_yearly	minimum_nights	maximum_night	minimum_minim	maximum_minim	minimum_maxin	maximum_maxir	minimum_nights	maximum_night	calendar
2	1	1	1	TRUE	TRUE	1	["Microwave", "L	$169.00	$3,549.00	$42,588.00	30	30	30	30	30	30	30	30	
3		0	0	FALSE	TRUE	1	["First aid kit", "E	$175.00	$5,250.00	$63,000.00	30	1125	30	30	1125	1125	30	1125	
4	1	1	1	TRUE	TRUE	2	["Microwave", "S	$250.00	$7,500.00	$90,000.00	3	365	3	3	365	365	3	365	
5	1	1	0	TRUE	FALSE	1	["Piano", "First a	$330.00	$9,570.00	$114,840.00	2	7	2	7	7	15	2.2	7.3	
6	1	1	1	TRUE	TRUE	1	["Microwave", "S	$160.00	$4,320.00	$51,840.00	3	365	3	3	1125	1125	3	1125	
7	1	1	1	TRUE	TRUE	2	["First aid kit", "B	$206.00	$2,729.00	$32,748.00	30	1125	30	30	1125	1125	30	1125	
8	1	1	1	TRUE	TRUE	1	["Essentials", "In	$250.00	$5,750.00	$69,000.00	30	180	30	30	180	180	30	180	
9	2	2	0	FALSE	FALSE	2	["Microwave", "S	$300.00	$8,100.00	$97,200.00	7	31	7	7	31	31	7	31	
10	3	3	0	FALSE	FALSE	3	["Essentials", "O	$500.00	$3,500.00	$42,000.00	30	365	30	30	365	365	30	365	
11	4	4	0	FALSE	TRUE	6	["Microwave", "S	$300.00	$7,350.00	$88,200.00	5	365	5	5	365	365	5	365	
12	1	1	1	TRUE	TRUE	1	["Stove", "Coffee	$110.00	$3,300.00	$39,600.00	30	60	30	30	1125	1125	30	1125	
13		0	0	FALSE	TRUE	1	["Essentials", "O	$166.00	$4,980.00	$59,760.00	90	180	90	90	180	180	90	180	
14	1	1	1	TRUE	TRUE	1	["First aid kit", "L	$220.00	$6,600.00	$79,200.00	30	90	30	30	90	90	30	90	
15	1	1	1	TRUE	TRUE	2	["Body soap", "L	$160.00	$4,800.00	$57,600.00	30	1125	30	30	1125	1125	30	1125	
16	1	1	0	FALSE	TRUE	1	["Oven", "Refrige	$110.00	$3,300.00	$39,600.00	200	730	200	200	730	730	200	730	
17	1	1	1	TRUE	TRUE	1	["Hair dryer", "Es	$130.00	$3,120.00	$37,440.00	30	90	30	30	90	90	30	90	
18	2	2	0	FALSE	TRUE	2	["First aid kit", "M	$110.00	$3,190.00	$38,280.00	180	365	180	180	365	365	180	365	
19		0	0	FALSE	TRUE	2	["Hair dryer", "Di	$175.00	$4,725.00	$56,700.00	4	365	4	4	365	365	4	365	
20		0	0	FALSE	TRUE	2	["Microwave", "S	$70.00	$2,100.00	$25,200.00	30	730	30	30	730	730	30	730	
21	2	2	0	FALSE	TRUE	2	["Hair dryer", "In	$300.00	$11,700.00	$140,400.00	7	365	7	7	365	365	7	365	

	A	B	C	D	E	F	G	H
1	listing_id	date	available	price	adjusted_price	minimum_nights	maximum_nights	revenue_earned
2	9357	2022-09-07	f	$175.00	$175.00	30	1125	$175.00
3	9357	2022-09-08	f	$175.00	$175.00	30	1125	$175.00
4	9357	2022-09-09	f	$175.00	$175.00	30	1125	$175.00
5	9357	2022-09-10	f	$175.00	$175.00	30	1125	$175.00
6	9357	2022-09-11	f	$175.00	$175.00	30	1125	$175.00
7	9357	2022-09-12	f	$175.00	$175.00	30	1125	$175.00
8	9357	2022-09-13	f	$175.00	$175.00	30	1125	$175.00
9	9357	2022-09-14	f	$175.00	$175.00	30	1125	$175.00
10	9357	2022-09-15	f	$175.00	$175.00	30	1125	$175.00
11	9357	2022-09-16	f	$175.00	$175.00	30	1125	$175.00
12	9357	2022-09-17	f	$175.00	$175.00	30	1125	$175.00
13	9357	2022-09-18	f	$175.00	$175.00	30	1125	$175.00
14	9357	2022-09-19	f	$175.00	$175.00	30	1125	$175.00
15	9357	2022-09-20	f	$175.00	$175.00	30	1125	$175.00
16	9357	2022-09-21	f	$175.00	$175.00	30	1125	$175.00
17	9357	2022-09-22	f	$175.00	$175.00	30	1125	$175.00
18	9357	2022-09-23	f	$175.00	$175.00	30	1125	$175.00
19	9357	2022-09-24	f	$175.00	$175.00	30	1125	$175.00
20	9357	2022-09-25	f	$175.00	$175.00	30	1125	$175.00
21	9357	2022-09-26	f	$175.00	$175.00	30	1125	$175.00
22	9357	2022-09-27	f	$175.00	$175.00	30	1125	$175.00
23	9357	2022-09-28	f	$175.00	$175.00	30	1125	$175.00
24	9357	2022-09-29	f	$175.00	$175.00	30	1125	$175.00
25	9357	2022-09-30	f	$175.00	$175.00	30	1125	$175.00
26	9357	2022-10-01	f	$175.00	$175.00	30	1125	$175.00
27	9357	2022-10-02	f	$175.00	$175.00	30	1125	$175.00
28	9357	2022-10-03	f	$175.00	$175.00	30	1125	$175.00
29	9357	2022-10-04	f	$175.00	$175.00	30	1125	$175.00
30	9357	2022-10-05	f	$175.00	$175.00	30	1125	$175.00
31	9357	2022-10-06	f	$175.00	$175.00	30	1125	$175.00
32	15341	2022-09-08	f	$205.00	$205.00	30	1125	$205.00
33	15341	2022-09-09	f	$221.00	$221.00	30	1125	$221.00
34	15341	2022-09-10	f	$216.00	$216.00	30	1125	$216.00
35	15341	2022-09-11	f	$201.00	$201.00	30	1125	$201.00
36	15341	2022-09-12	f	$196.00	$196.00	30	1125	$196.00
37	15341	2022-09-13	f	$198.00	$198.00	30	1125	$198.00
38	15341	2022-09-14	f	$203.00	$203.00	30	1125	$203.00
39	15341	2022-09-15	f	$212.00	$212.00	30	1125	$212.00
40	15341	2022-09-16	f	$223.00	$223.00	30	1125	$223.00
41	15341	2022-09-17	f	$226.00	$226.00	30	1125	$226.00
42	15341	2022-09-18	f	$220.00	$220.00	30	1125	$220.00

	A	B
1	neighborhood	SUM of number_of_reviews_ltm
2	LOWER EAST SIDE	6242
3	Hells Kitchen	5506
4	Harlem	5157
5	Midtown	4128
6	Upper West Side	3497
7	Chelsea	2913
8	East Village	2572
9	East Harlem	2175
10	West Village	1735
11	Upper East Side	1696
36	Grand Total	44361

Number of Reviews for Top 10 Neighborhoods

SUM of number_of_reviews_ltn bedrooms_clean

neighborhood_clean	0	1	2	3	4	5	6	7	8
West Village	12.16%	52.28%	23.17%	9.34%	3.05%				
Upper West Side	11.50%	46.87%	24.22%	14.90%	0.94%	1.57%			
Upper East Side	11.44%	52.18%	24.00%	3.60%	5.01%	2.42%			1.36%
Midtown	63.69%	22.00%	11.82%	1.26%	1.24%				
Lower East Side	5.50%	86.49%	6.87%	0.03%	0.29%		0.82%		
Hells Kitchen	7.34%	40.03%	44.86%	7.16%	0.13%			0.49%	
Harlem	15.98%	41.23%	25.60%	9.58%	4.42%	3.20%			
East Village	16.95%	51.79%	24.34%	4.28%	2.64%				
East Harlem	18.62%	41.33%	29.38%	4.64%	6.02%				
Chelsea	26.81%	37.59%	32.89%	2.61%			0.10%		

Sheet tabs: Start Here ▾ | Data Cleaning Steps ▾ | data_dictionary ▾ | Raw_Data_Listings ▾ | Processed_Data_listings ▾ | calendar ▾ | Top 10 Neigborhood Table ▾ | **Popular Property Sizes Table** ▾

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id	SUM of revenue
49946551	$29,940.00
44267714	$26,100.00
6833395	$22,800.00
46432776	$20,300.00
41295029	$15,600.00
53057804	$15,300.00
53058987	$14,425.00
4859903	$14,233.00
43118961	$13,601.00
4967114	$13,500.00
289665	$13,500.00
50618605	$13,050.00
1060019	$13,021.00
5800130148099	$12,930.00
30087377	$12,810.00
25313748	$12,785.00
34384453	$12,609.00
49928900	$12,236.00
53167175	$12,225.00
53602040	$12,135.00
41890621	$11,970.00
37251520	$11,850.00
48374098	$11,610.00
52755593	$11,600.00
52336155	$11,600.00
39225271	$11,575.00
29687597	$11,571.00
13058232	$11,500.00
29495933	$11,455.00
21366948	$11,268.00
6640144	$11,250.00
4644669	$11,250.00
258688	$11,250.00
46351532	$11,111.00
52257683	$11,094.00
46964389	$10,978.00
295998	$10,950.00
37517842	$10,883.00
53185811	$10,640.00
47953903	$10,548.00
44801335	$10,544.00
39316302	$10,469.00
50748961	$10,425.00

Sheet tabs: Start Here ▾ | Data Cleaning Steps ▾ | data_dictionary ▾ | Raw_Data_Listings ▾ | Processed_Data_listings ▾ | calendar ▾ | Top 10 Neigborhood Table ▾ | Popular Property Sizes Table ▾ | **Top Earning**