



London Airbnb Analysis: Unveiling Insights with Data

This presentation explores key insights derived from an analysis of London Airbnb data. From data cleaning to interactive visualisations, we uncover trends in pricing, popular hosts, and room types across London's diverse neighbourhoods. We will discuss data cleaning, modelling, and visualization.

Data Preparation: Excel and Power Query

Excel Cleaning

Initial data cleaning was performed in Excel. This included changing column data types. It also included filling missing values with 0 or N/A. Spell checking errors in the name column fixed.

Power Query Refinement

Power Query was used for advanced cleaning. Four rows with name errors were removed, ensuring data accuracy.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	id	name	host_id	host_name	neighbourhood	latitude	longitude	room_type	price	minimum_nights	number_of_reviews	last_review	reviews_per_month	calculated_host_listings_count	availability_365	number_of_reviews_ltm
2	106332	Lovely large room, Bethnal Green	264345	Susie	Tower Hamlets	51.529	-0.054	Private room	£55	3	65	10/06/2016	0.47	1	74	
3	13913	Holiday London DB Room Let-on going	54730	Alina	Islington	51.569	-0.113	Private room	£50	1	30	15/07/2022	0.20	2	343	
4	284532	COSY STUDIO-FLAT WITH A GREAT VIEW	1481412	Luca	Tower Hamlets	51.529	-0.074	Entire home/apt	£90	5	42	04/01/2022	0.34	1	222	
5	107048	A Luxury Studio Suite in Clerkenwell	259088	Simon	Islington	51.525	-0.105	Private room	£180	4	493	02/09/2022	3.59	5	236	2
6	284603	Notting Hill church stay in Heaven!	1481851	Tania	Kensington and Chelsea	51.515	-0.200	Entire home/apt	£297	14	6	04/07/2022	0.05	1	180	
7	15400	Bright Chelsea Apartment, Chelsea!	60302	Philippa	Kensington and Chelsea	51.488	-0.168	Entire home/apt	£75	3	89	16/03/2020	0.57	1	70	
8	107051	JESSIE the narrowboat in Little Venice	554519	Meg	Westminster	51.521	-0.183	Entire home/apt	£204	2	581	02/09/2022	4.26	1	193	6
9	17402	Superb 3-Bed/2 Bath & Wi-Fi: Trendy W1	67564	Liz	Westminster	51.522	-0.141	Entire home/apt	£379	4	51	06/09/2022	0.36	5	249	
10	286675	APARTMENT IN NORTH WEST LONDON	1491611	Nora	Harrow	51.580	-0.375	Entire home/apt	£90	3	104	22/08/2022	0.86	1	318	
11	116268	DOUBLE ROOM NEAR CENTRAL LONDON	586671	Joe	Enfield	51.611	-0.119	Private room	£30	7	32	08/09/2022	0.29	1	251	
12	117203	A stylish original Victorian home in West London	255103	Olga	Hammersmith and Fulham	51.502	-0.233	Entire home/apt	£136	5	71	08/06/2022	0.55	1	0	1
13	288828	Gorgeous Modern 3 Bed Flat in Willesden Green	737248	Ragnhild	Brent	51.537	-0.237	Entire home/apt	£102	2	0	N/A	0.00	1	0	
14	24328	Battersea live/work artist house, garden communal	41759	Joe	Wandsworth	51.471	-0.163	Entire home/apt	£195	3	96	19/07/2022	0.67	1	116	
15	127860	Double bedroom in cottage Twickenham (sleeps 1-2)	161720	Andy	Richmond upon Thames	51.448	-0.340	Private room	£1,000	2	0	N/A	0.00	1	0	
16	289422	Double Bedroom in Victorian House	862386	Veneranda And Leo	Newham	51.522	0.024	Private room	£45	7	46	16/08/2022	0.35	6	40	
17	131444	1 bedroom apartment close to centre.	646165	Yevgeniy	Lambeth	51.491	-0.112	Entire home/apt	£100	3	129	16/08/2022	0.96	2	1	
18	289802	Single room in Victorian house	862386	Veneranda And Leo	Newham	51.522	0.024	Private room	£45	7	38	12/06/2022	0.30	6	105	
19	25123	Clean big Room in London (Room 1)	103583	Grace	Barnet	51.574	-0.211	Private room	£29	10	129	15/03/2020	0.85	3	0	
20	137581	1 Bedroom Apartment Tower of London	471088	Anthony	City of London	51.511	-0.079	Entire home/apt	£130	5	213	10/08/2019	1.57	2	1	
21	31361	Restful Room, Friendly House, East London	134606	Cryn	Newham	51.534	0.027	Private room	£34	1	122	15/08/2022	0.82	2	0	
22	33332	Beautiful Ensuite Richmond-upon-Thames borough	144444	Chi-Chi	Richmond upon Thames	51.464	-0.325	Private room	£95	2	20	01/08/2022	0.14	2	363	1
23	290233	Executive House for Olympic 2012	1506151	Portia	Newham	51.537	0.006	Entire home/apt	£572	14	0	N/A	0.00	1	365	
24	137907	Elegant Very Central: Fitzrovia W1. King Bed, Wifi	67564	Liz	Camden	51.522	-0.140	Entire home/apt	£185	3	63	16/08/2022	0.53	5	197	

Average Price by Neighbourhood

1

Visualisation of average price by neighbourhood revealed pricing disparities.

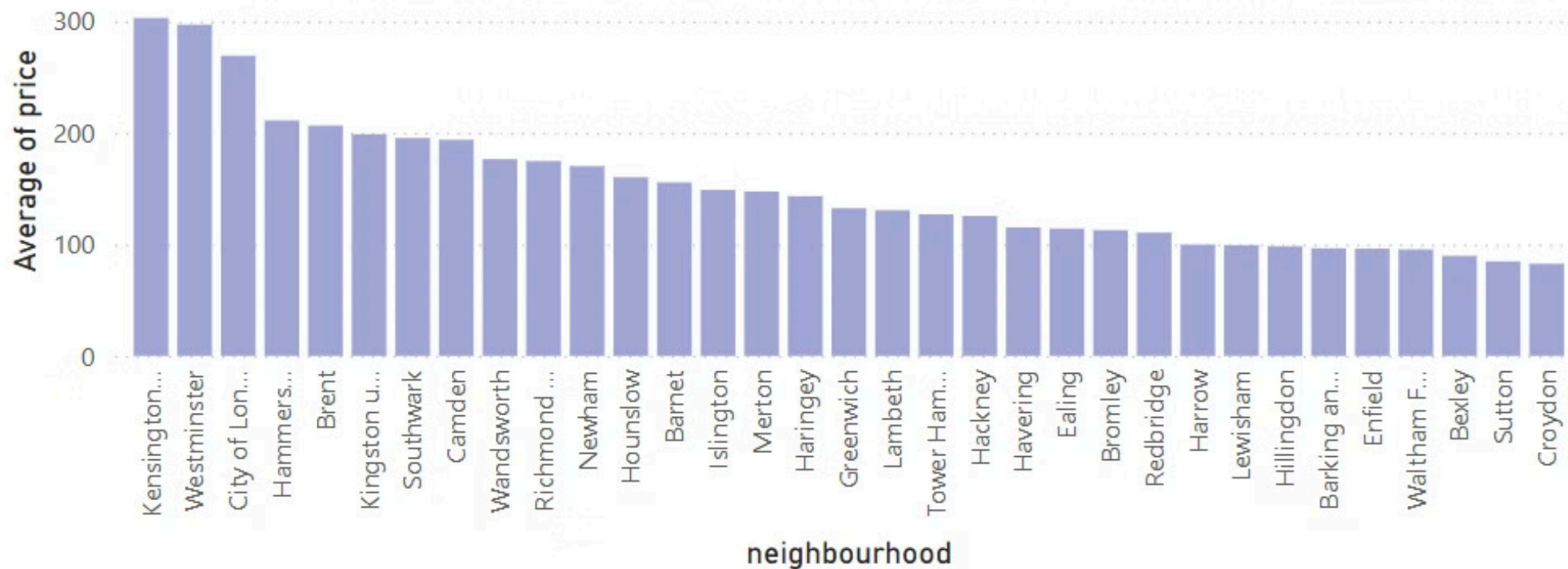
2

Kensington and Chelsea emerged as the most expensive. This indicates a high demand and premium listings.

3

Other neighbourhoods will likely be much more affordable.

Average price by Neighbourhood



Top Hosts by Number of Listings

1 Veronica's Dominance

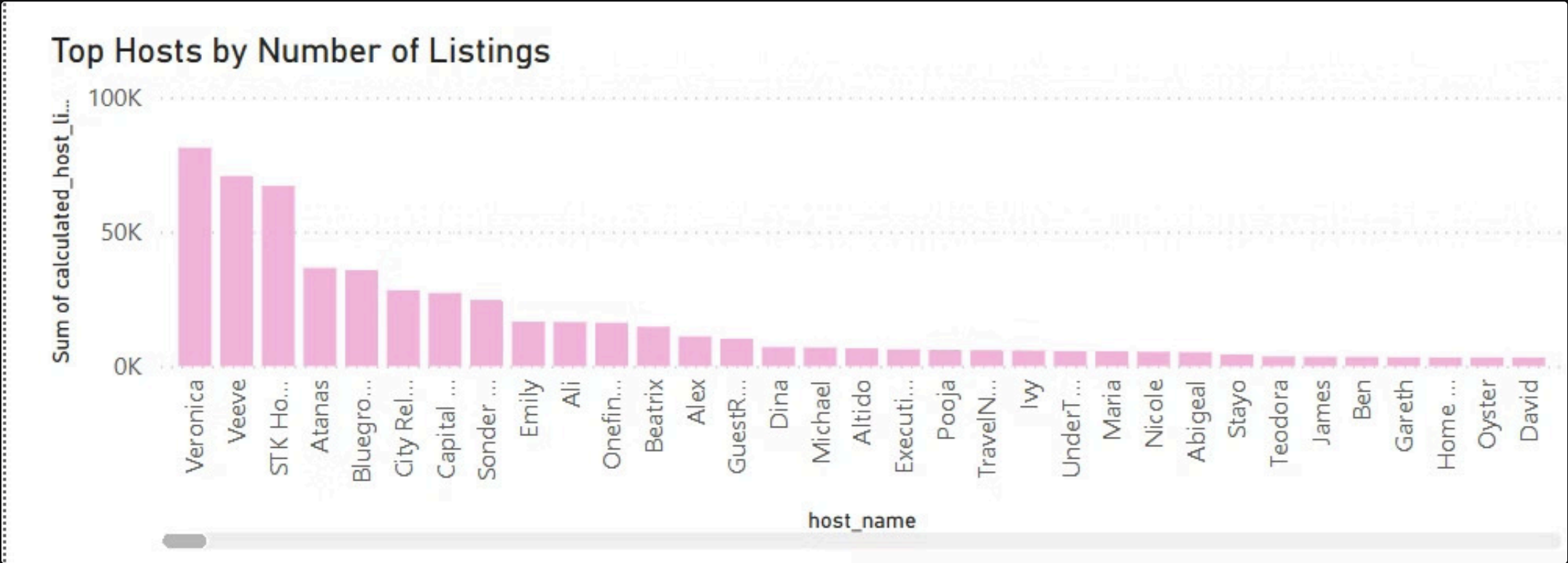
Analysis of listings per host identified top performers.

2 Listing Volume

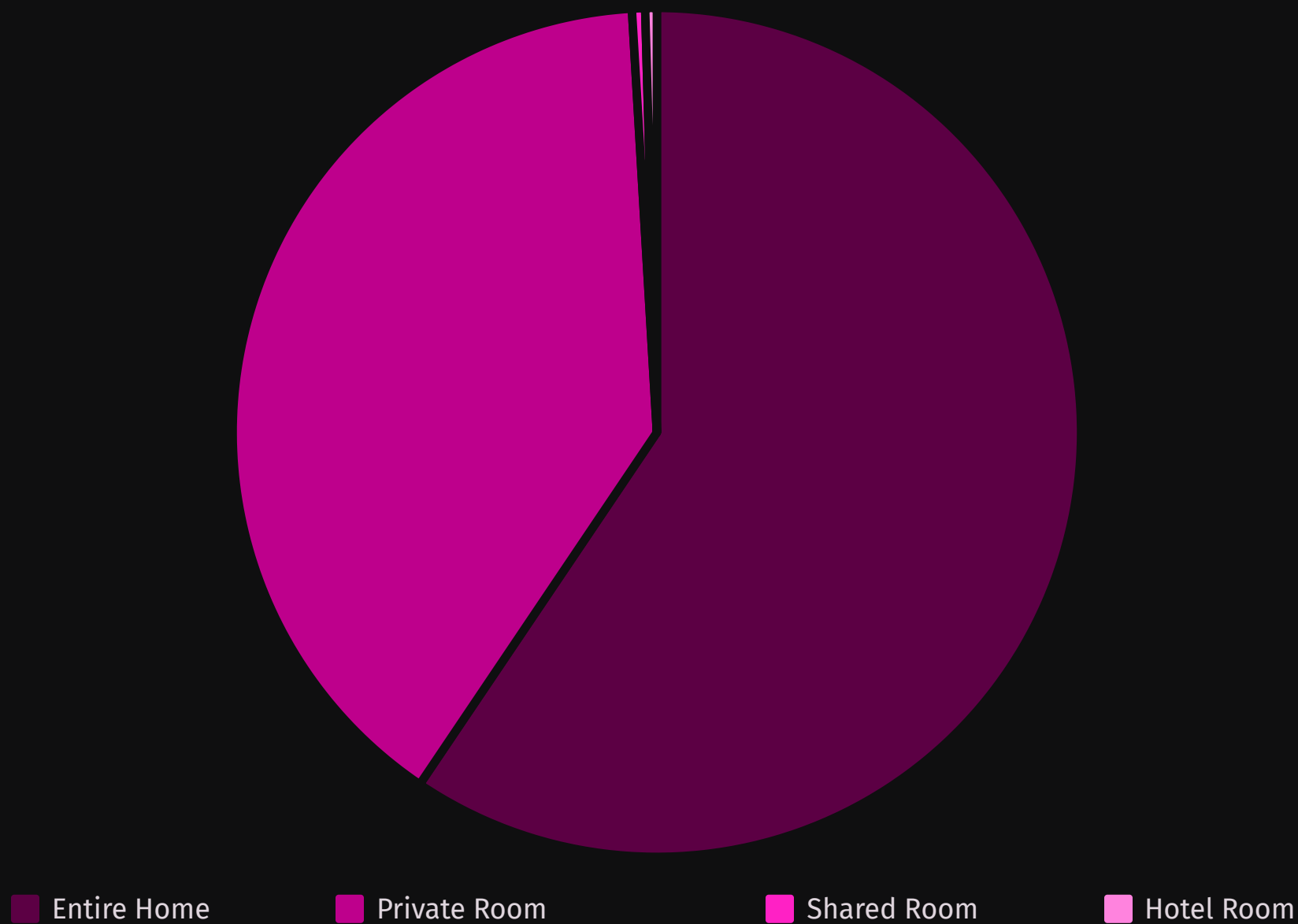
Veronica stood out with the highest number of Airbnb listings in London.

3 Market Influence

This suggests a significant influence in the London Airbnb market.



Room Type Distribution: Pie Chart Insights



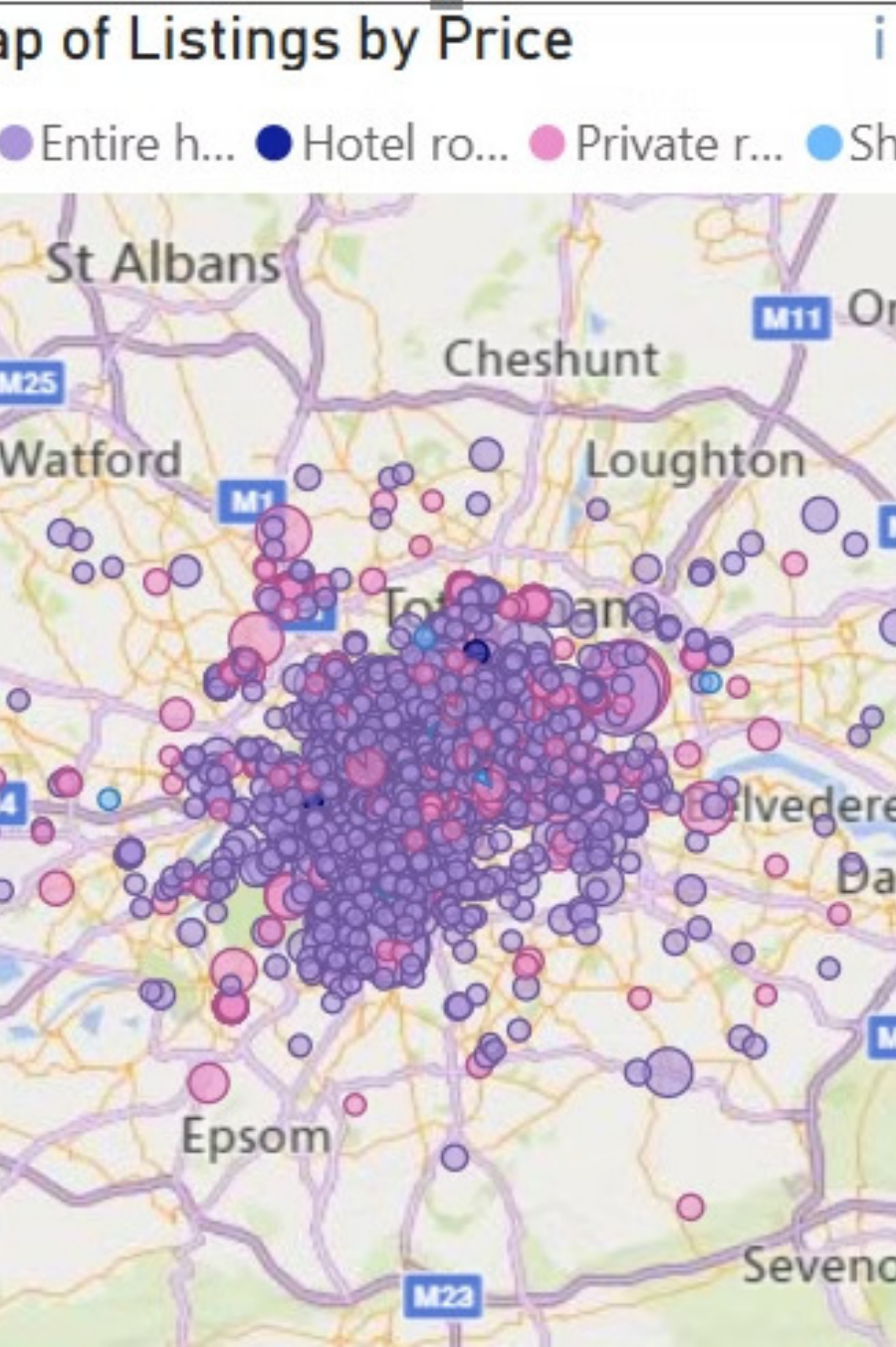
The pie chart visualises room type distribution. Entire homes dominate at 59.44%. Private rooms account for 39.62% of listings.

Availability



A perfect negative correlation. It means that as **price increases, availability decreases** in a perfectly inverse manner (or vice versa). This could mean that:

- Listings with **low availability (few days open)** have **higher prices** (e.g., luxury stays with limited booking windows).
- Listings with **high availability (365 days open)** have **lower prices** (e.g., budget accommodations open all year).



Scatter Map: Listing Prices and Locations

Visual Mapping

A scatter map displays Airbnb listings across London.

Pricing Indicators

Listing size corresponds to price, with larger markers indicating higher costs.

Room Type Differentiation

Colour coding indicates different room types, providing nuanced insights.

Interactive Filtering: Deeper Data Exploration



The pie chart functions as a filter.

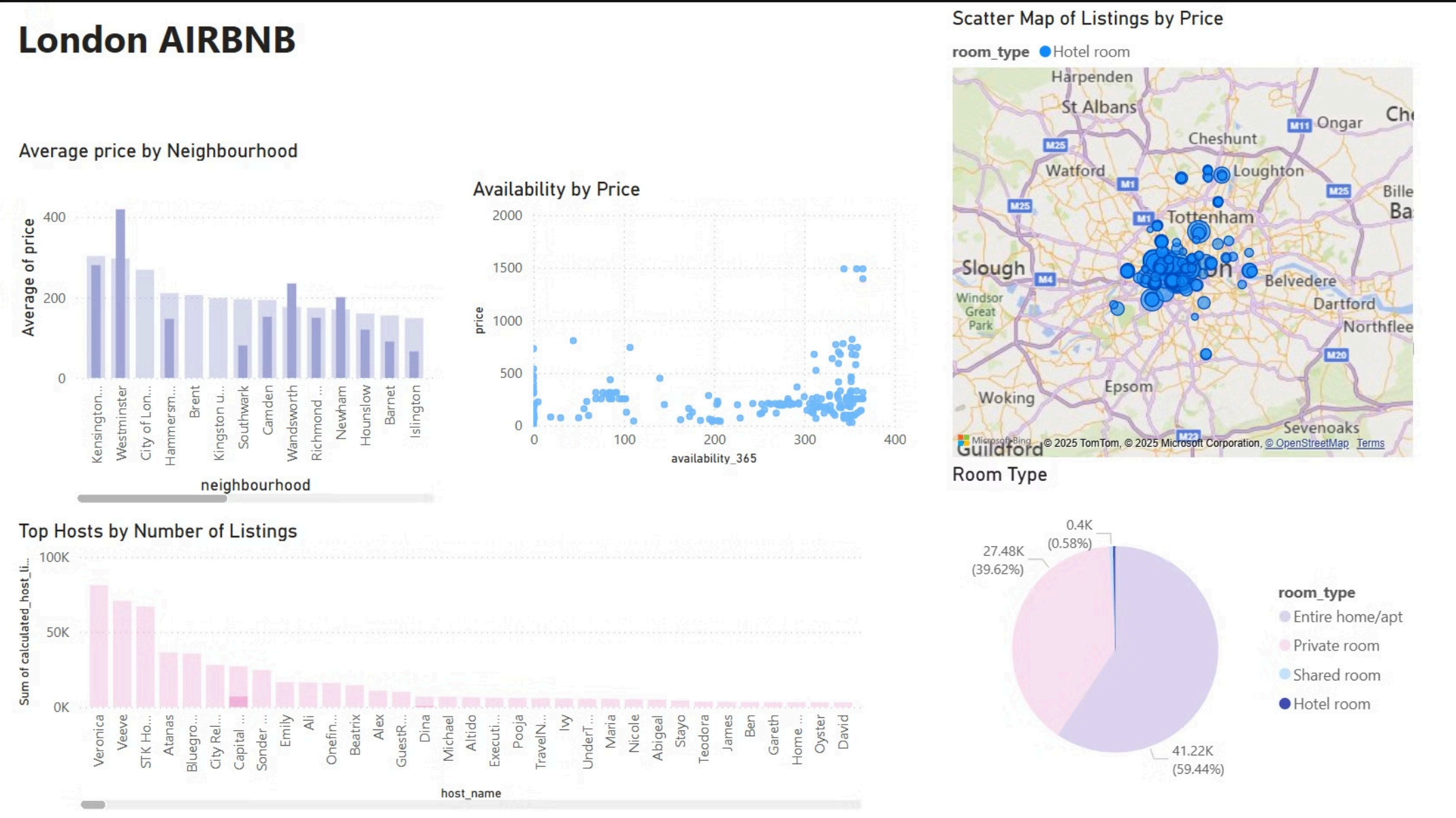


Clicking slices reveals host and neighbourhood data.

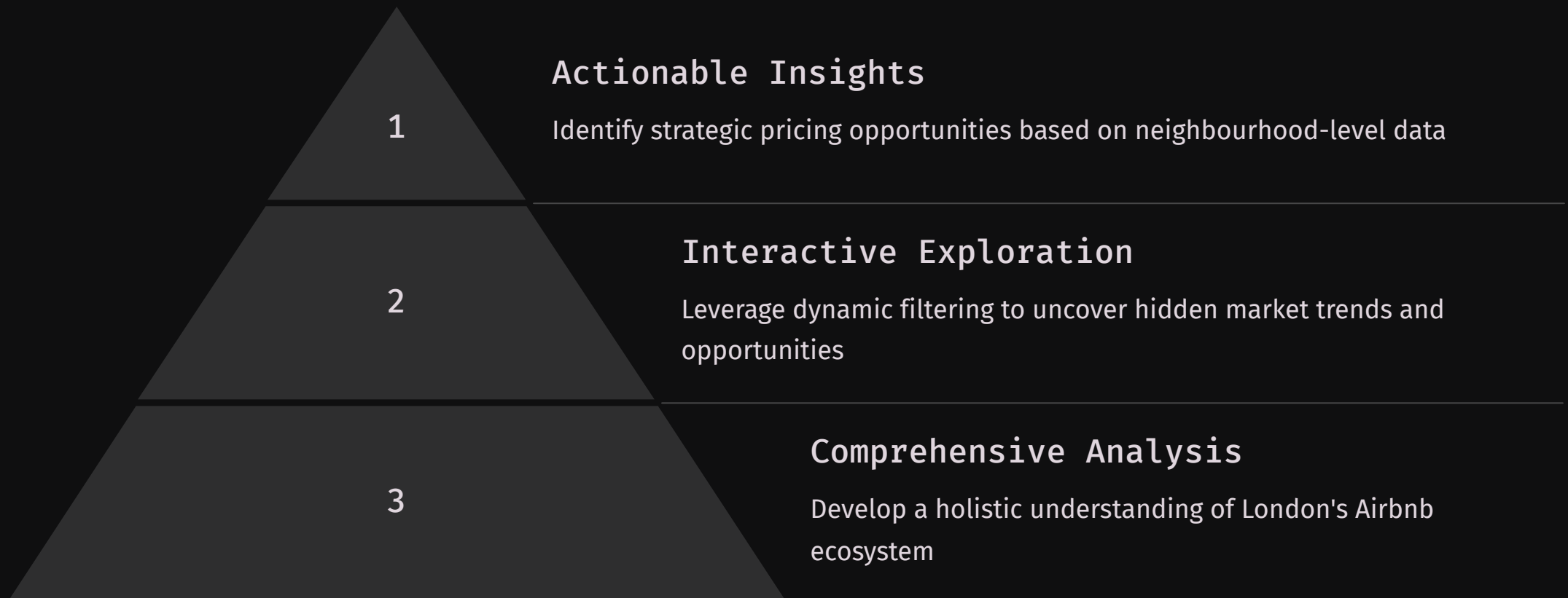


Enables targeted investigation of specific segments.

For example if I only wanted to see Hotel rooms you can see what hosts offer them as well as in what neighborhoods and how expensive they are on average.



Key Takeaways and Next Steps



Our comprehensive analysis of London's Airbnb market reveals critical insights into pricing dynamics and accommodation trends, leveraging advanced data tools like Excel, Power Query, and Power BI.

For **hosts**, the data provides strategic advantages: optimizing pricing strategies, identifying high-demand neighborhoods, and tailoring listings to market preferences. **Travelers** benefit from detailed insights into affordable locations and diverse accommodation options.

Key data points on **room type demand**, **minimum stay patterns**, and **guest reviews** offer valuable guidance for enhancing both hosting effectiveness and traveler experiences.