Airbnb Data Analysis

Insights from the Airbnb Listings in Amsterdam

Agenda

Neighbourhoods (with respect to booked nights)

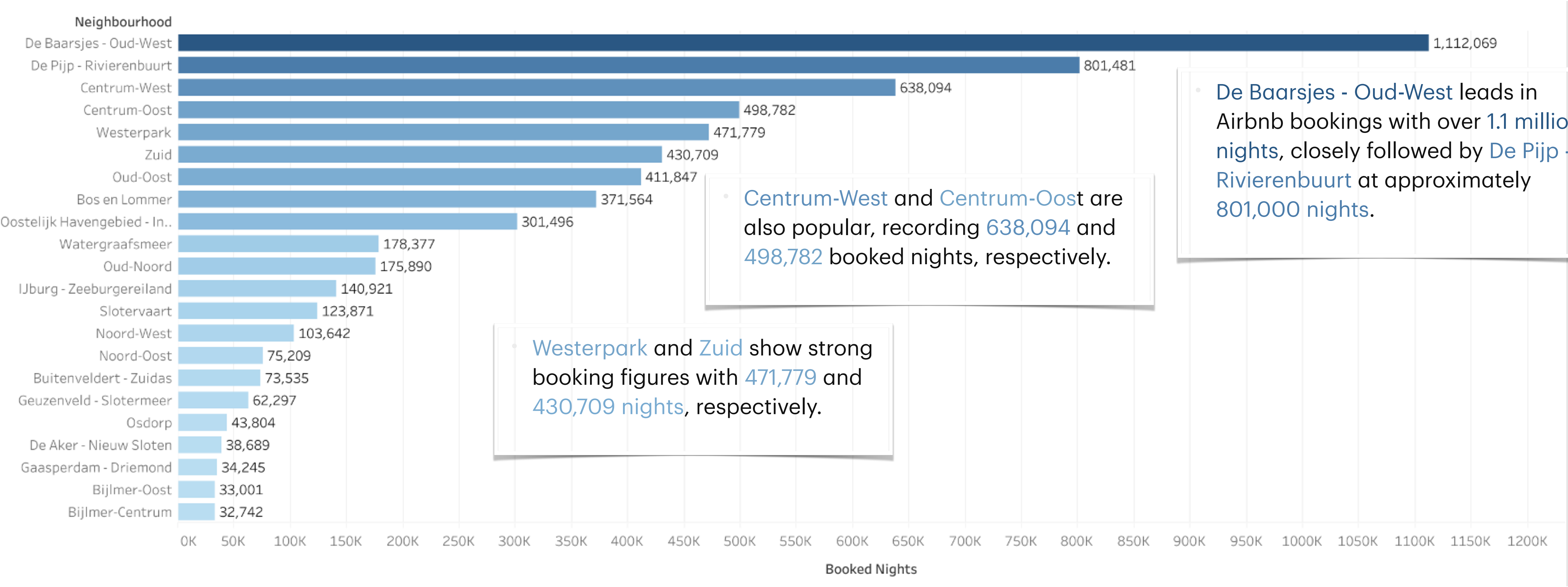Revenue with respect to Neighbourhoods

Top 10 from Overall Listings

Correlation analysis: Factors affecting booked nights

Specific views:
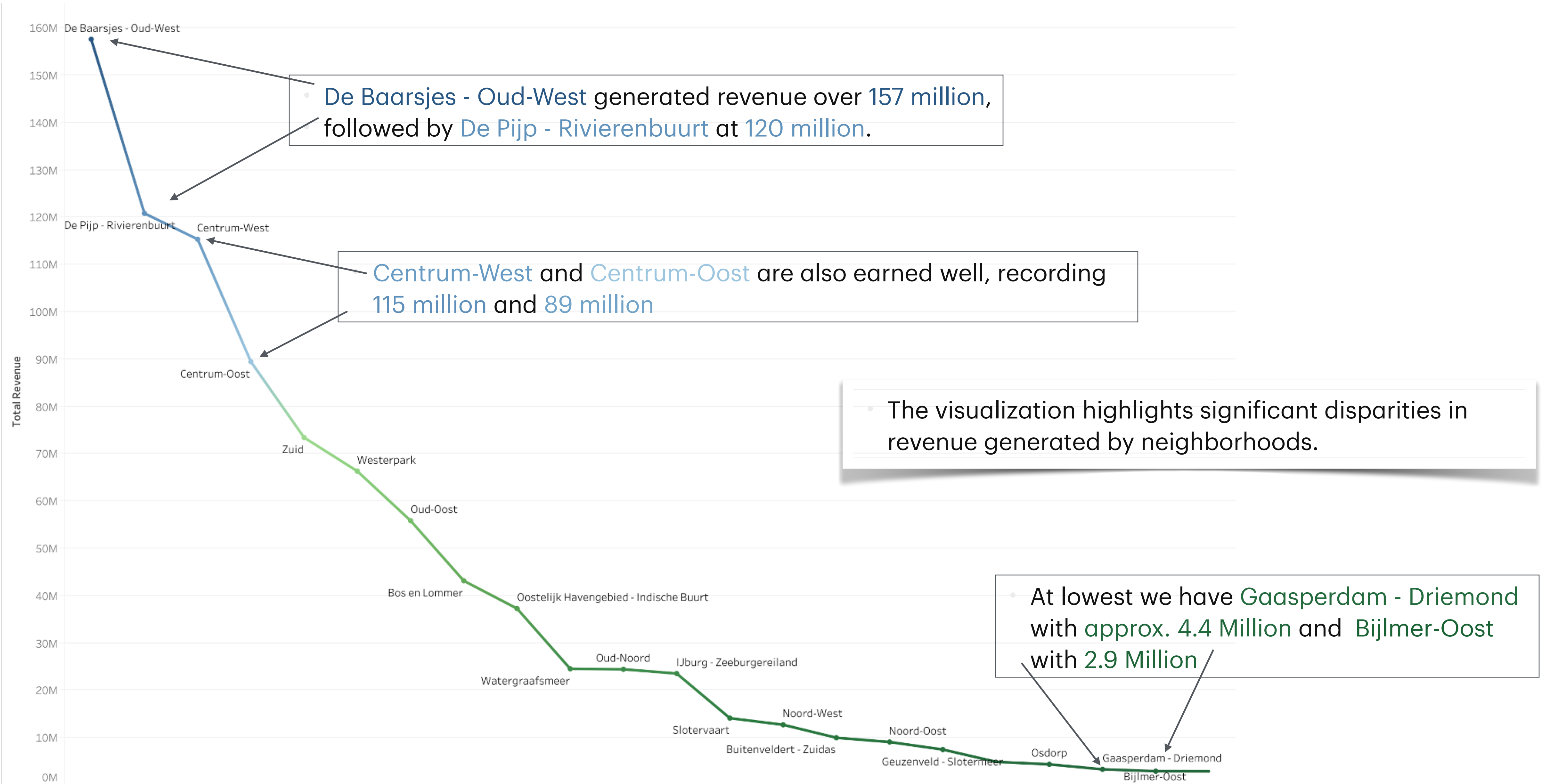
- Booking by room type

- Booking by reviews (bucketed)

Revenue Generated by Top 10 Hosts

Neighbourhoods (with respect to booked nights)

Neighbourhood

Neighbourhood	Booked Nights
De Baarsjes - Oud-West	1,112,069
De Pijp - Rivierenbuurt	801,481
Centrum-West	638,094
Centrum-Oost	498,782
Westerpark	471,779
Zuid	430,709
Oud-Oost	411,847
Bos en Lommer	371,564
Oostelijk Havengebied - In..	301,496
Watergraafsmeer	178,377
Oud-Noord	175,890
IJburg - Zeeburgereiland	140,921
Slotervaart	123,871
Noord-West	103,642
Noord-Oost	75,209
Buitenveldert - Zuidas	73,535
Geuzenveld - Slotermeer	62,297
Osdorp	43,804
De Aker - Nieuw Sloten	38,689
Gaasperdam - Driemond	34,245
Bijlmer-Oost	33,001
Bijlmer-Centrum	32,742

Booked Nights

De Baarsjes - Oud-West leads in Airbnb bookings with over 1.1 million nights, closely followed by De Pijp - Rivierenbuurt at approximately 801,000 nights.

Centrum-West and Centrum-Oost are also popular, recording 638,094 and 498,782 booked nights, respectively.

Westerpark and Zuid show strong booking figures with 471,779 and 430,709 nights, respectively.
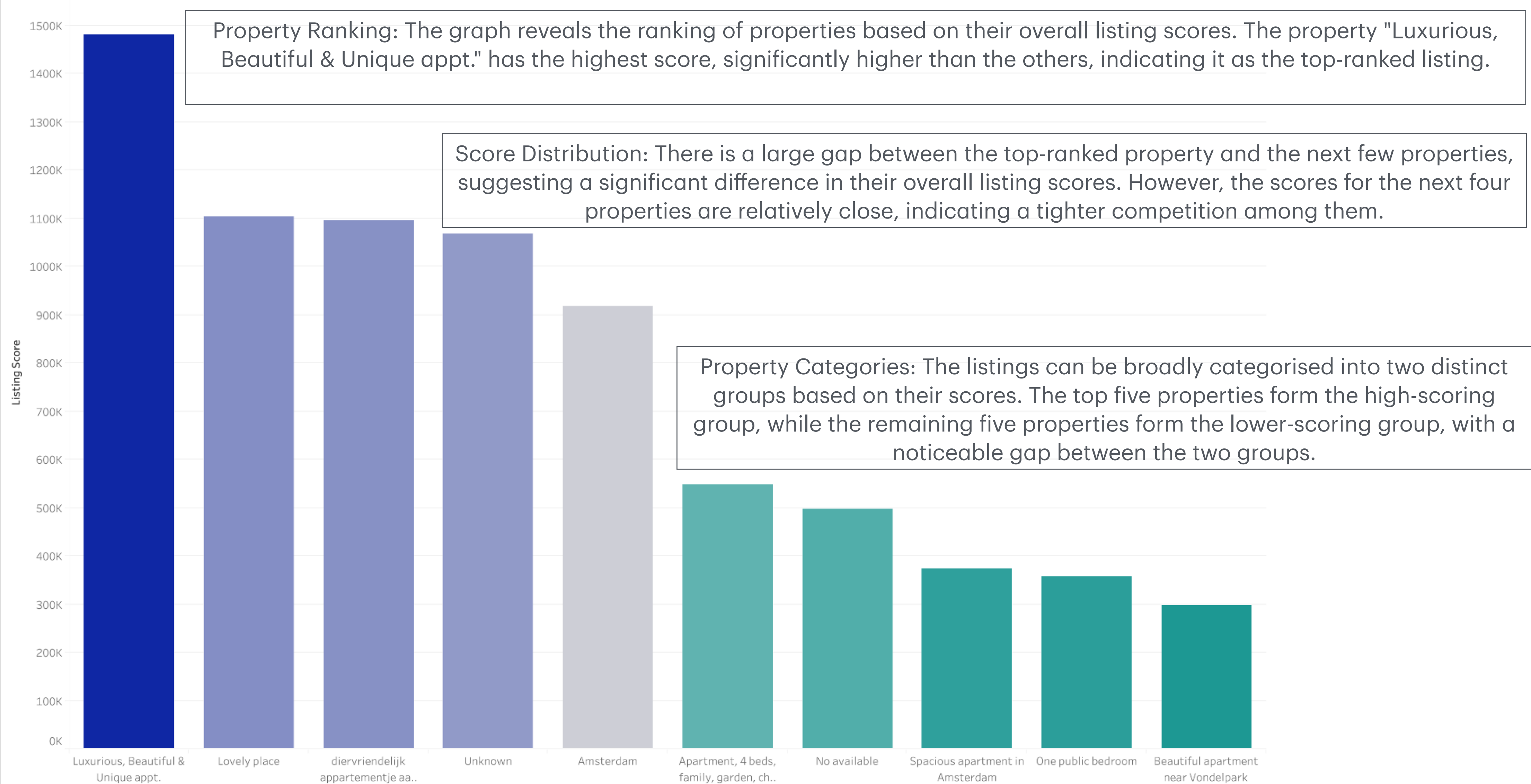
The Bar Graph highlights significant disparities in booking popularity, with neighborhoods like Bijlmer-Centrum and Bijlmer-Oost showing much lower figures.
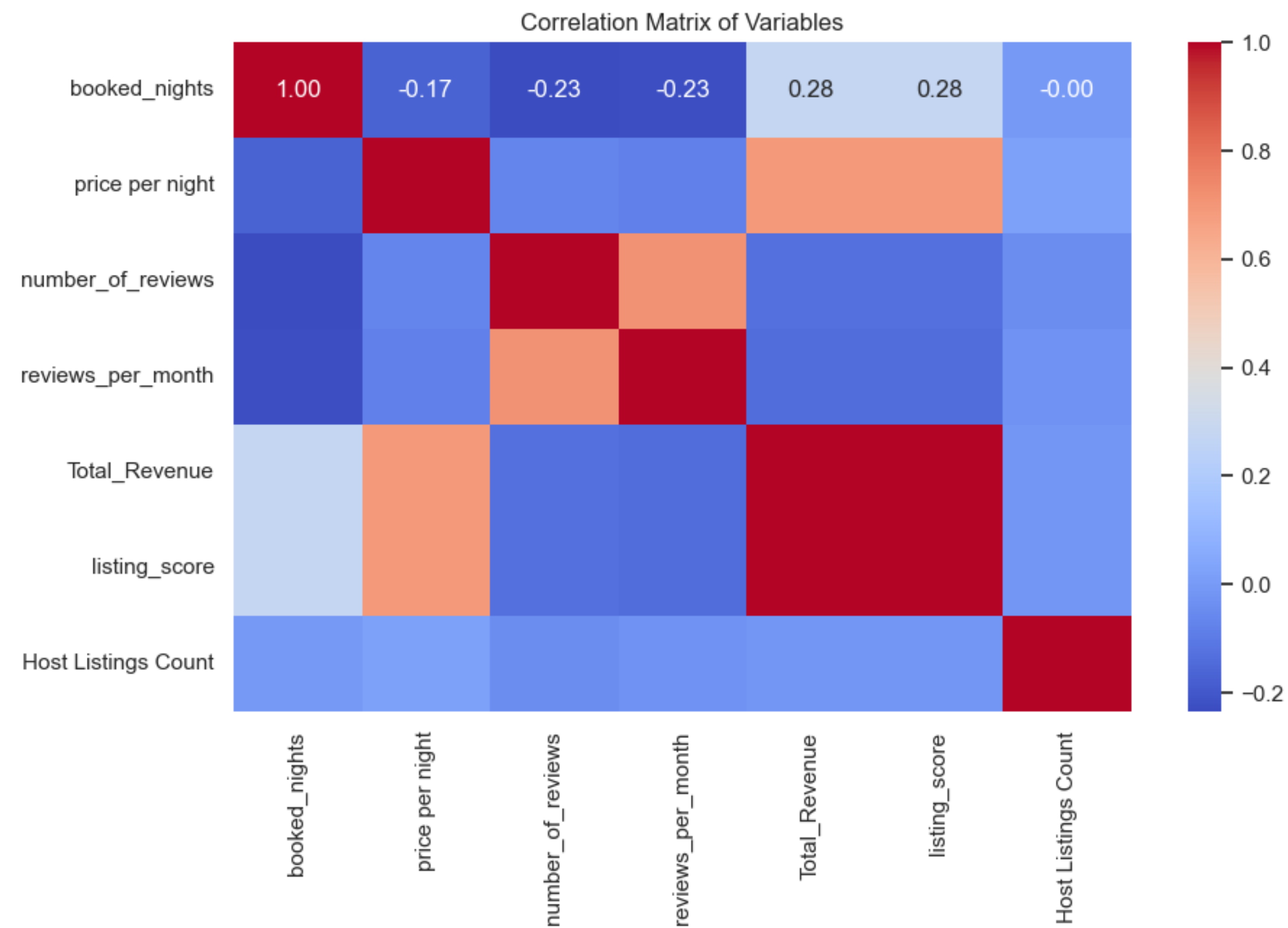
Revenue with respect to Neighbourhoods

De Baarsjes - Oud-West generated revenue over 157 million, followed by De Pijp - Rivierenbuurt at 120 million.

Centrum-West and Centrum-Oost are also earned well, recording 115 million and 89 million

The visualization highlights significant disparities in revenue generated by neighborhoods.

At lowest we have Gaasperdam - Driemond with approx. 4.4 Million and Bijlmer-Oost with 2.9 Million

Total Revenue (y-axis): 160M, 150M, 140M, 130M, 120M, 110M, 100M, 90M, 80M, 70M, 60M, 50M, 40M, 30M, 20M, 10M, 0M

Data labels: De Baarsjes - Oud-West, De Pijp - Rivierenbuurt, Centrum-West, Centrum-Oost, Zuid, Westerpark, Oud-Oost, Bos en Lommer, Oostelijk Havengebied - Indische Buurt, Watergraafsmeer, Oud-Noord, IJburg - Zeeburgereiland, Sloterdijk, Noord-West, Buitenveldert - Zuidas, Geuzenveld - Slotermeer, Noord-Oost, Osdorp, Gaasperdam - Driemond, Bijlmer-Oost

Top 10 from Overall Listings

Property Ranking: The graph reveals the ranking of properties based on their overall listing scores. The property "Luxurious, Beautiful & Unique appt." has the highest score, significantly higher than the others, indicating it as the top-ranked listing.

Score Distribution: There is a large gap between the top-ranked property and the next few properties, suggesting a significant difference in their overall listing scores. However, the scores for the next four properties are relatively close, indicating a tighter competition among them.

Property Categories: The listings can be broadly categorised into two distinct groups based on their scores. The top five properties form the high-scoring group, while the remaining five properties form the lower-scoring group, with a noticeable gap between the two groups.

Listing Score axis: 1500K, 1400K, 1300K, 1200K, 1100K, 1000K, 900K, 800K, 700K, 600K, 500K, 400K, 300K, 200K, 100K, 0K

Categories: Luxurious, Beautiful & Unique appt. | Lovely place | diervriendelijk appartementje aa.. | Unknown | Amsterdam | Apartment, 4 beds, family, garden, ch.. | No available | Spacious apartment in Amsterdam | One public bedroom | Beautiful apartment near Vondelpark

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Correlation Analysis: Factors affecting booked nights

Correlation Matrix of Variables

The variables that show a notable correlation with the number of booked nights include:

- `price per night`: Negative correlation (-0.1698)

- `number of reviews`: Negative correlation (-0.2348)

- `reviews per month`: Negative correlation (-0.2267)

- `Total Revenue`: Positive correlation (0.2808)
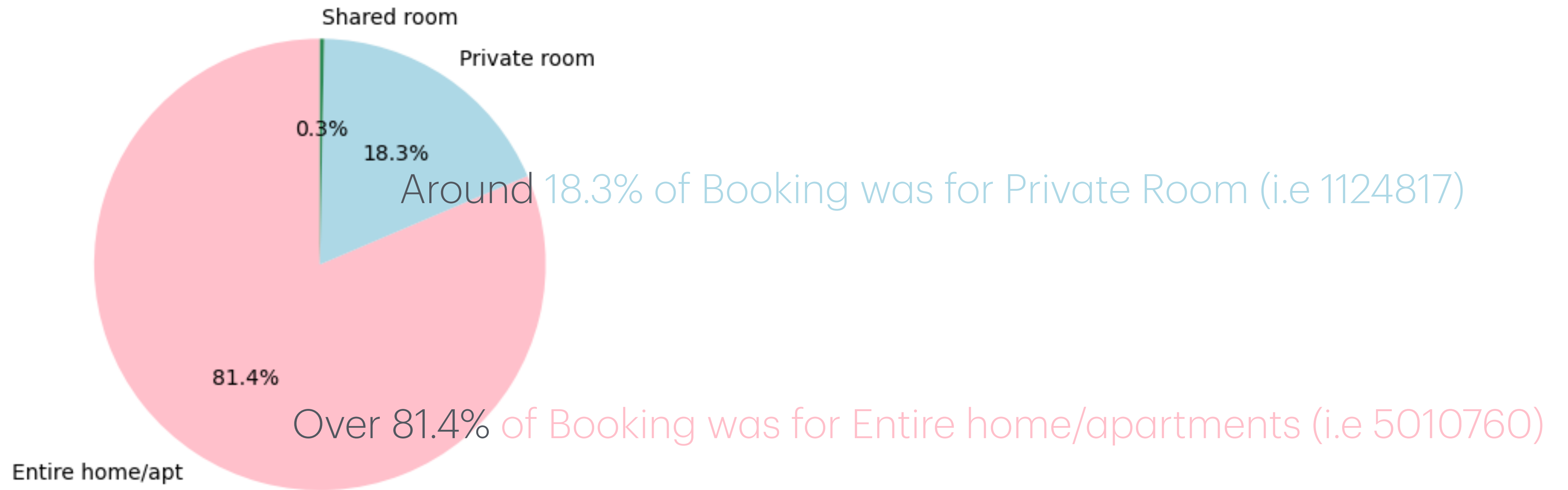
- `listing score`: Positive correlation (0.2806)

The number of booked nights has a moderate positive correlation of 0.28 with both total revenue and listing score, indicating that listings with more booked nights tend to generate higher revenue and have better listing score

The number of reviews shows a moderate negative correlation of -0.23 with both booked nights and price per night, implying that listings with more reviews tend to have fewer booked nights and lower nightly rates.

There is a negative correlation of -0.17 between the host listings count and price per night, implying that hosts with more listings may tend to have lower nightly rates.

Booking by Room Type

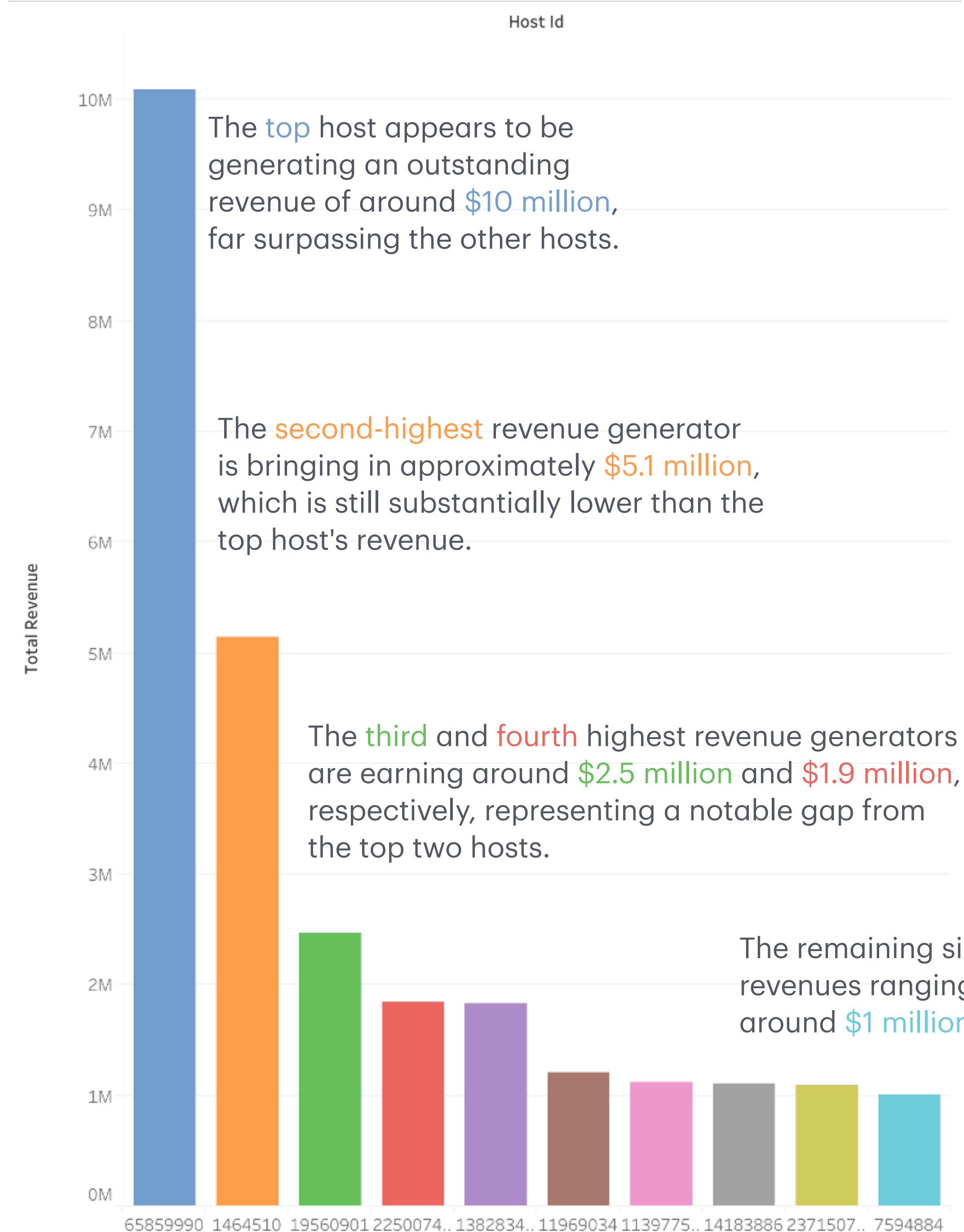Remaining 0.3% was booked for Shared Room (i.e 18467)

Around 18.3% of Booking was for Private Room (i.e 1124817)

Over 81.4% of Booking was for Entire home/apartments (i.e 5010760)

Booking by Reviews (bucketed)

The 501-1000 bin has the smallest number of bookings at 4,118, comprising only 0.08% of the total bookings.

The 51-100 bin accounts for a relatively small portion of bookings at 298,188 or 5.4% of the total.

The 101-500 bin represents 3.5% (191,675 bookings) of the total bookings, indicating a smaller but non-negligible segment.

The 11-50 bin represents the second-largest segment, with 2,124,731 bookings or around 38.8% of the total.

The overwhelming majority of bookings fall into the 0-10 bin, accounting for approximately 51.9% (2,856,209 bookings) of the total 5,474,821 bookings.

501-1000
51-100
11-50
0-10

Total Bookings
5,474,921

Revenue Generated by Top 10 Hosts

The top host appears to be generating an outstanding revenue of around $10 million, far surpassing the other hosts.

The second-highest revenue generator is bringing in approximately $5.1 million, which is still substantially lower than the top host's revenue.

The third and fourth highest revenue generators are earning around $2.5 million and $1.9 million, respectively, representing a notable gap from the top two hosts.

The remaining six hosts in the top 10 are generating revenues ranging from approximately $1.8 million down to around $1 million.

There is a significant disparity in revenue generated among the top 10 hosts, with a steep dropoff after the first two hosts.

The distribution of revenue among the top 10 hosts appears to follow the Pareto principle or the 80/20 rule, where a small percentage of hosts (the top 2) are responsible for a large portion of the total revenue.

This concentrated revenue distribution could potentially indicate the presence of extremely successful or high-performing hosts, as well as opportunities for other hosts to optimize their strategies and offerings to increase their revenue generation.
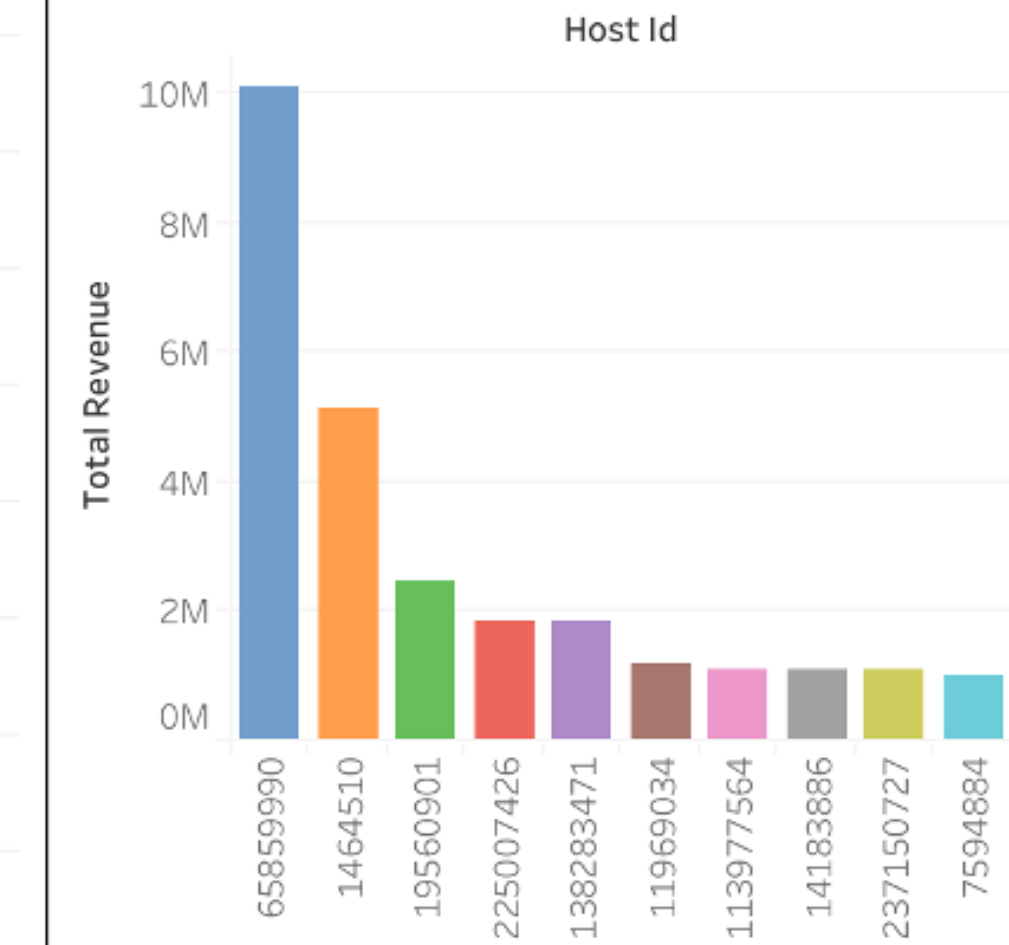
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Tableau Dashboard

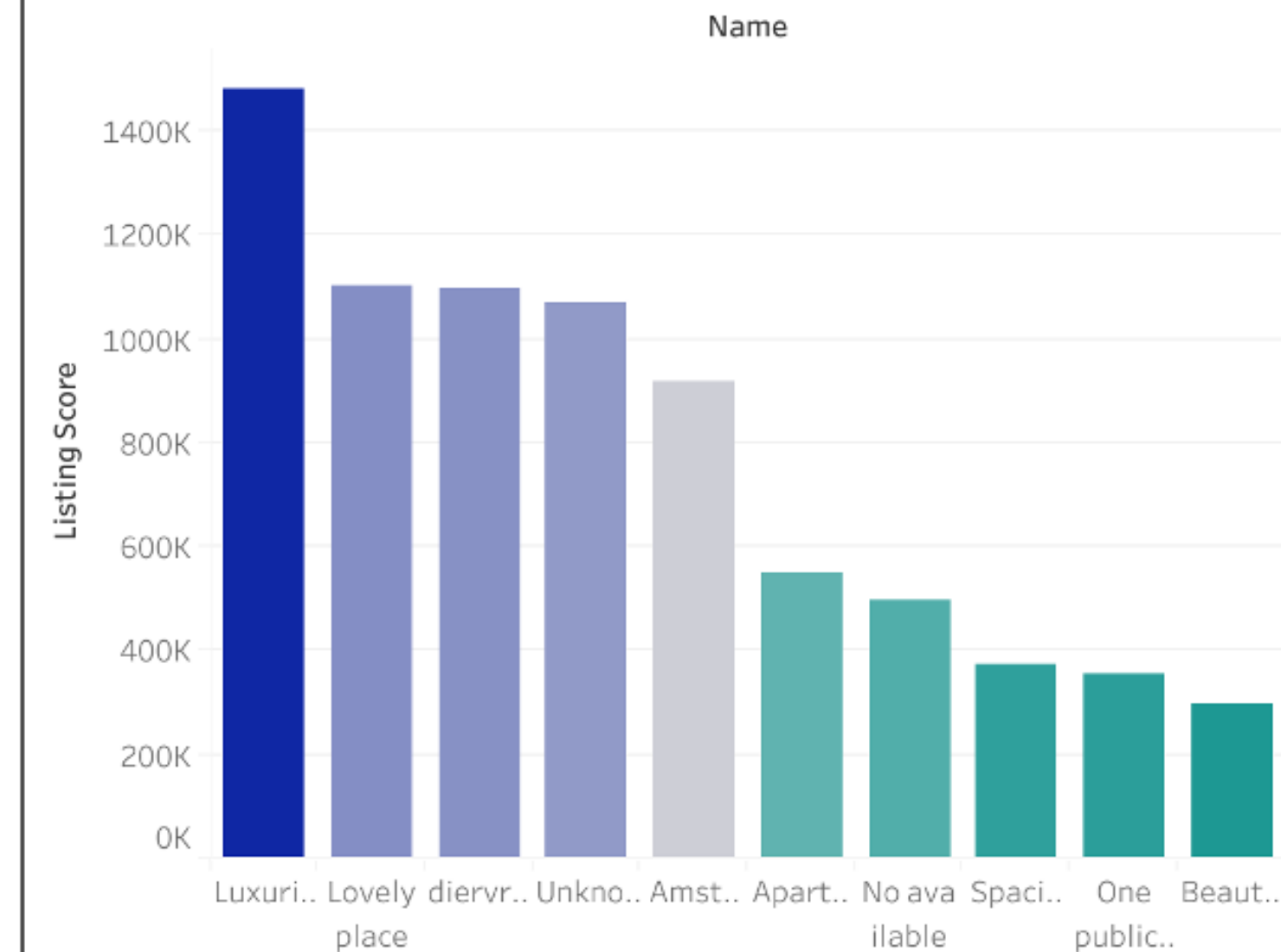Most popular neighbourhoods (with respect to booked nights)
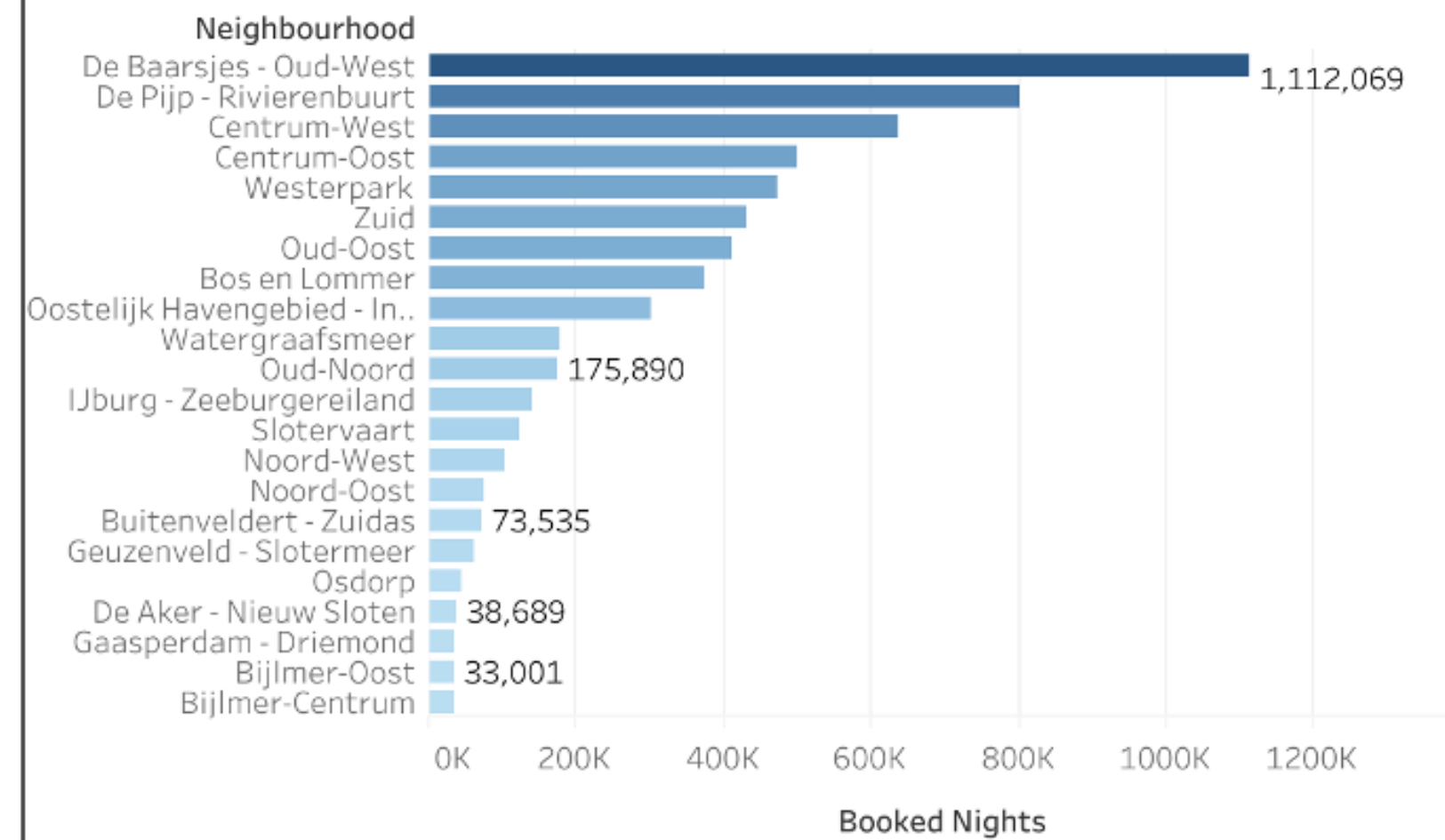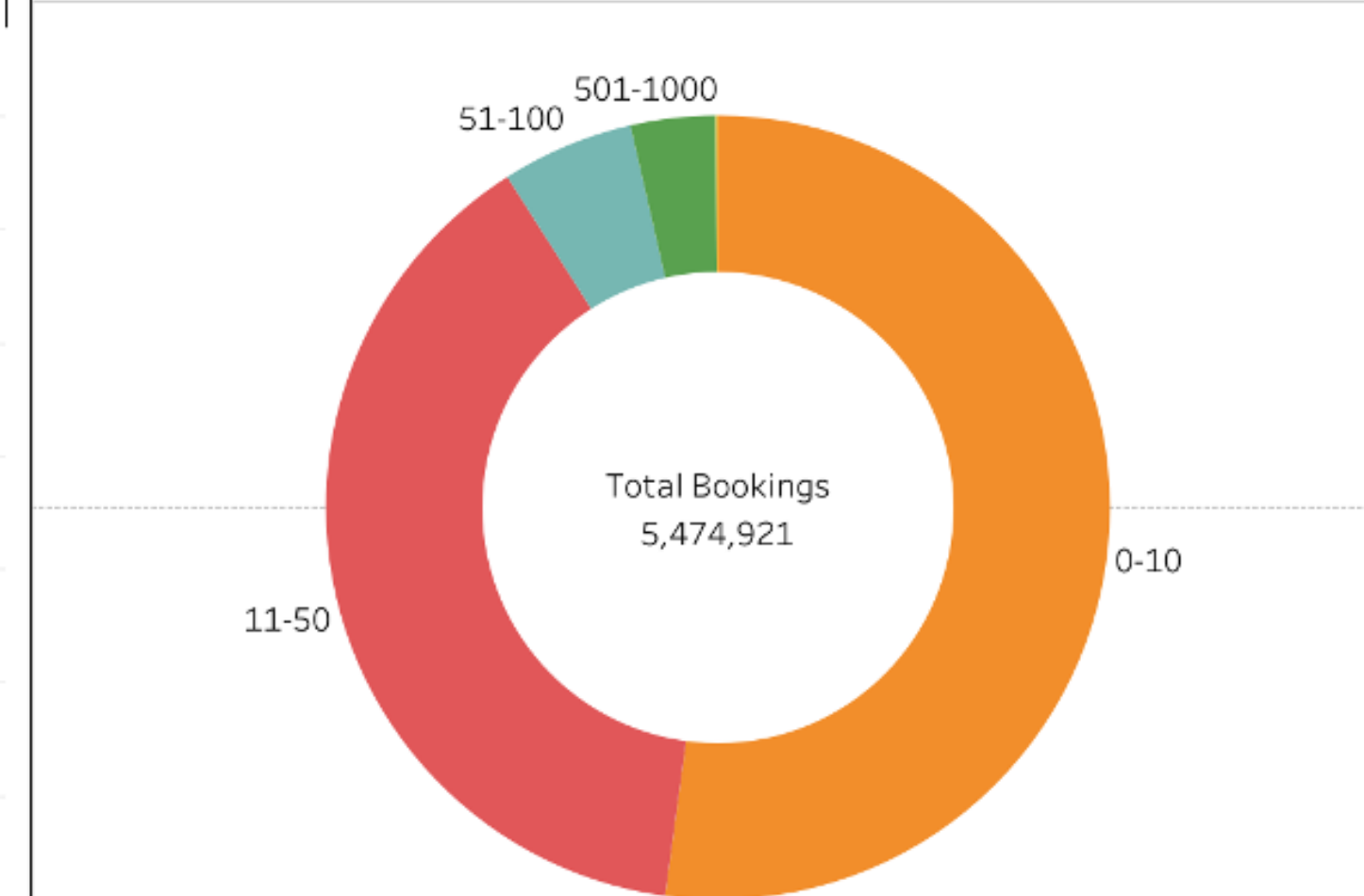
Highest revenue with respect to neighbourhoods
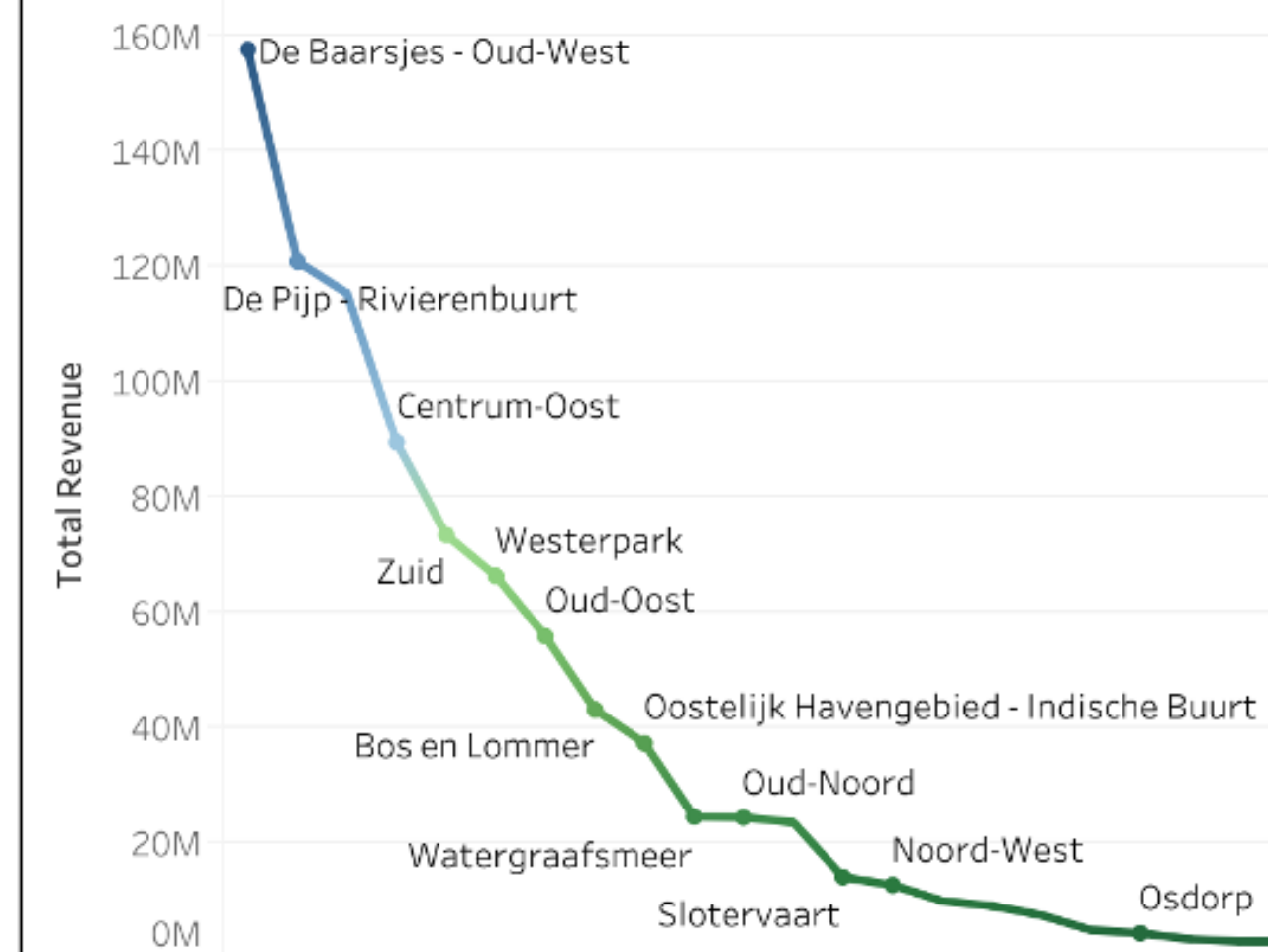
Business done by Top 10 hosts

Best overall listings

Booking performance by reviews

Booking performance by room type