Project: Unsupervised Machine Learning

Participants:

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- Stavros Doundoulakis

Using data from our database,
we trained an algorithm to provide the company with useful insights.

Superhost:

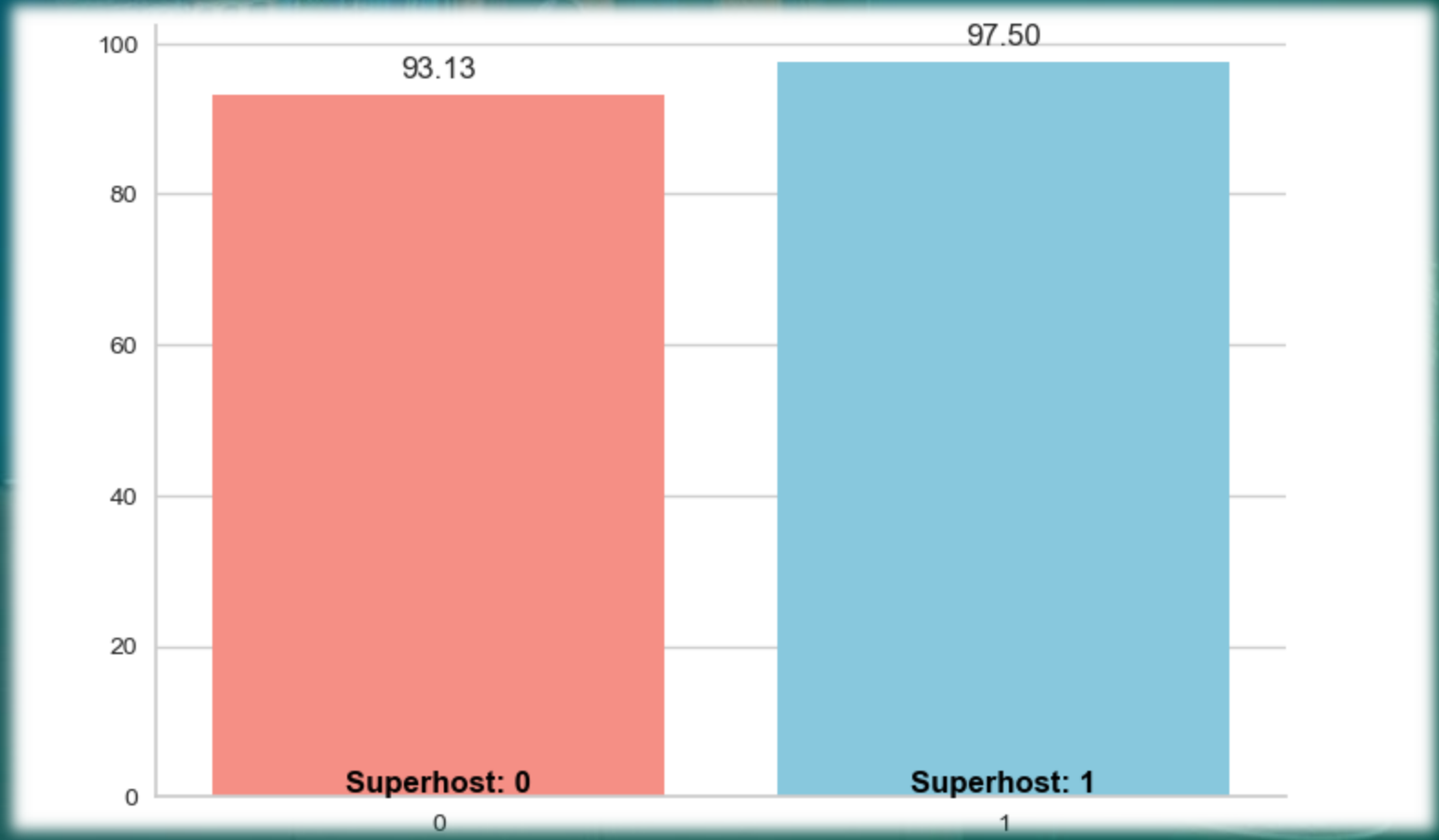
1. Host at least 10 trips or have 3 reservations that total at least 100 nights.

2. Maintain a 90% response rate or higher.

3. Maintain a 1% cancellation rate (1 cancellation per 100 reservations) or lower.

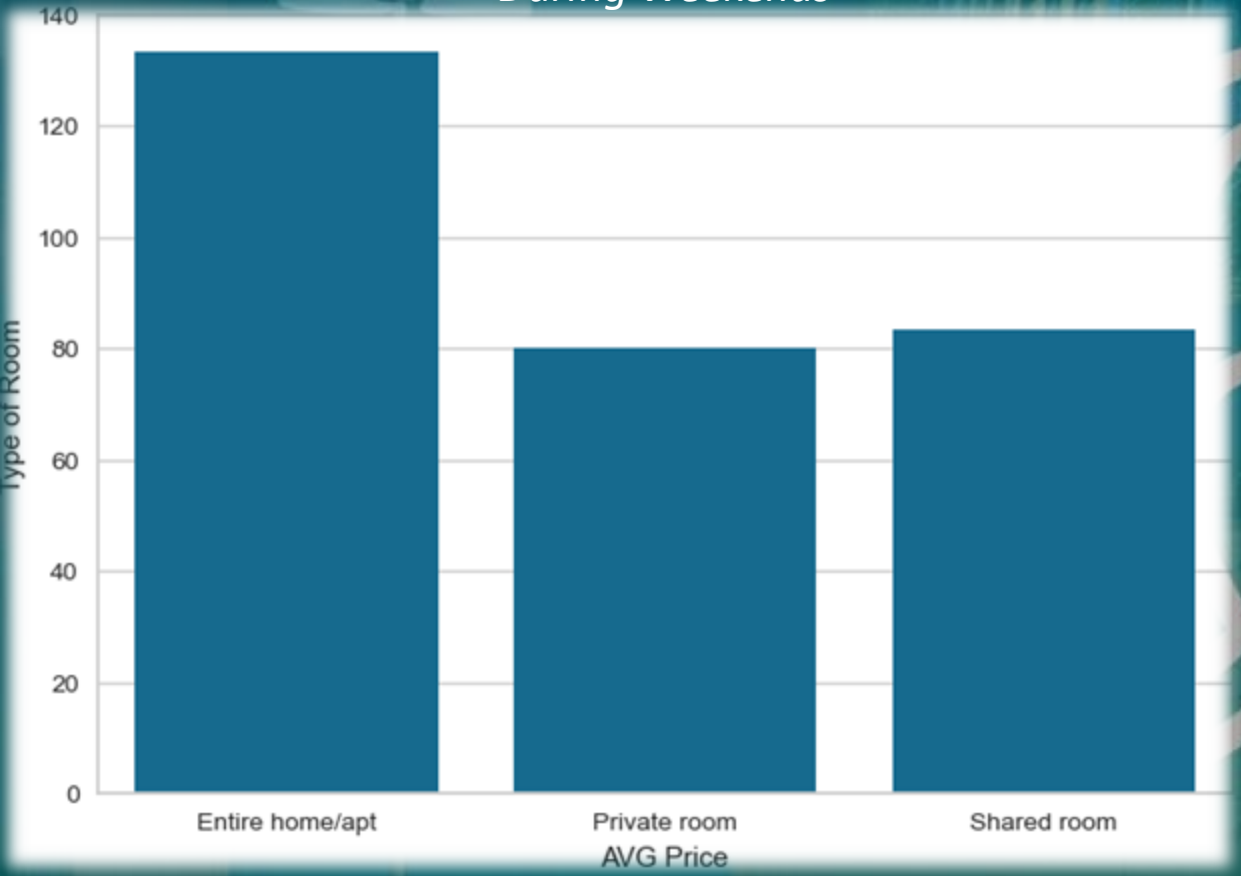
4. Maintain a 4.8 overall rating.

Mean Guest Satisfaction by Host / Superhost Status



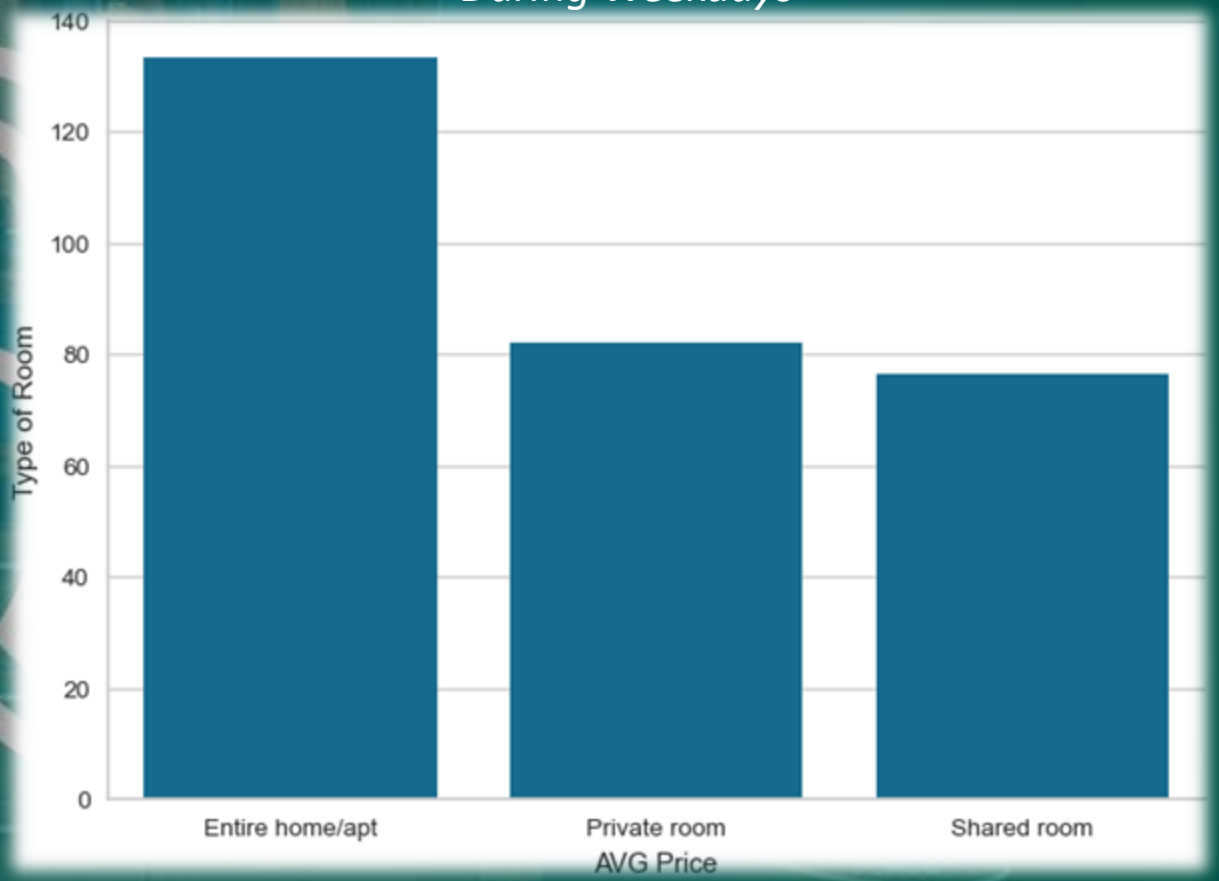
Average Price for Types of Listings

During Weekends



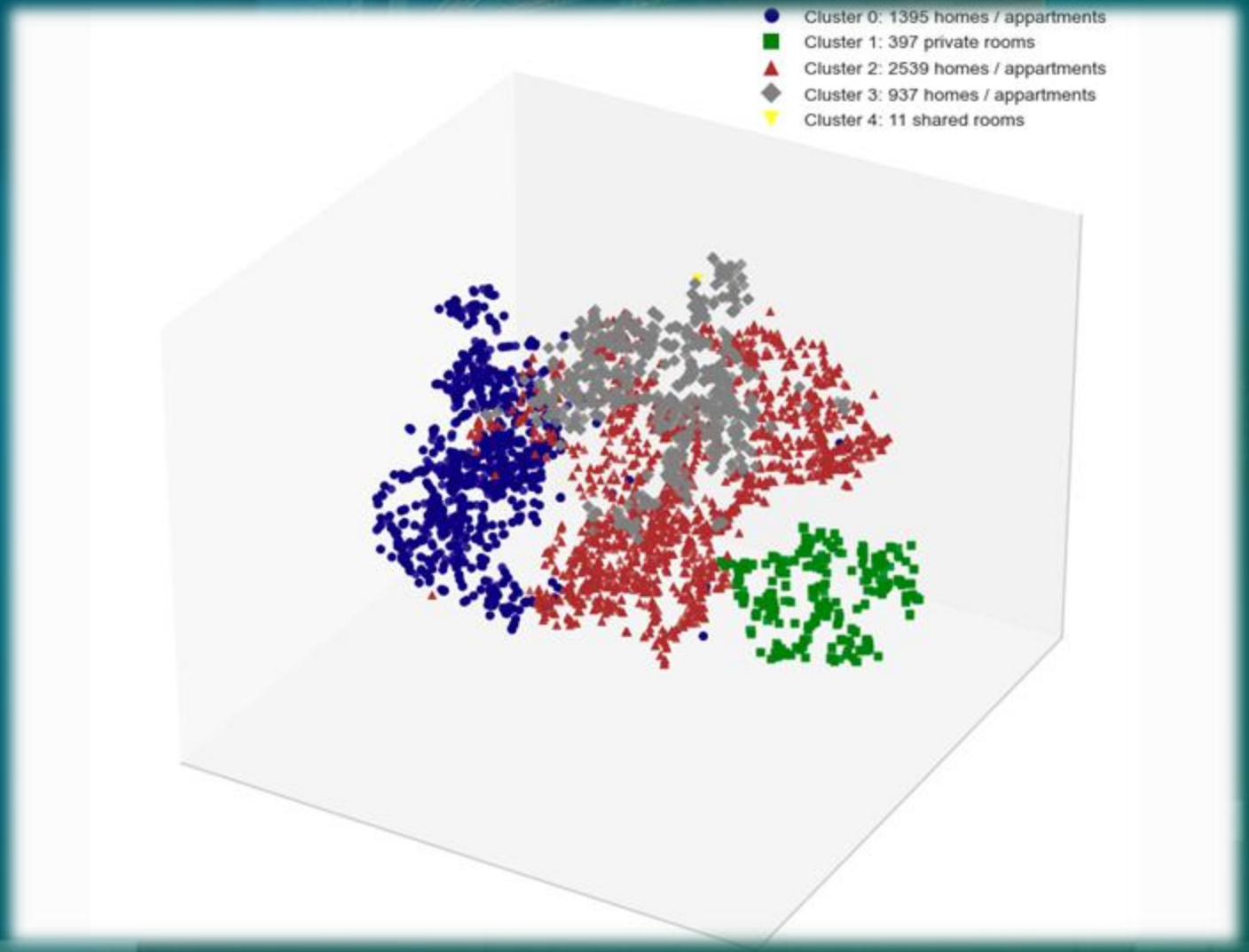
Average Price for Types of Listings

During Weekdays

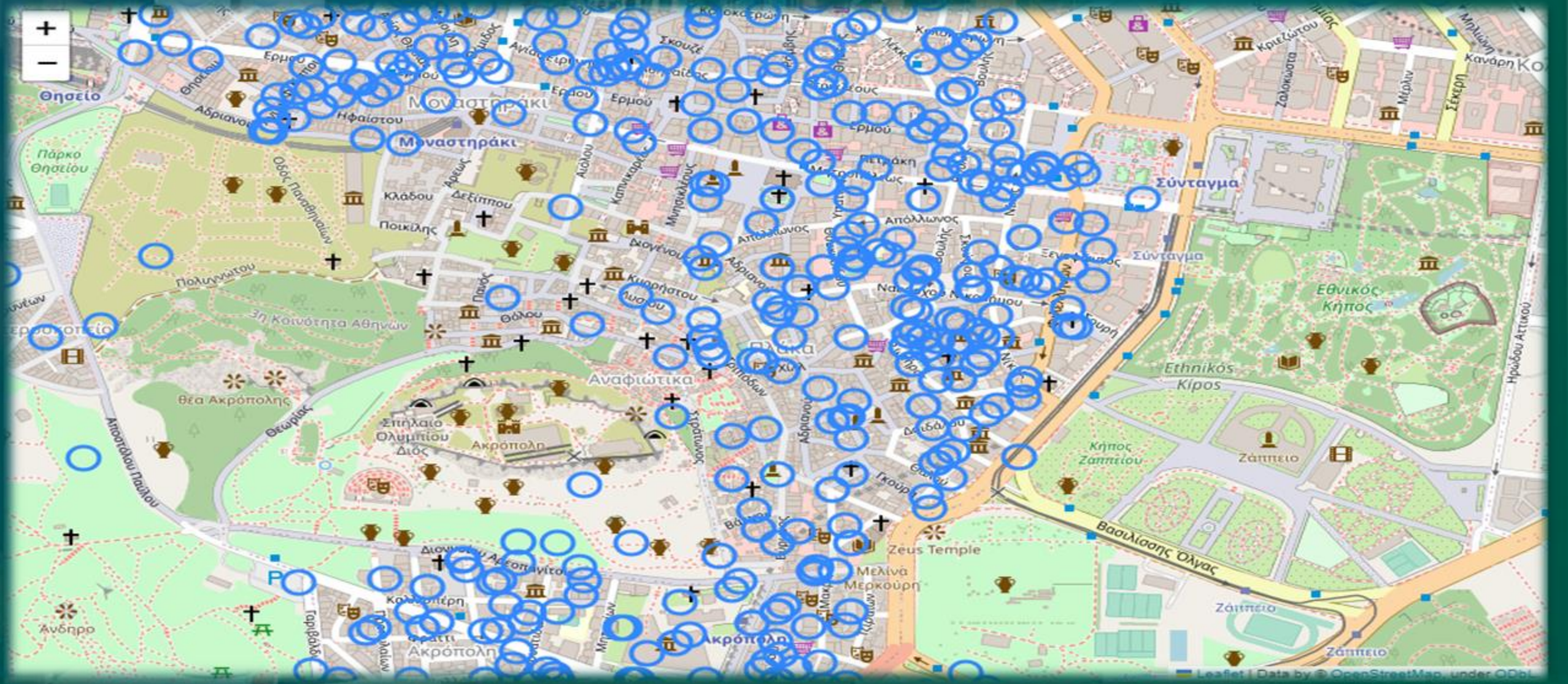


Distortion Score Elbow for KMeans Clustering
elbow at $k = 4$, $score = 45007.705$
distortion score
fit time (seconds)
k
60000
55000
50000
45000
40000
35000
30000
25000
0.14
0.12
0.10
0.08
0.06
2
3
4
5
6
7
8
9

3D Visualization: Room types distribution

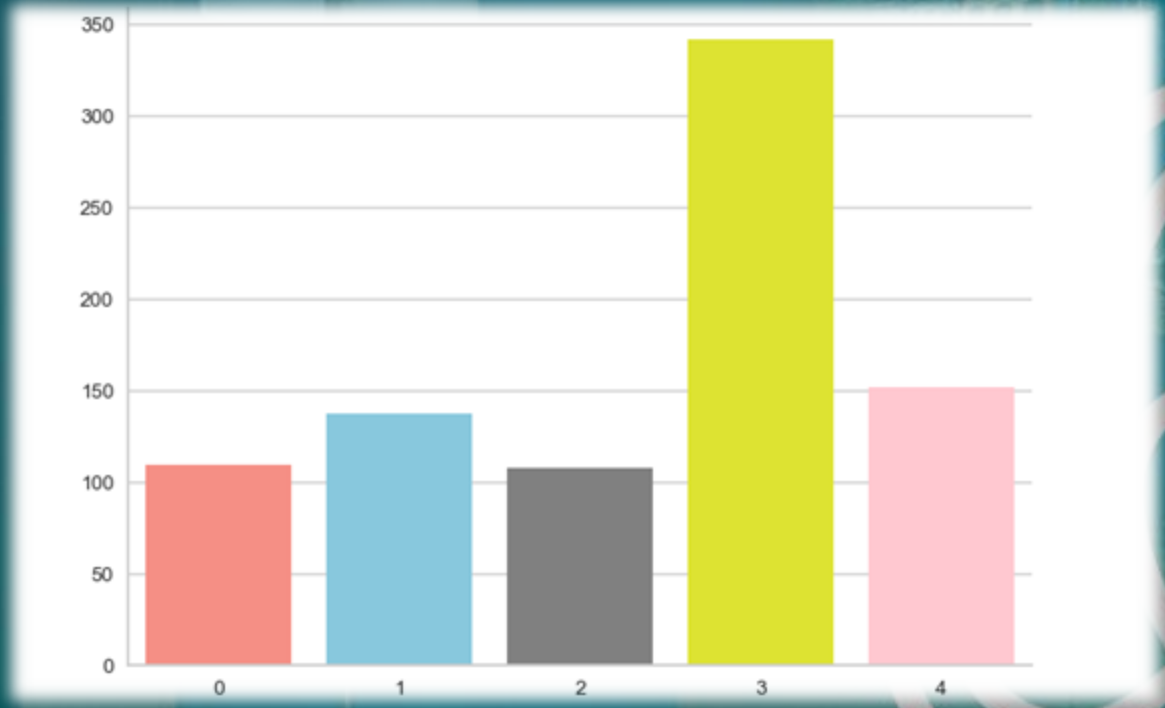


Location of the expensive listings

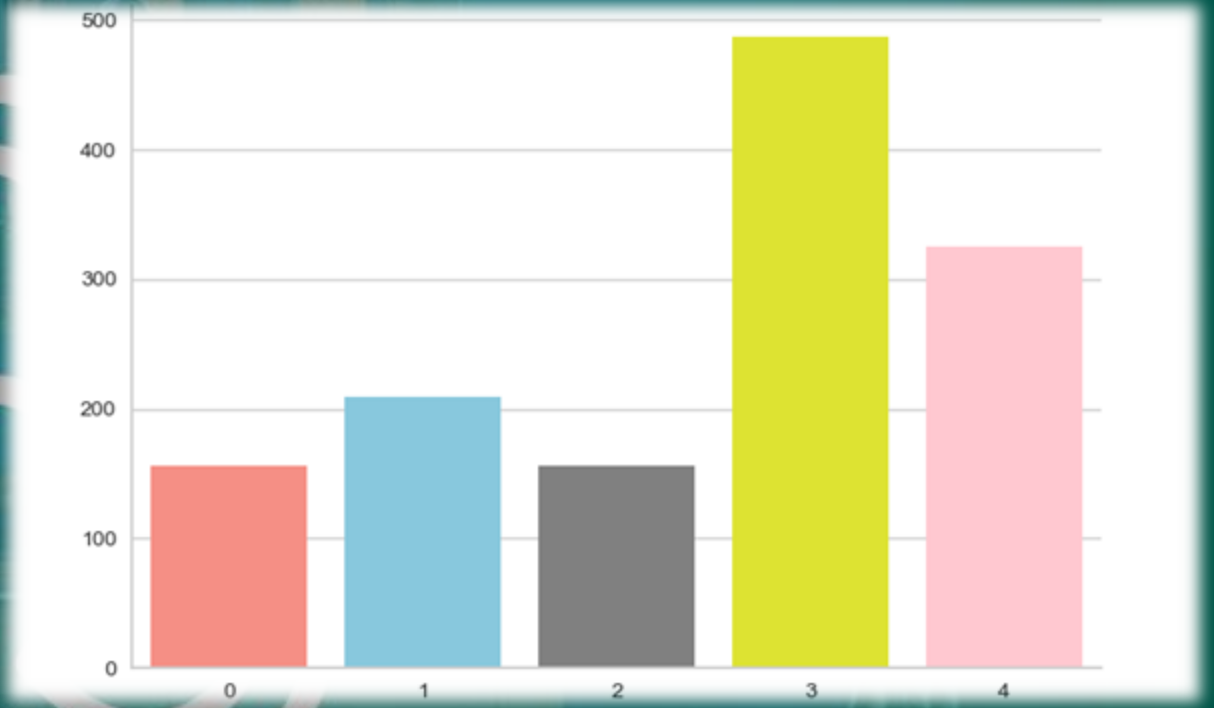


The **location** of cheap listings in comparison to private rooms

Attraction Indexes per Cluster



Restaurant Indexes per Cluster



THANK YOU!!