Task 1

For our clients, our in-house Guest Support team (GST) takes on all communication with the guests which would otherwise have been handled by the hosts. The head of GST sees a great opportunity in the Amsterdam market: she feels that the hosts are not that responsive in Amsterdam and that there is a good chance of improving it by providing our service. Do you think this is a reasonable idea? Do you see any interesting patterns regarding this for different types of hosts or different types of properties?

Findings:

After the initial analysis, we can say that the correlation between host_response_time and the factors considered to be influencing it such as host_location, property_type, and host_listings_count is very weak.
Upon doing linear regression it is very clear that the R- squared value is 0.341 which is very less to suggest that the factors considered in this case are influencing the target i.e., host_response_time.

(Please refer to Task 1 section in Listings_Performance_Amsterdam.ipynb file where I have done some analysis on the dataset and also have done coding for correlation heatmap and linear regression in python. Further visualizations can be found in the Host_Response_Time sheet in Amsterdam_listings.pbix)

Task 2

The security of hosts and guests is very important for us. Our CEO is concerned that not enough hosts in Amsterdam have their ID verified by the government, which may put our guests in danger. Are his concerns valid? Are there any worrying patterns that you notice?

Findings:

After removing the duplicate records of the hosts based on host_id there are a total of 4475 records out of these 977 (21.38%) of the hosts are not verified.
Based on the analysis done in Power BI I have interpreted two scenarios that can be considered as possible concerns that need to be kept in mind.
- There is an overall of 4059 hosts with excellent ratings but 862 of them are not verified. If unidentified hosts are to be considered a threat or might be a threat in the future, then I think this needs to be addressed as they have better ratings more guests are likely to choose the properties hosted by these guests.
- There are 115 more unidentified hosts in the remaining review categories who do not have very good ratings... better not be involved with such hosts.

(Further visualizations can be found in the Host_Identity_Verification sheet in Amsterdam_listings.pbix)

Task 3

As a business, we are more interested in bigger apartments where the entire home is rented out. How does Amsterdam stand on that? Are there any insights that you can share regarding the property types and sizes - for instance, should we focus on some specific neighborhoods first?

Findings:

Most properties in Amsterdam with excellent ratings where entire rental units are hosted are located in Amsterdam, Noord-Holland, Netherlands (This was identified by considering Neighbourhood) column from the listing's dataset. There are other types of entire properties hosted, this can be visualized in the Neighborhoods_to_Focus sheet in Amsterdam_listings.pbix

Task 4

We are trying to provide the best service possible, and guest reviews are one of the most important sources of guest feedback for us. How are the properties in Amsterdam performing, which review scores do they have? How do they perform on the cleanliness dimension? Do you think there are business opportunities or threats in this area?

Findings:

The majority of the properties hosted in Amsterdam have really good ratings in general and also in terms of cleanliness factor. All the entire rental unit properties are doing extraordinarily well as most of these hosts are verified.

(Further visualizations can be found in the Properties_Performance sheet in Amsterdam_listings.pbix)