At Pass The Keys, we're constantly searching for the new markets where we could develop our business further. Recently it was suggested that The Netherlands (and, above all, its capital, Amsterdam) could be an interesting direction for our international growth. There are several things that we want to assess in order to understand whether this is indeed the case. Below you'll find the questions that were raised from some of the business stakeholders - we hope you can help us clear these things out.

- 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?
- 2. 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?
- 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 neighbourhoods first?
- 4. We are trying to provide the best service possible, and guest reviews are one of the most important sources of the 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?

Please, evaluate these concerns and hypotheses and help us understand whether the market in Amsterdam looks attractive. Feel free to include any other insights into your analysis that you deem relevant and/or that will help us understand the prospective market better.

Feel free to choose any 2 questions out of 4 and use any tool and/or programming language that you consider to be suitable for this task. You will find 3 datasets attached: listings\_Amsterdam (main dataset), listings\_London (similar data for London), and reviews\_Amsterdam (review-specific data for Amsterdam which you may or may not want to use).

We expect the challenge to take about 4-5 hours. Good luck!

## Hints:

- For question 1 some of the variables that you can use are *host\_response\_time* and *host\_response\_rate* data from the listings dataset.
- For question 2 You can use *host\_verifications* and *host\_identity\_verified* variables from the listings dataset.
- For question 3, there are some property size-related features in listings dataset, such as room\_type, property\_type, accommodates, etc.
- For question 4, you can use review scores ... variables from the listings dataset
- You can use the London dataset as a baseline if/when needed.