



\$ Price prediction

GROUP 6



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Agenda

- Problem
- Identification
- Challenges
- Target Audience
- Analytical Problem and Uses
- Datasets and its Sources
- Data Assessment
- Pre-Processing
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- Next step
- References Problem Identification

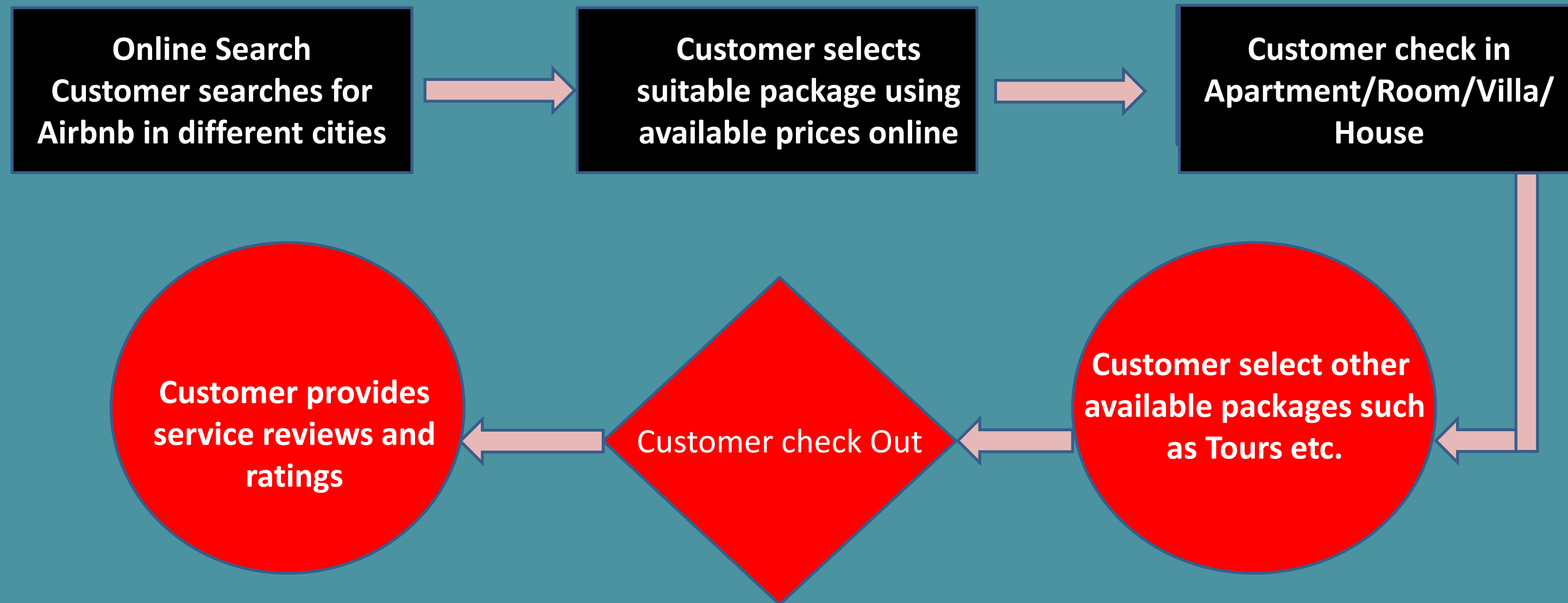


Introduction

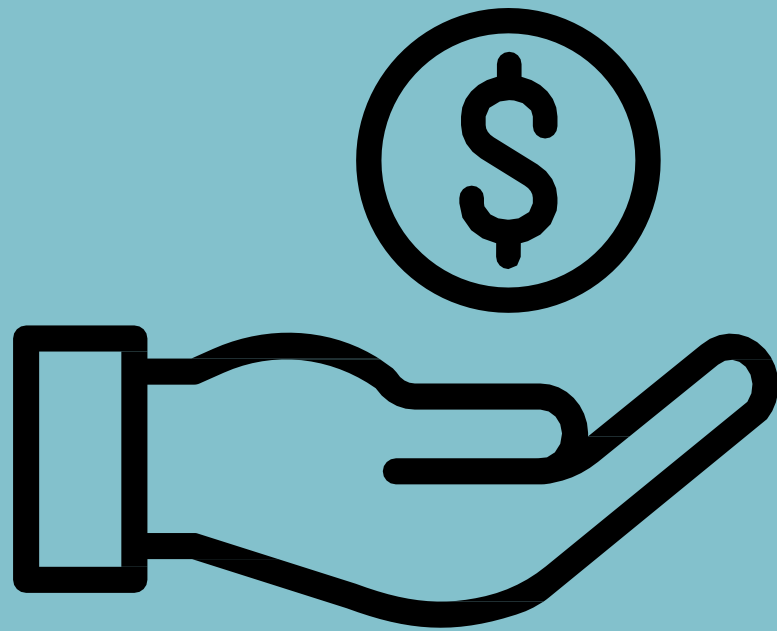
- Airbnb, as in “Air Bed and Breakfast,” is a service that lets property owners rent out their spaces to travelers looking for a place to stay.
- Travelers can rent a space for multiple people to share, a shared space with private rooms, or the entire property for themselves.
- Airbnb has become an increasingly popular platform for both hosts and guests to find short-term accommodation. Our goal is to provide local, authentic, diverse, inclusive, and sustainable healthy travel that enables individuals to feel at home everywhere.



Airbnb Flowchart



Problem Identification



**Accurate prices of Airbnb
properties for users and
hosts**



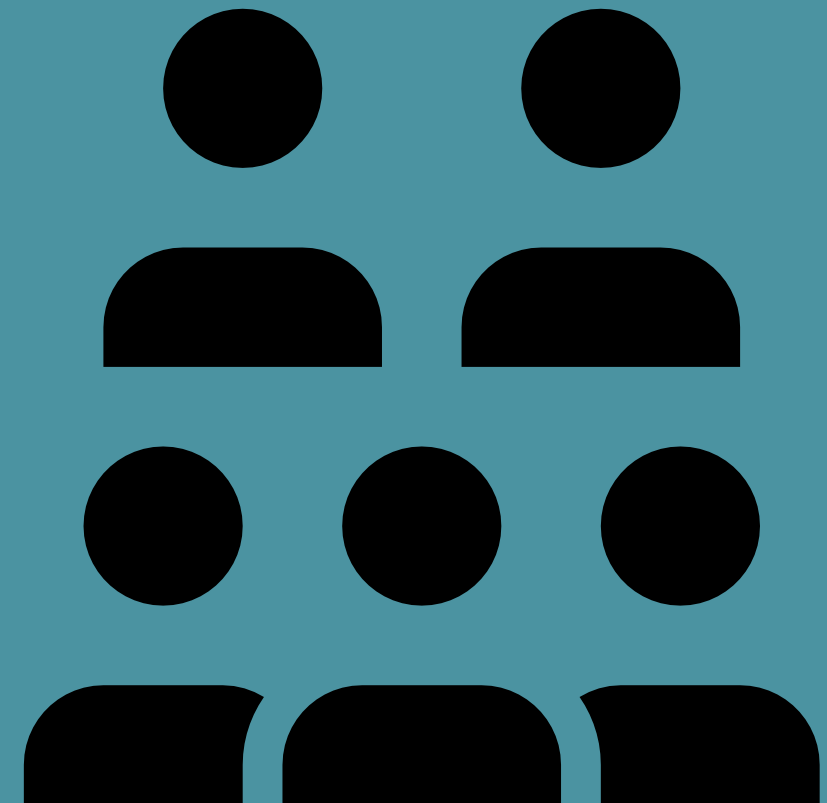
**Customer reviews based on
the stay**

Challenges

- We faced challenges in selecting the Dataset from the Airbnb website because it contains many cities data.
- There were challenges in grouping the data into different segments. We were able to make use of demography to group into: mega , mid, and small respectively.
- For example, the strategy could be used to unfairly discriminate against certain renter groups, like low-income families or renters who exhibit certain characteristics.
- Furthermore, it might be difficult to describe how machine learning and predictive modelling algorithms generate particular forecasts, which might lead to a lack of transparency. Therefore, it is essential to consider any possible ethical implications before implementing any solution.

Target Audience

- Airbnb price prediction will be highly instrumental for travellers and individuals or group of individuals embarking on a vacation or visits to cities in Canada.
- The project will also make it possible for Airbnb hosts and owners to gain a reasonable insight into the prevailing cost of Airbnb within the cities.



Project Planner

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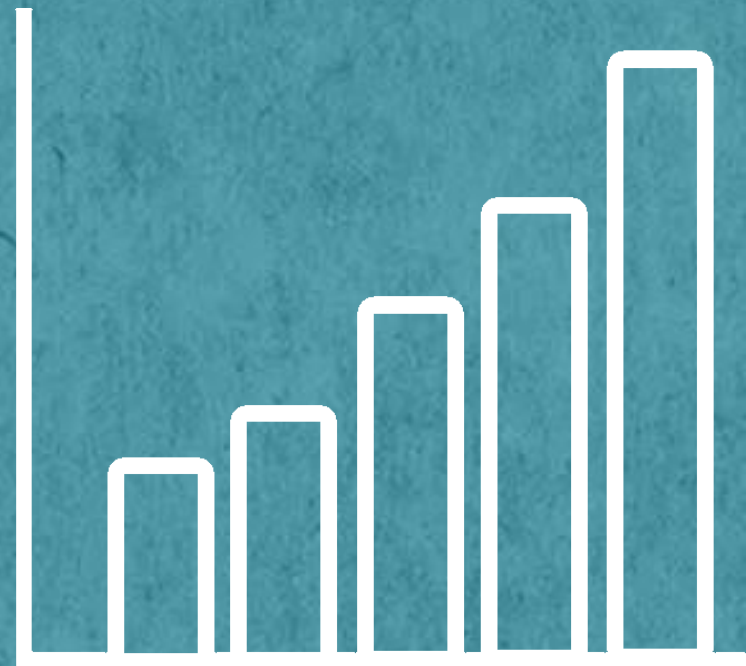
ANALYTICAL METHOD

- DATA MERGING(EXCEL)
- DATACLEANING(JUPYTER NOTEBOOK)
- EXPLORATORY DATA ANALYSIS
- MACHINE LEARNING ALGORITHM
- TABLEAU



Analytical Uses

- The project is highly instrumental in analysing the prices of Airbnb in various cities across Canada
- The project makes it easier for travellers to select their preferred Airbnb by comparing prices across cities in Canada.
- The project will enable travellers or visitors to compare and select their preferred Airbnb according to customer satisfaction based on previous users' reviews.

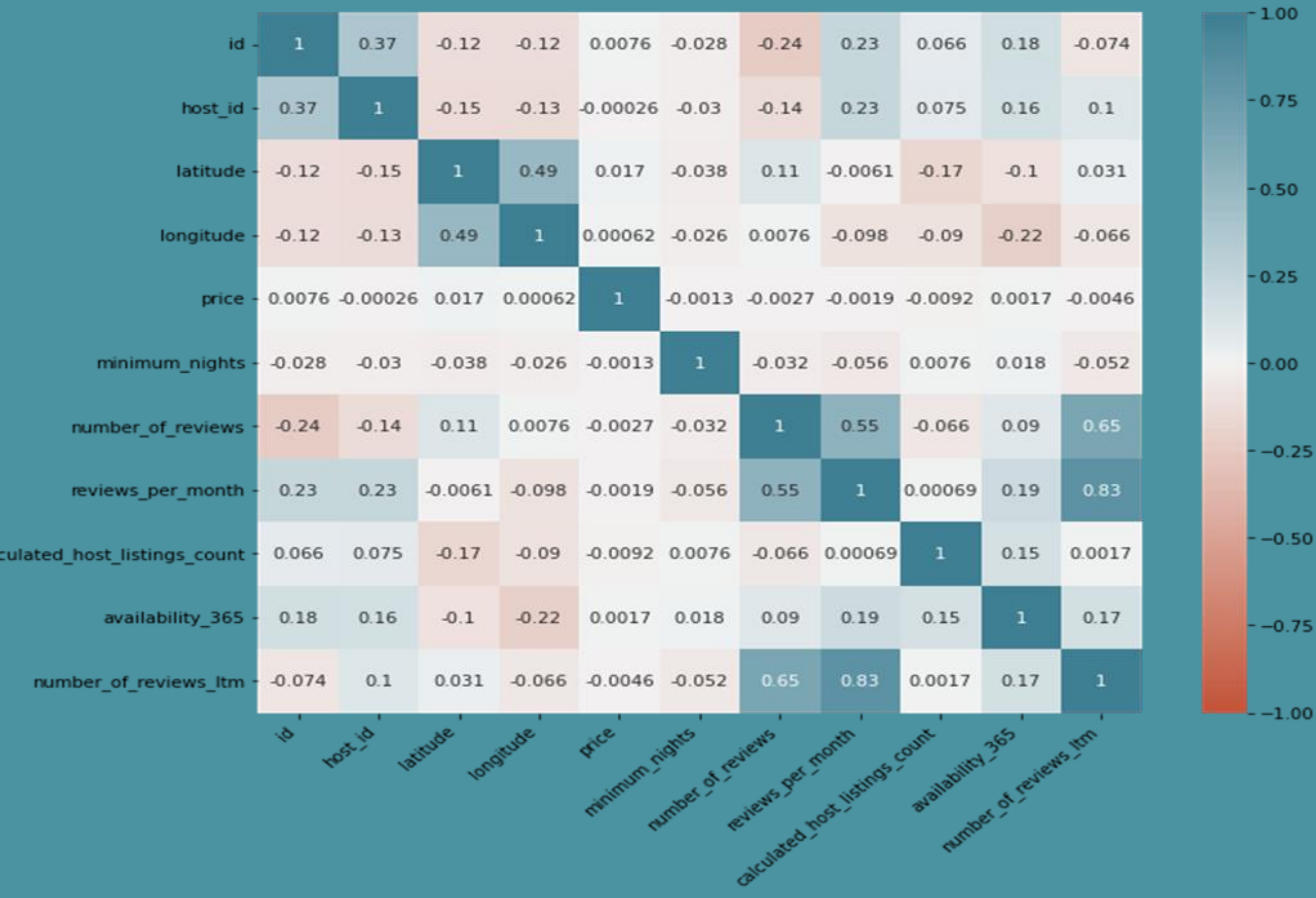


Data Assessment

- We have chosen 6 different Airbnb datasets from different cities in Canada. We have also grouped the data based on the population of the cities into 3 segments namely: Mega (Toronto and Montreal), Mid (Vancouver and Winnipeg), and Small (Quebec city and Victoria)
- We segmented cities into Mega, Mid, and Small with respect to population.
- The merged Dataset are having 18 variables and 34652 observations.
- There are no duplicate values in the Dataset.

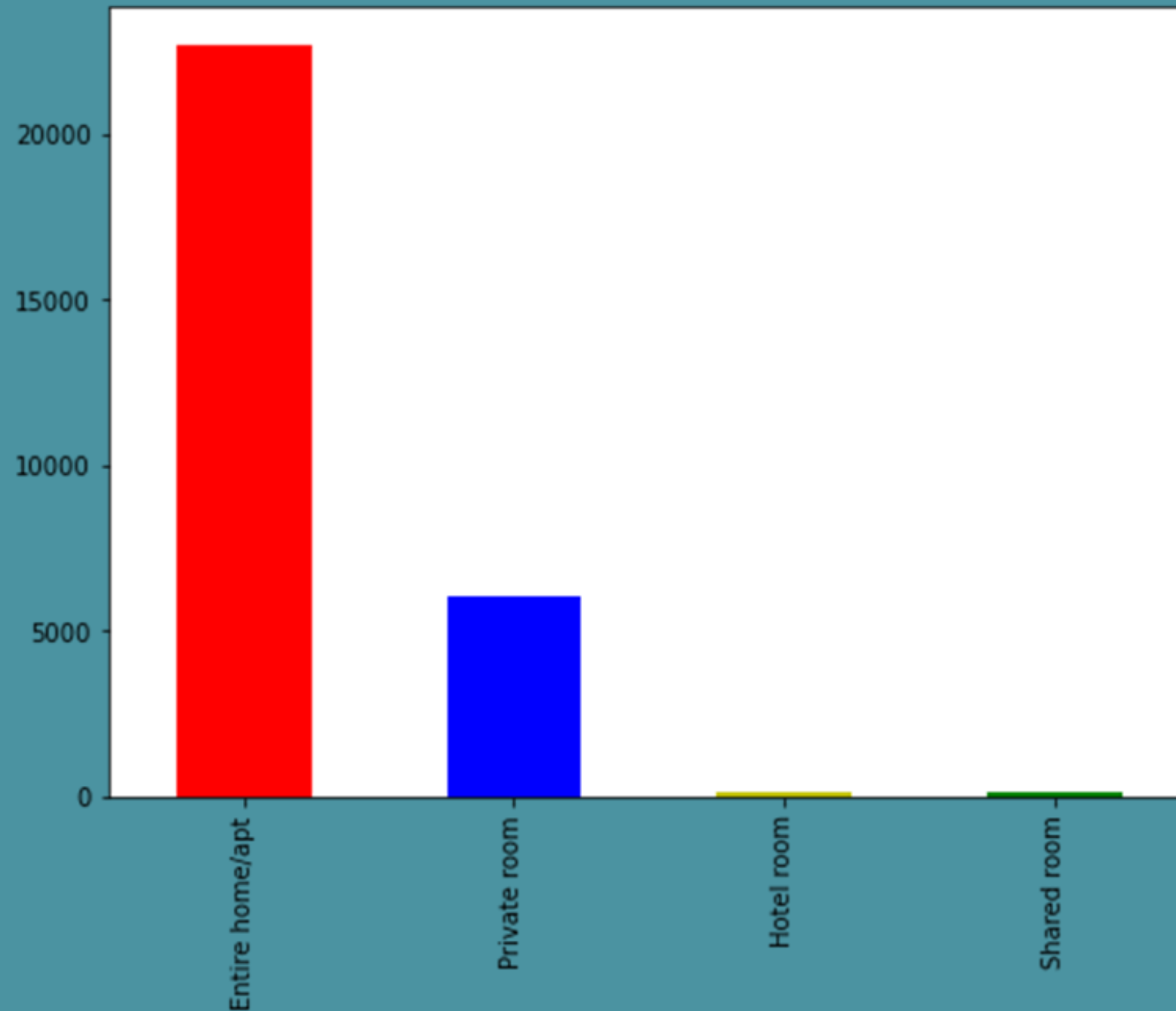


Correlation by variables



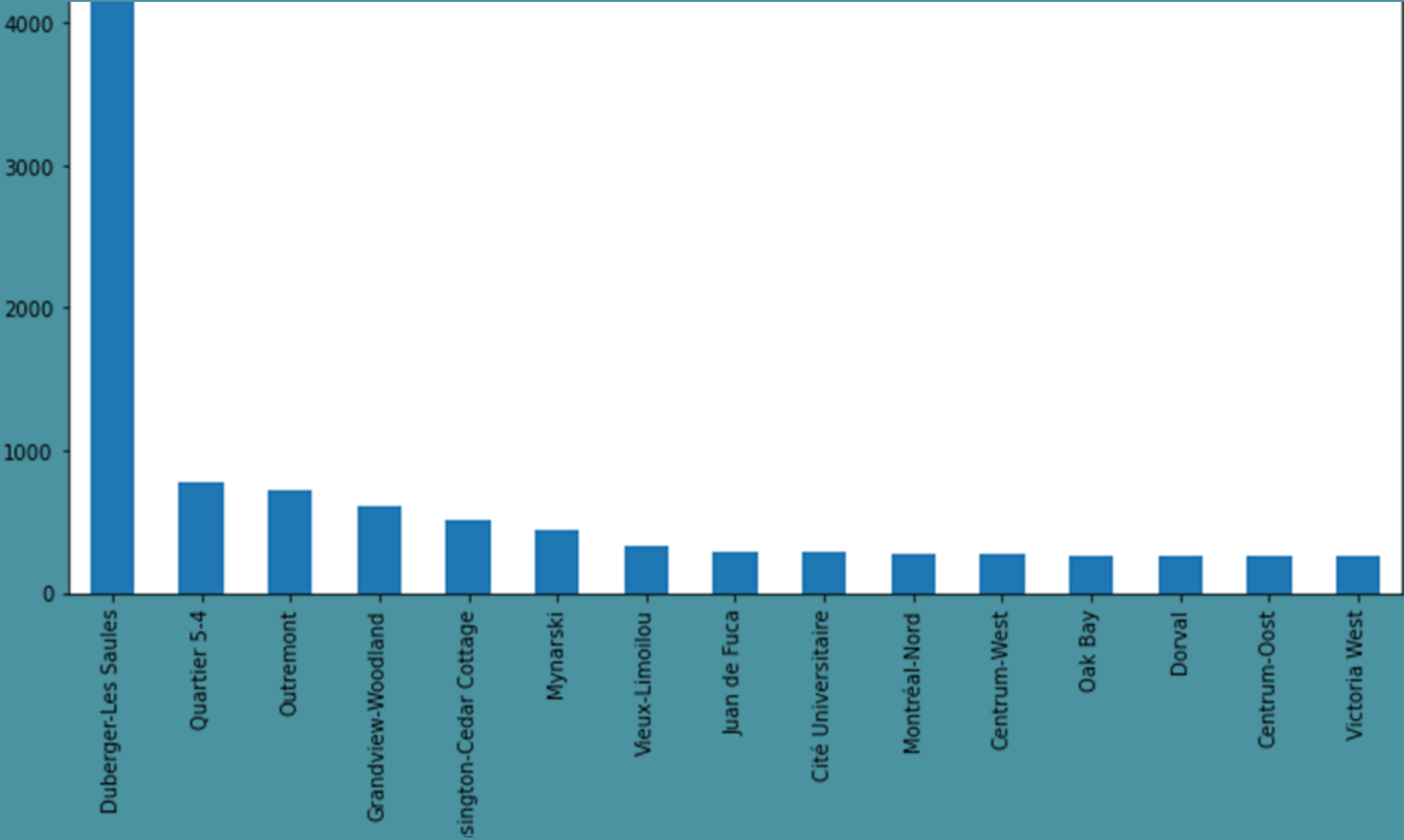
This plot shows the correlation between each features of dataset.

Airbnb Type



This bar chart shows the kind of apartments. In this diagram we can see we have large number of entire homes/apts.

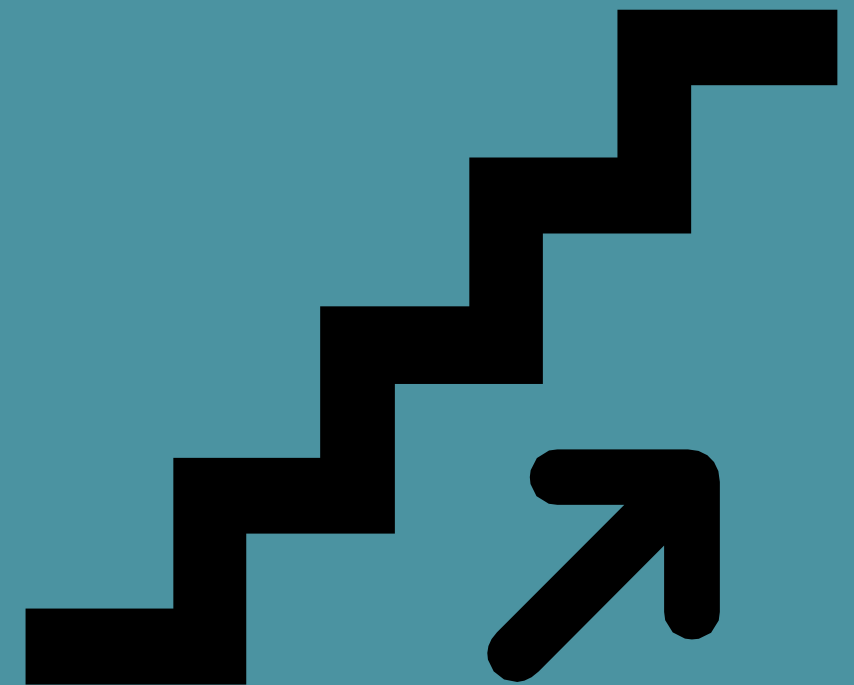
Price Per Neighborhood



This diagram gives the information related to average price per night based on neighborhood. We can clearly see that Duberger-Les Saules as high amount of price as compared to others

Next Step

- Further EDA
- Creating hypothesis
- Developing machine learning prediction
- Creating Dashboards



References

Dataset: <http://insideairbnb.com/get-the-data.html>

Airbnb Website: <https://www.airbnb.ca/>

Airbnb Disclaimer: <http://insideairbnb.com/about.html>



Thank
You