Data

While Airbnb doesn't release any data on the listings in their marketplace, a separate group named 'Inside Airbnb' has extracted data on a sample of the listings for many of the major cities on the website. In this report, I'll be working with their data set on the listings from Amsterdam, the capital of the Netherlands. Each row in the data set is a specific listing that's available for renting on Airbnb in the Amsterdam area.

Strategy

One strategy I could use is to:

1. Find a few listings that are similar to mine,
2. Average the listed price for the ones most similar to mine,
3. Set my listing price to this calculated average price.

I'm going to build a machine learning model to automate this process using **k-nearest neighbors**.

Some of the more important columns:

1. *accommodates:* the number of guests the rental can accommodate

2. *bedrooms*: number of bedrooms included in the rental

3. *bathrooms*: number of bathrooms included in the rental

4. *beds*: number of beds included in the rental

5. *price*: nightly price for the rental

6. *minimum_nights*: minimum number of nights a guest can stay for the rental

7. *maximum_nights*: maximum number of nights a guest can stay for the rental

8. *number_of_reviews*: number of reviews that previous guests have left

In addition to the above, I will make use of the Foursquare location data to get information about the neighbourhood.