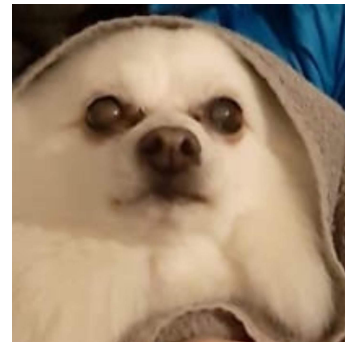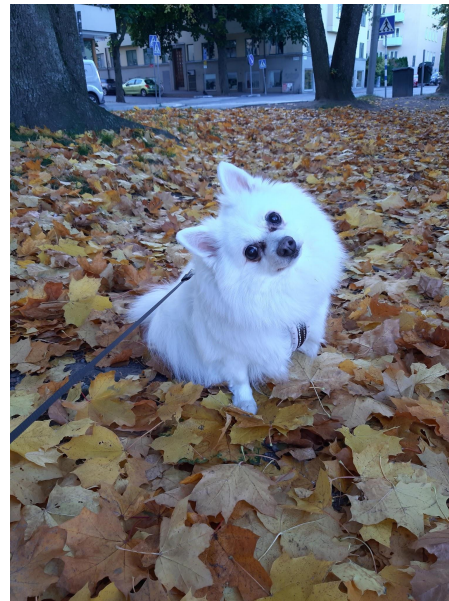**The Battle of Neighborhoods**
Exploring the Northwest of London

Background

The goal of this project is to investigate the northwest of London to discover:

- How the different neighborhoods differ from each other
- How the average rental prices vary from neighborhood to neighborhood
- To find a neighborhood with an affordable average rent, parks, shops and at least one gym

The Data used

- Foursquare location data, https://foursquare.com/
  - To discover the different neighbourhoods. Foursquare is used for example to see what kind of leisure facilities the areas have.
- List of Areas in London, https://en.wikipedia.org/wiki/List_of_areas_of_London
  - To fetch the London area data for my dataframe.
- Private rental market in London: January 2019 to December 2019, https://www.ons.gov.uk/peoplepopulationandcommunity/housing/adhocs/11100privaterentalmarketinlondonjanuary2019todecember2019
  - For the data about the average rental price per area.

Methodology

Fetched and cleaned the data,

made a pandas dataframe

and created a map showing

the neighborhoods

Analyzed all of the different

neighborhoods and their facilities

	name	categories	lat	lng
0	Cottage Garden Nursery	Flower Shop	51.645982	-0.234079
1	Arkley Golf Club	Golf Course	51.647774	-0.233413

Grouped all neighborhoods and clustered them to discover the differences based on venues in each neighborhood
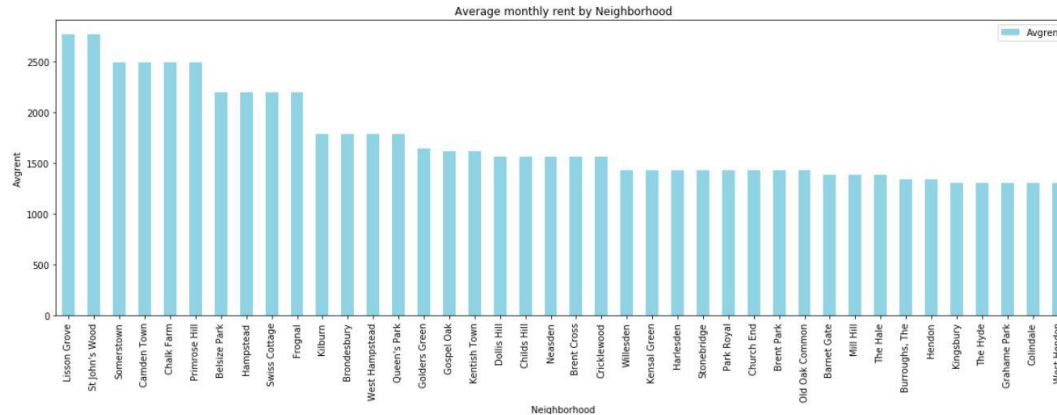

Discovered that in neighborhoods closer to the city center there are more facilities, especially cafés and pubs than in the neighborhoods further away

Fetched average rental prices per neighborhoods (in GBP) and made a map showing the prices.

Discovered that the distance to the city center has a massive effect on the average price of the neighborhood.
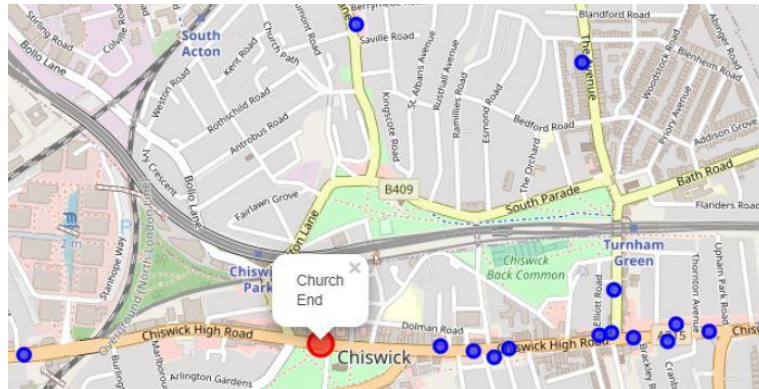

Made a bar plot of the same data (and discovered that some areas are averaged in more than 2500 GBP per month!)

Used the venue data to look for the amount of parks in each neighborhood. Found out that Church End has 3 parks and it was also on the less expensive side of the rental data. Decided to focus more on Church End.

199	Church End	51.492613	-0.265672	Turnham Green	51.492099	-0.265968	Park
219	Church End	51.492613	-0.265672	Chiswick Park	51.494684	-0.270419	Park
246	Church End	51.492613	-0.265672	Gunnersbury Triangle	51.494288	-0.268504	Park

Checked for shops and gyms in the area, and was happy with the results!

Results

Neighborhoods in NW London vary on their facilities.

Average rent per month (GBP) vary between neighborhoods, distance from city center is a big factor.

Church End is a neighborhood with affordable monthly rent, parks, shops and gyms.

Thank you! :)