

Battle of the Neighborhoods Report

1. Introduction

A young professional, new to London, United Kingdom, is looking for a neighborhood to move to. They are looking at 5 particular areas in North London: Angel, Islington, Notting Hill, Shoreditch, and Spitalfields. Their ideal location, and main focus, would be an area with a lot of amenities such as cafes, restaurant, gyms, bars, etc. nearby. As a newcomer to London, they are hoping that they will be surrounded by residents around their age, mid 20s.

This will be useful to compare different neighborhoods with one another to see which one best fits with the users' specific interests. With additional analysis on transportation links, the added attraction of a good commute to their new job near London Bridge may be considered. This analysis may also be extended to analyse local schools, as it would also be beneficial for families looking for neighborhoods to settle into.

2. Data Required

In order to determine the best neighborhood for our user, we will be using Foursquare location data of London to determine the venues nearby these three areas. We can group the venues by type, such as cafes, gyms, grocery stores, and subcategories such as type of cuisine for restaurants or brunch offerings, and determine how many of each there are. Further analysis can be done to determine ratings and popularity of venues during certain times, such as Thursday to Saturday evenings which are known to return a high turnout of young people at particular venues such as bars and club. As this will be a neighbourhood that the user is hoping to reside in, their favourite and necessary venues will be taken into account, such as nearby coffee stores, grocery stores, and gyms.

If the user wants further analysis to help decide, a dataset containing London rent prices can be found and, and average rent of a double bedroom can also be determined to see which neighborhood best fits with the user's budget. Transportation data can also be used to determine the number of major bus or tube routes that pass through the neighborhood to get to London Bridge and/or Central London, in order to determine how well connected the neighborhood is.

3. Methodology and Results

3.1 Data Acquisition

As the user already had areas in mind, location data (longitudes and latitudes) of the five neighborhoods, Angel, Islington, Notting Hill, Shoreditch, and Spitalfields, was acquired using the Nominatim library from geopy.geocoders. A dataframe was created based on the results acquired (Table 1), and was used in conjunction with the Folium library in order to visualize the location of the five neighborhoods (Image 1).

	Neighborhood	Latitude	Longitude
0	Angel	51.531946	-0.106106
1	Islington	51.538429	-0.099905
2	Notting Hill	51.510999	-0.205527
3	Shoreditch	51.526669	-0.079893
4	Spitalfields	51.519527	-0.075170

Table 1. Latitudes and Longitudes of the 5 neighborhoods of interest

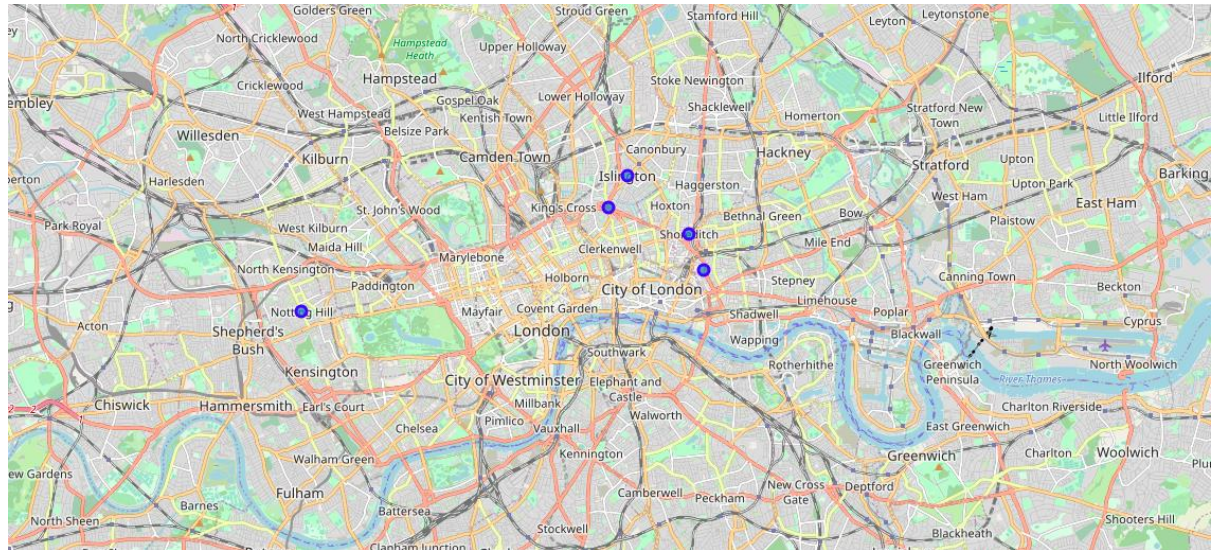


Image 1. Folium map of the 5 neighborhoods of interest

3.2 Foursquare Preliminary Analysis

As local amenities were the main decision makers when deciding which neighborhood to move to, the 5 neighborhoods of interest were explored using Foursquare data, starting with Angel, London. The top 100 venues were requested and a snippet of the venues were presented (Table 2), with a total of 65 venues returned from Foursquare

	name	categories	lat	lng
0	Present & Correct Paper / Office Supplies Store	Paper / Office Supplies Store	51.530147	-0.106231
1	The Three Johns	Pub	51.532825	-0.109186
2	Saint Espresso	Coffee Shop	51.531919	-0.107565
3	Virgin Active	Gym / Fitness Center	51.531343	-0.105135
4	Oseyo	Korean Restaurant	51.533823	-0.106810

Table 2. Top 5 venues in Angel, London

This step was repeated for all 5 neighborhoods in order to gain a general understanding of the amenities available in each neighborhood. Next was Islington (Table 3), which Foursquare returned 68 venues.

	name	categories	lat	lng
0	Steve Hatt	Fish Market	51.538588	-0.099041
1	The Life Centre Islington	Yoga Studio	51.538056	-0.099171
2	Ottolenghi	Mediterranean Restaurant	51.539716	-0.102314
3	Little Angel Theatre	Theater	51.538759	-0.101295
4	Paper Mache Tiger	Boutique	51.539118	-0.100375

Table 3. Top 5 Venues in Islington, London

In Notting Hill (Table 4), 55 venues were returned by Foursquare, and among the top 5, four venues were having to do with socializing and food, such as a restaurant, bar, and pubs.

	name	categories	lat	lng
0	Core By Clare Smyth	Restaurant	51.512651	-0.203116
1	The Ladbroke Arms	Gastropub	51.509040	-0.202837
2	Stumper & Fielding	Boutique	51.513284	-0.202789
3	The Gold Bar	Bar	51.513018	-0.202531
4	Alexeeva & Jones Chocolate Boutique	Candy Store	51.513438	-0.203612

Table 4. Top 5 Venues in Notting Hill, London

In Shoreditch (Table 5), 100 venues were returned by Foursquare, the highest number of venues.

	name	categories	lat	lng
0	Happiness Forgets	Cocktail Bar	51.527746	-0.081591
1	National Centre for Circus Arts	Circus School	51.527578	-0.082551
2	Origin Coffee	Coffee Shop	51.526347	-0.081204
3	Homeslice Pizza	Pizza Place	51.527100	-0.079689
4	Artwords Bookshop	Bookstore	51.526236	-0.079702

Table 5. Top 5 Venues in Shoreditch, London

Lastly, in Spitalfields (Table 6), 38 venues were returned by Foursquare, and in the top 5 venues a café, Indian, and Mediterranean restaurant are of interest.

	name	categories	lat	lng
0	Kastner & Ovens	Café	51.517913	-0.076465
1	Old Spitalfields Market	Flea Market	51.519668	-0.075375
2	Gunpowder	Indian Restaurant	51.518436	-0.074732
3	Ottolenghi	Mediterranean Restaurant	51.518272	-0.077177
4	Taylor Taylor	Salon / Barbershop	51.520826	-0.074936

Table 6. Top 5 Venues in Spitalfields, London

3.3 Exploring Top Categories in Foursquare

Deeper analysis of the venues in the five neighborhoods was then conducted. A total of 326 venues of 113 unique categories were returned. The categories were explored further and the frequencies of the top 10 categories in each neighborhood was gathered (Image 2). The frequencies of each category were then tabulated to visualize the top 10 most common venues in each neighborhood (Table 7).

----Angel----			----Notting Hill----		
	venue	freq		venue	freq
0	Pub	0.09	0	Pub	0.09
1	Coffee Shop	0.05	1	Italian Restaurant	0.07
2	Café	0.05	2	Coffee Shop	0.05
3	Gym / Fitness Center	0.03	3	Bakery	0.05
4	Burrito Place	0.03	4	Clothing Store	0.05
5	Food Truck	0.03	5	Grocery Store	0.04
6	Mexican Restaurant	0.03	6	Deli / Bodega	0.04
7	Restaurant	0.03	7	Restaurant	0.04
8	Mediterranean Restaurant	0.03	8	Cheese Shop	0.04
9	Arts & Crafts Store	0.03	9	Bookstore	0.04

----Islington----			----Shoreditch----			----Spitalfields----		
	venue	freq		venue	freq		venue	freq
0	Pub	0.12	0	Coffee Shop	0.06	0	Café	0.05
1	Bakery	0.04	1	Café	0.05	1	Cocktail Bar	0.05
2	Burger Joint	0.04	2	Italian Restaurant	0.05	2	Burger Joint	0.05
3	Mediterranean Restaurant	0.04	3	Hotel	0.05	3	Flea Market	0.05
4	Theater	0.03	4	Restaurant	0.04	4	Coffee Shop	0.03
5	Arts & Crafts Store	0.03	5	Pub	0.04	5	Organic Grocery	0.03
6	Restaurant	0.03	6	Cocktail Bar	0.04	6	Record Shop	0.03
7	Café	0.03	7	Gym / Fitness Center	0.03	7	Clothing Store	0.03
8	Ice Cream Shop	0.03	8	Vietnamese Restaurant	0.02	8	Indie Movie Theater	0.03
9	Japanese Restaurant	0.03	9	Fried Chicken Joint	0.02	9	Pub	0.03

Image 2. Frequencies of the top 10 categories in each neighborhood

Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0 Angel	Pub	Café	Coffee Shop	Food Truck	Arts & Crafts Store	Hotel	Indian Restaurant	Burrito Place	Mediterranean Restaurant	Mexican Restaurant
1 Islington	Pub	Mediterranean Restaurant	Bakery	Burger Joint	Arts & Crafts Store	Bookstore	Theater	Japanese Restaurant	Restaurant	Café
2 Notting Hill	Pub	Italian Restaurant	Bakery	Clothing Store	Coffee Shop	Cheese Shop	Deli / Bodega	Grocery Store	Restaurant	Hotel
3 Shoreditch	Coffee Shop	Italian Restaurant	Café	Hotel	Pub	Restaurant	Cocktail Bar	Gym / Fitness Center	Pizza Place	Sandwich Place
4 Spitalfields	Café	Flea Market	Burger Joint	Cocktail Bar	Fish & Chips Shop	Pub	Bookstore	Pilates Studio	Park	Organic Grocery

Table 7. Top 10 most common venue categories in each neighborhood.

3.4 Exploring venues in user's top categories

As the user will be living in the area, grocery stores for food, gym for fitness, and coffee shops to work at are high on the priority list. As a result, we looked into the ratings for the most common venues of these specific categories.

3.4.1 Coffee Shops

In Angel, under the query of 'coffee', fifteen venues were returned and their locations were visualized on a map (Image 3), and the top 5 venues are shown in Table 8. The ratings each of the venues in Angel were retrieved in order to gain a better understanding of the quality of the coffee shops nearby. The first venue, Well's Coffee and Deli, did not have a rating, so we explored the next venue. Likewise for the next few venues, no ratings were present, nor were there any tips left. Well's Coffee and Deli did receive 5 tips, indicating that it may be a more popular location than the other coffee venues. Costa coffee, a chain, had rating of 6.3 and 1 tip. Two other Costa Coffees were indicated within the Angel neighborhood. Scarlet Coffee Roastery had a better rating of 7.8 and 3 tips. Starbucks, another chain, had a rating of 5.5 and 25 tips. Ground Coffee had the best rating of 8.7 and 39 tips, indicating its popularity. The Coffeeworks Project had a slightly lower rating of 8.2, but received 140 tips. Lastly, the Pump House Café received a rating of 6.1 and had 7 tips.

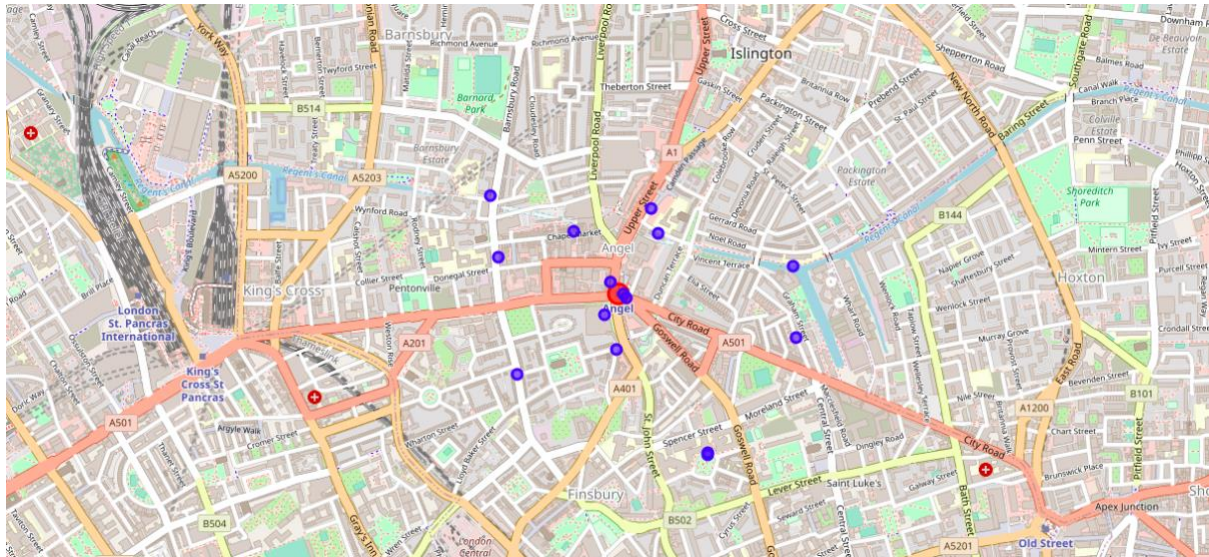


Image 3. Coffee venues around Angel

	name	categories	address	cc	city	country	crossStreet	distance	formattedAddress	labeledLatLngs	lat	lng	postalCode	state	id
0	Wells Coffee Shop & Deli	Coffee Shop	397 St John St.	GB	London	United Kingdom		166	[397 St John St., London, Greater London, EC1V...	[{"label": "display", "lat": 51.53045276192664...	51.530453	-0.106173	EC1V 4LD	Greater London	4d661f7f75c3704343dd49a
1	Augoato Coffee	Café		GB		United Kingdom		15	[United Kingdom]	[{"label": "display", "lat": 51.53193664550781...	51.531937	-0.105877			4e43f2cfa809d4ed1bb5c219
2	Agusto Coffee	Shop & Service		GB		United Kingdom		26	[United Kingdom]	[{"label": "display", "lat": 51.53182983398437...	51.531830	-0.105765			4e4a8e891f6e2d88dbad52e
3	Jamie's Coffee Trike	Coffee Shop		GB		United Kingdom		74	[United Kingdom]	[{"label": "display", "lat": 51.53138156992119...	51.531382	-0.106681			4eb10e889a52c49f4cd2e953
4	Coffee Berry	Coffee Shop	barnsbury road	GB	London	United Kingdom		481	[barnsbury road, London, Greater London, N1 0H...	[{"label": "display", "lat": 51.53459, "lng": ...	51.534590	-0.111615	N1 0HG	Greater London	5d4e9706d16e200008a1404f

Table 8. Top 5 'coffee' venues in Angel

Islington returned 6 coffee shops, however, for the table itself, it is evident that there is a slight overlap of radius between Angel and Islington as it returned a few of the same coffee shops (Table 9): Scarlet Coffee Roastery with a rating of 7.8 and the Coffeeworks Project with a rating of 8.2. This overlap can be seen in Image 4. Devotion Coffee had no ratings and 0 tips, Dolce coffee had a rating of 6.5 and 3 ratings, the Costa Coffee in Islington has a rating of 5.2 with 5 tips, and Juleebucks has yet to be rated as well

In Notting Hill, there are 5 coffee venues nearby, with 3 of them being Starbucks (Table 10, Image 5). Amoret Speciality Coffee had the highest rating of 8.9 with 11 tips, Coffee Plant had a rating of 6.8 with 67 tips, and the three Starbucks had ratings of 7.3, 7.2, and 7.7, with 10, 17, and 11 tips respectively.

	name	categories	address	cc	city	country	crossStreet	distance	formattedAddress	labeledLatLngs	lat	lng	neighborhood	postalCode	state	id
	Devotion Coffee	Coffee Shop	Cross Street	GB	London	United Kingdom	Essex Road	73	[Cross Street (Essex Road), London, Greater Lo...	[{"label": "display", "lat": 51.538805, "lng": ...	51.538805	-0.099041		N1 2BL	Greater London	5e74c951646b990008eddfb6
	Dolce Coffee	Coffee Shop	48 Essex Rd	GB		United Kingdom		88	[48 Essex Rd, N1 8LR, United Kingdom]	[{"label": "display", "lat": 51.53763515212751...	51.537635	-0.100000		N1 8LR		4fb22a7de4b010d66eac6d2
	Costa Coffee	Coffee Shop	117-119 Essex Rd	GB	London	United Kingdom		143	[117-119 Essex Rd, London, Greater London, N1 ...	[{"label": "display", "lat": 51.53919999373572...	51.539200	-0.098242	Canonbury	N1 2SN	Greater London	50bb5f0ee4b069aaeb023fed
	Juleebucks Coffee House	Café		GB		United Kingdom		467	[United Kingdom]	[{"label": "display", "lat": 51.541223, "lng": ...	51.541223	-0.094874				4c4408bb429a0f47a632481e
	Scarlett Coffee Roastery	Coffee Shop	30 Duncan St	GB	London	United Kingdom		622	[30 Duncan St, London, Greater London, N1 8BW...	[{"label": "display", "lat": 51.53357, "lng": ...	51.533570	-0.104370		N1 8BW	Greater London	5cd6d3c7da5ede002ce4d289
	The Coffeeworks Project	Coffee Shop	96-98 Islington High St	GB	Islington	United Kingdom		570	[96-98 Islington High St, Islington, Greater L...	[{"label": "display", "lat": 51.53425426787325...	51.534254	-0.104684		N1 8EG	Greater London	4fc9f8ce4b087d229f75ce4

Table 9. Islington 'coffee' venues

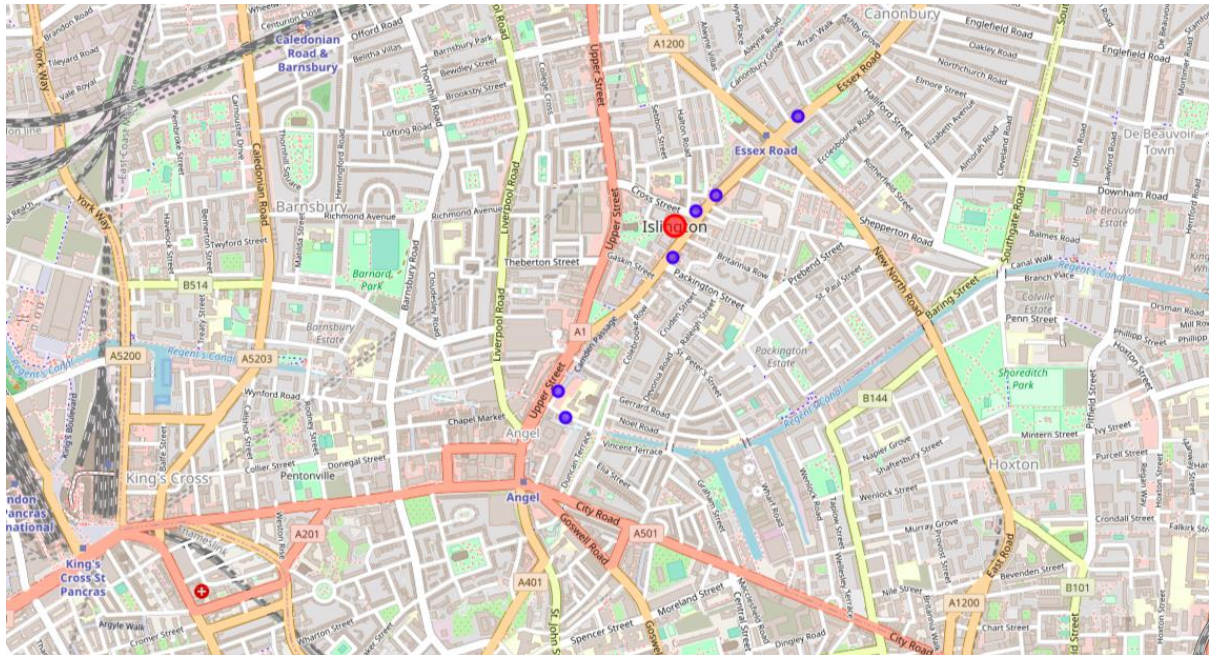


Image 4. Coffee venues around Islington

	name	categories	address	cc	city	country	distance	formattedAddress	labeledLatLngs	lat	lng	neighborhood	postalCode	state	id
0	Amoret Specialty Coffee	Coffee Shop	53 Pembridge Rd	GB	London	United Kingdom	557	[53 Pembridge Rd, London, Greater London, W11 ...	[{"label": "display", "lat": 51.510753, "lng": -0.197494}	51.510753	-0.197494	Pembridge	W11 3HG	Greater London	5b26585dd7627e002cda85ea
1	Coffee Plant	Coffee Shop	180 Portobello Rd	GB	London	United Kingdom	527	[180 Portobello Rd, Notting Hill, Greater London, ...	[{"label": "display", "lat": 51.515718, "lng": -0.204787}	51.515718	-0.204787	NaN	W11 2EB	Greater London	4b44e0bcf964a5200bf725e3
2	Starbucks	Coffee Shop	76 - 78 Holland Park Avenue	GB	London	United Kingdom	417	[76 - 78 Holland Park Avenue, London, Greater London, ...	[{"label": "display", "lat": 51.507256, "lng": -0.205820}	51.507256	-0.205820	Kensington and Chelsea	W11 3RB	Greater London	4ac8f02f964a52089d420e3
3	Starbucks	Coffee Shop	26 Pembridge Road	GB	London	United Kingdom	592	[26 Pembridge Road, London, Greater London, W11 ...	[{"label": "display", "lat": 51.509785, "lng": -0.197193}	51.509785	-0.197193	NaN	W11 3HL	Greater London	4d64f88cd2906a310083e2cb
4	Starbucks	Coffee Shop	227 Portobello Road	GB	London	United Kingdom	649	[227 Portobello Road, London, Greater London, ...	[{"label": "display", "lat": 51.516834, "lng": -0.205825}	51.516834	-0.205825	NaN	W11 1LT	Greater London	4bb4ac06bc82a593f3a63e72

Table 10. Notting Hill 'coffee' venues

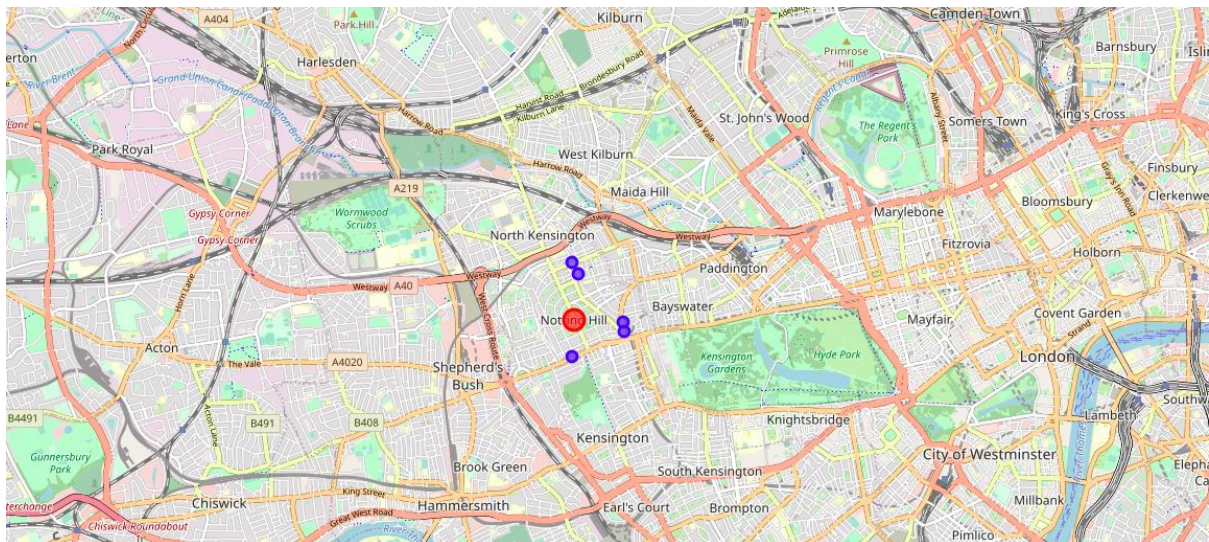


Image 5. Coffee venues around Notting Hill

Shoreditch returned 39 coffee venues (Image 6). The first 5 coffee venue ratings that returned a rating were: Andronica's World of Coffee with a rating of 5.9 and 2 tips, Silvio's Coffee House with a rating of 6.1 and 3 tips, Ozone Coffee Roasters with a rating of 8.5 and 472 tips, indicating its popularity, Department of Coffee and Social Affairs with a rating of 6.9 with 62 tips, and Black Opium Coffee with a rating of 7.3 and 6 tips.

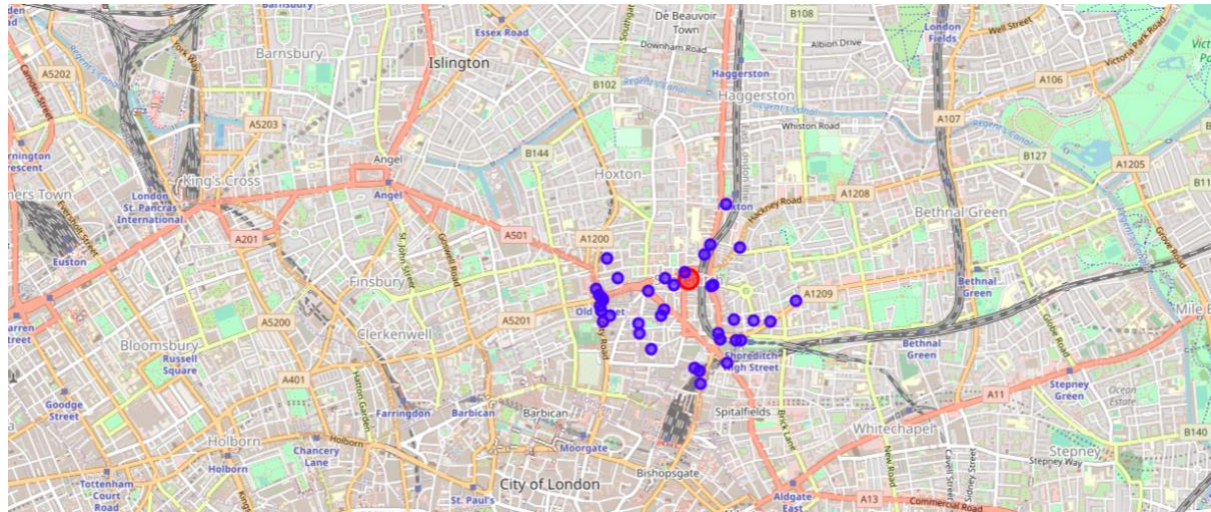


Image 6. Coffee venues around Shoreditch

Lastly, Spitalfields returned 50 coffee venues (Image 7). However, upon further analysing, an overlap in area between Shoreditch and Spitalfields is observed by the presence of the same coffee venue within both vicinities, similar to Angel and Islington. Costa Coffee, the chain also appears 8 times in this local. Additionally, of the first 15 venues returned, all except Department of Coffee and Social Affairs, which also appeared in Shoreditch's vicinity, did not return a rating. Perhaps these venues are new and have yet to gather a loyal following who would give them ratings. As such, it was difficult to determine the average rating of the coffee venues in Spitalfields

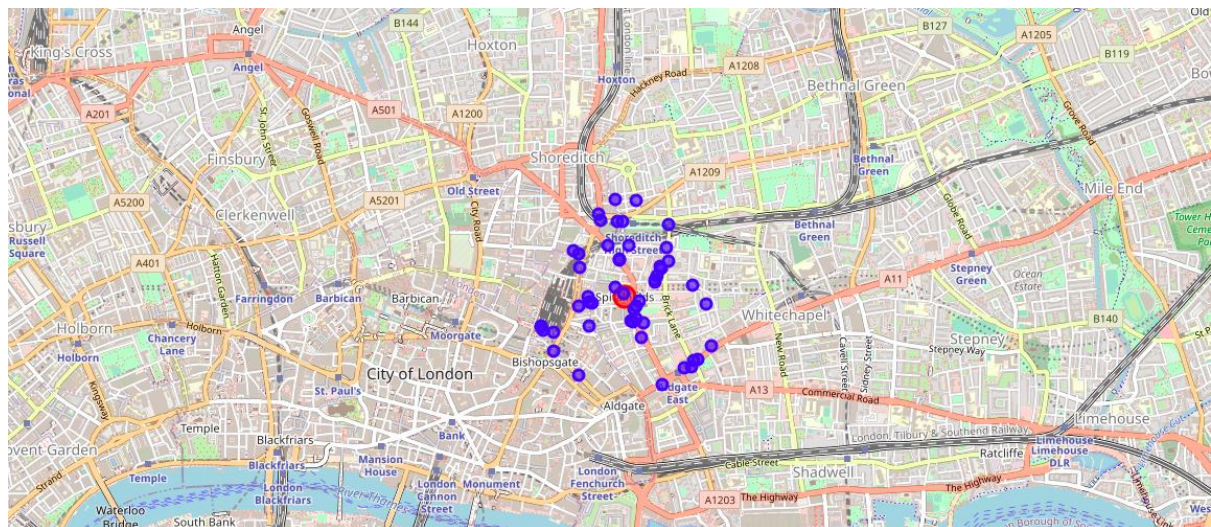


Image 7. Coffee venues around Spitalfields

3.4.2 Grocery Stores

A necessity that every neighborhood needs is a grocery store so that its residents can get food. The queries "grocery" and "grocery store" were explored through Foursquare for each neighborhood in order to determine their accessibility; grocery store was a category listed when exploring the top 10 categories in each neighborhood. For both Angel and Islington, no grocery stores were returned. Notting Hill returned a convenience store and a speciality American Food Store only. This is interesting as the grocery store category was among the top 10 in this neighborhood. Shoreditch returned 41 venues, but upon scanning the outputs, there was only one actual grocery store and a few convenience stores, which is already significantly more than the other neighborhoods. Spitalfields had 28 venues, but only 1 food store, 1 grocery store, and one convenience store.

However, another location that people can buy groceries is a market, and London is known for having many. Therefore, ‘market’ was also queried for the various neighborhoods. In Angel, 18 venues were returned. Narrowing down to food markets only, a street food gathering (Chapel Market), farmer’s market (Islington Farmer’s Market), a butcher, and a grocery store (Iceland), were present. In Islington, 6 venues were returned, however, only one food and drink shop (Zaco Mini Market) and one grocery store (MarkeTurk) was returned. In Notting Hill, there were only 2 food venues returned from Foursquare, the famous Portobello Market, and a Bakery. Shoreditch returned 30 venues, however, many were capital market businesses, and only approximately 5 were food markets or had the potential to sell food at the markets, such as Hoxton Street Market, and Old Street Food Market. Lastly, Spitalfields returned 30 venues, many were food related, such as food trucks and restaurants. However, in terms of the potential to buy groceries, there were only Old Spitalfields market, Brick Lane Market, and their associated stalls; therefore we will only count the overall venue number, 2.

3.4.3 Gyms/Fitness

Lastly, the user has an office job, so in order to stay in shape they like to go to the gym at least 5 times a week. Having a nearby fitness spot to their resident in comparison to their work office is preferable, as the user can easily access it during the weekdays and more importantly on the weekends when they have more time. Foursquare data was used once again to determine any nearby fitness venues. As seen when querying for ‘grocery’, not all targeted venues are placed under the same category. When previously compiling all categories, ‘gym’, ‘fitness’, and ‘yoga’ were some of the key words associated with our current venue of interest. As such, we will use these query words to explore the Foursquare data.

Using the three query words, Angel returned a total of 17 unique venues associated with fitness (Table 11-13).

name	categories	address	cc	city	country	crossStreet	distance	formattedAddress	labeledLatLngs	lat	lng	neighborhood	postalCode	state	id
The Gym	Gym / Fitness Center	265-269 Goswell Road	GB	London	United Kingdom	NaN	296	[265-269 Goswell Road, London, Greater London,...	[{"label": "display", "lat": 51.53002, "lng": ...	51.530020	-0.103147	Islington	EC1V 7AH	Greater London	54a708cd498e9722fa507bb5
Revolution Gym	Gym / Fitness Center	NaN	GB	Islington	United Kingdom	NaN	250	[Islington, Greater London, United Kingdom]	[{"label": "display", "lat": 51.534145, "lng": ...	51.534145	-0.105363	NaN	NaN	Greater London	4dab22f10cb6a89c627cc4a1
Angelis Apts Gym	Gym	Graham Street	GB	London	United Kingdom	NaN	487	[Graham Street, London, Greater London, N1 8LH...	[{"label": "display", "lat": 51.53244953663046...	51.532450	-0.099110	NaN	N1 8LH	Greater London	513ef30fe4b06af3de612142
Gym Liberty House	Gym	218 St.John Street	GB	Islington	United Kingdom	NaN	737	[218 St.John Street, Islington, Greater London...	[{"label": "display", "lat": 51.525551, "lng": ...	51.525551	-0.103300	NaN	NaN	Greater London	4ca4d6ba5720b1f78a7d3def
Virgin Gym	Gym	City road	GB	London	United Kingdom	NaN	594	[City road, London, Greater London, United Kin...	[{"label": "display", "lat": 51.53358165081928...	51.533582	-0.114282	NaN	NaN	Greater London	4cb1df80c5e6a1cd8d04e1f6
WeGym	Gym	82 Chapel Market	GB	London	United Kingdom	NaN	233	[82 Chapel Market, London, Greater London, N1 ...	[{"label": "display", "lat": 51.53350953166043...	51.533510	-0.108361	NaN	N1 9EX	Greater London	58bf6a5e8927fd33956d9c51
PureGym London Angel	Gym / Fitness Center	Upper Street	GB	London	United Kingdom	Next to Islington Business Design Centre	443	[Upper Street (Next to Islington Business Desi...	[{"label": "display", "lat": 51.53592810547153...	51.535928	-0.106379	NaN	N1 0QH	Greater London	5dd67b934fa3dd0008ad3e2d

Table 11: List of Gyms in Angel, Foursquare query ‘gym’, total: 7

name	categories	address	cc	city	country	crossStreet	distance	formattedAddress	labeledLatLngs	lat	lng	neighborhood	postalCode	state	id
DW Fitness First	Gym / Fitness Center	361-373 City Rd	GB	London	United Kingdom	NaN	213	[361-373 City Rd, London, Greater London, N1, ...	[{"label": "display", "lat": 51.53128524454642...	51.531285	-0.103213	NaN	N1	Greater London	4aef4612f964a5201ed721e3
Fitness First	Health & Beauty Service	361-373 City Road	GB	London	United Kingdom	NaN	212	[361-373 City Road, London, Greater London, EC...	[{"label": "display", "lat": 51.531454, "lng": ...	51.531454	-0.103135	NaN	EC1V 1LR	Greater London	59a7eb0db6b04b340d0bf0a0
Doubletree Islington Fitness Centre	Gym / Fitness Center	NaN	GB	London	United Kingdom	NaN	276	[London, Greater London, N1, United Kingdom]	[{"label": "display", "lat": 51.532522, "lng": ...	51.532522	-0.109993	NaN	N1	Greater London	5bb479bd916bc10039fcb631
Trang Fitness	Gym / Fitness Center	Trang Fitness	GB	London	United Kingdom	265 - 269 Goswell Road	283	[Trang Fitness (265 - 269 Goswell Road), Londo...	[{"label": "display", "lat": 51.53014, "lng": ...	51.530140	-0.103210	Islington	EC1V 7AH	Greater London	5cfe918a121384002c5c5ca7
urban fitness	Gym / Fitness Center	NaN	GB	NaN	United Kingdom	NaN	303	[United Kingdom]	[{"label": "display", "lat": 51.53421108404748...	51.534211	-0.103677	NaN	NaN	NaN	53144ad711d217402881567c

Table 12: List of Gyms in Angel, Foursquare query ‘fitness’, total: 5

	name	categories	address	cc	city	country	distance	formattedAddress	labeledLatLngs	lat	lng	postalCode	state	id
0	Soul Power Yoga	Spiritual Center	Unit 5-8, 28-32 Pentonville Road	GB	London	United Kingdom	47	[Unit 5-8, 28-32 Pentonville Road, London, Gre...	[{"label": "display", "lat": 51.53184101467052...	51.531841	-0.106773	N1 9HJ	Greater London	50d09e767ab44c097bb1aee
1	Islington Yoga	Yoga Studio	357 City Rd	GB	Islington	United Kingdom	88	[357 City Rd, Islington, Greater London, EC1V ...	[{"label": "display", "lat": 51.531544, "lng": ...	51.531544	-0.104997	EC1V 1LR	Greater London	4e66060b61c804f3f4cd5d5
2	Time + Space Yoga	Yoga Studio	122 Pentonville Road	GB	London	United Kingdom	467	[122 Pentonville Road, London, Greater London, ...	[{"label": "display", "lat": 51.531678, "lng": ...	51.531678	-0.112845	N1 9TT	Greater London	5d7ccf8c20dd070008ac6fce
3	More Yoga Exmouth Market	Yoga Studio	Exmouth Market	GB	NaN	United Kingdom	642	[Exmouth Market, United Kingdom]	[{"label": "display", "lat": 51.526337, "lng": ...	51.526337	-0.108269	NaN	NaN	576e660b498e3f855245340
4	Yogahaven	Yoga Studio	122 Pentonville Rd.	GB	Islington	United Kingdom	462	[122 Pentonville Rd., Islington, Greater Londo...	[{"label": "display", "lat": 51.53151568279294...	51.531516	-0.112744	N1 9TT	Greater London	501558ebe4b0748a79d7d26e

Table 13: List of Gyms in Angel, Foursquare query ‘yoga’, total: 5

In Islington, a total of 9 venues were returned, however, there are only 8 venues as there was an overlap in categories (Table 14-16). Additionally, an overlap of Revolution Gym is seen in both Angel and Islington area.

	name	categories	address	cc	city	country	distance	formattedAddress	labeledLatLngs	lat	lng	postalCode	state	id
0	Nuffield Health Fitness & Wellbeing Gym	Gym / Fitness Center	27 Essex Road	GB	London	United Kingdom	181	[27 Essex Road, London, Greater London, N1 2SD...	[{"label": "display", "lat": 51.53721882189327...	51.537219	-0.101654	N1 2SD	Greater London	57af2111498e004a34273815
1	Sadiers Well Gym	None	Goswell Road	GB	London	United Kingdom	201	[Goswell Road, London, Greater London, EC1, Un...	[{"label": "display", "lat": 51.536854, "lng": ...	51.536854	-0.101350	EC1	Greater London	4b830465f964a520c3f230e3
2	New River Gym	Gym	Essex Road	GB	Islington	United Kingdom	571	[Essex Road, Islington, Greater London, United...	[{"label": "display", "lat": 51.54078884542419...	51.540789	-0.092580	NaN	Greater London	4bc98c895119521f4e1adc7
3	Revolution Gym	Gym / Fitness Center	NaN	GB	Islington	United Kingdom	608	[Islington, Greater London, United Kingdom]	[{"label": "display", "lat": 51.534145, "lng": ...	51.534145	-0.105363	NaN	Greater London	4dab22f10cb6a89c627cc4a1

Table 14: List of Gyms in Islington, Foursquare query ‘gym’, total: 4

	name	categories	address	cc	city	country	distance	formattedAddress	labeledLatLngs	lat	lng	postalCode	state	id
0	Nuffield Health Fitness & Wellbeing Gym	Gym / Fitness Center	27 Essex Road	GB	London	United Kingdom	181	[27 Essex Road, London, Greater London, N1 2SD...	[{"label": "display", "lat": 51.53721882189327...	51.537219	-0.101654	N1 2SD	Greater London	57af2111498e004a34273815
1	urban fitness	Gym / Fitness Center	NaN	GB	NaN	United Kingdom	537	[United Kingdom]	[{"label": "display", "lat": 51.53421108404748...	51.534211	-0.103677	NaN	NaN	53144ad711d217402881567c

Table 15: List of Gyms in Islington, Foursquare query ‘fitness’, total: 2

	name	categories	address	cc	city	country	crossStreet	distance	formattedAddress	labeledLatLngs	lat	lng	postalCode	state	id
0	More Yoga Angel	Yoga Studio	21 Essex Road	GB	London	United Kingdom	NaN	215	[21 Essex Road, London, Greater London, N1 8LN...	[{"label": "display", "lat": 51.5367, "lng": ...	51.536700	-0.101300	N1 8LN	Greater London	41ce5316d54f80023b26d6b
1	Pop Up Yoga	Yoga Studio	199 Upper Street	GB	London	United Kingdom	NaN	508	[199 Upper Street, London, Greater London, N1 ...	[{"label": "display", "lat": 51.54253637163741...	51.542536	-0.103122	N1 1RQ	Greater London	4ec7bbe0775bf65c03b638b3
2	Yogabase	Yoga Studio	255-257 Liverpool Road	GB	London	United Kingdom	Islington	484	[255-257 Liverpool Road (Islington), London, G...	[{"label": "display", "lat": 51.54018901991176...	51.540189	-0.106313	N1 1LX	Greater London	4c45a899429a0f47ec624a1e

Table 16: List of Gyms in Islington, Foursquare query ‘yoga’, total: 3

Notting Hill returned no ‘fitness’ venues and only one of both ‘gym’ and ‘yoga’ categories for a total of 2 venues available (Table 17-18).

	name	categories	address	cc	city	country	distance	formattedAddress	labeledLatLngs	lat	lng	postalCode	state	id
0	Viestyling Personal Training Gym	Gym / Fitness Center	155 Notting Hill Gate	GB	London	United Kingdom	462	[155 Notting Hill Gate, London, Greater London...	[{"label": "display", "lat": 51.50840857876848...	51.508409	-0.200307	W11 3LP	Greater London	560b96c8498e672ab9f051f5

Table 17: List of Gyms in Notting Hill, Foursquare query ‘gym’, total: 1

	name	categories	address	cc	city	country	distance	formattedAddress	labeledLatLngs	lat	lng	postalCode	state	id
0	YOGA I AM - Retreats, Ibiza, Goa, UK	None	56 Pembridge Villas	GB	London	United Kingdom	523	[56 Pembridge Villas, London, Greater London, ...	[{"label": "display", "lat": 51.5118252, "lng": ...	51.511825	-0.198082	W11 3EG	Greater London	562a0d68498e4c9fb03a6cb6

Table 18: List of Gyms in Notting Hill, Foursquare query ‘yoga’, total: 1

Shoreditch returned 16 venues from the ‘gym’ query, 8 ‘fitness’ venues, but with an overlap of Nuffield Health in both ‘gym’ and ‘fitness’ categories, and 9 ‘yoga’ venues, for a total of 32 unique venues (Table 19-21).

	name	categories	address	cc	city	country	distance	formattedAddress	labeledLatLngs	lat	lng	postalCode	state	id
0	Nuffield Health Fitness & Wellbeing Gym	Gym / Fitness Center	1-6, Bateman's Row	GB	London	United Kingdom	147	[1-6, Bateman's Row, London, Greater London, E...	[{"label": "display", "lat": 51.525383, "lng": ...}	51.525383	-0.079369	EC2A 3HH	Greater London	560fe3d9498e9d99c49fd501
1	Ace Hotel Shoreditch Gym	Gym / Fitness Center	100 Shoreditch High St.	GB	London	United Kingdom	199	[100 Shoreditch High St., London, Greater Lond...	[{"label": "display", "lat": 51.525626, "lng": ...}	51.525626	-0.077550	NaN	Greater London	52f339e8498ea23d1c2d31d8
2	Beziez Apartments Gym	Gym	91 City Road	GB	Islington	United Kingdom	535	[91 City Road, Islington, Greater London, EC1Y...	[{"label": "display", "lat": 51.525361, "lng": ...}	51.525361	-0.087333	EC1Y 1AF	Greater London	4eb518ccf790d87d02905b82
3	Paragon Gym	Gym / Fitness Center	9 Boundary Street	GB	London	United Kingdom	241	[9 Boundary Street, Islington, Greater London, E1...	[{"label": "display", "lat": 51.525921, "lng": ...}	51.525921	-0.076626	E1 7JE	Greater London	4ac518faf964a52038b020e3
4	Nobu Hotel Gym	Gym / Fitness Center	Willow Street	GB	London	United Kingdom	276	[Willow Street, London, Greater London, EC2A 4...	[{"label": "display", "lat": 51.525287, "lng": ...}	51.525287	-0.083216	EC2A 4BH	Greater London	5a0ee30eca18ea3297314d9a

Table 19: Top 5 Gyms in Shoreditch, Foursquare query ‘gym’, total: 16

	name	categories	address	cc	city	country	crossStreet	distance	formattedAddress	labeledLatLngs	lat	lng	neighborhood	postalCode	state	id
0	Nuffield Health Fitness & Wellbeing Gym	Gym / Fitness Center	1-6, Bateman's Row	GB	London	United Kingdom	NaN	147	[1-6, Bateman's Row, London, Greater London, E...	[{"label": "display", "lat": 51.525383, "lng": ...}	51.525383	-0.079369	NaN	EC2A 3HH	Greater London	560fe3d9498e9d99c49fd501
1	Evolution of Man Fitness	Gym / Fitness Center	89a Rivington Street	GB	London	United Kingdom	89a Rivington Street	82	[89a Rivington Street, London, Greater London, ...	[{"label": "display", "lat": 51.526141, "lng": ...}	51.526141	-0.079050	NaN	EC2A 3AY	Greater London	55aba359498ee54a9
2	SJH Nutrition and Fitness	Gym	89 Rivington street	GB	London	United Kingdom	NaN	108	[89 Rivington Street, London, Greater London, ...	[{"label": "display", "lat": 51.526330, "lng": ...}	51.526330	-0.078430	NaN	EC2A 3AY	Greater London	5b81797cc97f28002c
3	Wit Fitness	Sporting Goods Shop	178 Shoreditch High Street	GB	London	United Kingdom	NaN	299	[178 Shoreditch High Street, London, Greater L...	[{"label": "display", "lat": 51.524559, "lng": ...}	51.524559	-0.077207	NaN	E1 6JJ	Greater London	59859feac876c8595f
4	Ultimate Performance Fitness	Gym / Fitness Center	7 paul street	GB	Hackney	United Kingdom	NaN	434	[7 paul street, Hackney, Greater London, EC2A ...	[{"label": "display", "lat": 51.523882, "lng": ...}	51.523882	-0.084281	NaN	EC2A 4LB	Greater London	4c2caeab1b34ad13aa
5	Right Path Fitness	Gym / Fitness Center	18 Long Street	GB	London	United Kingdom	NaN	456	[18 Long Street, London, Greater London, E2 8Q...	[{"label": "display", "lat": 51.529638, "lng": ...}	51.529638	-0.075338	NaN	E2 8QR	Greater London	56aa980a498ee2682f
6	Pure Fitness	Gym	Unit A 18 Long Street	GB	London	United Kingdom	NaN	432	[Unit A 18 Long Street, London, Greater London...	[{"label": "display", "lat": 51.529560, "lng": ...}	51.529560	-0.075709	NaN	E2 8HN	Greater London	55a4c606498eebb00f
7	FRAME	Gym / Fitness Center	29 New Inn Yard	GB	London	United Kingdom	NaN	248	[29 New Inn Yard, London, Greater London, EC2A...	[{"label": "display", "lat": 51.524629, "lng": ...}	51.524629	-0.078449	Shoreditch	EC2A 3EY	Greater London	4ae19d621964a5206f

Table 20: List of Gyms in Shoreditch, Foursquare query ‘fitness’, total: 8

	name	categories	address	cc	city	country	crossStreet	distance	formattedAddress	labeledLatLngs	lat	lng	postalCode	state	id
0	Sweatshop Yoga	Yoga Studio	Shoreditch High Street	GB	Hackney	United Kingdom	NaN	130	[Shoreditch High Street, Hackney, Greater Lond...	[{"label": "display", "lat": 51.527118, "lng": ...}	51.527118	-0.078158	NaN	Greater London	4bd8886711dcc92d1c2f633
1	Chroma Yoga	Yoga Studio	45 Charlotte Rd	GB	London	United Kingdom	NaN	162	[45 Charlotte Rd, London, Greater London, EC2A...	[{"label": "display", "lat": 51.525413, "lng": ...}	51.525413	-0.081079	EC2A 3PD	Greater London	58e2923be309e1026833e237
2	playfulotus yoga studio	Yoga Studio	1-16 Boundary Street London E2 7JD	GB	London	United Kingdom	NaN	141	[1-16 Boundary Street London E2 7JD, London, G...	[{"label": "display", "lat": 51.526367, "lng": ...}	51.526367	-0.077901	NaN	Greater London	54e76160498ee6121b43ecd78
3	Yoga Room Shoreditch	Yoga Studio	The Courtyard, Bowling Green Walk	GB	London	United Kingdom	40 Pitfield Street London	285	[The Courtyard, Bowling Green Walk (40 Pitfiel...	[{"label": "display", "lat": 51.527976, "lng": ...}	51.527976	-0.083444	N1 6EU	Greater London	5517c85f498eb8bdbab16361
4	Karma Yoga House	Office	12 Hoxton Market	GB	Hackney	United Kingdom	Old st	202	[12 Hoxton Market (Old st), Hackney, Greater L...	[{"label": "display", "lat": 51.527354, "lng": ...}	51.527354	-0.082595	N1 6HW	Greater London	4bdee6c36198c9b61d3c15ff
5	Yoga Place	Yoga Studio	Yoga Studio	GB	London	United Kingdom	NaN	395	[Yoga Studio, London, Greater London, United K...	[{"label": "display", "lat": 51.524226, "lng": ...}	51.524226	-0.075738	NaN	Greater London	4d4c0bb6fe85a1cd4ddf98bf
6	Bikram Yoga City	Yoga Studio	6/8 Vestry St.	GB	Islington	United Kingdom	NaN	591	[6/8 Vestry St., Islington, Greater London, N1...	[{"label": "display", "lat": 51.528531, "lng": ...}	51.528531	-0.087895	N1 7RE	Greater London	4bae8e4af964a52039c03be3
7	SaltyYoga	Yoga Studio	144 Shoreditch High St	GB	London	United Kingdom	NaN	147	[144 Shoreditch High St, London, Greater Londo...	[{"label": "display", "lat": 51.525917, "lng": ...}	51.525917	-0.078149	E1 6JE	Greater London	59a6e33d79187166d8db22d9
8	Fierce Grace	Yoga Studio	53-55 East Road	GB	London	United Kingdom	NaN	580	[53-55 East Road, London, Greater London, N1 6...	[{"label": "display", "lat": 51.528395, "lng": ...}	51.528395	-0.087793	N1 6AH	Greater London	5238559d11d21860b7d45460

Table 21: List of Gyms in Shoreditch, Foursquare query ‘yoga’, total: 9

In Spitalfields, 13 ‘gym’, 11 ‘fitness’, and 3 ‘yoga’ venues were returned, for a total of 27 venues available (Table 22-24).

	name	categories	address	cc	city	country	distance	formattedAddress	labeledLatLngs	lat	lng	postalCode	state	id
0	Assam Place Gym	Gym	33 Commercial Road	GB	London	United Kingdom	665	[33 Commercial Road, London, Greater London, U...	[{"label": "display", "lat": 51.51564264622324, "lng": 0.067872}]]	51.515643	-0.067872	NaN	Greater London	52239d3311d259e6e52b815e
1	Sky Gym - Nido Spitalfields	Gym	9 Frying Pan Alley	GB	London	United Kingdom	234	[9 Frying Pan Alley, London, Greater London, U...	[{"label": "display", "lat": 51.51766802369519, "lng": 0.076767}]]	51.517668	-0.076767	NaN	Greater London	523745f11d2261db5d9c880
2	Brody House Bronx Gym	None	NaN	GB	NaN	United Kingdom	225	[United Kingdom]	[{"label": "display", "lat": 51.517513, "lng": 0.075485}]]	51.517513	-0.075485	NaN	NaN	526e5b8d498eb87791b108d5
3	Unruly Gym	Athletics & Sports	NaN	GB	NaN	United Kingdom	300	[United Kingdom]	[{"label": "display", "lat": 51.519736, "lng": 0.070847}]]	51.519736	-0.070847	NaN	NaN	5641aaf4498ed35ee04eb33e
4	PureGym	Gym / Fitness Center	8 Bacon Street	GB	London	United Kingdom	544	[8 Bacon Street, London, Greater London, E1 6L...	[{"label": "display", "lat": 51.5240615040739, "lng": 0.072233}]]	51.524062	-0.072233	E1 6LF	Greater London	588243ee1174205cf1c67ba0

Table 22: Top 5 Gyms in Shoreditch, Foursquare query 'gym', total: 13

	name	categories	address	cc	city	country	crossStreet	distance	formattedAddress	labeledLatLngs	lat	lng	postalCode	state	id
0	Xenios Fitness - Online Personal Trainer London	Gym / Fitness Center	9 Frying Pan Alley, Middlessex Street London Ro...	GB	London	United Kingdom	NaN	244	[9 Frying Pan Alley, Middlessex Street London R...	[{"label": "display", "lat": 51.51746921503093, "lng": -0.076384}]]	51.517469	-0.076384	E1 7HS	Greater London	5712bcc8498e87c7207ec1a3
1	DW Fitness First	Gym / Fitness Center	9 Frying Pan Alley	GB	London	United Kingdom	NaN	251	[9 Frying Pan Alley, London, Greater London, E...	[{"label": "display", "lat": 51.5177086826362, "lng": -0.077321}]]	51.517709	-0.077321	E1 7HS	Greater London	4bad0009f964a520fd223be3
2	DW Fitness First	Gym / Fitness Center	Unit 12, Liverpool Street Station	GB	London	United Kingdom	NaN	452	[Unit 12, Liverpool Street Station, London, Gr...	[{"label": "display", "lat": 51.51768531776771, "lng": -0.080989}]]	51.517685	-0.080989	EC2M 7PY	Greater London	4b90bd1cf964a520e3953e3
3	DW Fitness First	Gym / Fitness Center	9 Devonshire Sq	GB	Spitalfields	United Kingdom	NaN	383	[9 Devonshire Sq, Spitalfields, Greater London...	[{"label": "display", "lat": 51.5171342948927, "lng": -0.079147}]]	51.517134	-0.079147	EC2M 4WY	Greater London	4ac518faf964a52032b020e3
4	MotivatePT Company Fitness	Gym / Fitness Center	68-80 Hanbury St	GB	London	United Kingdom	NaN	100	[68-80 Hanbury St, London, Greater London, E1 ...	[{"label": "display", "lat": 51.52025314584681, "lng": -0.074308}]]	51.520253	-0.074308	E1 5JL	Greater London	57a5c31c498ec74688790c07

Table 23: Top 5 Gyms in Shoreditch, Foursquare query 'fitness', total: 11

	name	categories	address	cc	city	country	distance	formattedAddress	labeledLatLngs	lat	lng	postalCode	state	id
0	Bodywise Yoga & Natural Health Centre	Yoga Studio	30 Hanbury St	GB	London	United Kingdom	209	[30 Hanbury St, London, Greater London, E1 6QR...	[{"label": "display", "lat": 51.5204550374872, "lng": -0.072543}]]	51.520455	-0.072543	E1 6QR	Greater London	5063fc6ee4b080e22cbe00e8
1	Prana Yoga Space	Yoga Studio	7 Harrow Place	GB	London	United Kingdom	275	[7 Harrow Place, London, Greater London, E1 7D...	[{"label": "display", "lat": 51.51743583353309, "lng": -0.077301}]]	51.517436	-0.077301	E1 7DB	Greater London	5975cf704d7aae59a85f470b
2	Yoga Place	Yoga Studio	Yoga Studio	GB	London	United Kingdom	524	[Yoga Studio, London, Greater London, United K...	[{"label": "display", "lat": 51.52422608756188, "lng": -0.075738}]]	51.524226	-0.075738	NaN	Greater London	4d4c0bb6fe85a1cd4ddf98bf

Table 24: List of Gyms in Shoreditch, Foursquare query 'Yoga', total: 3

4. Discussion

Combing all the data collected from the Foursquare queries, we have a better understanding of the amenities present in each neighborhood and which neighborhood would satisfy the user the most, in terms of quality and options available.

From the preliminary analysis, Angel's top 5 venues, out of 65 returned venues, showed a presence of a pub, coffee shop, and a gym, which are all high on the list of the user's wants, as well as a Korean restaurant, a cuisine that the user enjoys. Angel immediately presents itself like the ideal neighborhood. Islington returned 68 venues, and presented within the top 5, venues of interest such as a Yoga Studio, and a Mediterranean Restaurant. Among the top 5 venues from Notting Hill's 55 venues, four venues were having to do with socializing and food, such as a restaurant, bar, and pubs, which makes it an ideal neighborhood for meeting with friends. Shoreditch returned 100 venues, and among the top 5 venues, the presence of a Cocktail Bar and Pizza Place makes Shoreditch seem like the ideal end of night with friends, and a coffee shop a great place to pass by during the day. Lastly, in Spitalfields, the top 5, of 38 venues, presented a café, Indian, and Mediterranean restaurant. As a person who loves to explore different cuisines, Spitalfields appears ideal as it has venues with different cuisines within a small distance. From this preliminary analysis of the 5 neighborhoods, it is evident that all five neighborhoods present amenities and venues that are of interest to the user, such as various restaurants, coffee shops, pubs, etc. However, Angel seems the most prominent as it also features a gym, which is another amenity that the user would like to have locally. More in depth analysis on the various venues would need to be conducted in order to understand the specifics of each neighborhood better.

As such, all venues from all 5 neighborhoods were categorized to determine with neighborhood had the most of the amenities that matched user's preferences the most, primary preferences included

coffee shops and gyms, and secondary preferences included restaurant options. From the frequency chart in Image 2, Angel presents itself, once again, as the most ideal, as its primary preferences were near the top, of its top 10 highest frequency categories. An abundance of secondary categories were also present in the top 10 as well. Shoreditch also presents itself as a top candidate as both coffee shop and café categories are within the top 3 of its highest frequencies. However, Notting Hill's abundance of grocery stores, as seen as the 6th highest frequency in its chart, in addition to its top 3 coffee shop frequency, presents a compelling option for someone who likes to cook, an category that is not observed in high frequencies in the other neighborhoods.

The users primary preferences were then evaluated deeper, starting with coffee shops. 15 "coffee" venues were returned from Angel, with the average rating of coffee shops of about 7.1. While few in number, there are high rating coffee shops within the area, and it is evident that independent coffee shops are of better quality. In Islington, 6 venues were returned with an average rating of 6.925. Comparing to the previous neighborhood, Angel, with higher number of coffee venues and higher venues rating is more ideal based on this specific category of venue alone so far. In Notting Hill, not only was the average rating 7.58, every venue had at least 10 tips. These high numbers suggest that locals in this area tend to frequent the coffee venues and that Notting Hill would be a good location for finding good quality coffee. The average top 5 rating of Shoreditch 'coffee' venues was 6.94. However, its abundance of 39 returned coffee venues gives the user options and allows them to explore and discover their favourite venue. Lastly, Spitalfields returned 50 venues, which is much higher than the other neighborhoods. However, some were overlapped with venues from Shoreditch and the top 15 venues all had no ratings. Perhaps these venues are new and have yet to gather a loyal following who would give them ratings. As such, it was difficult to determine the average rating of the coffee venues in Spitalfields. From the "coffee" venue analysis, Notting Hill has the highest quality venues according to average ratings. However, both Shoreditch and Spitalfields have the highest number of venues, in comparison to Notting Hill's 5 venues. Additionally, Shoreditch also presented itself with very high quality venues as well as very low ones, but with 39 options available, Shoreditch's venue availability makes it more ideal than Notting Hill by giving the users more coffee shops to explore and determine their favourite in these neighborhoods.

Grocery stores are a necessity and needed in every residential neighborhood. Foursquare was queried with both "grocery" and "grocery store", as well as "market", another location where groceries can be bought. It was interesting to see, however, that although it did not return as a result from a "grocer: query, venues of this category were returned when querying for "market". Combining the results of these queries, Islington returned a total of 6 potential venues, solely from the "market" query, and Shoreditch returned 7 potential venues, 2 from the "grocery" query, and 5 from the "market" query. As a result, Shoreditch appears to have more accessibility to groceries. Another interesting note is that although they are not grocery stores, many returned venues for both Shoreditch and Spitalfields were food related, such as food trucks and restaurants. This gives a good idea that these two neighborhoods are good for socializing and for quick eats when needed. So although there may be low grocery stores available, the accessibility to food is very high.

Lastly, as the user is a fitness fan, access to a good gym is extremely important to them. The neighborhoods with the highest number were: Angel, Shoreditch, and Spitalfields. Angel returned 17 unique venues, with a good balance and almost equal number of options for all "gym", "fitness", and "yoga" venues. Spitalfields returned a total of 27 venues, but only had 3 "yoga" venues, therefore providing less workout options. On the other hand, Shoreditch returned 32 unique venues, with 9 'yoga' venues, and the presence of a boxing gym as well, giving Shoreditch highest variety of fitness workout options.

Exploring deeper into the amenities in the neighborhoods of interest provides the user with more insight into what they want in a neighborhood and what they prioritize. From their primary preferences of good coffee shops, grocery stores and gyms, after this detailed analysis, Shoreditch presents itself as the most ideal location with a high number of venue options for each category.

5. Conclusion

In conclusion, unlike what the primary analysis with the top 10 categories for each neighborhood suggests, a deeper look into all primary preferences reveal that Shoreditch, and not Angel, with high options of coffee shops, food availability, as well as an abundance of fitness options, makes it the most ideal location for our user to reside in. Additionally, when looking at the map for where the neighborhoods are, both Angel's and Spitalfields venues, which were deemed of high interest, such as attending the boxing gym, can be easily accessible from Shoreditch, making it a good location to access the highest number of venues. However, further analysis to incorporate transportation data, such as links, accessibility, commute time to work, as well as rent, and cost of living in the area can be completed in order to get a better picture, and determine if Shoreditch is still the most ideal location within all of the user's requirements, or do some preferences need to be compromised to create the most balanced living situation.