



The Battle of Neighborhoods

- Finding the best area to build a student hall in London -

1. Problem



110,000+
international students
every year



High demand for
student halls

- London is a **popular destination for higher education** where diverse students from all around the world gather to study.
- According to the data published by the Higher Education Statistical Agency (HESA), in the academic year 2016-2017 London welcomed **112,200 international students** to its higher education institutions, which make up **29 percent of students at higher education institutions**.
- One of the big concerns for international students when moving to a new city would be finding an accommodation. Student halls are the most reliable means of housing for students, but it is not easy to secure a place in one as they are in high demand. Therefore this project aims to explore different neighborhoods of London and **find the best area to build a new student hall for international students in London** to solve this persistent problem and to find a new business opportunity.
- From the student perspective, a lot of factors come into play when finding the best accommodation, including location and rent. In this project, however, I would like to simply focus on **the safety** and **the general atmosphere of the neighborhood**. Distance to universities are also an important factor in choosing a student hall, but as student halls accept students from different universities, it will not be disregarded in this project.

2. Data



- In this project, three different datasets will be used to solve the problem - London Recorded Crime, List of London Boroughs, and Foursquare API.

(1) London Recorded Crime

- Description: London crime records classified by boroughs and crime type in the last 24 months
- Size: 1594 * 27
- Source: London Datastore, “London Recorded Crime : Geographic Breakdown”
- URL: https://data.london.gov.uk/dataset/recorded_crime_summary

	MajorText	MinorText	BoroughName	201703	201704	201705	201706	201707	201708	201709	...	201805	201806	201807	201808	201809	201810	...
0	Arson and Criminal Damage	Arson	Barking and Dagenham	2	13	6	14	2	5	8	...	4	12	6	5	3	8	...
1	Arson and Criminal Damage	Criminal Damage	Barking and Dagenham	139	139	147	150	143	169	134	...	126	123	127	101	107	131	...
2	Burglary	Burglary - Business and Community	Barking and Dagenham	44	32	29	19	42	30	25	...	24	33	30	18	33	32	...
3	Burglary	Burglary - Residential	Barking and Dagenham	93	101	129	71	95	83	81	...	93	77	94	84	99	94	...
4	Drug Offences	Drug Trafficking	Barking and Dagenham	9	4	4	6	7	1	6	...	7	6	8	7	9	5	...

2. Data



(2) List of London Boroughs

- Description: Information on 32 boroughs of London. ‘Population’ and ‘Coordinates’ will be used for the project.
- Size: 33 * 10
- Source: Wikipedia, “List of London Boroughs”
- URL: https://en.wikipedia.org/wiki/List_of_London_boroughs

Borough	Inner	Status	Local authority	Political control	Headquarters	Area (sq mi)	Population (2013 est) ^[1]	Co-ordinates	Nr. in map
Barking and Dagenham ^[note 1]			Barking and Dagenham London Borough Council	Labour	Town Hall, 1 Town Square	13.93	194,352	51.5607°N 0.1557°E	25
Barnet			Barnet London Borough Council	Conservative	North London Business Park, Oakleigh Road South	33.49	369,088	51.6252°N 0.1517°W	31
Bexley			Bexley London Borough Council	Conservative	Civic Offices, 2 Watling Street	23.38	236,687	51.4549°N 0.1505°E	23
Brent			Brent London Borough Council	Labour	Brent Civic Centre, Engineers Way	16.70	317,264	51.5588°N 0.2817°W	12
Bromley			Bromley London Borough Council	Conservative	Civic Centre, Stockwell Close	57.97	317,899	51.4039°N 0.0198°E	20
Camden	✓		Camden London Borough Council	Labour	Camden Town Hall, Judd Street	8.40	229,719	51.5290°N 0.1255°W	11
Croydon			Croydon London Borough Council	Labour	Bernard Weatherill House, Mint Walk	33.41	372,752	51.3714°N 0.0977°W	19

2. Data



(3) Foursquare API

- Description: List of top 50 popular places in each borough. However, some suburban areas may have less than 50 places registered on Foursquare.
- Size: 1112 * 7
- Source: Foursquare API
- URL: <https://api.foursquare.com>

	Borough	Borough Latitude	Borough Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Barking and Dagenham	51.5607	0.1557	Central Park	51.559560	0.161981	Park
1	Barking and Dagenham	51.5607	0.1557	Crowlands Heath Golf Course	51.562457	0.155818	Golf Course
2	Barking and Dagenham	51.5607	0.1557	Beacontree Heath Leisure Centre	51.560997	0.148932	Gym / Fitness Center
3	Barking and Dagenham	51.5607	0.1557	Robert Clack Leisure Centre	51.560808	0.152704	Martial Arts Dojo
4	Barking and Dagenham	51.5607	0.1557	Morrisons Beacontree Heath	51.559774	0.148752	Supermarket
5	Barking and Dagenham	51.5607	0.1557	Beacontree Heath Bus Station	51.561065	0.150998	Bus Station
6	Barking and Dagenham	51.5607	0.1557	Dagenham Swimming Pool	51.560946	0.150054	Pool
7	Barnet	51.6252	-0.1517	The Atrium	51.624726	-0.151933	Café
8	Barnet	51.6252	-0.1517	Beaconsfield Road (BF)	51.622827	-0.151466	Bus Stop
9	Barnet	51.6252	-0.1517	Oakleigh Cafe	51.623412	-0.154899	Café
10	Bexley	51.4549	0.1505	Zizzi	51.455834	0.150347	Italian Restaurant

Reference



Images:

- Tower Bridge by arloenl evinniev from the Noun Project
- Big Ben by arloenl evinniev from the Noun Project
- The London Eye by arloenl evinniev from the Noun Project
- student by Mello from the Noun Project
- House by Dilla Chee from the Noun Project

Data:

- “London Recorded Crime : Geographic Breakdown”, London Datastore
- “List of London Boroughs”, Wikipedia
- Foursquare API

Document:

- “The Economic Impact of London’s International Studnets”, London & Partners (2018)
- Lecture notes from IBM Professional Data Science Specialization, Coursera