

IBM DATA SCIENCE COURSE 9.

Applied Data Science Capstone: The Battle of Neighbourhoods.

DATA SECTION

1. FILES AND SOFTWARES USED.

FILES AND LANGUAGES:

We will use an excel file named “Dubai_Neighbourhoods.xlsx” as our main dataset.

We will convert this file into a pandas dataframe.

We will use the location and venue information from Foursquare.

The code is written in Python.

SOFTWARE REQUIREMENTS:

Jupyter Notebook.

Adobe Reader.

Microsoft Excel.

Foursquare, etc.

2. DATA DESCRIPTION AND VISUALIZATION.

DATA DESCRIPTION

The dataset used for analysis is an Excel file named “Dubai_Neighbourhoods.” Based on average rent prices and distances from places of high rent, we will determine which neighbourhoods is most suitable for the Mexican restaurant.

The files consists of 8 attributes or columns namely, Neighbourhood, Average rent per unit, Z-Score, Distance from Palm, Distance from Zabeel, Distance from Jumeriah, Latitude and Longitude.

	Neighbourhood	Avg Rent Per Unit	Z-Score	Distance from Palm	Distance from Zabeel	Distance from Jumeirah	Latitude	Longitude
0	Discovery Gardens	44672	-1.53	8.18	26.15	20.73	25.0390	55.1445
1	Dubai Silicon Oasis	54417	-1.30	24.96	13.31	16.39	25.1279	55.3863
2	Jumeirah Village Circle	60068	-1.17	9.16	20.56	16.13	25.0602	55.2094
3	Dubai Sports City	62753	-1.10	11.36	22.32	18.28	25.0391	55.2176
4	Remraam	67284	-0.99	16.71	25.27	22.27	25.0014	55.2508
5	Al Furjan	73648	-0.84	9.70	27.28	22.02	25.0252	55.1459
6	Jumeirah Village Triangle	82014	-0.64	8.87	22.78	18.04	25.0473	55.1900
7	Motor City	83876	-0.60	12.61	20.90	17.42	25.0450	55.2397
8	Damac Hills	94630	-0.34	16.40	22.41	19.37	25.0275	55.2524
9	Al Sufouh	95804	-0.31	0.70	17.88	12.02	25.1134	55.1762
10	DIFC	105183	-0.09	17.86	3.02	3.57	25.2106	55.2794
11	Business Bay	105682	-0.08	15.61	5.55	3.45	25.1832	55.2729
12	Jumeirah Lakes Towers	106352	-0.06	4.80	23.80	18.03	25.0693	55.1417
13	Barsha Heights	111804	0.07	4.10	19.08	13.48	25.0970	55.1776
14	Emirates Living	114422	0.13	7.82	23.43	18.36	25.0496	55.1740
15	Dubai Marina	115236	0.15	3.55	23.02	17.12	25.0805	55.1403

For examination of neighbourhoods, we will make use of Foursquare. With the help of Foursquare, we will cluster most common venues in Dubai.



	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue
0	Business Bay	Restaurant	Middle Eastern Restaurant	Italian Restaurant	Tapas Restaurant	Chinese Restaurant
1	Deira	Asian Restaurant	Indian Restaurant	Vietnamese Restaurant	Japanese Restaurant	Brazilian Restaurant
2	Downtown	Middle Eastern Restaurant	American Restaurant	Restaurant	Asian Restaurant	Turkish Restaurant
3	Dubai Marina	Middle Eastern Restaurant	Italian Restaurant	Asian Restaurant	Restaurant	French Restaurant
4	Jebel Ali	Italian Restaurant	Seafood Restaurant	Ethiopian Restaurant	Indonesian Restaurant	Indian Restaurant
5	Jumeirah Beach	Restaurant	Thai Restaurant	Sushi Restaurant	Moroccan Restaurant	English Restaurant
6	Jumeirah Lake Towers	Italian Restaurant	Vietnamese Restaurant	Modern European Restaurant	Greek Restaurant	Indian Restaurant
7	Media City	Middle Eastern Restaurant	Italian Restaurant	French Restaurant	Fast Food Restaurant	Indonesian Restaurant
8	Old Dubai	Middle Eastern Restaurant	Vietnamese Restaurant	Fast Food Restaurant	Indonesian Restaurant	Indian Restaurant
9	Palm Jumeirah	Restaurant	Seafood Restaurant	Indian Restaurant	Brazilian Restaurant	English Restaurant