Applied Data Science Capstone
Battle of the Vancouver Neighbourhoods
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Data
For this project, I will make use of a couple of different data sets.

- ## Local Area Boundry of the City of Vancouver.

This dataset contains both a CSV file containing the neighbourhoods of Vancouver with its location data and a geojson file with the boundary data of the different areas.

https://opendata.vancouver.ca/explore/dataset/local-area-boundary/information/

Example data:

local area boundary

MAPID	Name	Geom	geo_point_2d
DS	Dunbar-Southlands	{"type": "Polygon", "coordina	49.2379619063,-123.189546803
KERR	Kerrisdale	{"type": "Polygon", "coordina	49.2236554855,-123.159576182
KIL	Killarney	{"type": "Polygon", "coordina	49.2170216717,-123.037647029
KITS	Kitsilano	{"type": "Polygon", "coordina	49.2675398494,-123.16329474
SC	South Cambie	{"type": "Polygon", "coordina	49.2455564633,-123.121800916
VF	Victoria-Fraserview	{"type": "Polygon", "coordina	49.220011941,-123.064134718
KC	Kensington-Cedar Cottage	{"type": "Polygon", "coordina	49.2466864472,-123.072884592
MP	Mount Pleasant	{"type": "Polygon", "coordina	49.2630652507,-123.09851312
OAK	Oakridge	{"type": "Polygon", "coordina	49.2264031973,-123.123024604
RC	Renfrew-Collingwood	{"type": "Polygon", "coordina	49.2473427346,-123.040166465
SUN	Sunset	{"type": "Polygon", "coordina	49.2187561515,-123.092038001
WPG	West Point Grey	{"type": "Polygon", "coordina	49.2684012111,-123.203467483
AR	Arbutus-Ridge	{"type": "Polygon", "coordina	49.2468049108,-123.161669238
CBD	Downtown	{"type": "Polygon", "coordina	49.2807470711,-123.116567008

When prepping this data, I need to make sure I split the Geo point in longitude and latitude.

• **Census Local Area Profiles 2016 of the City of Vancouver**

This dataset contains a CSV file with much information about the people living in the different neighbourhoods.

https://opendata.vancouver.ca/explore/dataset/census-local-area-profiles-2016/information/

Example:

ID	Variable	Arbutus-Ridge	Downtown	Dunbar-Southlands	Fairview	Grandview-Woodland	Hastings-Sunrise	Kensington-Cedar Cottage
176	Total - Knowledge of official languages for the total population excluding institutional residents - 100% data	15140	60235	21335	33000	29020	34180	48970
177	English only	12385	51635	17460	27700	23810	27755	39925
178	French only	0	55	10	25	20	15	30
179	English and French	1475	6695	2840	4880	3955	2200	3760
180	Neither English nor French	1285	1850	1030	405	1230	4210	5250
181	Total - Knowledge of official languages for males excluding institutional residents - 100% data	6870	31865	10325	14895	14185	16690	23865
182	English only	5695	27685	8660	12680	11945	14015	20000
183	French only	0	30	5	10	10	5	15
184	English and French	620	3415	1190	2045	1755	970	1655
187	English only	6690	23950	8800	15015	11865	13740	19925
188	French only	0	25	5	15	10	5	15
189	English and French	855	3280	1650	2835	2200	1230	2105
190	Neither English nor French	730	1115	555	250	760	2515	3060

Small sample from the dataset.

This is a very big dataset with more then 5000 row's there is a lot of useful data in here, but I need to bee careful to only take data that is nassisary.

• Vancouver Crime Report

This dataset contains a CSV file on crimes reported in the city of Vancouver.

Example:

crime_records

TYPE	YEAR	MONTH	DAY	HOUR	MINUTE	HUNDRED_BLOCK	NEIGHBOURHOOD	X	Y
Break and Enter Commercial	2012	12	14	8	52		Oakridge	491285.0	5453433.0
Break and Enter Commercial	2019	3	7	2	6	10XX SITKA SQ	Fairview	490612.964805	5457109.82229
Break and Enter Commercial	2019	8	27	4	12	10XX ALBERNI ST	West End	491007.779775	5459174.3376
Break and Enter Commercial	2014	8	8	5	13	10XX ALBERNI ST	West End	491015.943352	5459166.13973
Break and Enter Commercial	2005	11	14	3	9	10XX ALBERNI ST	West End	491021.385727	5459160.6745
Break and Enter Commercial	2006	5	21	4	50	10XX ALBERNI ST	West End	491021.385727	5459160.6745
Break and Enter Commercial	2009	7	1	0	35	10XX ALBERNI ST	West End	491021.385727	5459160.6745
Break and Enter Commercial	2013	6	1	20	0	10XX ALBERNI ST	West End	491032.270497	5459149.74401
Break and Enter Commercial	2014	4	17	5	50	10XX ALBERNI ST	West End	491032.270497	5459149.74401
Break and Enter Commercial	2014	9	1	14	20	10XX ALBERNI ST	West End	491032.270497	5459149.74401
Break and Enter Commercial	2017	11	14	20	0	10XX ALBERNI ST	West End	491051.085574	5459143.80828
Break and Enter Commercial	2018	3	2	6	17	10XX ALBERNI ST	West End	491058.816893	5459123.08572
Break and Enter Commercial	2005	2	8	18	0	10XX ALBERNI ST	West End	491059.482407	5459122.4178
Break and Enter Commercial	2006	4	28	15	0	10XX ALBERNI ST	West End	491059.482407	5459122.4178
Break and Enter Commercial	2007	3	13	16	38	10XX ALBERNI ST	West End	491059.482407	5459122.4178

In this Dataset you can easily filter how manny crimes are committed in each neighbourhood

- ## **FourSquare API**

This dataset contains data on the different venues available around the world. This API will gave JSON data for the available venues in the specified area.

Example:

{"meta":{"code":200,"requestId":"5f03451e6da43a2157335498"},"response":{"suggestedFilters":{"header":"Tap to show:","filters":
[{"name":"Open now","key":"openNow"}]},"headerLocation":"Downtown Vancouver","headerFullLocation":"Downtown Vancouver,
Vancouver","headerLocationGranularity":"neighborhood","totalResults":125,"suggestedBounds":{"ne":
{"lat":49.2872000045,"lng":-123.11381449548644},"sw":{"lat":49.278199995499996,"lng":-123.12758550451356}},"groups":
[{"type":"Recommended Places","name":"recommended","items":[{"reasons":{"count":0,"items":[{"summary":"This spot is
popular","type":"general","reasonName":"globalInteractionReason"}]},"venue":
{"id":"4d5ec8ce29ef236ae0cb9059","name":"Rosewood Hotel Georgia","location":{"address":"801 W Georgia St","crossStreet":"at
Howe St","lat":49.28342914255638,"lng":-123.1189107326352,"labeledLatLngs":
[{"label":"display","lat":49.28342914255638,"lng":-123.1189107326352}],"distance":153,"postalCode":"V6C
1P7","cc":"CA","city":"Vancouver","state":"BC","country":"Canada","formattedAddress":["801 W Georgia St (at Howe St)","Vancouver
BC V6C 1P7","Canada"]},"categories":
[{"id":"4bf58dd8d48988d1fa931735","name":"Hotel","pluralName":"Hotels","shortName":"Hotel","icon":{"prefix":"https:\/\/
ss3.4sqi.net\/img\/categories_v2\/travel\/hotel_","suffix":".png"},"primary":true}],"photos":{"count":0,"groups":[]},"venuePage":
{"id":"37012938"}},"referralId":"e-0-4d5ec8ce29ef236ae0cb9059-0"},{"reasons":{"count":0,"items":[{"summary":"This spot is
popular","type":"general","reasonName":"globalInteractionReason"}]},"venue":
{"id":"4d2cce46ae3a8cfa4067bf70","name":"Hawksworth Restaurant","location":{"address":"801 W Georgia St","crossStreet":"at
Howe St","lat":49.28336228267866,"lng":-123.11946181255522,"labeledLatLngs":
[{"label":"display","lat":49.28336228267866,"lng":-123.11946181255522}],"distance":116,"postalCode":"V6P
1C7","cc":"CA","city":"Vancouver","state":"BC","country":"Canada","formattedAddress":["801 W Georgia St (at Howe St)","Vancouver
BC V6P 1C7","Canada"]},"categories":
[{"id":"4bf58dd8d48988d121941735","name":"Lounge","pluralName":"Lounges","shortName":"Lounge","icon":{"prefix":"https:\/\/
ss3.4sqi.net\/img\/categories_v2\/nightlife\/default_","suffix":".png"},"primary":true}],"photos":{"count":0,"groups":[]},"venuePage":
{"id":"77577037"}},"referralId":"e-0-4d2cce46ae3a8cfa4067bf70-1"},{"reasons":{"count":0,"items":[{"summary":"This spot is
popular","type":"general","reasonName":"globalInteractionReason"}]},"venue":
{"id":"4ba59d68f964a520bd1639e3","name":"Wedgewood Hotel","location":{"address":"845 Hornby St.","crossStreet":"btwn Robson
& Smithe","lat":49.28216333727451,"lng":-123.12223713622552,"labeledLatLngs":
[{"label":"display","lat":49.28216333727451,"lng":-123.12223713622552}],"distance":126,"postalCode":"V6Z
1V1","cc":"CA","city":"Vancouver","state":"BC","country":"Canada","formattedAddress":["845 Hornby St. (btwn Robson &
Smithe)","Vancouver BC V6Z 1V1","Canada"]},"categories":
[{"id":"4bf58dd8d48988d1fa931735","name":"Hotel","pluralName":"Hotels","shortName":"Hotel","icon":{"prefix":"https:\/\/
ss3.4sqi.net\/img\/categories_v2\/travel\/hotel_","suffix":".png"},"primary":true}],"photos":{"count":0,"groups":
[]}},"referralId":"e-0-4ba59d68f964a520bd1639e3-2"},{"reasons":{"count":0,"items":[{"summary":"This spot is
popular","type":"general","reasonName":"globalInteractionReason"}]},"venue":{"id":"507f01b790e746e865f024c3","name":"Victoria's
Secret","location":{"address":"750 Burrard St","crossStreet":"at Robson
St","lat":49.28337166041721,"lng":-123.12249106575216,"labeledLatLngs":
[{"label":"display","lat":49.28337166041721,"lng":-123.12249106575216}],"distance":150,"postalCode":"V6Z
1X5","cc":"CA","city":"Vancouver","state":"BC","country":"Canada","formattedAddress":["750 Burrard St (at Robson St)","Vancouver
BC V6Z 1X5","Canada"]},"categories":[{"id":"4bf58dd8d48988d109951735","name":"Lingerie Store","pluralName":"Lingerie
Stores","shortName":"Lingerie","icon":{"prefix":"https:\/\/ss3.4sqi.net\/img\/categories_v2\/shops\/
apparel_lingerie_","suffix":".png"},"primary":true}],"photos":{"count":0,"groups":[]}},"referralId":"e-0-507f01b790e746e865f024c3-3"},
{"reasons":{"count":0,"items":[{"summary":"This spot is popular","type":"general","reasonName":"globalInteractionReason"}]},"venue":
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Street","lat":49.281689,"lng":-123.11985,"labeledLatLngs":
[{"label":"display","lat":49.281689,"lng":-123.11985}],"distance":128,"postalCode":"V7Y
1G5","cc":"CA","city":"Vancouver","state":"BC","country":"Canada","formattedAddress":["701 West Georgia Street (Granville
Street)","Vancouver BC V7Y 1G5","Canada"]},"categories":[{"id":"4bf58dd8d48988d1f3941735","name":"Toy \/ Game
Store","pluralName":"Toy \/ Game Stores","shortName":"Toys & Games","icon":{"prefix":"https:\/\/ss3.4sqi.net\/img\/categories_v2\/
shops\/toys_","suffix":".png"},"primary":true}],"photos":{"count":0,"groups":[]}},"referralId":"e-0-55dfb29a498e25aa1af89152-4"}]}]}}