

Predicting Business Location Site

Applied Data Science Capstone

High-Income Suburbs

Data Obtained from Australian Bureau of Statistics

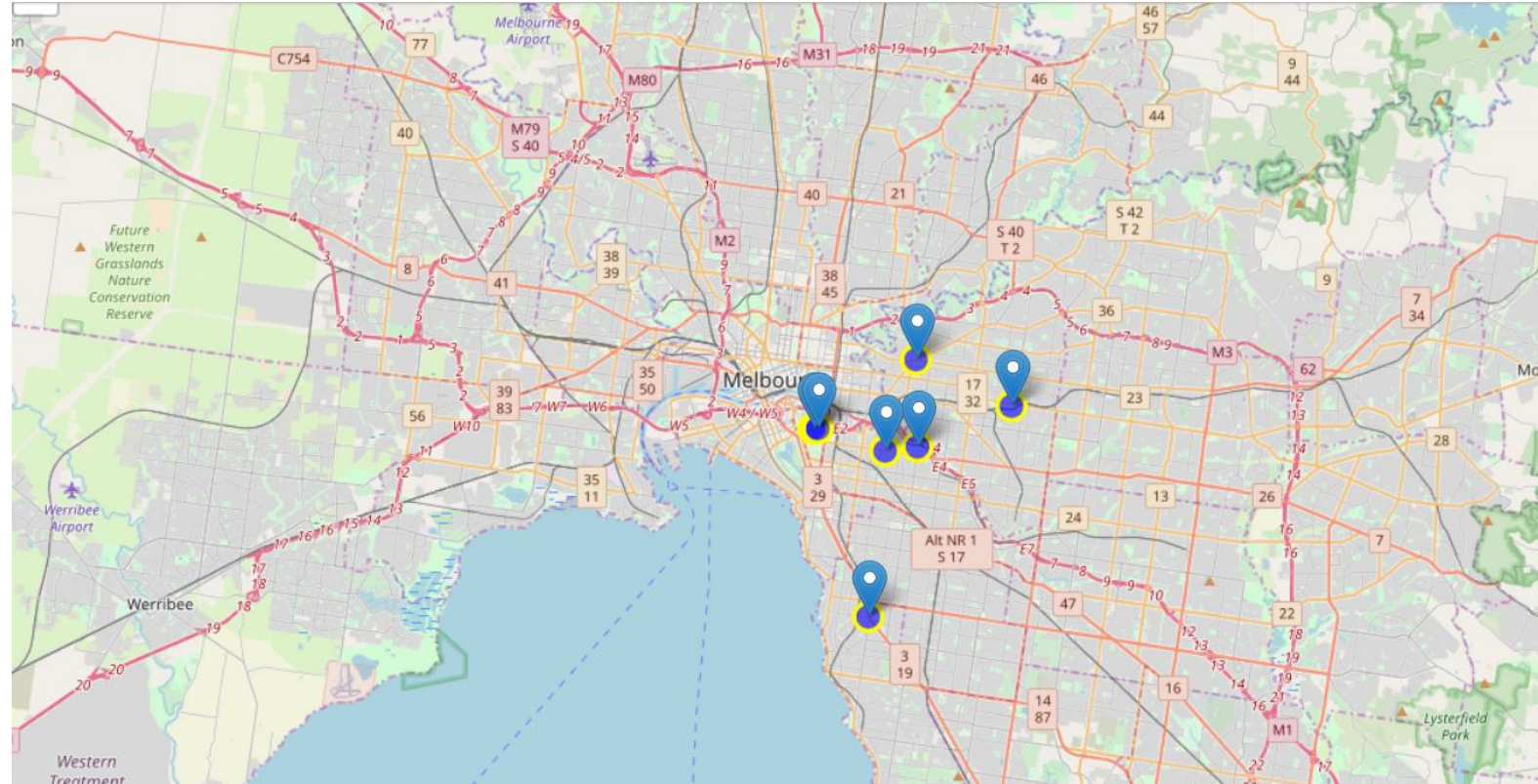
	Postcode	Suburb
0	3142	HAWKSBURN, TOORAK
1	3944	PORTSEA
2	3186	BRIGHTON, BRIGHTON NORTH, DENDY
3	3126	CAMBERWELL EAST, CANTERBURY
4	3206	ALBERT PARK, MIDDLE PARK
5	3144	KOOYONG, MALVERN, MALVERN NORTH
6	3002	EAST MELBOURNE
7	3929	FLINDERS
8	3143	ARMADALE, ARMADALE NORTH
9	3101	COTHAM, KEW
10	3761	ST ANDREWS
11	3874	MCCLOUGHLINS BEACH, WOODSIDE, WOODSIDE BEACH, W...
12	3928	MAIN RIDGE
13	3141	SOUTH YARRA
14	3813	TYNONG, TYNONG NORTH

Locate ideal clientele

Young, professional women >20<34
who earn >\$1, 250 p/w

	Postcode	Suburb	Latitude	Longitude	n20_34	nwomen_high_income
0	3142	HAWKSburn, TOORAK	-37.8416	145.016	2997	447
2	3186	BRIGHTON, BRIGHTON NORTH, DENDY	-37.9056	145.008	3196	427
3	3126	CAMBERWELL EAST, CANTERBURY	-37.8247	145.078	1272	128
4	3206	ALBERT PARK, MIDDLE PARK	-37.8333	144.981	1663	298
5	3144	KOOYONG, MALVERN, MALVERN NORTH	-37.8399	145.032	2139	294
6	3002	EAST MELBOURNE	-38.4739	145.019	1750	371
8	3143	ARMADALE, ARMADALE NORTH	-37.8064	145.031	2545	387
9	3101	COTHAM, KEW	-37.5782	145.307	5319	639
13	3141	SOUTH YARRA	-37.8333	144.983	11723	2092

Create a map
with potential
site locations



Identify anti-aging
clinics with a
5-star customer
rating

	Venue Number	Postcode	Latitude	Longitude
0	1	3149	-37.885026	145.129849
1	2	3127	-37.823632	145.095292
2	3	3144	-37.852266	145.034585
3	4	3126	-37.824140	145.078873
4	5	3123	-37.824079	145.048312

Group by
Postcode – Most
Common Venues
Within an 800
Metre Radius

	Postcode	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	3123	Café	Yoga Studio	Pub	Bar	Dance Studio	Park	Gym	Vietnamese Restaurant	Train Station	Shopping Mall
1	3126	Café	Bakery	Bookstore	Grocery Store	Knitting Store	Deli / Bodega	Gourmet Shop	Shopping Mall	Thai Restaurant	Train Station
2	3127	Café	Wine Shop	Burger Joint	Food	Grocery Store	Yoga Studio	Bar	Beer Garden	Bookstore	Dance Studio
3	3144	Café	Beer Garden	Thai Restaurant	Pub	Pet Store	Liquor Store	Gym / Fitness Center	Yoga Studio	Food	Bar
4	3149	Tourist Information Center	Pizza Place	Department Store	Fish & Chips Shop	Yoga Studio	Grocery Store	Bar	Beer Garden	Bookstore	Burger Joint

Sum of each
Popular Venue
Within an 800
Metre Radius

Bar	4
Yoga Studio	4
Café	4
Beer Garden	3
Grocery Store	3
Bookstore	3
Food	2
Thai Restaurant	2
Pub	2
Train Station	2
Shopping Mall	2
Burger Joint	2
Dance Studio	2
Knitting Store	1
Department Store	1
Gym / Fitness Center	1
3127	1
3126	1
Fish & Chips Shop	1
Deli / Bodega	1
3144	1
Pet Store	1
3123	1
Park	1
Gym	1
3149	1
Wine Shop	1
Pizza Place	1
Gourmet Shop	1
Liquor Store	1
Tourist Information Center	1
Bakery	1
Vietnamese Restaurant	1

Make a list of all
venues within 800
metres of possible
site locations

```
['Postcode',  
'Athletics & Sports',  
'Australian Restaurant',  
'Bakery',  
'Baseball Field',  
'Bistro',  
'Bookstore',  
'Botanical Garden',  
'Café',  
'Chinese Restaurant',  
'Coffee Shop',  
'Convenience Store',  
'Costume Shop',  
'Deli / Bodega',  
'Dessert Shop',  
'Electronics Store',  
'Fast Food Restaurant',  
'French Restaurant',  
'Frozen Yogurt Shop',  
'Garden',  
'Gourmet Shop',  
'Greek Restaurant',  
'Grocery Store',  
'Gym / Fitness Center',  
'Hotel',  
'Indian Restaurant',  
'Italian Restaurant',  
'Japanese Restaurant',  
'Knitting Store',  
'Korean Restaurant',  
'Lake',  
'Light Rail Station',  
'Liquor Store',  
  
'Movie Theater',  
'Park',  
'Pharmacy',  
'Pizza Place',  
'Restaurant',  
'Sandwich Place',  
'Seafood Restaurant',  
'Shopping Mall',  
'Steakhouse',  
'Supermarket',  
'Taco Place',  
'Tea Room',  
'Tennis Stadium',  
'Thai Restaurant',  
'Theater',  
'Trail',  
'Train Station',  
'Video Store',  
'Wine Shop']
```


Select Parameters – Top 4 venues + Train Station

Bar	4
Yoga Studio	4
Café	4
Beer Garden	3
Grocery Store	3
Bookstore	3
Food	2
Thai Restaurant	2
Pub	2
Train Station	2
Shopping Mall	2
Burger Joint	2
Dance Studio	2

- M Markovska81**
Parameters: Café, Grocery Store, Bookstore,
Gym/Fitness Centre, Train Station
- M Markovska81**
Bar and Beer Garden not in site location search
- M Markovska81**
Yoga replaced by Gym/Fitness Centre in site location
search

3126, 3144 and
3186 Qualify for
Potential Site
Location (Train
Station)

	Postcode	Café	Bookstore	Train Station	Gym / Fitness Center	Grocery Store
0	3002	3	0	0	0	1
1	3126	4	1	1	0	1
2	3141	1	0	0	0	1
3	3142	0	0	0	0	1
4	3143	6	1	0	0	2
5	3144	0	0	1	0	0
6	3186	3	0	1	1	0
7	3206	1	0	0	0	0

Results of Potential Site Locations

	Postcode	Café	Bookstore	Gym / Fitness Center	Grocery Store	Suburb	nwomen_high_income
1	3126	4	1	0	1	CAMBERWELL EAST, CANTERBURY	128
5	3144	0	0	0	0	KOOYONG, MALVERN, MALVERN NORTH	294
6	3186	3	0	1	0	BRIGHTON, BRIGHTON NORTH, DENDY	427

Best Location =
Most Associated
Venues = 3126 =
Camberwell East
and Canterbury

