

# Capstone Project

## Using Foursquare to identify best neighbourhoods in Greater Melbourne to visit

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### Introduction

Due to the Covid 19 pandemic small businesses have been affected in the areas of food and entertainment. Since Victoria has now come out of the pandemic, people can now travel around the state and experience what Melbourne has to offer while helping out the businesses in need.

From this project we expect to identify places to visit within the Greater Melbourne area and recommend them to people who wants to visit.

### Data Acquisition and Cleaning

Since Greater Melbourne consists of multiple councils, the analysis was based on the councils that construct Greater Melbourne in terms of Metropolitan, Inner suburbs and Outer suburb areas. This data can be readily found in Wikipedia in the following link [https://en.m.wikipedia.org/wiki/Local\\_government\\_areas\\_of\\_Victoria](https://en.m.wikipedia.org/wiki/Local_government_areas_of_Victoria).

Latitude Longitude coordinates of the council areas a obtained from the Geopy API.

Beautiful soup was used to web scrap the needed information.

### Feature Selection

The analysis was considered for three categories, that includes

- Activities and things to do around Greater Melbourne
- Restaurants and Eats around Greater Melbourne
- Services around Greater Melbourne

The main importance was given to Restaurants and Eats since that category was heavily impacted by the pandemic and people has more preference towards food.

## Exploratory Data Analysis

the data obtained from the above link were used to create a pandas dataframe to better analyze and identify any relationships.

	Local government	Council	Region	Area	Population	Pop Density	Latitude	Longitude
0	City of Melbourne	Melbourne	Inner Melbourne	37	169,961	11,897	-37.8142	144.963
1	City of Port Phillip	St Kilda	Inner Melbourne	21	113,200	13,961	-37.8638	144.982
2	City of Stonnington	Malvern	Inner Melbourne	26	116,207	11,576	-37.8584	145.035
3	City of Yarra	Richmond	Inner Melbourne	20	98,521	12,758	-37.8204	145.003
4	City of Banyule	Greensborough	Metropolitan Melbourne	63	130,237	5,354	-37.704	145.108
5	City of Bayside	Sandringham	Metropolitan Melbourne	37	105,718	7,400	-37.9503	145.004
6	City of Boroondara	Camberwell	Metropolitan Melbourne	60	181,289	7,826	-37.8385	145.074
7	City of Darebin	Preston	Metropolitan Melbourne	54	161,609	7,751	-37.7419	145.008
8	City of Glen Eira	Caulfield North	Metropolitan Melbourne	39	153,858	10,218	-37.8708	145.022
9	City of Hobsons Bay	Altona	Metropolitan Melbourne	64	96,470	3,904	-37.8672	144.829
10	City of Kingston	Cheltenham	Metropolitan Melbourne	91	163,431	4,651	-37.967	145.055
11	City of Manningham	Doncaster	Metropolitan Melbourne	113	125,508	2,877	-37.7829	145.122
12	City of Maribyrnong	Footscray	Metropolitan Melbourne	31	91,387	7,635	-37.8015	144.903
13	City of Monash	Glen Waverley	Metropolitan Melbourne	82	200,077	6,319	-37.8797	145.163
14	City of Moonee Valley	Moonee Ponds	Metropolitan Melbourne	43	127,883	7,703	-37.7659	144.919
15	City of Moreland	Coburg	Metropolitan Melbourne	51	181,725	9,229	-37.745	144.964
16	City of Whitehorse	Nunawading	Metropolitan Melbourne	64	176,196	7,130	-37.8205	145.175
17	City of Brimbank	Sunshine	Outer Metropolitan	123	208,714	4,395	-37.7881	144.833
18	Shire of Cardinia	Officer	Outer Metropolitan	1283	107,120	216	-38.0663	145.412
19	City of Casey	Narre Warren	Outer Metropolitan	409	340,419	2,156	-38.0277	145.304
20	City of Frankston	Frankston	Outer Metropolitan	130	141,845	2,826	-38.1445	145.127
21	City of Greater Dandenong	Dandenong	Outer Metropolitan	130	166,094	3,309	-37.9875	145.215
22	City of Hume	Broadmeadows	Outer Metropolitan	504	224,394	1,153	-37.6829	144.92
23	City of Knox	Wantirna South	Outer Metropolitan	114	163,203	3,552	-37.8738	145.222
24	City of Maroondah	Ringwood East	Outer Metropolitan	61	117,498	4,989	-37.8119	145.25
25	City of Melton	Melton	Outer Metropolitan	528	156,713	769	-37.6836	144.583
26	Shire of Mornington Peninsula	Rosebud	Outer Metropolitan	724	165,822	593	-38.371	144.91
27	Shire of Nillumbik	Greensborough	Outer Metropolitan	432	64,941	389	-37.704	145.108
28	City of Whittlesea	South Morang	Outer Metropolitan	490	223,322	1,180	-37.6492	145.067
29	City of Wyndham	Werribee	Outer Metropolitan	542	255,322	1,220	-37.908	144.642
30	Shire of Yarra Ranges	Lilydale	Outer Metropolitan	2468	158,173	166	-37.7557	145.348

Figure 1 Pandas data frame for the Greater Melbourne area

The relationship between the population and the density was also analysed. Where it can be seen that although some councils have a higher population, the density is low.

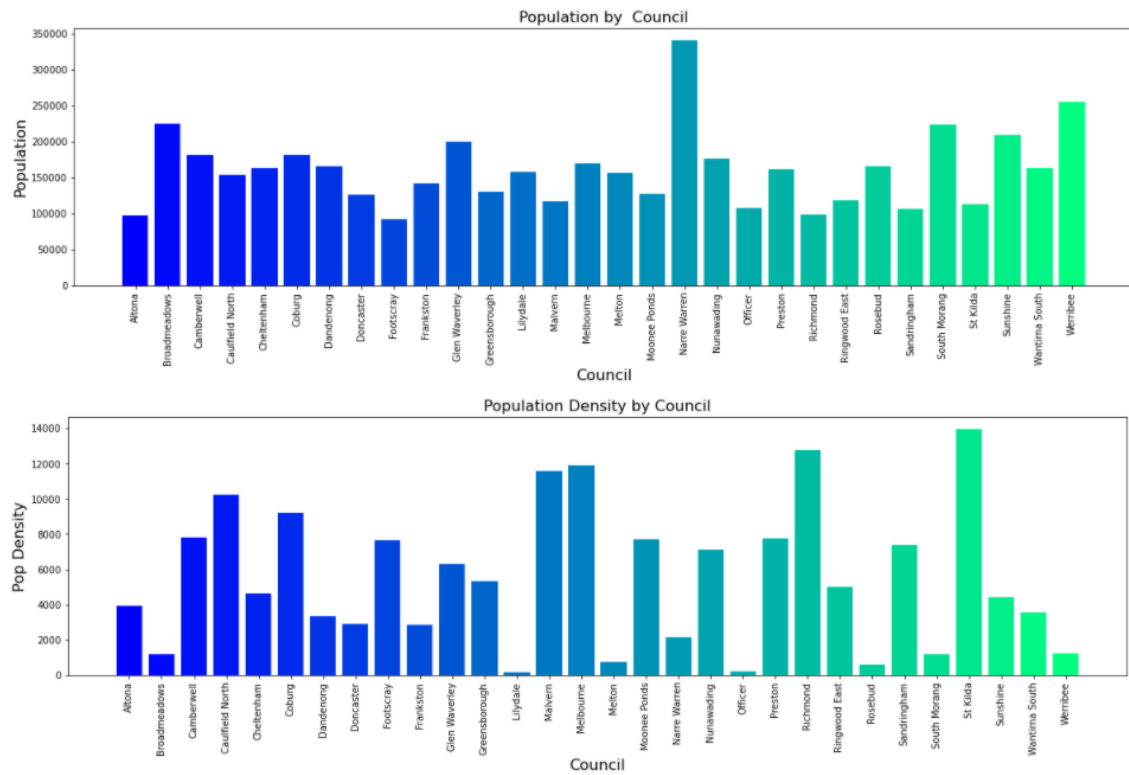


Figure 2 Bar charts for Population and Population density by Council

Folium maps were used to identify the council areas.

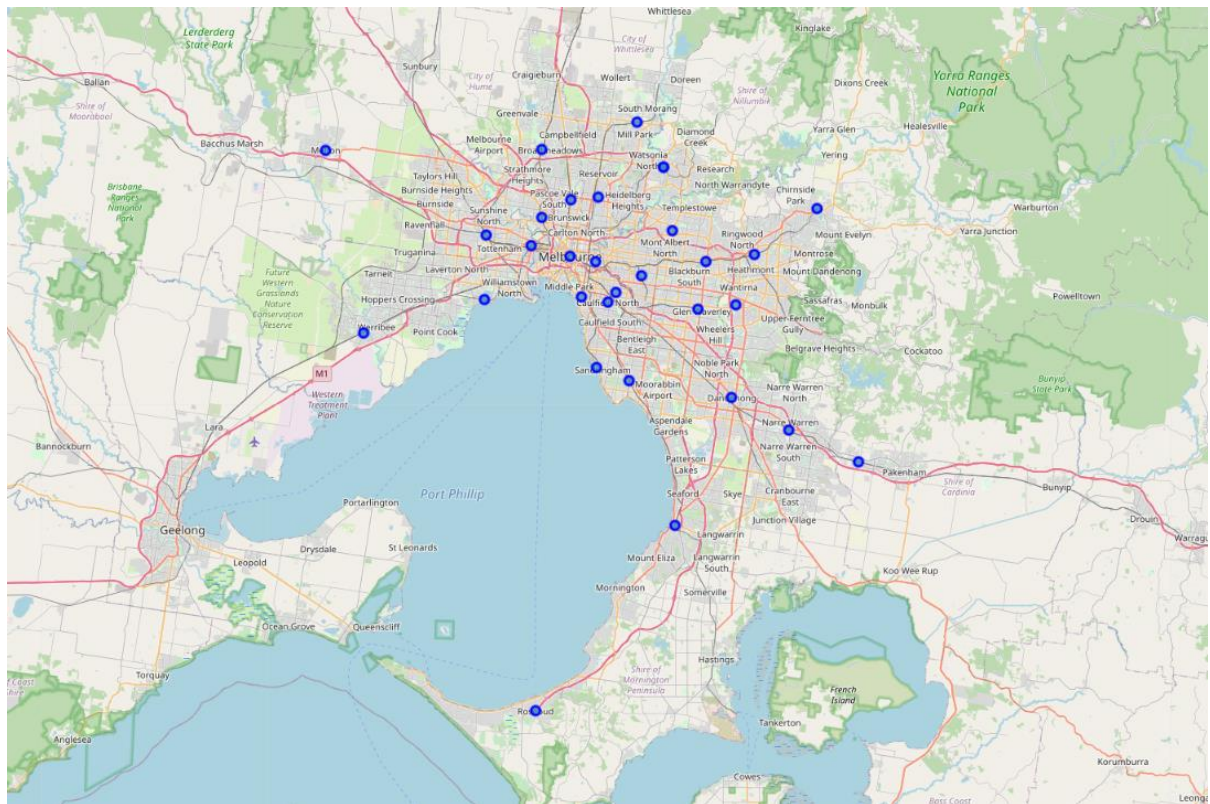


Figure 3 Folium map of Greater Melbourne Area

# Foursquare API

Using the api calls, the categories available were identified as follows:

[ 'Arts & Entertainment', 'College & University', 'Event', 'Food', 'Nightlife Spot', 'Outdoors & Recreation', 'Professional & Other Places', 'Residence', 'Shop & Service', 'Travel & Transport' ]

We have selected the following categories and the relevant subcategories for the analysis:

[ 'Arts & Entertainment', 'Amphitheater', 'Aquarium', 'Arcade', 'Art Gallery', 'Bowling Alley', 'Casino', 'Circus', 'Comedy Club', 'Concert Hall', 'Country Dance Club', 'Disc Golf', 'Escape Room', 'Exhibit', 'General Entertainment', 'Go Kart Track', 'Historic Site', 'Karaoke Box', 'Laser Tag', 'Memorial Site', 'Mini Golf', 'Movie Theater', 'Museum', 'Music Venue', 'Pachinko Parlor', 'Performing Arts Venue', 'Pool Hall', 'Public Art', 'Racecourse', 'Racetrack', 'Roller Rink', 'Salsa Club', 'Samba School', 'Stadium', 'Theme Park', 'Tour Provider', 'VR Cafe', 'Water Park', 'Zoo', 'Event', 'Christmas Market', 'Conference', 'Convention', 'Festival', 'Line / Queue', 'Music Festival', 'Other Event', 'Parade', 'Sporting Event', 'Stoop Sale', 'Street Fair', 'Trade Fair', 'Nightlife Spot', 'Bar', 'Brewery', 'Lounge', 'Night Market', 'Nightclub', 'Other Nightlife', 'Strip Club', 'Outdoors & Recreation', 'Athletics & Sports', 'Bathing Area', 'Bay', 'Beach', 'Bike Trail', 'Boat Launch', 'Botanical Garden', 'Bridge', 'Campground', 'Canal Lock', 'Canal', 'Castle', 'Cave', 'Cemetery', 'Dam', 'Dive Spot', 'Dog Run', 'Farm', 'Field', 'Fishing Spot', 'Forest', 'Fountain', 'Garden', 'Gun Range', 'Harbor / Marina', 'Hill', 'Hot Spring', 'Indoor Play Area', 'Island', 'Lake', 'Lighthouse', 'Mountain Hut', 'Mountain', 'National Park', 'Nature Preserve', 'Other Great Outdoors', 'Palace', 'Park', 'Pedestrian Plaza', 'Picnic Area', 'Picnic Shelter', 'Playground', 'Plaza', 'Pool', 'Rafting', 'Recreation Center', 'Reservoir', 'River', 'Rock Climbing Spot', 'Roof Deck', 'Scenic Lookout', 'Sculpture Garden', 'Ski Area', 'Skydiving Drop Zone', 'Stables', 'State / Provincial Park', 'States & Municipalities', 'Summer Camp', 'Trail', 'Tree', 'Vineyard', 'Volcano', 'Waterfall', 'Waterfront', 'Well', 'Windmill' ]
[ 'Food', 'Afghan Restaurant', 'African Restaurant', 'American Restaurant', 'Armenian Restaurant', 'Asian Restaurant', 'Australian Restaurant', 'Austrian Restaurant', 'BBQ Joint', 'Bagel Shop', 'Bakery', 'Bangladeshi Restaurant', 'Belgian Restaurant', 'Bistro', 'Breakfast Spot', 'Bubble Tea Shop', 'Buffet', 'Burger Joint', 'Cafeteria', 'Cafe', 'Cajun / Creole Restaurant', 'Caribbean Restaurant', 'Caucasian Restaurant', 'Coffee Shop', 'Comfort Food Restaurant', 'Creperie', 'Czech Restaurant', 'Deli / Bodega', 'Dessert Shop', 'Diner', 'Donut Shop', 'Dumpling Restaurant', 'Dutch Restaurant', 'Eastern European Restaurant', 'English Restaurant', 'Falafel Restaurant', 'Fast Food Restaurant', 'Fish & Chips Shop', 'Fondue Restaurant', 'Food Court', 'Food Stand', 'Food Truck', 'French Restaurant', 'Fried Chicken Joint', 'Friterie', 'Gastropub', 'German Restaurant', 'Gluten-free Restaurant', 'Greek Restaurant', 'Halal Restaurant', 'Hawaiian Restaurant', 'Hot Dog Joint', 'Hungarian Restaurant', 'Indian Restaurant', 'Irish Pub', 'Italian Restaurant', 'Jewish Restaurant', 'Juice Bar', 'Kebab Restaurant', 'Latin American Restaurant', 'Mac & Cheese Joint', 'Mediterranean Restaurant', 'Mexican Restaurant', 'Middle Eastern Restaurant', 'Modern European Restaurant', 'Molecular Gastronomy Restaurant', 'Pakistani Restaurant', 'Pet Cafe', 'Pizza Place', 'Polish Restaurant', 'Portuguese Restaurant', 'Poutine Place', 'Restaurant', 'Russian Restaurant', 'Salad Place', 'Sandwich Place', 'Scandinavian Restaurant', 'Scottish Restaurant', 'Seafood Restaurant', 'Slovak Restaurant', 'Snack Place', 'Soup Place', 'Southern / Soul Food Restaurant', 'Spanish Restaurant', 'Sri Lankan Restaurant', 'Steakhouse', 'Swiss Restaurant', 'Tea Room', 'Theme Restaurant', 'Turkish Restaurant', 'Ukrainian Restaurant', 'Vegetarian / Vegan Restaurant', 'Wings Joint' ]
[ 'Shop & Service', 'ATM', 'Adult Boutique', 'Antique Shop', 'Arts & Crafts Store', 'Astrologer', 'Auto Dealership', 'Auto Garage', 'Auto Workshop', 'Automotive Shop', 'Baby Store', 'Bank', 'Bath House', 'Batik Shop', 'Betting Shop', 'Big Box Store', 'Bike Shop', 'Board Shop', 'Bookstore', 'Bridal Shop', 'Business Service', 'Camera Store', 'Candy Store', 'Car Wash', 'Carpet Store', 'Check Cashing Service', 'Child Care Service', 'Chocolate Shop', 'Clothing Store', 'Comic Shop', 'Construction & Landscaping', 'Convenience Store', 'Cosmetics Shop', 'Costume Shop', 'Credit Union', 'Currency Exchange', 'Department Store', 'Design Studio', 'Discount Store', 'Dive Shop', 'Drugstore', 'Dry Cleaner', 'EV Charging Station', 'Electronics Store', 'Entertainment Service', 'Event Service', 'Fabric Shop', 'Film Studio', 'Financial or Legal Service', 'Fireworks Store', 'Fishing Store', 'Flea Market', 'Flowering Market', 'Flower Shop', 'Food & Drink Shop', 'Frame Store', 'Fruit & Vegetable Store', 'Furniture / Home Store', 'Gaming Cafe', 'Garden Center', 'Gas Station', 'Gift Shop', 'Gun Shop', 'Hardware Store', 'Health & Beauty Service', 'Herbs & Spices Store', 'Hobby Shop', 'Home Service', 'Hunting Supply', 'IT Services', 'Insurance Office', 'Internet Cafe', 'Jewelry Store', 'Kitchen Supply Store', 'Knitting Store', 'Laundromat', 'Laundry Service', 'Lawyer', 'Leather Goods Store', 'Locksmith', 'Lottery Retailer', 'Luggage Store', 'Marijuana Dispensary', 'Market', 'Massage Studio', 'Mattress Store', 'Medical Supply Store', 'Miscellaneous Shop', 'Mobile Phone Shop', 'Mobility Store', 'Motorcycle Shop', 'Motorsports Shop', 'Music Store', 'Nail Salon', 'Newsagent', 'Newsstand', 'Notary', 'Optical Shop', 'Other Repair Shop', 'Outdoor Supply Store', 'Outlet Mall', 'Outlet Store', 'Paper / Office Supplies Store', 'Pawn Shop', 'Perfume Shop', 'Pet Service', 'Pet Store', 'Pharmacy', 'Photography Lab', 'Photography Studio', 'Piercing Parlor', 'Pop-Up Shop', 'Print Shop', 'Public Bathroom', 'Real Estate Office', 'Record Shop', 'Recording Studio', 'Recycling Facility', 'Rental Service', 'Salon / Barbershop', 'Sauna / Steam Room', 'Shipping Store', 'Shoe Repair', 'Shopping Mall', 'Shopping Plaza', 'Skate Shop', 'Ski Shop', 'Smoke Shop', 'Smoothie Shop', 'Souvenir Shop', 'Spa', 'Sporting Goods Shop', 'Stationery Store', 'Storage Facility', 'Supplement Shop', 'Tailor Shop', 'Tanning Salon', 'Tattoo Parlor', 'Thrift / Vintage Store', 'Toy / Game Store', 'Travel Agency', 'Used Bookstore', 'Vape Store', 'Vehicle Inspection Station', 'Video Game Store', 'Video Store', 'Warehouse Store', 'Watch Shop', 'Travel & Transport', 'Airport', 'Baggage Locker', 'Bike Rental / Bike Share', 'Boat Rental', 'Boat or Ferry', 'Border Crossing', 'Bus Station', 'Bus Stop', 'Cable Car', 'Cruise Ship', 'Duty-free Shop', 'General Travel', 'Heliport', 'Hotel', 'Intersection', 'Light Rail Station', 'Marine Terminal', 'Metro Station', 'Moving Target', 'Pier', 'Port', 'RV Park', 'Rental Car Location', 'Rest Area', 'Road', 'Taxi Stand', 'Taxi', 'Toll Booth', 'Toll Plaza', 'Tourist Information Center', 'Train Station', 'Tram Station', 'Transportation Service', 'Travel Lounge', 'Truck Stop', 'Tunnel' ]

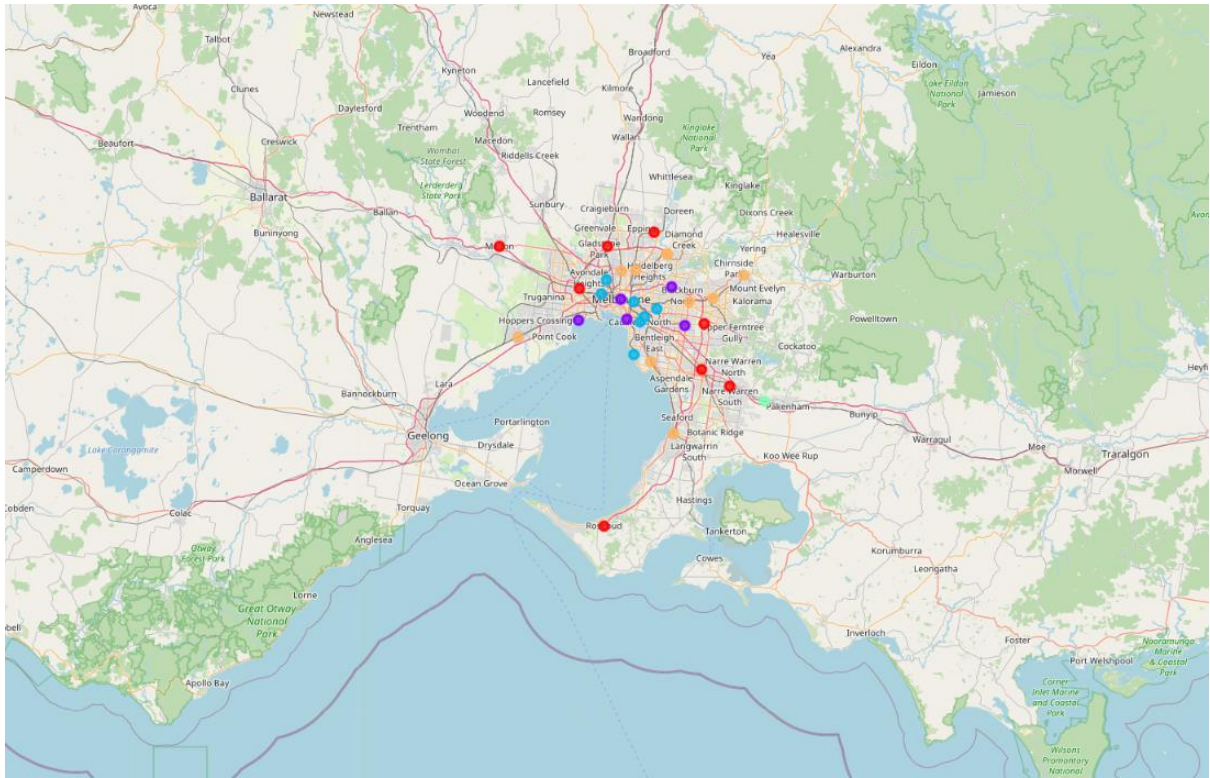
Figure 4 Venue categories and subcategories

# Data Analysis through Clustering

Using the k-means clustering method, the normalized data was analyzed to identify the most common venue types for the food category in the councils.

	Local government	Council	Region	Area	Population	Pop Density	Latitude	Longitude	Cluster Labels	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	City of Melbourne	Melbourne	Inner Melbourne	37	169961	11997	-37.8142	144.963	1	Coffee Shop	Asian Restaurant	Italian Restaurant	Cafe	Dessert Shop	Pizza Place	Bakery	Indian Restaurant	Juice Bar	Burger Joint
1	City of Port Phillip	St Kilda	Inner Melbourne	21	113200	13961	-37.8638	144.982	1	Cafe	Pizza Place	Vegetarian / Vegan Restaurant	Breakfast Spot	Australian Restaurant	Italian Restaurant	Burger Joint	Coffee Shop	Mexican Restaurant	Deli / Bodega
2	City of Stonnington	Malvern	Inner Melbourne	26	116207	11576	-37.8584	145.035	2	Cafe	Italian Restaurant	Pizza Place	Coffee Shop	Fast Food Restaurant	Fish & Chips Shop	Sandwich Place	Portuguese Restaurant	Indian Restaurant	Burger Joint
3	City of Yarra	Richmond	Inner Melbourne	20	98521	12758	-37.8204	145.003	2	Cafe	Vegetarian / Vegan Restaurant	Breakfast Spot	Pizza Place	Bakery	Burger Joint	Gastropub	Greek Restaurant	Australian Restaurant	BBQ Joint
4	City of Banyule	Greenborough	Metropolitan Melbourne	63	130237	5354	-37.704	145.108	4	Cafe	Fast Food Restaurant	Juice Bar	Burger Joint	Vegetarian / Vegan Restaurant	Creperie	Fish & Chips Shop	Falafel Restaurant	Eastern European Restaurant	Dumpling Restaurant





we have identified five clusters that has similar preferences

	Council	Pop Density	Latitude	Longitude	Cluster Labels	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
17	Sunshine	4395	-37.7681	144.853	0	Fast Food Restaurant	Cafe	Bakery	Alghan Restaurant	Restaurant	Sandwich Place	Pizza Place	Bagel Shop	BBQ Joint	American Restaurant
19	Narre Warren	2106	-38.0277	145.204	0	Fast Food Restaurant	Cafe	Sandwich Place	Pizza Place	Portuguese Restaurant	Mexican Restaurant	Australian Restaurant	Kebab Restaurant	Food Court	Donut Shop
21	Dandenong	3209	-37.9676	145.215	0	Fast Food Restaurant	Cafe	Alghan Restaurant	Bakery	Indian Restaurant	Portuguese Restaurant	Juice Bar	Kebab Restaurant	Asian Restaurant	Deli / Bodega
22	Broadmeadows	1153	-37.6639	144.92	0	Fast Food Restaurant	Sandwich Place	Turkish Restaurant	Australian Restaurant	Portuguese Restaurant	Juice Bar	Pizza Place	Cafe	Crepes	Falafel Restaurant
23	Wentworth South	3562	-37.8738	145.222	0	Fast Food Restaurant	Cafe	Pizza Place	Sandwich Place	Food Court	Fried Chicken Joint	Dessert Shop	Crepes	Juice Bar	Coffee Shop
25	Melton	760	-37.8636	144.583	0	Fast Food Restaurant	Pizza Place	Sandwich Place	Australian Restaurant	Bakery	Coffee Shop	Diner	Restaurant	Portuguese Restaurant	Italian Restaurant
26	Rosebud	593	-38.371	144.91	0	Pizza Place	Fast Food Restaurant	Greek Restaurant	Bakery	Sandwich Place	Bistro	Donut Shop	Burger Joint	Crepes	Falafel Restaurant
28	South Morang	1180	-37.6492	145.067	0	Fast Food Restaurant	Coffee Shop	Sandwich Place	Cafe	Italian Restaurant	Fish & Chips Shop	Pizza Place	Portuguese Restaurant	Juice Bar	Bakery

	Council	Pop Density	Latitude	Longitude	Cluster Labels	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	Melbourne	11897	-37.8142	144.963	1	Coffee Shop	Asian Restaurant	Italian Restaurant	Cafe	Dessert Shop	Pizza Place	Bakery	Indian Restaurant	Juice Bar	Burger Joint
1	St Kilda	13961	-37.8638	144.982	1	Cafe	Pizza Place	Vegetarian / Vegan Restaurant	Breakfast Spot	Australian Restaurant	Italian Restaurant	Burger Joint	Coffee Shop	Mexican Restaurant	Deli / Bodega
9	Altona	3904	-37.8672	144.829	1	Cafe	Pizza Place	Burger Joint	Italian Restaurant	Diner	Fish & Chips Shop	Bagel Shop	Bakery	Fast Food Restaurant	Falafel Restaurant
11	Doncaster	2877	-37.7829	145.122	1	Cafe	Coffee Shop	Dessert Shop	Food Court	Burger Joint	Juice Bar	Bubble Tea Shop	Mediterranean Restaurant	Bakery	Pizza Place
13	Glen Waverley	6319	-37.8797	145.163	1	Sri Lankan Restaurant	Italian Restaurant	Cafe	Bubble Tea Shop	Burger Joint	Kebab Restaurant	Latin American Restaurant	Coffee Shop	Breakfast Spot	Dessert Shop

	Council	Pop Density	Latitude	Longitude	Cluster Labels	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
2	Malvern	11576	-37.8584	145.035	2	Cafe	Italian Restaurant	Pizza Place	Coffee Shop	Fast Food Restaurant	Fish & Chips Shop	Sandwich Place	Portuguese Restaurant	Indian Restaurant	Burger Joint
3	Richmond	12758	-37.8204	145.003	2	Cafe	Vegetarian / Vegan Restaurant	Breakfast Spot	Pizza Place	Bakery	Burger Joint	Gastropub	Greek Restaurant	Australian Restaurant	BBQ Joint
5	Sandringham	7400	-37.9503	145.004	2	Cafe	Pizza Place	Sandwich Place	Fried Chicken Joint	Coffee Shop	Fish & Chips Shop	French Restaurant	Fast Food Restaurant	Spanish Restaurant	Deli / Bodega
6	Camberwell	7826	-37.8386	145.074	2	Cafe	Italian Restaurant	Bakery	Coffee Shop	Breakfast Spot	Portuguese Restaurant	Juice Bar	Burger Joint	Pizza Place	Deli / Bodega
8	Caulfield North	10216	-37.8708	145.022	2	Cafe	Italian Restaurant	Fast Food Restaurant	Pizza Place	Coffee Shop	Burger Joint	Greek Restaurant	Turkish Restaurant	Middle Eastern Restaurant	Breakfast Spot
12	Footscray	7835	-37.8015	144.903	2	Cafe	Burger Joint	Bakery	Coffee Shop	Food Truck	Asian Restaurant	Italian Restaurant	Fish & Chips Shop	Fast Food Restaurant	Eastern European Restaurant
14	Moonee Ponds	7703	-37.7659	144.919	2	Cafe	Italian Restaurant	Breakfast Spot	Bakery	Burger Joint	Greek Restaurant	Pizza Place	Sandwich Place	Indian Restaurant	Middle Eastern Restaurant

	Council	Pop Density	Latitude	Longitude	Cluster Labels	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
18	Officer	216	-38.0863	145.412	3	Cafe	Coffee Shop	Fish & Chips Shop	Fast Food Restaurant	Falafel Restaurant	Eastern European Restaurant	Dumpling Restaurant	Donut Shop	Diner	Dessert Shop

	Council	Pop Density	Latitude	Longitude	Cluster Labels	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
4	Greensborough	5354	-37.7704	145.108	4	Cafe	Fast Food Restaurant	Juice Bar	Burger Joint	Vegetarian / Vegan Restaurant	Crepes	Fish & Chips Shop	Falafel Restaurant	Eastern European Restaurant	Dumpling Restaurant
7	Preston	7751	-37.7419	145.008	4	Cafe	Fast Food Restaurant	Coffee Shop	Sandwich Place	Burger Joint	Italian Restaurant	Bakery	Pizza Place	Middle Eastern Restaurant	Food Truck
10	Cheltenham	4651	-37.967	145.055	4	Cafe	Fast Food Restaurant	Coffee Shop	Sandwich Place	Portuguese Restaurant	Fish & Chips Shop	Gastropub	Indian Restaurant	Juice Bar	Burger Joint
15	Coburg	9229	-37.745	144.964	4	Cafe	Pizza Place	Fast Food Restaurant	Bakery	Middle Eastern Restaurant	Coffee Shop	Portuguese Restaurant	Fish & Chips Shop	Turkish Restaurant	Indian Restaurant
16	Nunawading	7130	-37.8205	145.175	4	Cafe	Fast Food Restaurant	Pizza Place	Sandwich Place	Food Truck	Indian Restaurant	Italian Restaurant	Middle Eastern Restaurant	Mexican Restaurant	Asian Restaurant
20	Frankston	2826	-38.1465	145.127	4	Cafe	Burger Joint	Restaurant	Italian Restaurant	Fast Food Restaurant	Juice Bar	Fish & Chips Shop	Dumpling Restaurant	Portuguese Restaurant	Pizza Place
24	Ringwood East	4989	-37.8119	145.25	4	Fast Food Restaurant	Cafe	Coffee Shop	Greek Restaurant	Gastropub	Mexican Restaurant	Portuguese Restaurant	Burger Joint	Restaurant	Sandwich Place
27	Greensborough	389	-37.7704	145.108	4	Cafe	Fast Food Restaurant	Juice Bar	Burger Joint	Vegetarian / Vegan Restaurant	Crepes	Fish & Chips Shop	Falafel Restaurant	Eastern European Restaurant	Dumpling Restaurant

## Conclusions

metropolitan areas are more prone to have cafes, coffee shops, whereas outer suburbs are more prone to have Fast Food and pizza shops