

# Where to Open a Coffee Shop in Brisbane Australia

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Using FourSquare API data

# Problem

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- Retail, especially food is a narrow margin business
- Selecting a location is critical for business success
- One key aspect is to ensure limited competitors are in the same area



# Data used

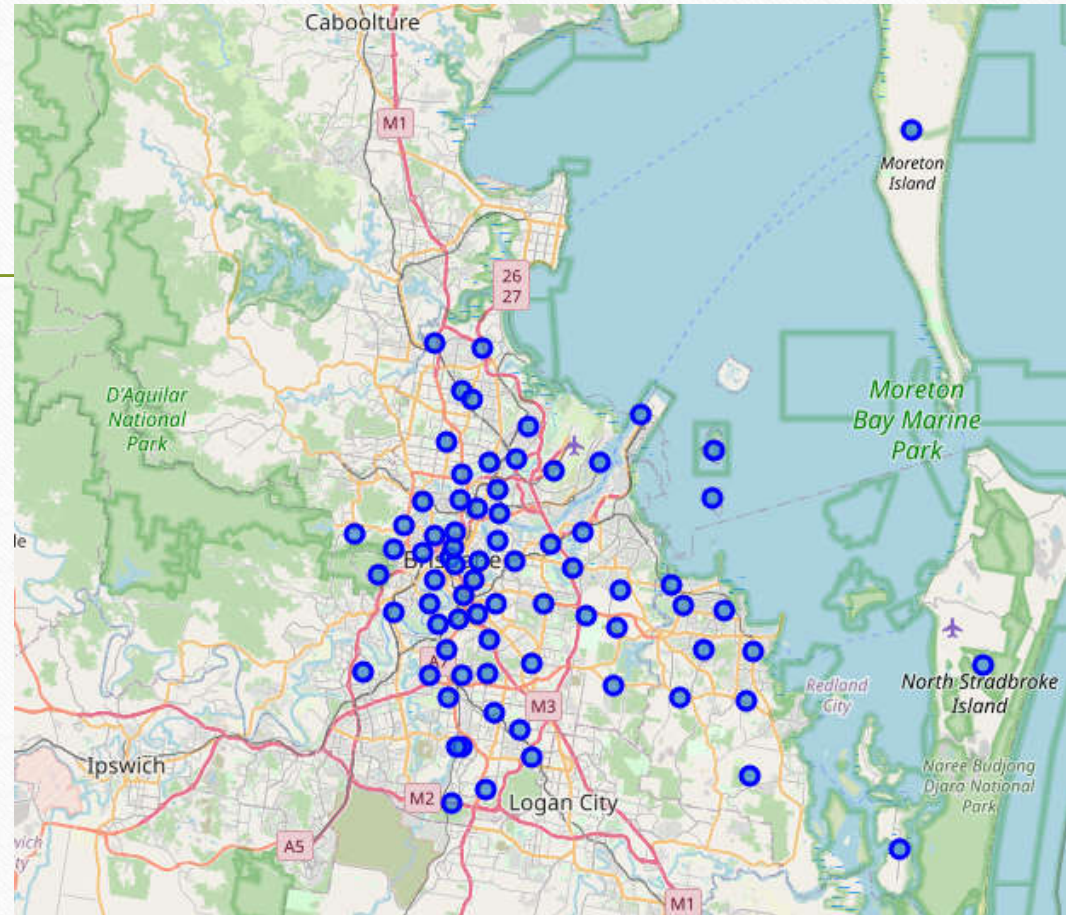
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- Used government data of neighbourhoods for Brisbane postcodes:
  - Inner-Brisbane,
  - North-Brisbane,
  - South-Brisbane,
  - East-Brisbane,
  - West-Brisbane
- Used Folium to generate a Map



# Folium Map

- Blue dots represent each postcode location in the 5 areas (75 in total)





# Methodology

- Extracted venue information with Foursquare API
- Resulted in 563 venues across 64 postcodes
- Not all postcodes had Foursquare data

Neighbourhood	
ALBION, ALBION BC, BREAKFAST CREEK	14
ALDERLEY, ENOGGERA, GAYTHORNE, GRANGE, NEWMARKET, THE GRANGE, WILSTON	5
ALGESTER, PARKINSON	1
ALTANDI, BANOON, MACGREGOR, ROBERTSON, SUNNYBANK, SUNNYBANK HILLS, SUNNYBANK SOUTH	4
ANNERLEY, FAIRFIELD, FAIRFIELD GARDENS, THOMPSON ESTATE	15
...	...
SPRING HILL	24
THE GAP	5
THORNESIDE	4
TINGALPA, TINGALPA BC	2
YERONGA, YERONGA WEST	5

64 rows × 6 columns

# Methodology

- Used one-hot-encoding to transform categorical values, display 10 most common venues per neighbourhood

	Neighbourhood	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	ALBION, ALBION BC, BREAKFAST CREEK	Café	Comedy Club	Cricket Ground	Pub	Sporting Goods Shop	Indian Restaurant	Gift Shop	Bakery	Fast Food Restaurant	Gym
1	ALDERLEY, ENOGGERA, GAYTHORNE, GRANGE, NEWMARK...	Pizza Place	Grocery Store	Train Station	Thai Restaurant	Supermarket	Yoga Studio	Dessert Shop	Farmers Market	Electronics Store	Dumpling Restaurant
2	ALGESTER, PARKINSON	Athletics & Sports	Yoga Studio	Diner	Flea Market	Fish & Chips Shop	Fast Food Restaurant	Farmers Market	Electronics Store	Dumpling Restaurant	Discount Store
3	ALTANDI, BANOON, MACGREGOR, ROBERTSON, SUNNYBA...	Korean Restaurant	Home Service	Train Station	Grocery Store	Dim Sum Restaurant	Fish & Chips Shop	Fast Food Restaurant	Farmers Market	Electronics Store	Dumpling Restaurant
4	ANMERLEY, FAIRFIELD, FAIRFIELD GARDENS, THOMPS...	Café	Supermarket	Pharmacy	Coffee Shop	IT Services	Sandwich Place	Shopping Mall	Taco Place	Bakery	Fast Food Restaurant
5	ARCHERFIELD, COOPERS PLAINS	Gas Station	Café	Yoga Studio	Diner	Fish & Chips Shop	Fast Food Restaurant	Farmers Market	Electronics Store	Dumpling Restaurant	Discount Store
6	ASCOT, BRISBANE AIRPORT, DOOMBEN, HAMILTON, HA...	Pizza Place	Convenience Store	Bakery	Liquor Store	Burger Joint	Bus Station	Japanese Restaurant	Italian Restaurant	Bus Stop	Café
7	ASHGROVE, ASHGROVE EAST, ASHGROVE WEST, DORRIN...	Indian Restaurant	Gym / Fitness Center	Chinese Restaurant	Ice Cream Shop	Dim Sum Restaurant	Fish & Chips Shop	Fast Food Restaurant	Farmers Market	Electronics Store	Dumpling Restaurant
8	ASPLEY, BOONDALL, CARSELDINE, GEEBUNG, ZILLMERE	Liquor Store	Grocery Store	Dim Sum Restaurant	Fish & Chips Shop	Fast Food Restaurant	Farmers Market	Electronics Store	Dumpling Restaurant	Discount Store	Diner
9	AUCHENFLOWER, MOUNT COOT-THA, STUART HOLME, TOO...	Trail	Yoga Studio	Dim Sum Restaurant	Fish & Chips Shop	Fast Food Restaurant	Farmers Market	Electronics Store	Dumpling Restaurant	Discount Store	Diner



# Methodology

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- Filtered by “Coffee Shops” reducing the 64 postcodes to 51 remaining postcodes
- Filtered by “Café” reducing the 51 postcodes to 35 remaining postcodes
- Filtered by “Bakery” & “Diner” reducing the 35 postcodes to 11 remaining postcodes
- Filtered by “Grocery Store” reducing the 11 postcodes to 7 remaining postcodes

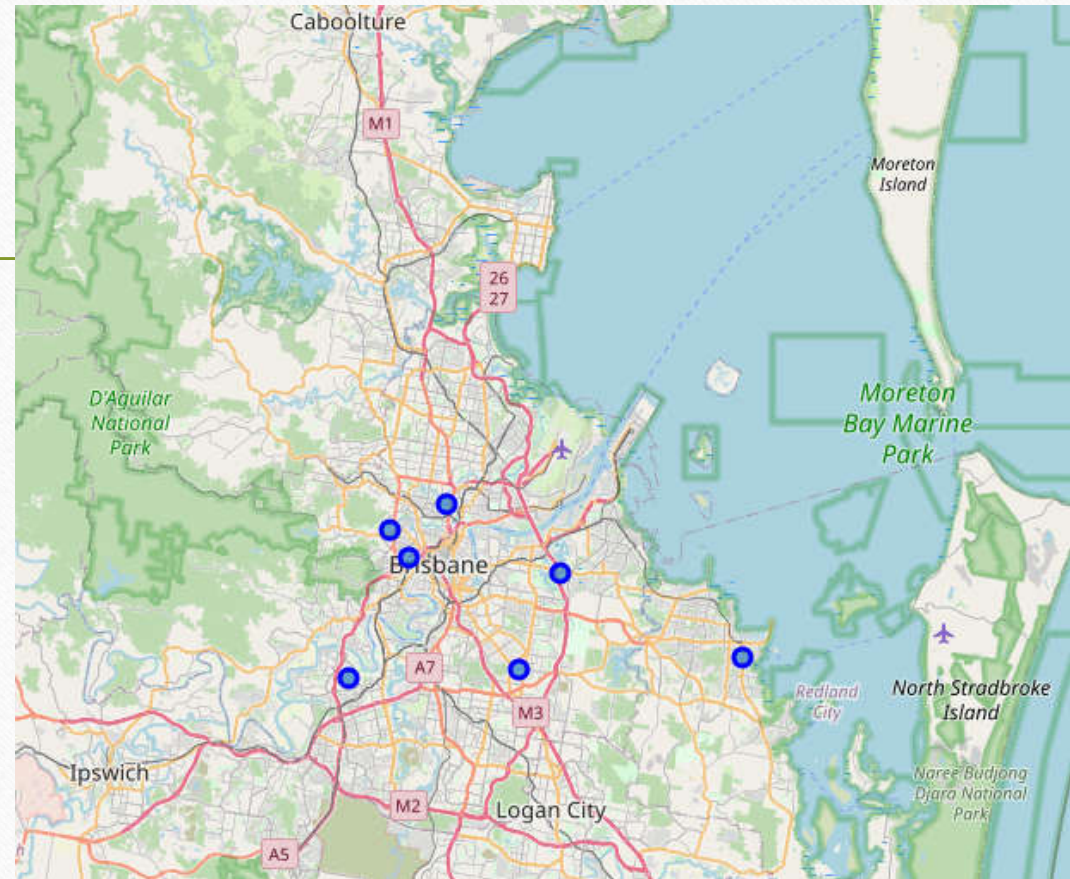
# Final 7 options

	Neighbourhood	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
7	ASHGROVE, ASHGROVE EAST, ASHGROVE WEST, DORRIN...	Indian Restaurant	Gym / Fitness Center	Chinese Restaurant	Ice Cream Shop	Dim Sum Restaurant	Fish & Chips Shop	Fast Food Restaurant	Farmers Market	Electronics Store	Dumpling Restaurant
15	BAROONA, MILTON, MILTON BC, PADDINGTON, ROSALIE	Italian Restaurant	Indian Restaurant	Vietnamese Restaurant	Burger Joint	Gourmet Shop	Asian Restaurant	Japanese Restaurant	Thai Restaurant	Restaurant	Indie Movie Theater
31	CLEVELAND	Soccer Field	Gym	Park	Organic Grocery	Dim Sum Restaurant	Fast Food Restaurant	Farmers Market	Electronics Store	Dumpling Restaurant	Discount Store
38	EILDON HILL, KALINGA, LUTWYCHE, WINDSOR, WOOL...	Liquor Store	Gym	Convenience Store	Electronics Store	Theater	Pub	Yoga Studio	Dim Sum Restaurant	Farmers Market	Dumpling Restaurant
50	MANSFIELD, MOUNT GRAVATT, MOUNT GRAVATT EAST, ...	Playground	Street Food Gathering	Golf Course	Flea Market	Yoga Studio	Dim Sum Restaurant	Fast Food Restaurant	Farmers Market	Electronics Store	Dumpling Restaurant
58	SEVENTEEN MILE ROCKS, SINNAMON PARK	Thai Restaurant	Playground	Restaurant	Medical Supply Store	Bus Stop	Lake	Dim Sum Restaurant	Farmers Market	Electronics Store	Dumpling Restaurant
62	TINGALPA, TINGALPA BC	Convenience Store	Department Store	Yoga Studio	Discount Store	Flea Market	Fish & Chips Shop	Fast Food Restaurant	Farmers Market	Electronics Store	Dumpling Restaurant



# Folium Map

- Blue dots represent each postcode location in the 5 areas (7 in total)





# Results & Discussion

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- Shows at least one option in each of the Boroughs
- Additional data would be needed to make final decision such as:
  - real estate data for rents,
  - population demographics including culture for potential customers and their tastes,
  - different data sources to confirm that additional coffee shops are not close by but have not been reviewed using the foursquare app



# Conclusion

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- Foursquare API to identify potential coffee shop locations was shown to be useful in getting reviews of various venues within the region selected
- ranking of the venues yielded useful insights into areas that had successful or well-liked coffee businesses
- data presented is the first step to starting a new business venture
- Next step is to identify suitable venues that are commercially viable and readily visible to sufficient foot traffic