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# **VEGE RESTAURANT IN PERTH**

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# LOCATION LOCATION LOCATION

- Location is essential for a new specialty restaurant.
- Need to avoid existing competition due to risks of over-saturation.
- Recognition of potential client segment.
  - Affluent people are more likely to be vegetarians.
- Look for areas with high concentration of complimentary businesses.

# DATA SOURCE

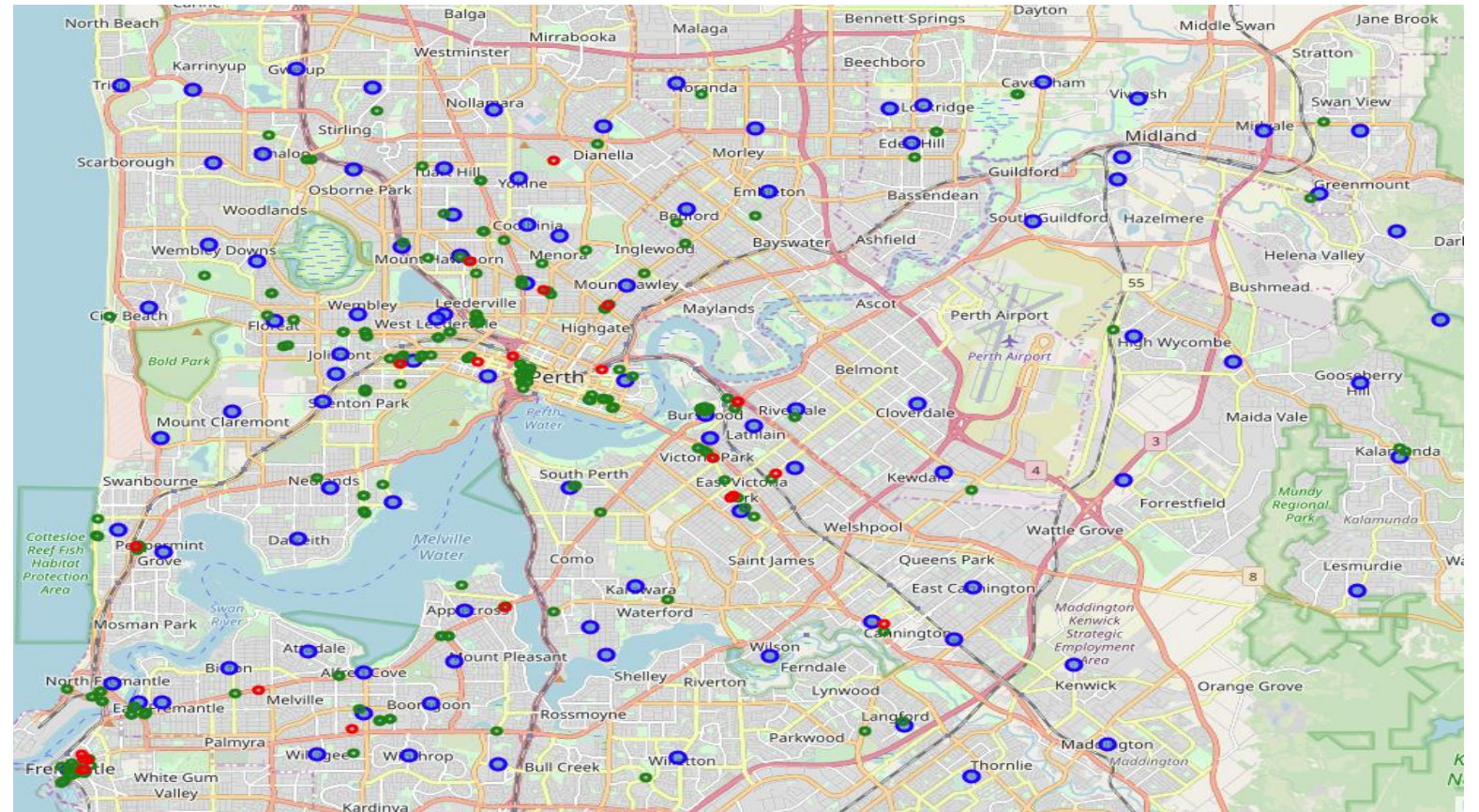
- Location data from Western Australian Government: <https://catalogue.data.wa.gov.au/dataset/geographic-names-geonoma>
- Data on income for each suburbs: <https://www.microburbs.com.au/heat-map/average-income#115.89421648019166:-31.97605525547553:11>
- Location data on complimentary businesses and competition: Foursquare API
- Drop all duplicate data and data unrelated to Metropolitan Perth



# METHODOLOGY

- Locate suburbs with no existing vegetarian restaurants based on Foursquare search.
- Find suburbs with higher than median income.
- Locate suburbs with the highest concentration of entertainment venues.
- Compare data on suburbs based on highest income and highest concentration of entertainment venues to see if there is an overlap.

- The is a map of the Metropolitan Perth where each suburbs have been marked with a blue dot, the entertainment venues as described in the previous section has been marked with green and vegetarian restaurants have been marked with red.



# COMPARISON OF TWO MATRICES

Rank remaining Suburb according to number of entertainment venues

```
[38]: finaldf.sort_values(by=['Venues Counts'], inplace=False, ascending=False)
```

[38]:		longitude	latitude	Income per week	Venues Counts	Vege Counts
	WEST LEEDERVILLE	115.832310	-31.937390	1329	10.0	NaN
	LEEDERVILLE	115.833889	-31.936111	1279	10.0	NaN
	NORTH FREMANTLE	115.755930	-32.033500	1272	6.0	NaN
	FLOREAT	115.794260	-31.937950	1558	5.0	NaN
	ROSSMOYNE	115.762320	-32.038230	1300	4.0	NaN
	...	...	...	...	...	...
	FORRESTFIELD	115.993700	-31.979890	877	NaN	NaN
	HAZELMERE	115.992310	-31.900450	759	NaN	NaN
	SALTER POINT	115.872040	-32.025720	1415	NaN	NaN
	KIARA	115.938700	-31.881830	914	NaN	NaN
	TRIGG	115.758150	-31.875720	1372	NaN	NaN

Rank remaining Suburb according to income

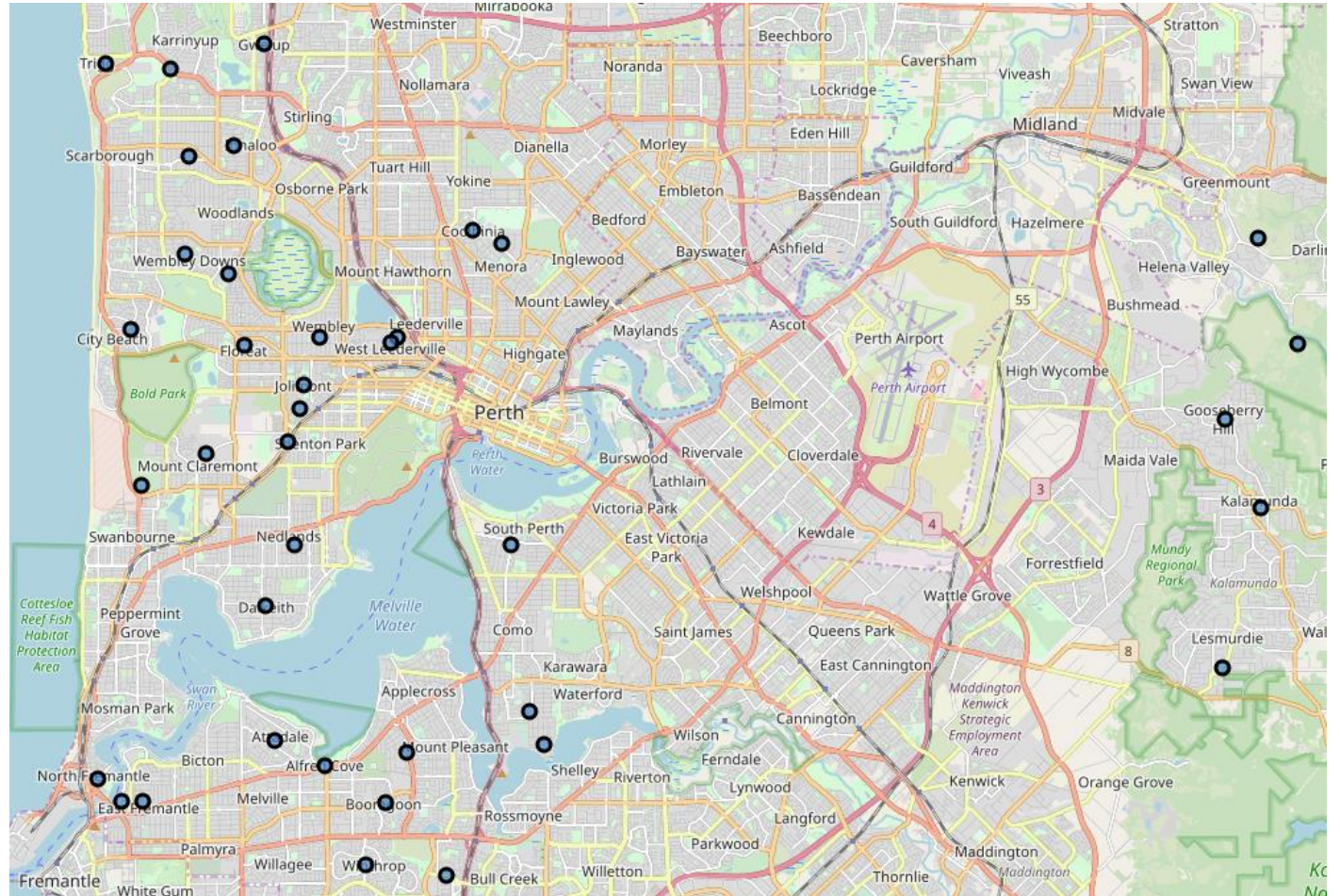
```
[39]: finaldf.sort_values(by=['Income per week'], inplace=False, ascending=False)
```

[39]:		longitude	latitude	Income per week	Venues Counts	Vege Counts
	CITY BEACH	115.76454	-31.93434	1632	1.0	NaN
	DALKEITH	115.79982	-31.99517	1592	NaN	NaN
	FLOREAT	115.79426	-31.93795	1558	5.0	NaN
	SWANBOURNE	115.76732	-31.96878	1490	NaN	NaN
	NEDLANDS	115.80732	-31.98184	1484	2.0	NaN
	...	...	...	...	...	...
	MIDDLE SWAN	116.02037	-31.85267	716	3.0	NaN
	LANGFORD	115.94204	-32.04434	707	2.0	NaN
	MADDINGTON	115.98982	-32.04934	701	NaN	NaN
	LOCKRIDGE	115.94676	-31.88100	685	1.0	NaN
	MIDVALE	116.02648	-31.88767	654	NaN	NaN



## SUBURBS FOR CONSIDERATION

This map marks all the suburbs where the income is higher than the median of \$1,083 per week that do not already have an existing competitor in the area.





## OBSERVATIONS

- High income suburbs are predominantly west of the city center.
- Whilst there is a high concentration of entertainment venues in established areas such as downtown Perth City and Fremantle, there are also a large number of competitors in the area.
- Affluent western suburbs do not usually have a high number of entertainment venues. Opening restaurant in location based on income alone is unlikely sustainable due to low traffic.





## CONCLUSION

- Floreat is the only suburb that appears on the top 5 of both tables, the chance that patrons will have high spending power and sufficient traffic to sustain business. Based on the visualized map, it is close to a large number of entertainment venues and is also close to the suburb with the highest income.
- Furthermore, there are no direct competition in the immediate areas surrounding Floreat.
- Floreat is the most sensible choice based on data.



## DISCUSSION AND FUTURE DIRECTIONS

- Obtain paid data from data provider such as Google or the WA Government for information on things such as religion, demographic, education level...etc in each suburbs.
- Incorporate cost factor such as rent into consideration to work out cost/benefit ratio.
- These can be obtained once budget for research increases.