

# OPT A2 data

## Banker (randomly generated data) - Olivia

Name	Data Type	Range	Comments
banker_id	int	1-350	
[Longitute, Latitude]	float	n.a.	Victoria only
Tenure	float	[0.5 years, 10 years]	Average
Salary	int	[65k, 95k]	Average 80k
Capacity	int	[250m, 1000m]	step(250, 1000, 250)

### 1. Generate random salary

### 2. Map tenure <-> salary

```
Salary = Tenure*a + b
65 = 0.5a + b
95 = 10a + b
30 = 9.5a
a = 3.16
b = 63.42
Salary = Tenure*3.16 + 63.42
Tenure = (Salary - 63.42)/3.16
```

### 3. Map Capacity <-> Tenure

Capacity	Tenure
250	[0.5, 2.5)
500	[2.5, 5)

750	[5, 7.5)
1000	[7.5, 10]

```

1 =IF(D2>=7.5, 1000
2   , IF(D2>=5, 750
3     , IF(D2>=2.5, 500
4       , 250
5     )))

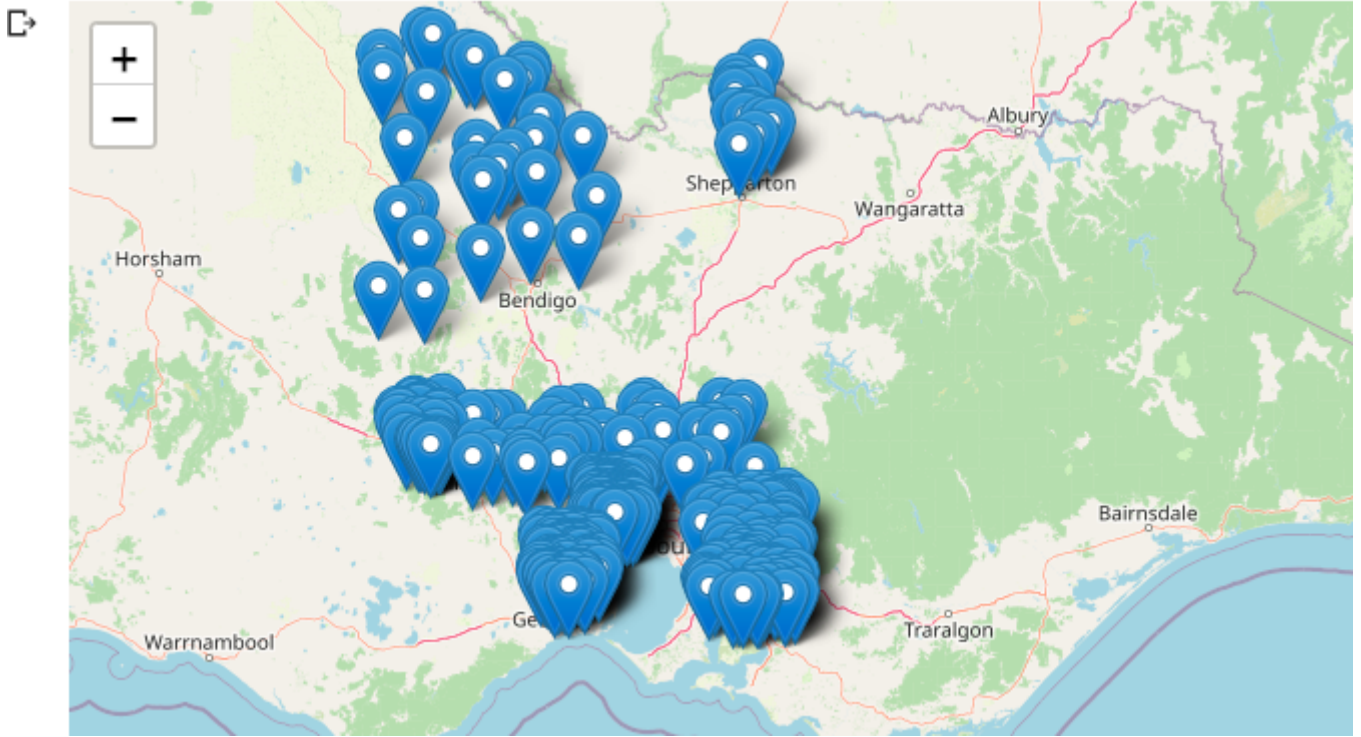
```

## 4. Location

- Victoria population map: [www.planning.vic.gov.au](http://www.planning.vic.gov.au)

	A	B	C	D
1	Place	no_of_banker	Avg population by 2021	Population %
2	Melbourne city	43	17	12%
3	Greater Geelong	68	27	19%
4	Wyndham	73	29	21%
5	Casey	91	36	26%
6	Greater Bendigo (C) (LGA)	30	12	9%
7	Ballarat	30	12	9%
8	Shepparton	15	6	4%
9	<b>Total</b>	<b>350</b>	<b>139</b>	<b>100%</b>

- Map of 350 bankers' locations:



## Branch (real + randomly generated data) - Shengnan

- Get branch locations
- Convert address -> [long, lat]
- Attribute market value to each branch

Name	Data Type	Real / Generated	Range	Comments
branch_id	int			825 all AU -> VIC <a href="https://nab.banklocationmaps.com.au/en/branches/aus">https://nab.banklocationmaps.com.au/en/branches/aus</a>
[Longitude, Latitude]	float	Real		Victoria only
Market_value	int			Market_Value = Avg_price_per_property * no_of_property
Avg_price_per_property	float			Market value
no_of_property	int	Real		

# Property (real data, conditional)

Column Name	Data Type	Real / Generated	Range	Comments
property_id				
population	int			

## Data Source

### Basic data required:

1. Scrape data on 824 branches from: (<https://nab.banklocationmaps.com.au/en/branches/aus>)
2. Market Opportunity (<https://www.abs.gov.au/statistics/economy/finance/lending-indicators/latest-release#data-downloads>)
3. Population data (<https://www.abs.gov.au/statistics/people/population/regional-population/latest-release#data-downloads>), requires mapping of SA2 areas to postcode to join onto branch location data use: (<https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/1270.0.55.006July%202011?OpenDocument>)