



Capstone Project - The Battle of Neighborhoods

Coursera - Applied Data Science Capstone



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Introduction

The purpose of this project will be to determine which inner-city suburbs of the city of Melbourne, Australia as the highest-rated coffee shops and cafes. The information may be useful for those who are considering moving to the city from interstate or abroad. The inner-city suburbs are: Carlton North, Docklands, East Melbourne, Flemington, Kensington, Melbourne CBD, St Kilda, North Melbourne, Parkville, Port Melbourne, Southbank, South Wharf, South Yarra, and West Melbourne.





Data

1

To solve this problem, the suburbs were chosen to represent 15 of the inner city postcodes. Some postcodes have more than one suburb, however, for the purposes of this project, only 1 suburb per postcode is used.

2

The data for the suburbs was obtained from the following link:
https://en.wikipedia.org/wiki/List_of_Melbourne_suburbs#City_of_Melbourne

3

There was no need to scrape this data as the data set was small enough to be copied and pasted into the notebook.

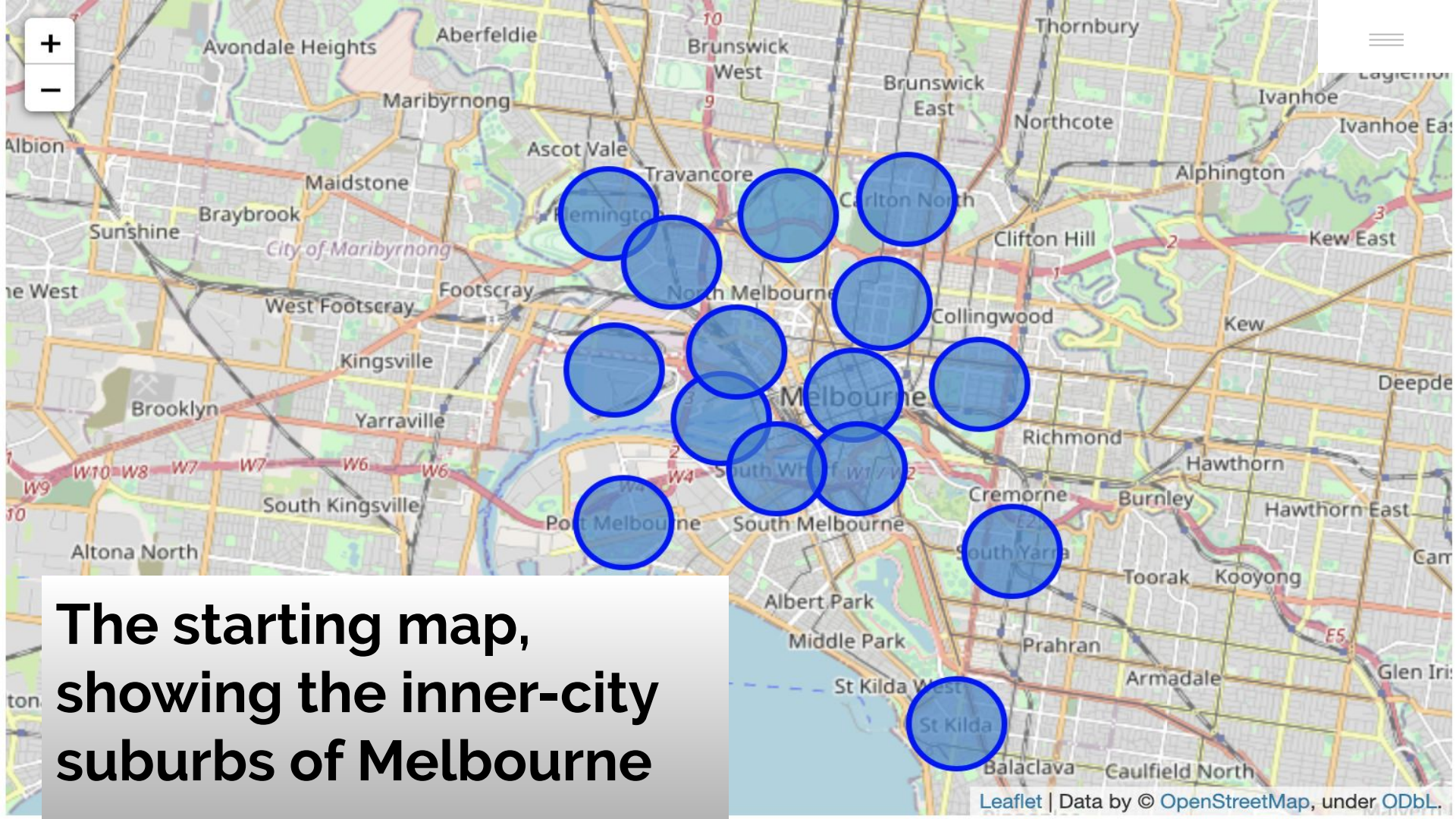
4

Information for coffee shops and cafes (venues) was obtained using the Foursquare API

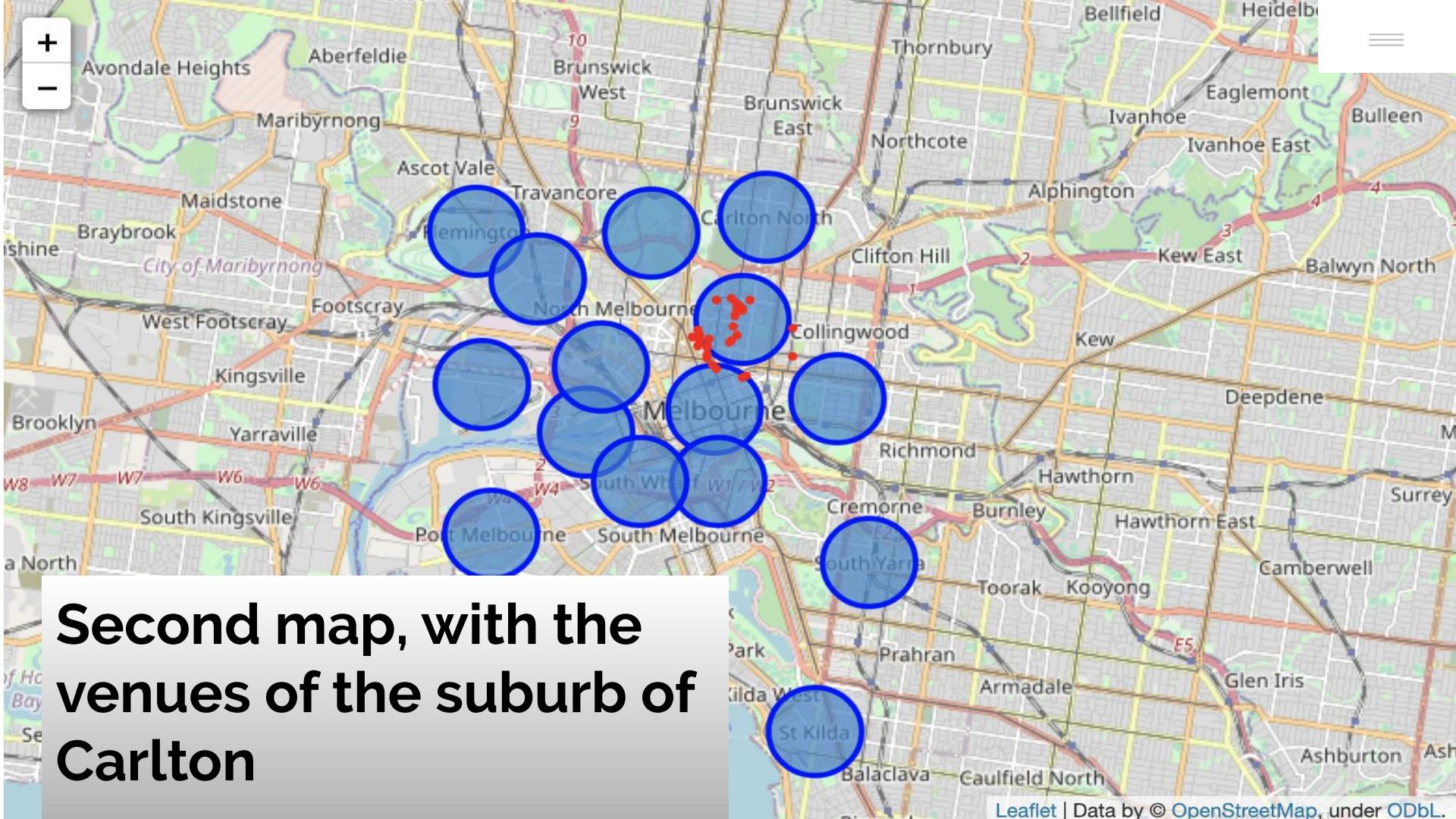
The background of the slide features a close-up, top-down view of a wooden surface. On the left side, there is a large pile of dark brown, roasted coffee beans. On the right side, a white ceramic coffee cup is partially visible, containing a golden-brown liquid. A dark grey rectangular box with a thin orange and teal horizontal line at its top left corner is positioned over the middle of the image, containing the text for the methodology.

Methodology

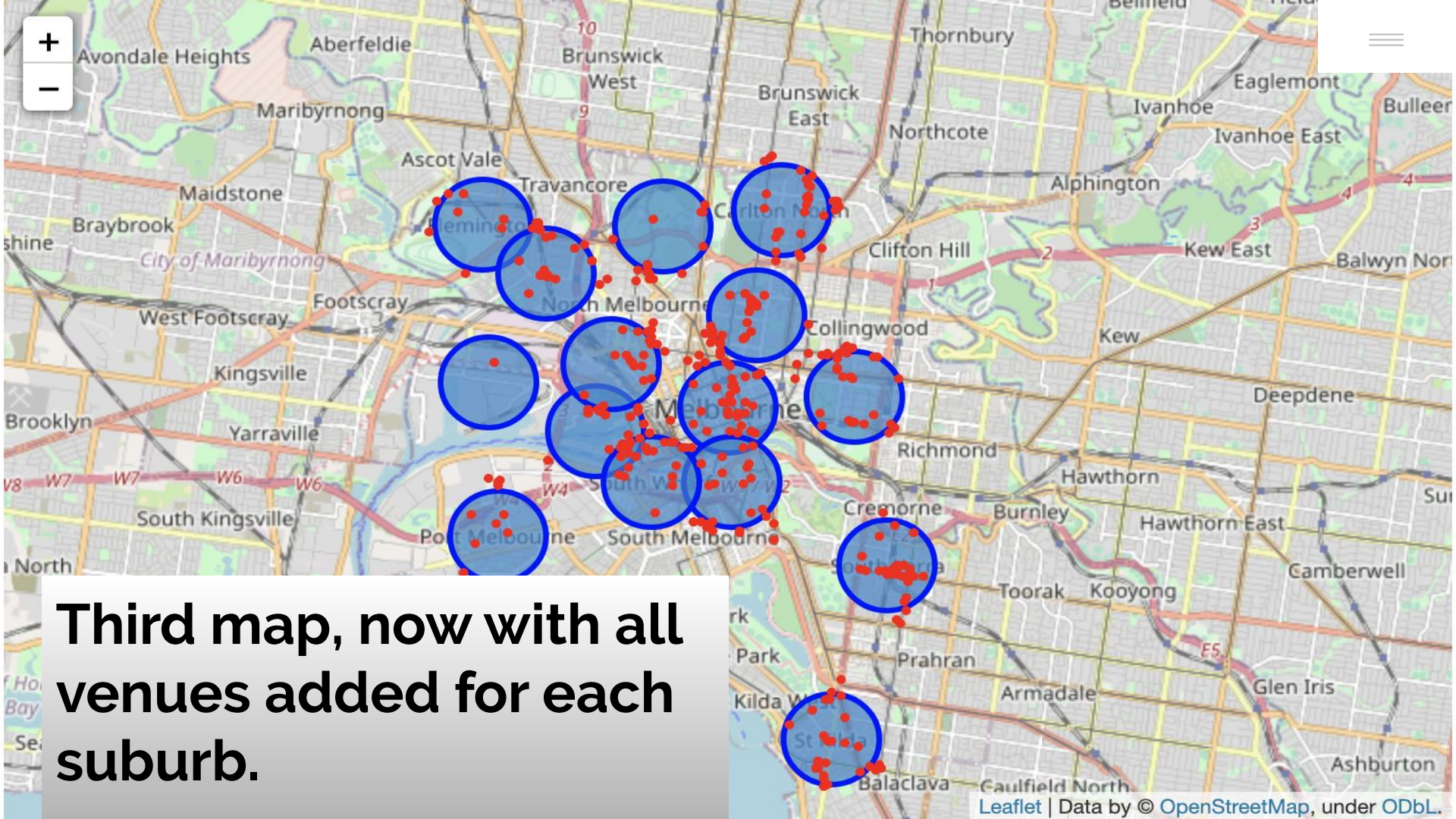
1. Creating a map and visualizing the suburbs locations
2. Getting a list of all venues in each suburb
3. Getting the ratings of each suburb
4. Getting the average rating of each suburb
5. Displaying the results on the map



**The starting map,
showing the inner-city
suburbs of Melbourne**



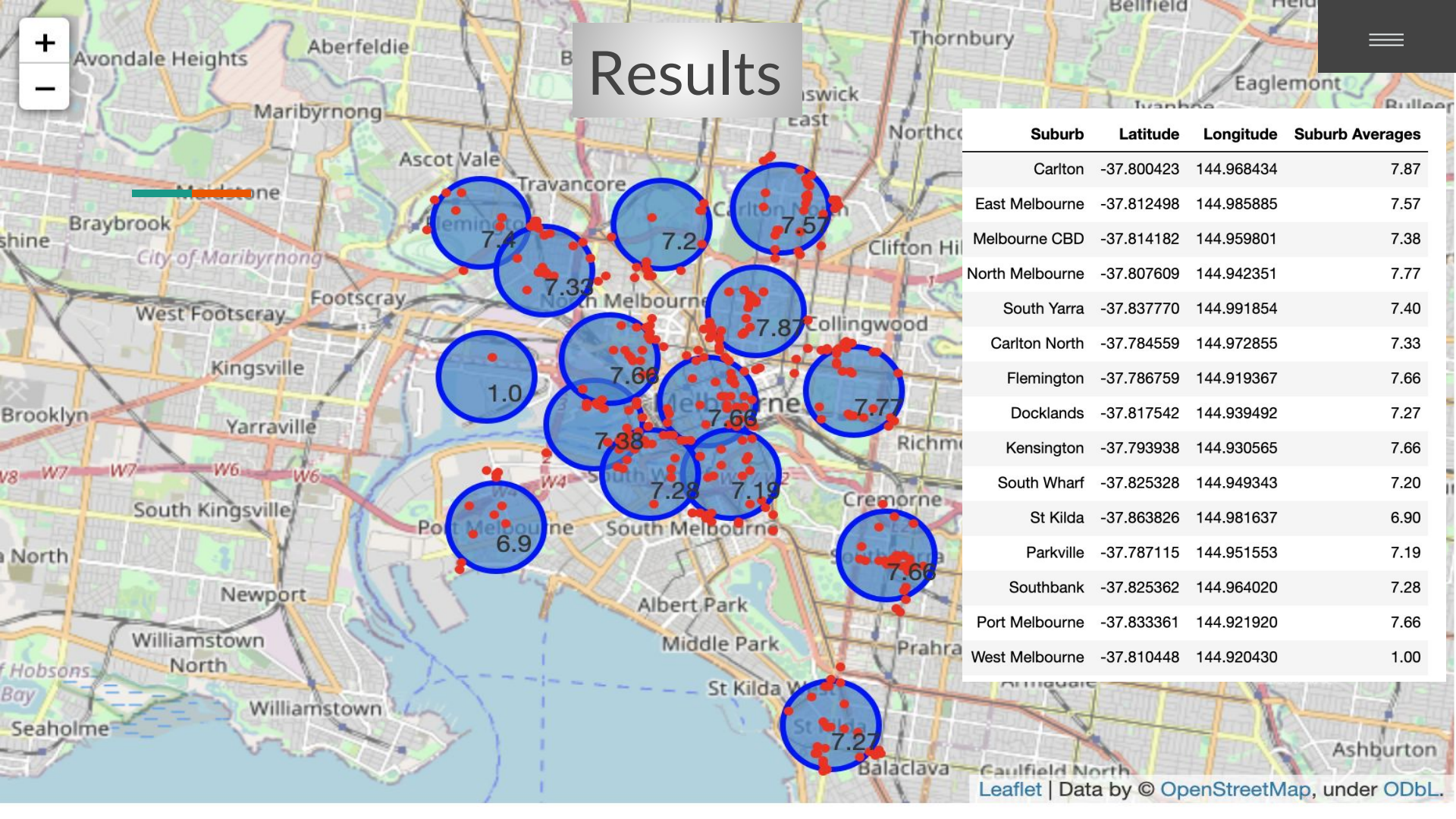
**Second map, with the
venues of the suburb of
Carlton**



Third map, now with all venues added for each suburb.



Results



Suburb	Latitude	Longitude	Suburb Averages
Carlton	-37.800423	144.968434	7.87
East Melbourne	-37.812498	144.985885	7.57
Melbourne CBD	-37.814182	144.959801	7.38
North Melbourne	-37.807609	144.942351	7.77
South Yarra	-37.837770	144.991854	7.40
Carlton North	-37.784559	144.972855	7.33
Flemington	-37.786759	144.919367	7.66
Docklands	-37.817542	144.939492	7.27
Kensington	-37.793938	144.930565	7.66
South Wharf	-37.825328	144.949343	7.20
St Kilda	-37.863826	144.981637	6.90
Parkville	-37.787115	144.951553	7.19
Southbank	-37.825362	144.964020	7.28
Port Melbourne	-37.833361	144.921920	7.66
West Melbourne	-37.810448	144.920430	1.00



Discussion

Now we know that the suburb with the highest average rated coffee shops and cafes in the inner city suburbs of Melbourne is the suburb of Carlton, followed by East Melbourne, and Melbourne CBD, and would recommend choosing from one of these three suburbs to live as a newcomer to the city of Melbourne.

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Conclusion

There is a lot than could be done to improve these results. First, geospatial data could have been used to give a more accurate representation of the suburbs. In future versions of this notebook I would consider using a choropleth map to better visualise the results. I would also improve the location coordinates of the suburbs so that it would not be placed in more urban areas, and not over a zoo or port where there would be little venues to analyse.



Thank you.

