

Introduction

- The role of an effective transportation system in the nightlight of a city
- Sydney
 - > 4 million international visitors
 - ➤ 12 million domestic visitors a year

 Pair providers with potential clients when and where the demand is



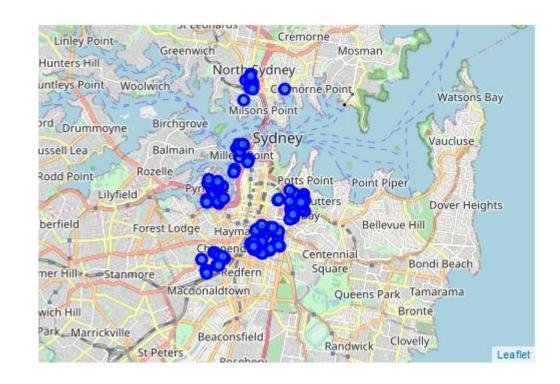
Syndey Suburbs

- Focus on the Inner City suburbs of Sydney
- The heart of the city containing the Harbour precinct, the Harbour bridge, the Rocks and the Opera house all key attractions for both international and domestic tourists.



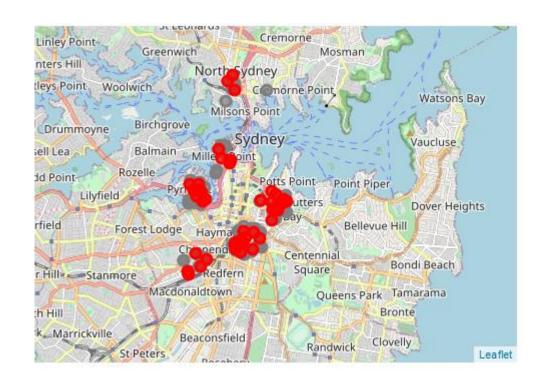
Venue Clustering

- Foursquare data used to map venues
- Venues are limited to Bars and Restaurants and Clubs to focus on nightlife of the City
- Venues appear to cluster in six specific groupings



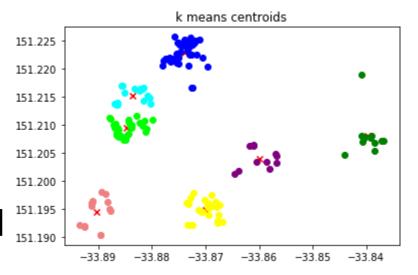
Bars vs Resturants

- Data was split into two sets: Bars show in red and Resturants show in Grey
- Groupings can be seen to be overlapping and in the same clusters as total venues



K Means Clustering

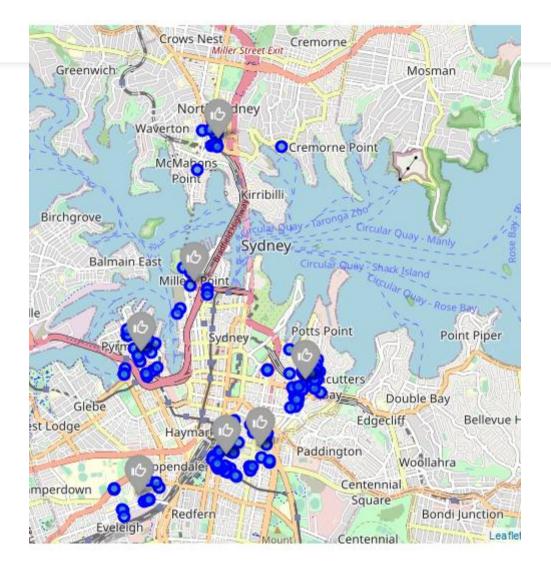
- Kmeans clustering algorithm used to find optimal groupings and centroids
- 7 Groupings identified
- Locations of centroids captured giving optimal location for taxi / ride share positioning



Centroids

	lat	long
0	-33.874001	151.223007
1	-33.839813	151.208058
2	-33.884722	151.209468
3	-33.869991	151.194872
4	-33.890318	151.194512
5	-33.860022	151.204022
6	-33.883559	151.215346

Pickup Locations



	lat	long
0	-33.874001	151.223007
1	-33.839813	151.208058
2	-33.884722	151.209468
3	-33.869991	151.194872
4	-33.890318	151.194512
5	-33.860022	151.204022
6	-33.883559	151.215346