

# Exploring Taipei Neighborhoods

## Coffee Addiction 2.0



|   |   |   |
|---|---|---|
| <br><b>Latte</b><br>Milk Foam<br>1/3 Steamed Milk<br>2/3 Espresso                         | <br><b>Americano</b><br>2/3 Water<br>1/3 Espresso                   | <br><b>Espresso</b><br>Espresso<br>(1 Shot)                             |
| <br><b>Breve</b><br>2/3 Steamed Half & Half<br>1/3 Espresso                              | <br><b>Flat White</b><br>2/3 Steamed Milk<br>1/3 Espresso          | <br><b>Cappuccino</b><br>1/3 Milk Foam<br>1/3 Hot Milk<br>1/3 Espresso |
| <br><b>Mocha</b><br>(Whipped Cream)<br>2/5 Steamed Milk<br>2/5 Chocolate<br>2/5 Espresso | <br><b>Caffè Affogato</b><br>2/5 Espresso<br>3/5 Vanilla Ice Cream | <br><b>Galão</b><br>3/4 Steamed Milk<br>1/4 Espresso                   |
| <br><b>Macchiato</b><br>Dash of Steamed Milk<br>Double Shot Espresso                     | <br><b>Café au Lait</b><br>1/2 Steamed Milk<br>1/2 Coffee          | <br><b>Iced Coffee</b><br>Ice Cubes<br>Chilled Coffee                  |





# Introduction & Business Problem

Taipei is the political, economic, educational, and cultural center of Taiwan and one of the major hubs in East Asia. Considered to be a global city, Taipei is part of a major high-tech industrial area, where overworking is the rule.

There are hundreds of them throughout the city, many with expert baristas who do all the roasting in-house. There's so much competition in Taipei that you really need to make your coffee shop unique to attract enough business.

What could it be more important than a cup of coffee in the morning?

Wouldn't be the best way to boost your energy levels?



# Target Audience

What type of clients or a group of people would be interested in this project?



- Business personnel who wants to invest or open a coffee bar. This analysis will be a comprehensive guide of what are the pros and cons of this business .
- Student who is interested in finding the best place close to universities, high schools or just a quiet place to be focused on finals.
- A whole range of passionate coffee enthusiasts ( coffee geek or coffee nerd ) that will easily find coffee related reviews as well as hidden gems of the city.



# Data Acquisition

Just one city will be analyzed in this project :  
Taipei

- **Website data**
  - Chunghwa POST
  - Wikipedia
  - LatLong.net
  - Household Registration Offices
- **Foursquare API**
  - Taipei geographical coordinates data will be utilized as input for the Foursquare API, that will be leveraged to provision venues information for each neighborhood..



# Project Process

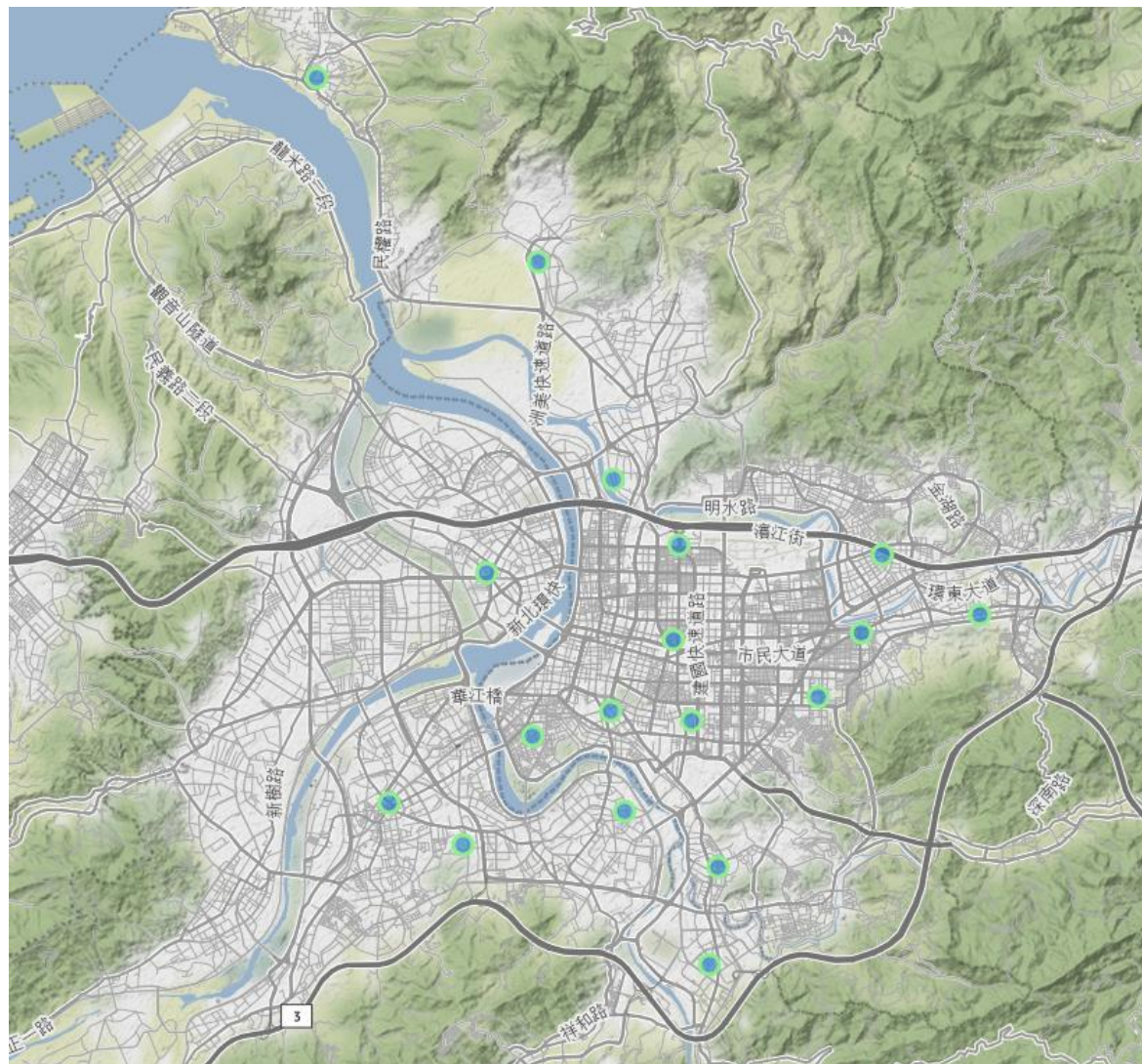


- Coding in Watson IBM Studio in order to obtain a complete dataset.
- Include geographical information to create a map of Taipei and related districts.
- Perform statistical analysis using Clustering technique.
- Evaluate coffee shops rating and position.
- Visualize resulting values using distribution plots and heap map.



# Districts Map

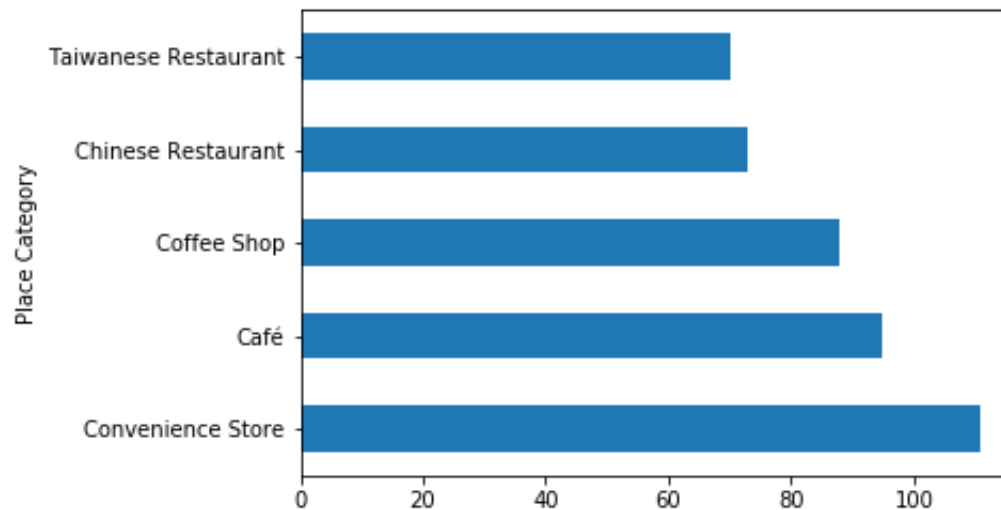
| Code | Districts           | Chinese | Latitude  | Longitude  |
|------|---------------------|---------|-----------|------------|
| 100  | Zhongzheng District | 中正區     | 25.031667 | 121.516389 |
| 103  | Datong District     | 大同區     | 25.047760 | 121.531850 |
| 104  | Zhongshan District  | 中山區     | 25.068889 | 121.533056 |
| 105  | Songshan District   | 松山區     | 25.049300 | 121.578000 |
| 106  | Daan District       | 大安區     | 25.029730 | 121.536137 |
| 108  | Wanhua District     | 萬華區     | 25.026285 | 121.497032 |
| 110  | Xinyi District      | 信義區     | 25.034833 | 121.567664 |
| 111  | Shilin District     | 士林區     | 25.083300 | 121.517000 |
| 112  | Beitou District     | 北投區     | 25.131901 | 121.498597 |
| 114  | Neihu District      | 內湖區     | 25.066666 | 121.583331 |
| 115  | Nangang District    | 南港區     | 25.053315 | 121.607409 |
| 116  | Wenshan District    | 文山區     | 24.997021 | 121.542762 |





# Explore Districts

Check register venues in Foursquare



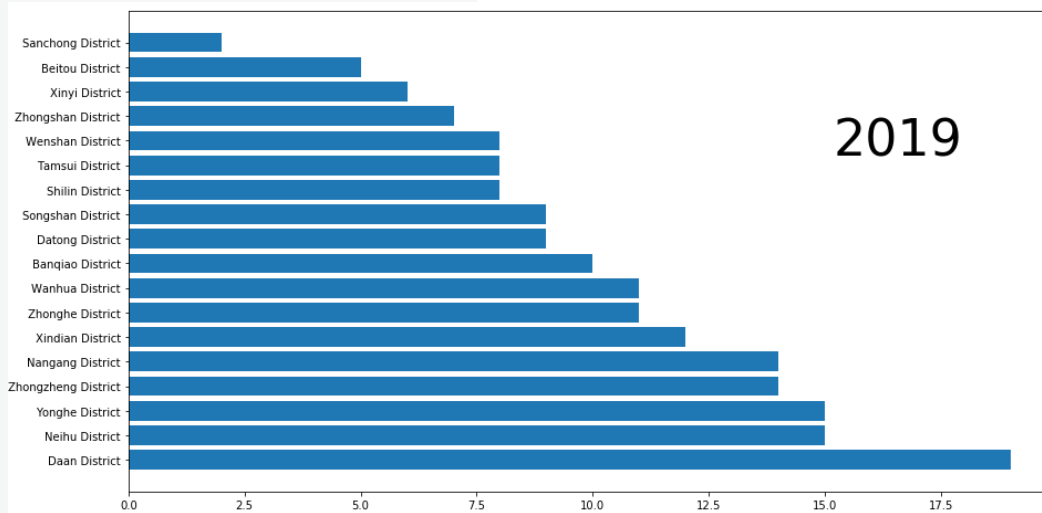
| Place Category       | Districts |
|----------------------|-----------|
| Convenience Store    | 111       |
| Café                 | 95        |
| Coffee Shop          | 88        |
| Chinese Restaurant   | 73        |
| Taiwanese Restaurant | 70        |
| Hotel                | 69        |
| Park                 | 47        |
| Noodle House         | 47        |
| Japanese Restaurant  | 46        |
| Dessert Shop         | 33        |
| Dumpling Restaurant  | 27        |

- Coffee Shop and Café are counting for more than 11% of all the places founded using the Foursquare GET request function

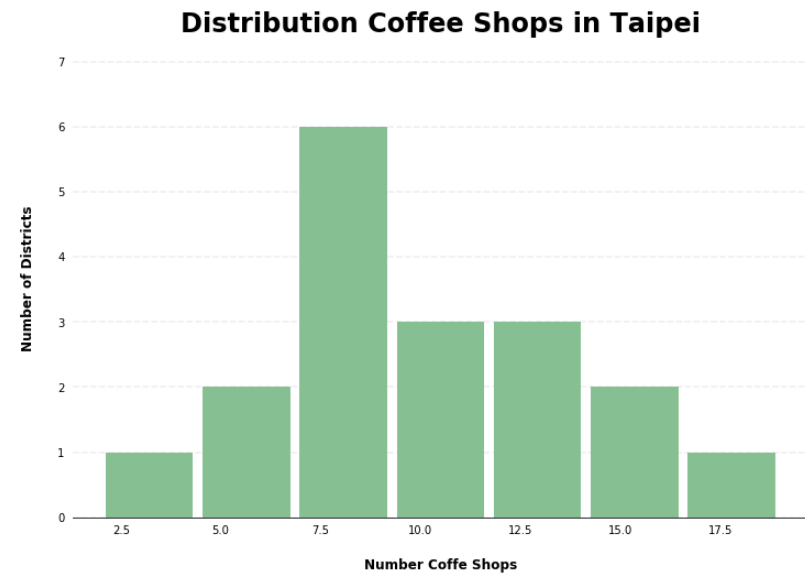


# Explore Districts

## Check coffee shops and Café



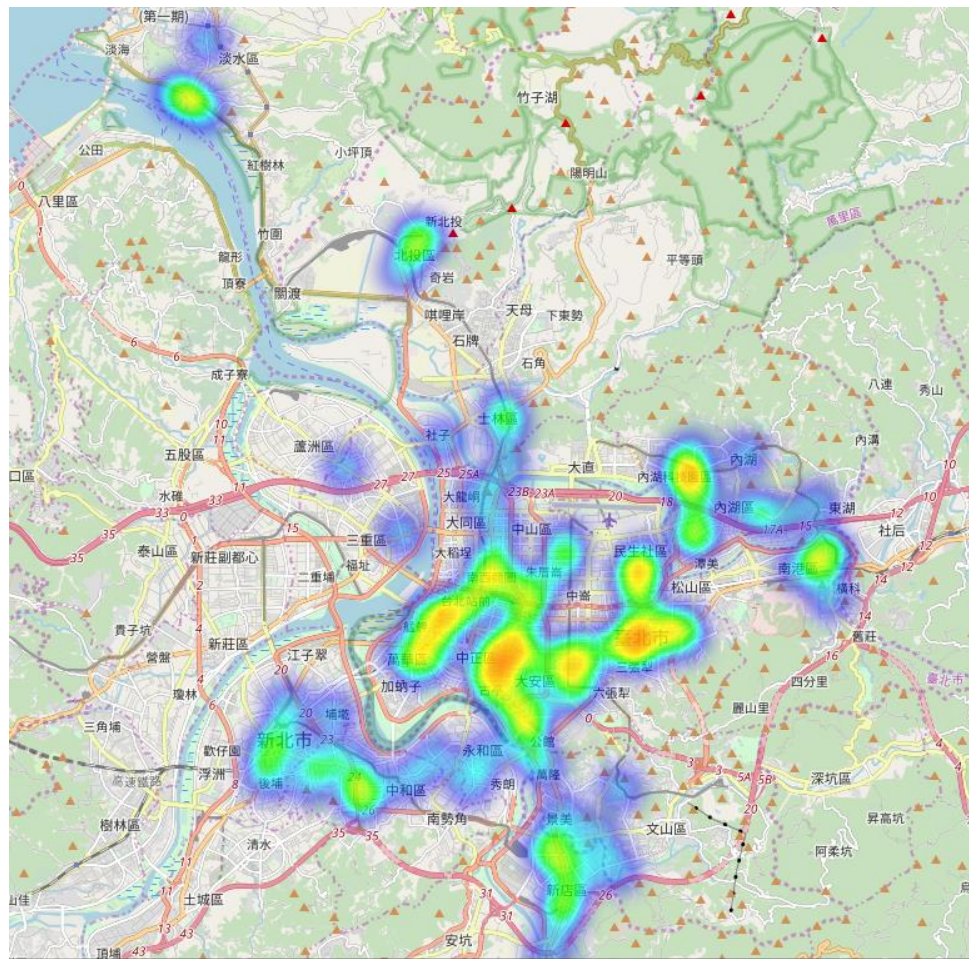
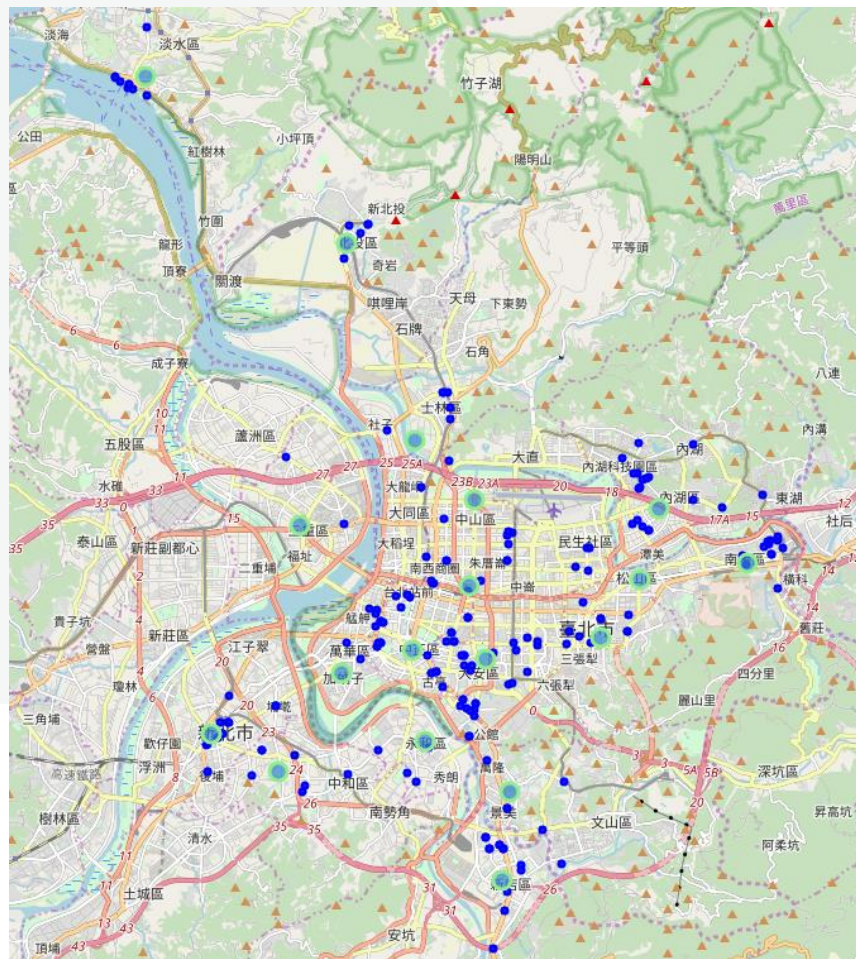
- Daan District is the district with most coffee places
- Half of the districts have at least 7 shops





# Explore Districts

Check coffee shops and Café



# Clustering evaluation



## Most visited places in Taipei

| Districts           | 1st Most Common Venue | 2nd Most Common Venue | 3rd Most Common Venue | 4th Most Common Venue | 5th Most Common Venue |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Banqiao District    | Convenience Store     | Coffee Shop           | Shopping Mall         | Train Station         | Restaurant            |
| Beitou District     | Hotel                 | Hot Spring            | Noodle House          | Convenience Store     | Resort                |
| Daan District       | Café                  | Hotel                 | Chinese Restaurant    | Coffee Shop           | Noodle House          |
| Datong District     | Chinese Restaurant    | Hotel                 | Taiwanese Restaurant  | Coffee Shop           | Dumpling Restaurant   |
| Nangang District    | Convenience Store     | Coffee Shop           | Café                  | Fast Food Restaurant  | Noodle House          |
| Neihu District      | Convenience Store     | Coffee Shop           | Café                  | Chinese Restaurant    | Supermarket           |
| Sanchong District   | Convenience Store     | Park                  | Metro Station         | Taiwanese Restaurant  | Coffee Shop           |
| Shilin District     | Taiwanese Restaurant  | Café                  | Chinese Restaurant    | Ice Cream Shop        | Food Court            |
| Songshan District   | Department Store      | Café                  | Chinese Restaurant    | Hotel                 | Hotpot Restaurant     |
| Tamsui District     | Taiwanese Restaurant  | Convenience Store     | Snack Place           | Café                  | Coffee Shop           |
| Wanhua District     | Café                  | Park                  | Taiwanese Restaurant  | Noodle House          | Dessert Shop          |
| Wenshan District    | Convenience Store     | Japanese Restaurant   | Park                  | Café                  | Coffee Shop           |
| Xindian District    | Convenience Store     | Coffee Shop           | Chinese Restaurant    | Fast Food Restaurant  | Japanese Restaurant   |
| Xinyi District      | Department Store      | Hotel                 | Chinese Restaurant    | Hotpot Restaurant     | Café                  |
| Yonghe District     | Café                  | Convenience Store     | Coffee Shop           | Park                  | Dessert Shop          |
| Zhonghe District    | Convenience Store     | Coffee Shop           | Chinese Restaurant    | Café                  | Shopping Mall         |
| Zhongshan District  | Hotel                 | Taiwanese Restaurant  | Chinese Restaurant    | Café                  | Breakfast Spot        |
| Zhongzheng District | Café                  | Noodle House          | Ice Cream Shop        | Coffee Shop           | Taiwanese Restaurant  |

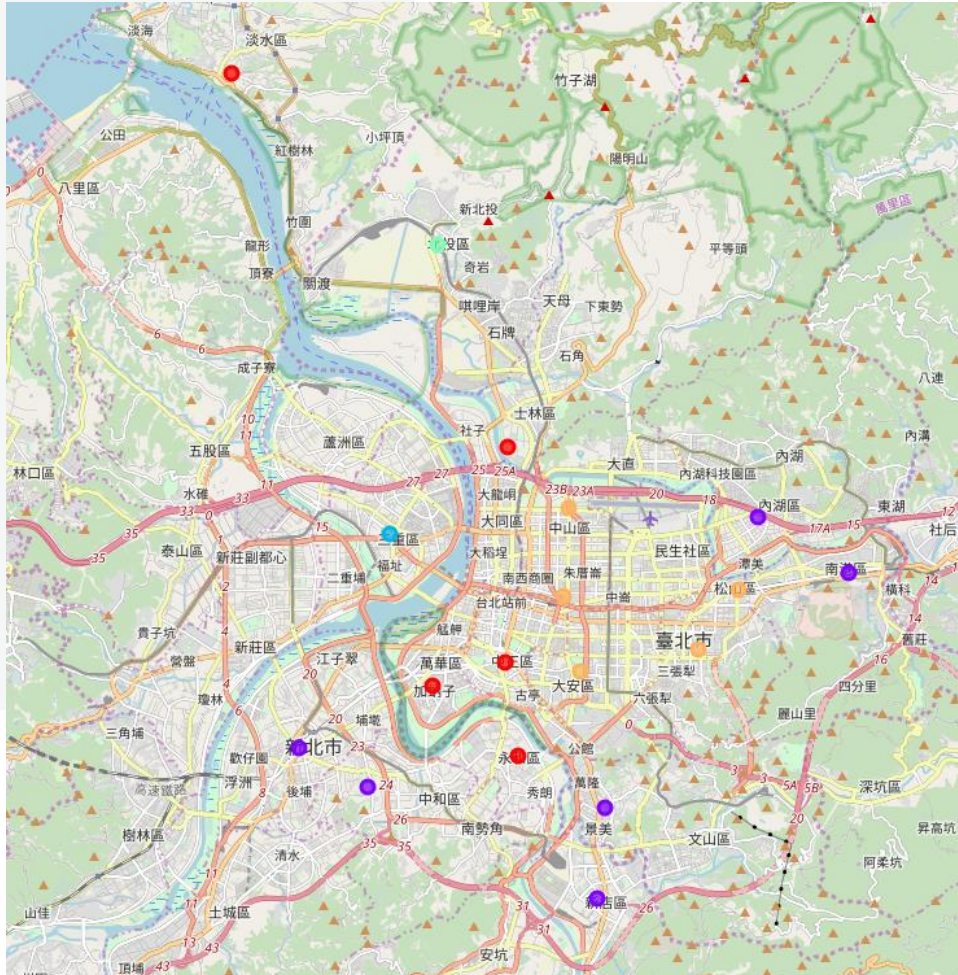
- Coffee Shop and Café are present in all districts, besides Beitou (7<sup>th</sup> Place).



# Districts clustering evaluation



K clusters = 5



- **CLUSTER 1**
  - Coffee shops and restaurants
- **CLUSTER 2**
  - Convenience store
- **CLUSTER 3**
  - Hotel
- **CLUSTER 4**
  - Park and metro station
- **CLUSTER 4**
  - Department store



# Conclusion

## How is the coffee scene in Taipei?



- Specialty coffee shops have sprung up on nearly every street corner in recent years. Most Taipei coffee shops are small independent businesses.
- Main area in which you can find coffee shops is Daan. Probably due to the high number of students and university located in that area.
- Banqiao area is getting quite popular, therefore it can be evaluated as a potential location for the next few year