Seoul is the best place to start a business in Korea

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Exploring Seoul

- Using geojson file of Seoul to explore its neighborhood.

- Using Foursquare API to explore its venues.

- Various techniques such as kmeans clustering, visualizing with a map using folium.
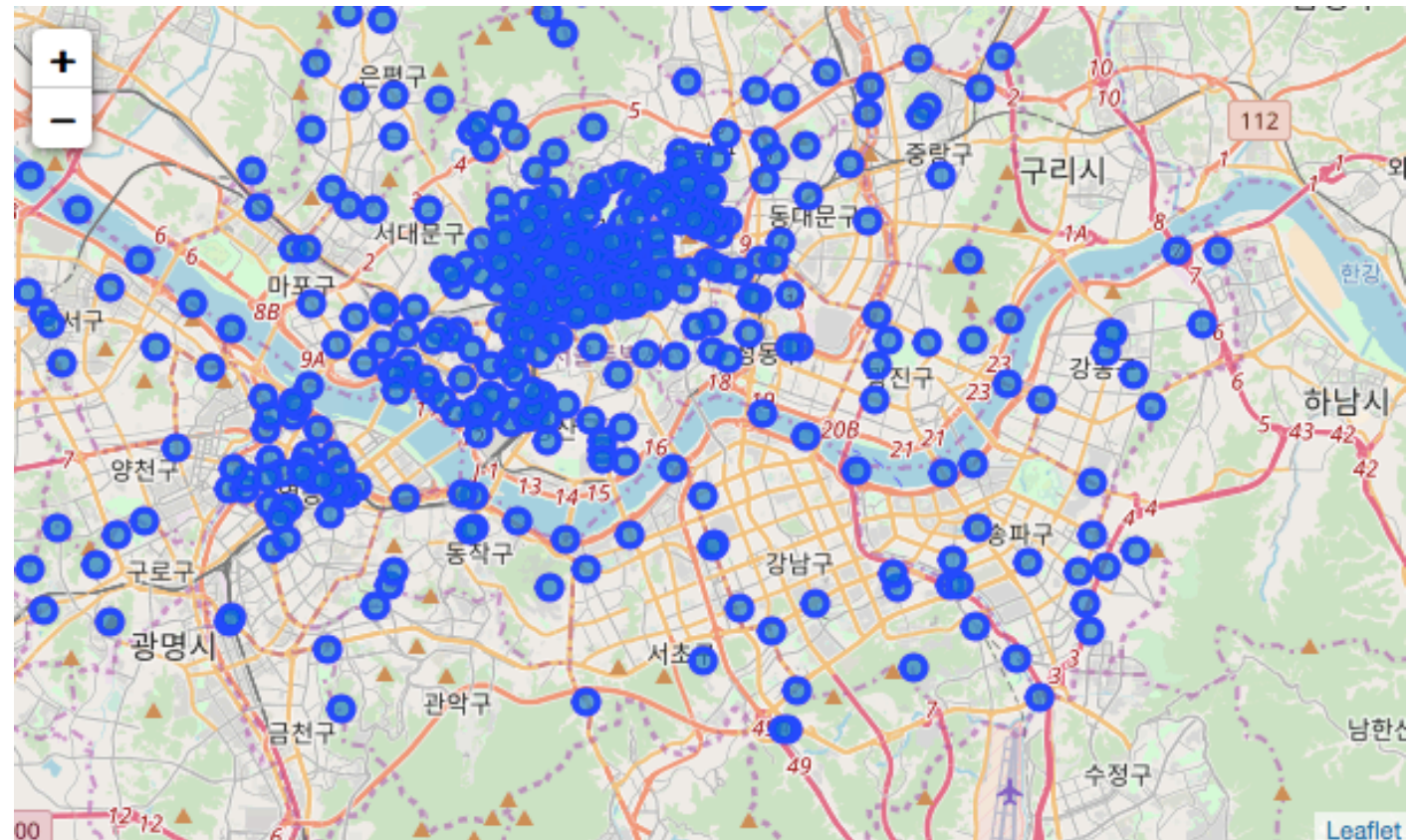
Neighborhood of Seoul

- This is a data frame of neighborhoods of Seoul

- As you can see a city of Korea is consists of many dongs (Daebang-dong, Naesu-dong etc)

	Neighborhood	Latitude	Longitude
0	Daebang-dong	37.5156	126.932
1	Naesu-dong	37.574	126.973
2	Heukseok-dong	37.5101	126.966
3	Chang-dong	37.6604	127.051
4	Cheongnyangni-dong	37.597	127.043
5	Jeonnong-dong	37.5874	127.054
6	Imun-dong	37.6073	127.071
7	Hwigyeong-dong	37.5953	127.066
8	Sangdo-dong	37.5087	126.953
9	Doksan-dong	37.48	126.909
10	Siheung-dong	37.4654	126.914
11	Gaebong-dong	37.5068	126.846
12	Guro-dong	37.5035	126.893
13	Junghak-dong	37.5761	126.98
14	Sindang-dong	37.5697	127.013
15	Mia-dong	37.635	127.027
16	Gungjeong-dong	37.5866	126.974
17	Eungam-dong	37.6016	126.929
18	Naeja-dong	37.5765	126.972
19	Supyo-dong	37.5682	126.991

Visualizing

- I was able to visualize neighborhoods of Seoul City. (as mentioned earlier, each blue marker represents 'dong')

Following Slides are common venues of Seoul

Common Venues of Seoul

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue
0	Ahyeon-dong	Coffee Shop	Korean Restaurant	Bakery	Snack Place	Dessert Shop
1	Amsa-dong	Fast Food Restaurant	Italian Restaurant	Bakery	Ice Cream Shop	Baseball Field
2	Anam-dong 1(il)-ga	Café	Coffee Shop	Japanese Restaurant	Korean Restaurant	Skating Rink
3	Anam-dong 2(i)-ga	Coffee Shop	Café	Korean Restaurant	Chinese Restaurant	Pub
4	Anam-dong 3(sam)-ga	Korean Restaurant	Café	Coffee Shop	Salad Place	BBQ Joint
5	Anam-dong 4(sa)-ga	Korean Restaurant	Coffee Shop	Café	Salad Place	BBQ Joint
6	Anam-dong 5(o)-ga	Gym / Fitness Center	Bus Stop	Theater	Skating Rink	Furniture / Home Store
7	Anguk-dong	Café	Korean Restaurant	Coffee Shop	Italian Restaurant	Bakery
8	Apgujeong-dong	Museum	BBQ Joint	Scenic Lookout	American Restaurant	Dessert Shop
9	Bangbae-dong	Coffee Shop	Korean Restaurant	Bakery	Dessert Shop	Japanese Restaurant
10	Banghak-dong	Garden	Korean Restaurant	Park	Scenic Lookout	Asian Restaurant

50	Cheonyeon-dong	Korean Restaurant	Market	Historic Site	Monument / Landmark	Tunnel
51	Cho-dong	Korean Restaurant	Coffee Shop	Hotel	Noodle House	Chinese Restaurant
52	Chungjeongno 1(il)-ga	Korean Restaurant	Coffee Shop	Indie Movie Theater	Steakhouse	History Museum
53	Chungjeongno 2(i)-ga	Korean Restaurant	Coffee Shop	Historic Site	Asian Restaurant	Elementary School
54	Chungjeongno 3(sam)-ga	Korean Restaurant	Snack Place	Ramen Restaurant	Italian Restaurant	Café
55	Chungmuro 1(il)-ga	Korean Restaurant	Hotel	Chinese Restaurant	Bakery	Dessert Shop
56	Chungmuro 2(i)-ga	Korean Restaurant	Hotel	Coffee Shop	Noodle House	Cosmetics Shop
57	Chungmuro 3(sam)-ga	Korean Restaurant	Hotel	Coffee Shop	Noodle House	Chinese Restaurant
58	Chungmuro 4(sa)-ga	Korean Restaurant	Hotel	Coffee Shop	Bakery	Chinese Restaurant
59	Chungmuro 5(o)-ga	Korean Restaurant	Hotel	Coffee Shop	Bakery	Chinese Restaurant
60	Chungsin-dong	Café	Korean Restaurant	BBQ Joint	Park	Noodle House
61	Da-dong	Korean Restaurant	Coffee Shop	Café	Hotel	Chinese Restaurant
62	Daebang-dong	Korean Restaurant	BBQ Joint	Seafood Restaurant	Coffee Shop	Donut Shop

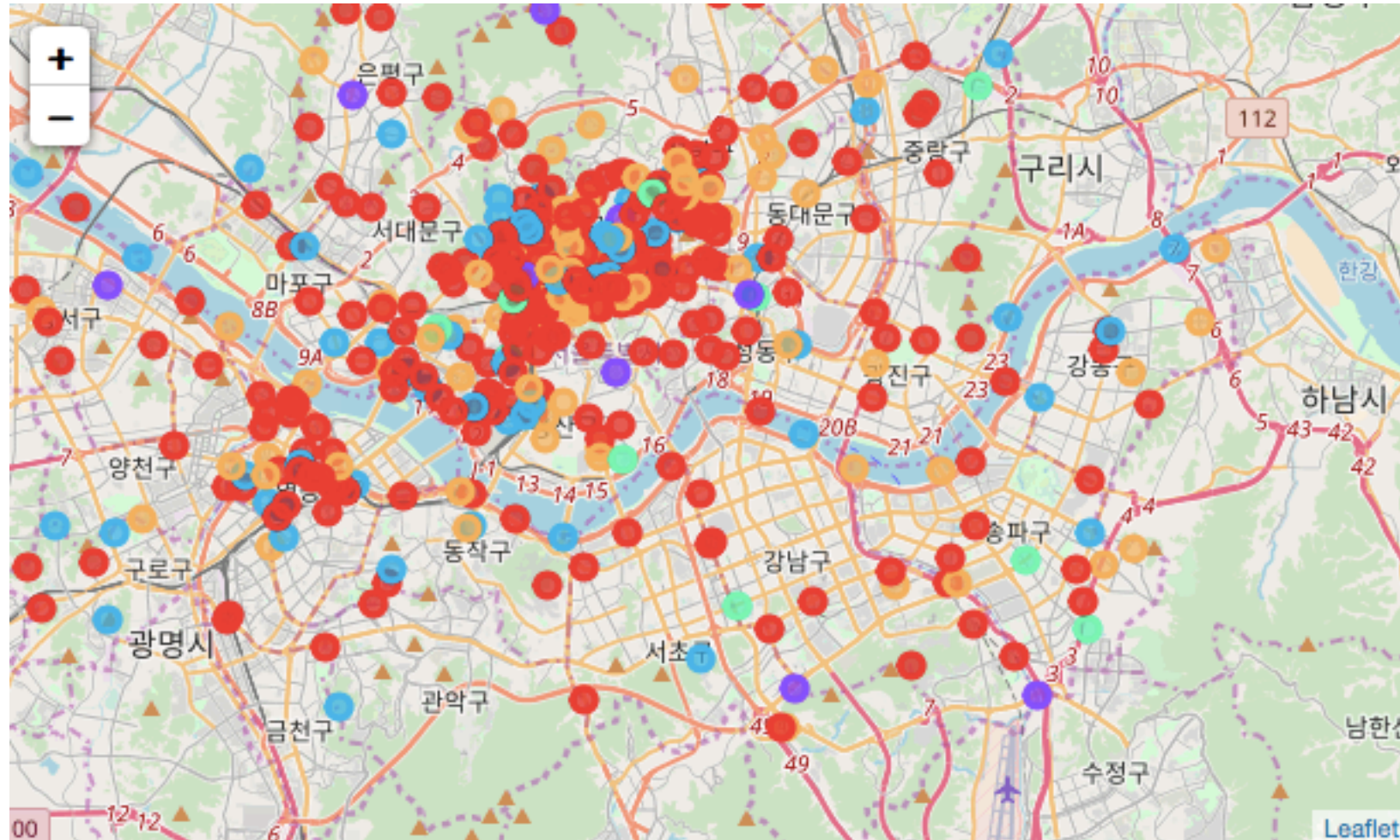|						
18	Bomun-dong 3(sam)-ga	Bakery	Bus Stop	Chinese Restaurant	Thai Restaurant	Korean Restaurant
19	Bomun-dong 4(sa)-ga	Salad Place	Gym	Hotel	Korean Restaurant	Food Court
20	Bomun-dong 5(o)-ga	Salad Place	Park	Hotel	Dumpling Restaurant	Food Court
21	Bomun-dong 6(yuk)-ga	Bus Stop	Hotel	Bakery	Chinese Restaurant	Fried Chicken Joint
22	Bomun-dong 7(chil)-ga	Korean Restaurant	Coffee Shop	Hotel	Bus Station	Bakery
23	Bon-dong	Trail	Intersection	Bakery	Soccer Field	Café
24	Bongcheon-dong	Bakery	Fast Food Restaurant	Shopping Mall	Restaurant	Convenience Store
25	Bongik-dong	Korean Restaurant	Café	Hostel	Coffee Shop	Hotel
26	Bongnae-dong 1(il)-ga	Korean Restaurant	Coffee Shop	Bakery	Hotel	Café
27	Bongnae-dong 2(i)-ga	Coffee Shop	Korean Restaurant	Bakery	Hotel	Sandwich Place
28	Bongwon-dong	Mountain	Sauna / Steam Room	Tunnel	Other Great Outdoors	Yoga Studio
29	Buam-dong	Café	Bus Stop	Chinese Restaurant	Bakery	Convenience Store

Common Venues of Seoul-2

398	Susong-dong	Korean Restaurant	Coffee Shop	Tea Room	Italian Restaurant	Café
399	Suyu-dong	Korean Restaurant	Chinese Restaurant	Park	Trail	Historic Site
400	Taepyeongno 1(il)-ga	Korean Restaurant	Coffee Shop	Café	Chinese Restaurant	Historic Site
401	Taepyeongno 2(i)-ga	Korean Restaurant	Hotel	Coffee Shop	Chinese Restaurant	Historic Site
402	Tojeong-dong	Korean Restaurant	BBQ Joint	Chinese Restaurant	Dive Bar	Asian Restaurant
403	Tongin-dong	Coffee Shop	Café	Italian Restaurant	French Restaurant	Art Gallery
404	Tongui-dong	Coffee Shop	Café	Korean Restaurant	Historic Site	Art Gallery
405	Ui-dong	Mountain	Yoga Studio	Food Truck	Fast Food Restaurant	Fish & Chips Shop
406	Uijuro 1(il)-ga	Korean Restaurant	Coffee Shop	Theater	Historic Site	Asian Restaurant
407	Uijuro 2(i)-ga	Korean Restaurant	Coffee Shop	Bakery	Sandwich Place	Café
408	Umyeon-dong	Trail	Food Court	Farmers Market	Fast Food Restaurant	Fish & Chips Shop
409	Unni-dong	Korean Restaurant	Tea Room	Café	Coffee Shop	Hostel
410	Waryong-dong	Park	Trail	Playground	Fried Chicken	French Restaurant

105	Doseon-dong	Coffee Shop	Korean Restaurant	BBQ Joint	Seafood Restaurant	Vietnamese Restaurant
106	Dowon-dong	Korean Restaurant	Coffee Shop	Pub	Gukbap Restaurant	Chinese Restaurant
107	Dunchon-dong	Park	Korean Restaurant	Asian Restaurant	Scenic Lookout	Campground
108	Euljiro 1(il)-ga	Korean Restaurant	Coffee Shop	Chinese Restaurant	Hotel	Café
109	Euljiro 2(i)-ga	Korean Restaurant	Coffee Shop	Hotel	Chinese Restaurant	Café
110	Euljiro 3(sam)-ga	Korean Restaurant	Coffee Shop	Hotel	Noodle House	Café
111	Euljiro 4(sa)-ga	Korean Restaurant	Hotel	Coffee Shop	Market	BBQ Joint
112	Euljiro 5(o)-ga	Korean Restaurant	Coffee Shop	Hotel	Market	Shopping Mall
113	Euljiro 6(yuk)-ga	Korean Restaurant	Shopping Mall	Chinese Restaurant	Indian Restaurant	Dessert Shop
114	Euljiro 7(chil)-ga	Korean Restaurant	Shopping Mall	Hotel	Coffee Shop	Chinese Restaurant
115	Eungam-dong	Chinese Restaurant	Clothing Store	Concert Hall	Bakery	Coffee Shop
116	Eungbong-dong	Coffee Shop	Dance Studio	Donut Shop	Café	Shopping Mall
117	Gaebong-dong	Bus Station	Park	Korean Restaurant	Gukbap Restaurant	Grocery Store

84	Donam-dong	Intersection	Café	Ice Cream Shop	Supermarket	Buffet
85	Dongbinggo-dong	Korean Restaurant	Café	Coffee Shop	Bar	Vegetarian / Vegan Restaurant
86	Donggyo-dong	Coffee Shop	Chinese Restaurant	Korean Restaurant	Japanese Restaurant	BBQ Joint
87	Dongja-dong	Coffee Shop	Korean Restaurant	Hotel	Bakery	Bubble Tea Shop
88	Dongjak-dong	Café	Theme Park	Trail	River	Bakery
89	Dongseon-dong 1(il)-ga	Korean Restaurant	Café	Coffee Shop	Japanese Restaurant	Dessert Shop
90	Dongseon-dong 2(i)-ga	Coffee Shop	Café	Japanese Restaurant	Donut Shop	Korean Restaurant
91	Dongseon-dong 3(sam)-ga	Coffee Shop	Korean Restaurant	Café	Japanese Restaurant	Donut Shop
92	Dongseon-dong 4(sa)-ga	Asian Restaurant	Café	Theater	Noodle House	Bakery
93	Dongseon-dong 5(o)-ga	Coffee Shop	Convenience Store	Bunsik Restaurant	Multiplex	Korean Restaurant
94	Dongsomun-dong 1(il)-ga	Korean Restaurant	Coffee Shop	Pizza Place	Bakery	BBQ Joint
95	Dongsomun-dong 2(i)-ga	Coffee Shop	Korean Restaurant	Bakery	Ice Cream Shop	Café

Visualization

I used clustering to visualize each venues in a map

Analysis

- These slides show that Seoul city has various facilities such as cafe, restaurant, multiplex, hotel, cultural facilities etc.

- Concentration of facilities and infrastructures means Seoul has the most significant role among cities of Korea.

- This also means that Seoul takes a huge portion in Korea's total consumption.

- This aspect will guarantee that entering the market of Seoul could lead to a huge profit for any business.
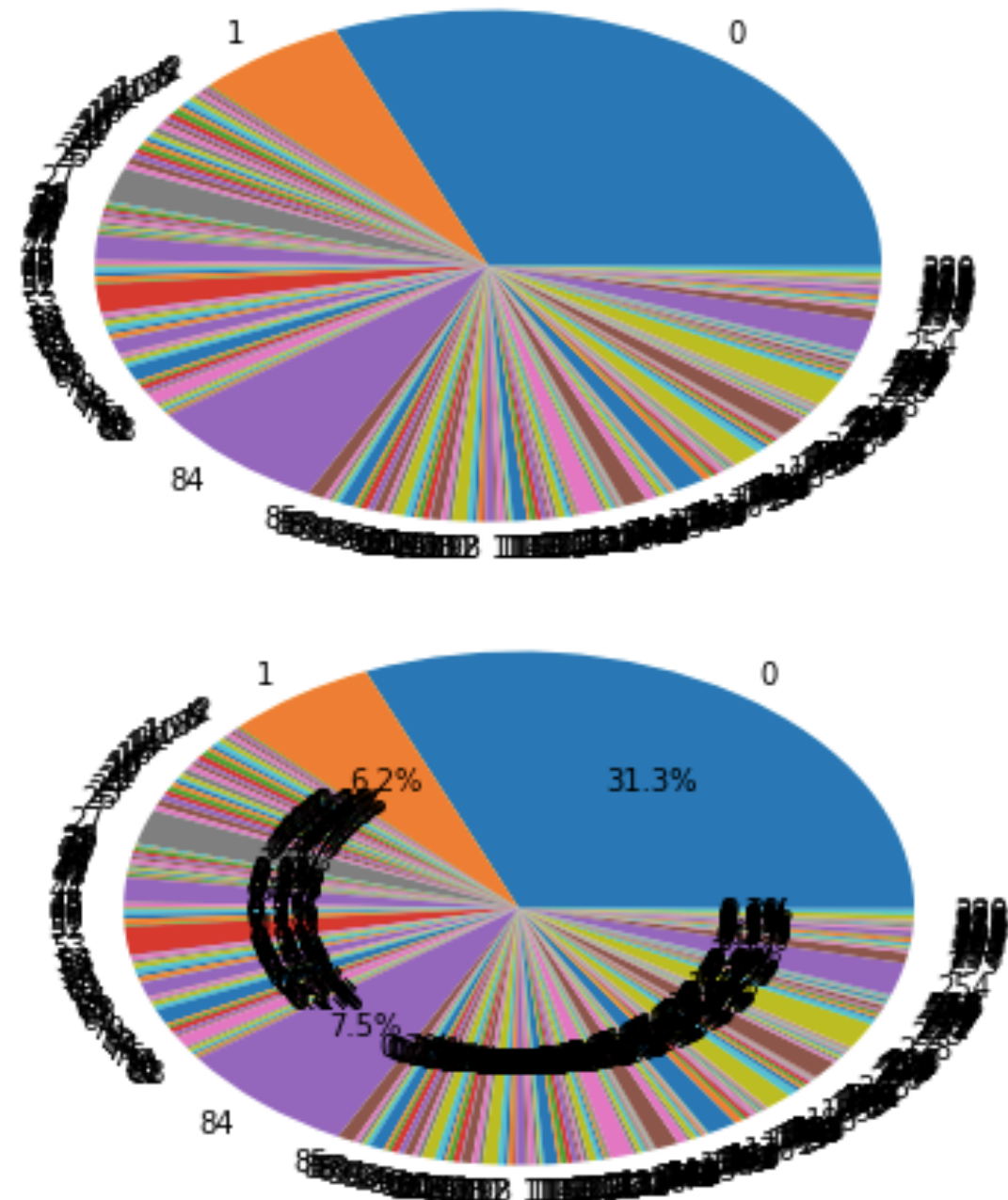
Population and Business

Population in Seoul

- This data frame shows the population of each city of Korea.

- It indicates that Seoul City has the most population

	index	code	name	population
0	1	11	서울특별시	10143645
1	2	11110	종로구	160070
2	3	11140	중구	130465
3	4	11170	용산구	239740
4	5	11200	성동구	299337
5	6	11215	광진구	368927
6	7	11230	동대문구	364273
7	8	11260	중랑구	416798
8	9	11290	성북구	476589
9	10	11305	강북구	338707
10	11	11320	도봉구	358582
11	12	11350	노원구	590479
12	13	11380	은평구	503660
13	14	11410	서대문구	314110
14	15	11440	마포구	381856
15	16	11470	양천구	492528
16	17	11500	강서구	569070
17	18	11530	구로구	424964
18	19	11545	금천구	241020
19	20	11560	영등포구	386471
20	21	11590	동작구	410815

서울특별시 means Seoul City

Pie Chart

- As shown in the earlier data frame 0 index represents Seoul City.

- Seoul City has about 30% of total Population of Korea.

- Large amount of population leads to bigger market than other cities, which has a higher possibilities of huge profit.

Conclusion

- Seoul City has various social facilities and infrastructures, which means it takes a huge portion of total consumption of Korea.

- Seoul City also has about 30% of Korean population. This also indicates the large market scale of the city.

- These two aspects conclude that Seoul City is the most ideal place to start a business in Korea.

Thank You