



THE BATTLE OF NEIGHBORHOODS

How to choose the best hotel in Kyoto and nearby areas?

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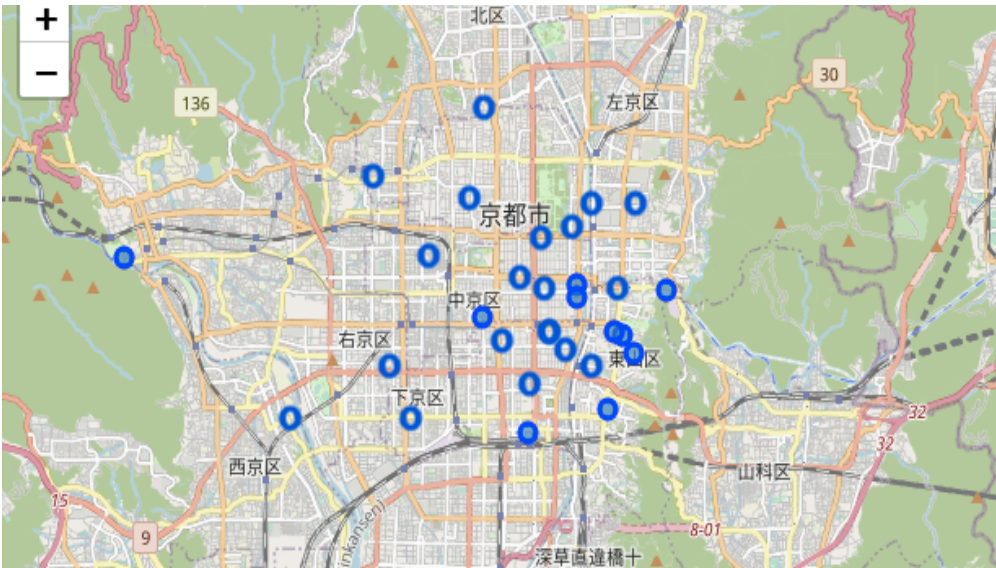
I. BUSINESS PROBLEM SECTION

- Kyoto, once the capital of Japan, is in the island of Honshu. Millions of travelers visit Kyoto each year to explore the city's cultural and historical attractions.
- Things to consider before travel: right location, accommodation, flights, rental cars to attractions, restaurants, stores and other facilities.
- In this scenario, the business problems I am trying to solve:
 - I. How to help different stakeholders (visitors or tourism agencies) in choosing the best accommodation?
 - II. Which places are the best for them to stay?

- To perform this idea, I utilized data from 2 different sources:
- 1. Data from: <https://www.booking.com>: information about postal code, name, address of 40 hotels.
- 2. Foursquare location data: for data exploration, visualization and modeling.
- 1+2 = The final database:
develop the machine learning models and to cluster Kyoto nearby areas neighborhoods.



II. DATA SECTION



	PostalCode	Hotel_Name	Address	Latitude	Longitude
0	600-8372	Hotel WBF Gojo Omiya	Shimogyo-ku Minamimonzencho 467	39.577961	135.014032
1	600-8029	Kyoto Rich Hotel	Shimogyo-ku Kawaramachi-dori Gojo- agaru 751	34.342224	135.753778
2	604-8365	Hotel M's Plus Shijo Omiya	Nakagyo-ku Nishikioomiyacho 114	35.004695	135.748920
3	600-8424	Nest Hotel Kyoto Shijo Karasuma	Shimogyo-ku Sanno-cho 551	47.506202	135.345968
4	605-0086	Hotel Alza Kyoto	Higashiyama-ku Benzaitencho 3-33	50.223526	135.457929
5	601-8017	HOTEL M's EST KYOTO STATION SOUTH	Minami-ku Higashikujo Kitakarasumacho 7, 7-5, 7-6	34.371597	135.723373



3-steps process:



I. Data Collection

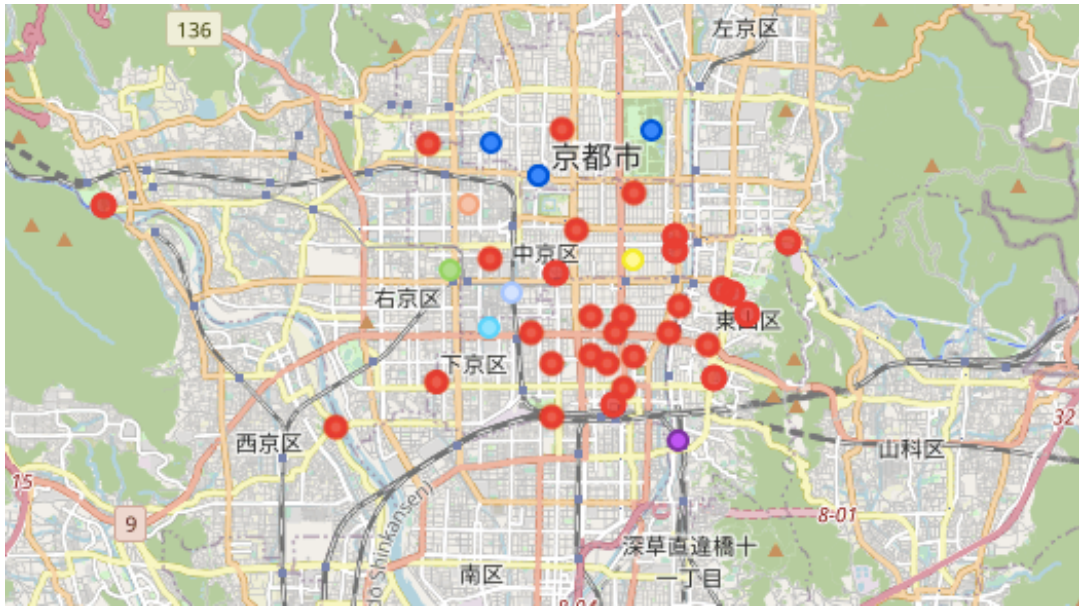


2. Data Understanding and Exploration



3. Data Modeling: K-means Clustering

III. METHODOLOGY SECTION



Hotel: Four Seasons Hotel Kyoto

	venue	freq
0	Japanese Restaurant	0.08
1	Café	0.08
2	Wagashi Place	0.06
3	Italian Restaurant	0.06
4	Buddhist Temple	0.06

Hotel: Grand Prince Hotel Kyoto

	venue	freq
0	Rest Area	0.33
1	Breakfast Spot	0.33
2	Flower Shop	0.33
3	Yoshoku Restaurant	0.00
4	Playground	0.00

Hotel: Hotel Gran Ms Kyoto

	venue	freq
0	Japanese Restaurant	0.07
1	Coffee Shop	0.07
2	Café	0.07
3	Ramen Restaurant	0.05
4	Bakery	0.04

	Hotel	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	BenTen Residences	Hardware Store	Soccer Field	Doner Restaurant	Drugstore	Greek Restaurant	Supermarket	Miscellaneous Shop	French Restaurant	Fountain	Food Truck
1	Four Seasons Hotel Kyoto	Japanese Restaurant	Café	Bus Stop	Buddhist Temple	Italian Restaurant	Wagashi Place	Convenience Store	Sake Bar	Garden	Tea Room
2	Grand Prince Hotel Kyoto	Flower Shop	Rest Area	Breakfast Spot	Yakitori Restaurant	Furniture / Home Store	French Restaurant	Fountain	Food Truck	Food Court	Food & Drink Shop
3	Hotel Gran Ms Kyoto	Café	Coffee Shop	Japanese Restaurant	Ramen Restaurant	Chinese Restaurant	Bakery	French Restaurant	Inn	Bar	Pub
4	Hotel M's Plus Shijo Omiya	Convenience Store	Ramen Restaurant	Yakitori Restaurant	Café	Chinese Restaurant	Sake Bar	Fast Food Restaurant	Bed & Breakfast	Bookstore	Liquor Store
5	Hotel Resol Kyoto Kawaramachi Sanjo	Japanese Restaurant	Coffee Shop	Ramen Restaurant	Café	Sake Bar	Chinese Restaurant	Sushi Restaurant	Historic Site	Inn	Pub



The 1st Cluster

24	Yuzuya Ryokan	0	Café	Japanese Restaurant	Wagashi Place	Shrine	Italian Restaurant	Udon Restaurant	Yakitori Restaurant	Kaiseki Restaurant	Steakhouse
25	Suiran	0	Japanese Restaurant	Café	Wagashi Place	Kaiseki Restaurant	Coffee Shop	Convenience Store	Park	Soba Restaurant	Train Station
26	the b kyoto shijo	0	0	0	0	0	0	0	0	0	0
27	Hotel Gran Ms Kyoto	0	Café	Coffee Shop	Japanese Restaurant	Ramen Restaurant	Chinese Restaurant	Bakery	French Restaurant	Inn	Bar
29	APA Hotel Kyoto Ekimae	0	0	0	0	0	0	0	0	0	0
31	PARK HYATT KYOTO	0	Japanese Restaurant	Café	Wagashi Place	Coffee Shop	Dessert Shop	Convenience Store	Road	Buddhist Temple	Kaiseki Restaurant
33	Hotel Resol Kyoto Kawaramachi Sanjo	0	Japanese Restaurant	Coffee Shop	Ramen Restaurant	Café	Sake Bar	Chinese Restaurant	Sushi Restaurant	Historic Site	Inn

The 2nd Cluster

	Hotel	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
17	Kiraku Kyoto Aneyakoji	1	Playground	Farmers Market	Fast Food Restaurant	Furniture / Home Store	French Restaurant	Fountain	Food Truck	Food Court	Food & Drink Shop	Flower Shop
35	TABITABI STAY _MOONLIGHT_	1	Playground	Farmers Market	Fast Food Restaurant	Furniture / Home Store	French Restaurant	Fountain	Food Truck	Food Court	Food & Drink Shop	Flower Shop
38	Villa Sanjomuromachi KYOTO	1	Playground	Farmers Market	Fast Food Restaurant	Furniture / Home Store	French Restaurant	Fountain	Food Truck	Food Court	Food & Drink Shop	Flower Shop

The 4th Cluster

	Hotel	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
32	Imu Hotel Kyoto	3	Mexican Restaurant	Gastropub	Furniture / Home Store	French Restaurant	Fountain	Food Truck	Food Court	Food & Drink Shop	Flower Shop	Fast Food Restaurant

The 6th Cluster

	Hotel	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
18	Grand Prince Hotel Kyoto	5	Flower Shop	Rest Area	Breakfast Spot	Yakitori Restaurant	Furniture / Home Store	French Restaurant	Fountain	Food Truck	Food Court	Food & Drink Shop

The 3rd Cluster

	Hotel	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
30	Kyotoya Kiyomizugojō	2	Sandwich Place	Yakitori Restaurant	Fast Food Restaurant	Furniture / Home Store	French Restaurant	Fountain	Food Truck	Food Court	Food & Drink Shop	Flower Shop

The 5th Cluster

	Hotel	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
20	Kiraku Kyoto Zeniyacho	4	Bus Stop	Yakitori Restaurant	Discount Store	Garden	Furniture / Home Store	French Restaurant	Fountain	Food Truck	Food Court	Food & Drink Shop

IV. RESULTS SECTION

1. Hotels close to center of ward and tourist attractions have the most facilities: Hotel Gran Ms Kyoto, Hotel Resol Kyoto Kawaramachi Sanjo, The Thousand Kyoto... compared to hotels located further from center of ward and tourist attractions: Kiraku Kyoto Aneyakoji, Grand Prince Hotel Kyoto, Imu Hotel Kyoto...

2. wide range of restaurants (Yoshoku, American, Chinese, Donburi, Dim Sum.etc), Art museum, Antique Shop, Beer bar, Camera store, Flower shop, Ice Cream Shop, Grocery stores, Train station... close to each hotel

3. Hotels from central areas have particular facilities, such as: local and foreign restaurants, cafe, bar, bakery, grocery stores along with tourist attractions: Nineizaka (Ninenzaka), Hōkan-ji Temple, The Museum of Kyoto, Higashiyama Jisho-ji, Heian Shrine...

4. The clusters were grouped by **similarities**. Hotels with common venues and many tourism attractions were grouped together, compared to hotels located in less crowded areas and with fewer facilities and tourism attractions.

the 1st Cluster contains the most number of hotels. They have the **largest number** of facilities and benefits from tourist attractions. These are also the **most expensive** ones.

V. DISCUSSION SECTION

- The cost of accommodation varies according to its region and type.

Consider about hotels nearby Kyoto...

- It is notable that Hotels nearby also have a wide range of facilities and tourist attractions:

Kiraku Kyoto Aneyakoji, Grand Prince Hotel Kyoto, Imu Hotel Kyoto....

- The first pattern: clusters 2, 3, 4, 5, 6 and 7, highlights hotels that have a smaller number of facilities and located in less crowded areas.
- The second pattern, cluster 1, highlights hotels that have the most of facilities and tourist attractions.

VI. CONCLUSION SECTION

- In conclusion, Kyoto is one of the most popular destinations in Japan. It offers a wide range of tourist attractions: culture, nature, history, art and so on. If someone wants to travel, there are many things to consider about choosing the right location, accommodation, flights, rental cars to attractions, restaurants, stores and other facilities.
- The price of accommodation depends on the number of venues and surroundings. The closer hotel is to the tourist attractions, the more expensive it will be. It's notable that there are also good and less expensive hotels at a quite short distance from the center, so it is not necessarily mandatory to stay in the center to visit tourism attractions.

THANK YOU!!!