

RECOMMENDED TOKYO HOTELS FOR OLYMPIC GAMES 2021

The Data informed choices!!!

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PROBLEM DESCRIPTION AND DATA EXPLANATION

- Tokyo will host Olympics and Paralympics in July and August 2021
- Due to covid, only people who are already staying in Japan can only attend the games.
- But the games will still be held under strict conditions and restrictions as per the set covid19 prevention protocols.
- It is therefore important that travellers book hotels that are conveniently situated in order to be closer to venues, especially the main venue which is the tokyo olympic stadium and other places of interests such as restaurants, bars, covenient stores etc.
- This project aims to help travellers by recommending such hotels which are within 10km radius of this main venue.
- The Tokyo Hotel listing data from “inside airbnb” has been used for this project.
- We have also used the FourSquare API for its quality location data.



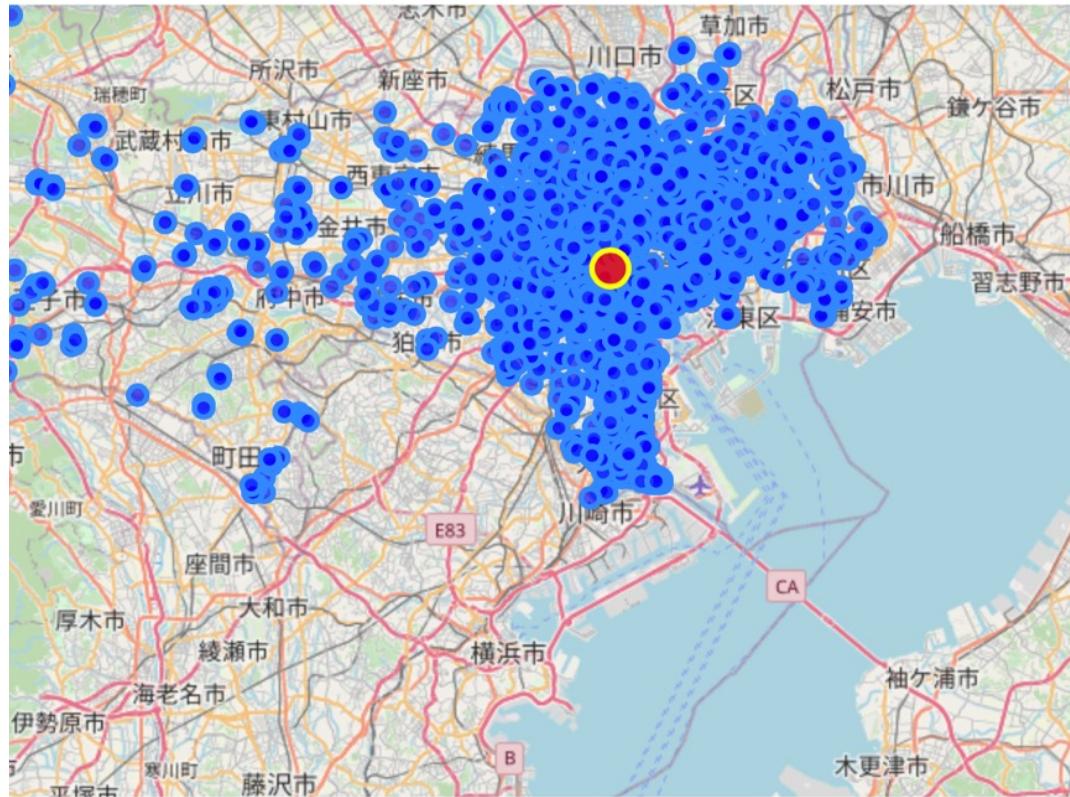
DATA ACQUISITION AND CLEANING

```
df_tokyo = pd.read_csv("/Users/palimasenkane/Downloads/listings.csv")
df_tokyo.head()
```

	id	name	host_id	host_name	neighbourhood_group	neighbourhood	latitude	longitude	room_type	price	minimum_nights	number_of_reviews
0	197677	Oshiage Holiday Apartment	964081	Yoshimi & Marek	NaN	Sumida Ku	35.71721	139.82596	Entire home/apt	11000	3	
1	776070	Kero-kero house room 1	801494	Kei	NaN	Kita Ku	35.73844	139.76917	Private room	7677	3	
2	899003	Classy room @Shinjuku, Takadanoba	4799233	Yu	NaN	Shinjuku Ku	35.71019	139.69755	Entire home/apt	5200	30	
3	1016831	WOMAN ONLY LICENSED ! Cosy & Cat behnd Shibuya	5596383	Wakana	NaN	Setagaya Ku	35.65800	139.67134	Private room	4000	1	
		private room							Private			

- The dataset was downloaded from the inside airbnb website as a CSV file into a local computer. It was then loaded into the jupyter notebook platform for processing and analysis.
- Certain empty columns and rows were removed including all other columns that were found unnecessary to execute this project.
- After cleaning the data, the hotels were visualised on a Tokyo Map centered around the Tokyo Olympic Stadium; being the main venue of the events

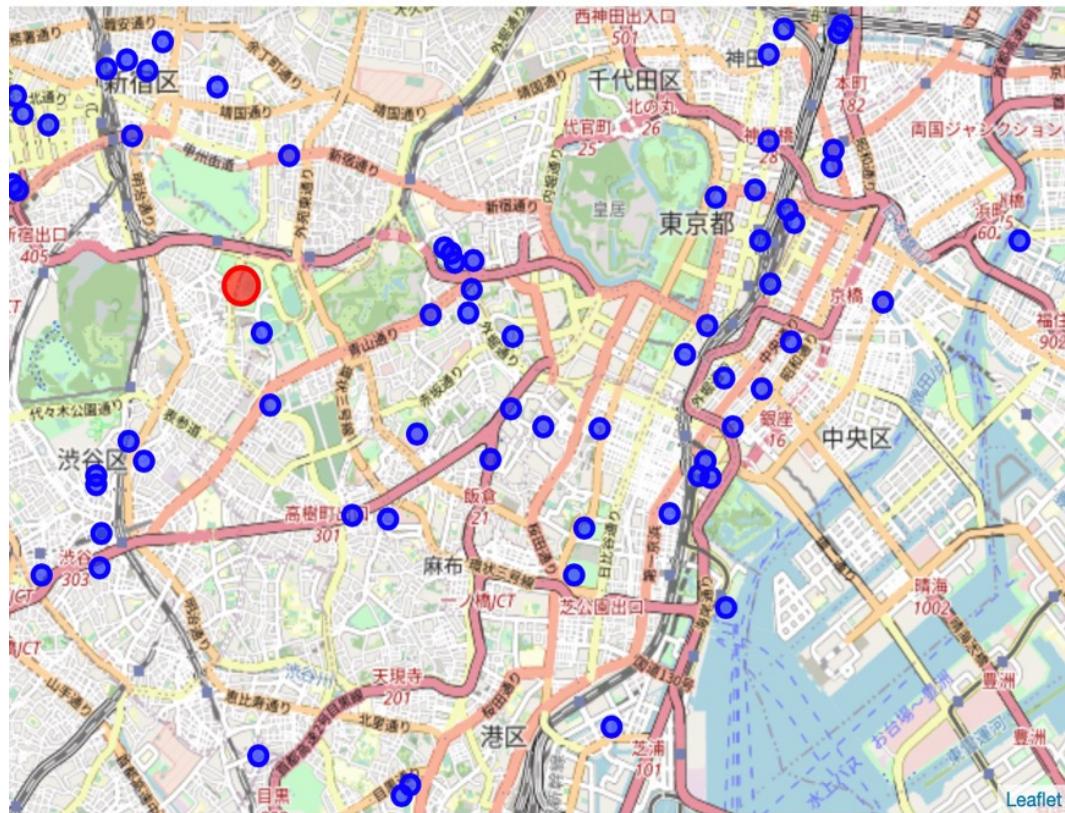
HOTELS VISUALISATION



- As noted here, the hotels were visualized on the Tokyo map (as noted in blue). The red circle is the main venue.
- The hotels in Tokyo were further narrowed down to only those that are within the 10km radius of this main venue and this were also visualized on a Tokyo map as noted in the next slide.



THE METHODOLOGY



- A fourSqaure API has been used to find some hotels that are within a 10km distance of the Tokyo Olympic Statium which will be the main venue for the games. Some hotels are also explored for find their ratings and tips from the users and to also locate some places of interests around the hotels.
- The hotels are within the 10 km radius of the Tokyo Olympic Stadium were identified and visualized as shown in the figure below. The red circle indicates this stadium while the blue circles are these hotels.

METHODOLOGY CONT'D

#	ID	Name	Description	Address	Rating	Reviews	Category
9	5731b405498e21762797d697	(アメリカンファーマシー)	'4bf58dd8d48988d10f951735', [{"id": "4bf58dd8d48988d10f951735", "name": "P..."}]	V-1625480455	False	紀尾	
10	5bce982f031320002ccc1462	Freshness Burger (フレッシュ ネスバーガー)	'4bf58dd8d48988d16c941735', [{"id": "4bf58dd8d48988d16c941735", "name": "B..."}]	V-1625480455	False	紀尾	
11	5731e420498eca7c09802ccf	Erick South (エリックサウス)	'54135bf5e4b08f3d2429dfde', [{"id": "54135bf5e4b08f3d2429dfde", "name": "S..."}]	V-1625480455	False	紀尾	
12	5f3736891737e93fff59ec4e	イーク紀尾井町	'4bf58dd8d48988d177941735', [{"id": "4bf58dd8d48988d177941735", "name": "D..."}]	V-1625480455	False	紀尾	
13	5731d701498ed5592d7d4bc1	Starbucks	'4bf58dd8d48988d1e0931735', [{"id": "4bf58dd8d48988d1e0931735", "name": "C..."}]	V-1625480455	False	紀尾	
14	4bb9d1b77421a593be07c340	紀伊和歌山藩徳川家屋敷跡	'4deefb944765f83613cdba6e', [{"id": "4deefb944765f83613cdba6e", "name": "H..."}]	V-1625480455	False	紀尾	
15	57315908498e672677d06b91	DEAN & DELUCA	'4bf58dd8d48988d16d941735', [{"id": "4bf58dd8d48988d16d941735", "name": "C..."}]	V-1625480455	False	紀尾	
New Otani Garden							

- Several of these hotels were also explored to find what could be some places of interests around them. The figure below shows some restaurants, convenient store, other hotels, gyms etc. and their exact physical addresses.
- Few examples are shown here
- Furthermore, some hotels and these places of interest were also explored for ratings and tips and such rating information is very important in informing the customer decisions of renting a hotel.



RESULTS AND DISCUSSIONS

- We have successfully managed to use the Tokyo Hotel listing data and the foursquare api to pick hotels around Tokyo that are within 10 km of the Tokyo Olympic Stadium, the main venue for Tokyo2020 Olympic and Paralympic games, that will, among other host both the opening and closing cemeronies of the events.
- 1. We did not only list the hotels but we also managed to visualise them on the map centered around the Tokyo Olympic stadium and by simply putting the curser on each blue spot, the name of the hotel is displayed both in English and Japanese making it easy for both Japanese and English speakers to easy see the name and search for other information from the internet.
- 2. Again, as shown from the results, we also managed to successfully explore some places of interests around certain hotels that were picked randomly. The knowledge of these places further make it easy for travellers to decide on which hotel to pick based on their interests. Not only are these places of ineterest listed, the distance from the hotel as well as the exact physical address are provided (in Japanese and English).
- 3. Only challenge for this project was the venue ratings and tips information. We were not able to dispaly the rating information as all the randomly chosen venues returned "The venue has not been rated yet" message. The same happened with the "tips" information. This is are very important pieces of information which can be very helpful in choosing the hotel as well.



CONCLUSION

- The purpose of this project was to help travellers, particularly the people in Japan who will be travelling to Tokyo for the Olympics and paralympic games to easily locate hotels which are within 10km of the main venue of the games. This is important because the games will be held under very strict covid19 conditions which will limit movements and use of public transport. Thus, choosing a venue that is very close to areas of interest is critical. Since the purpose was to help travellers locate hotels and other places of interest, there was no much of data analysis, machine learning training, fitting and predicting of the models; no statistical inferences. Our approach was informed by our purpose, which is an important part of a data scientist to always be vigilant in choosing the tools and approaches on a given scenario or problem. While we have been largely successful in reaching our main for this project, there is a huge room for improvement and with more and more practice things will get better.