Hotel For nightlife

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Introduction:

New York is the most populous city in the United States. Also, the heart of the global financial market and This project will analyze which Hotel would be appropriate for the tourist to have nightlife on the trip to New York. For those who want to have a nice experience of hotel service after their nightlife, the content of this report is also suitable. This project will analyze the location of the convenience store, bar, and hostel.
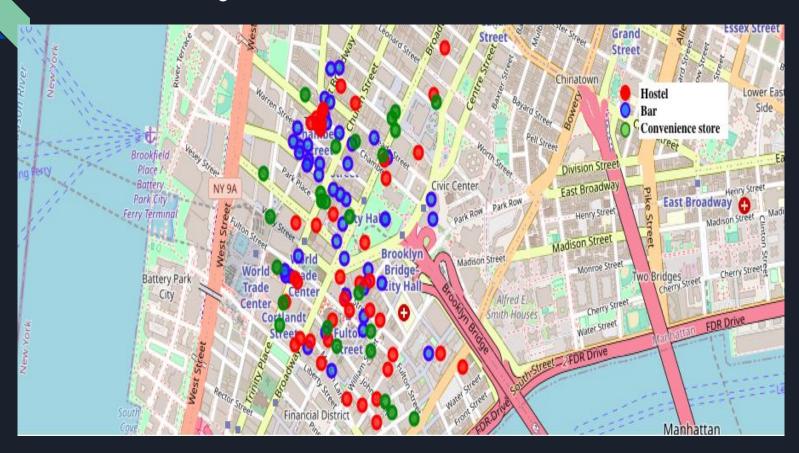
Data collection:

The report will use the data from the Foursquare API.the data will include the location of the hotel, bar, and convenience store in NewYork City. Then, The hostel, bar, and convenience store will be mapped by the folium library. The map visualizes the location of the venues above that will demonstrate the distribution of the bar and hotel. The hostel close to the bar and the convenience store would be selected. The selected group of hotels would be compared by the rating from Foursquare. Finally, the recommendation will be made by these processes.

Data cleaning:

Data downloaded or scraped from the Foursquare were combined into 3 tables. The separation of table is accepted because the target of the project is only to analyze the hotel.There were a lot of missing values even in the latest version, it may be raised from lack of record keeping. The missing values of the neighborhood is important to the analysis of the location of the hostel which is shoved by the classification of the postal code.

Data analysis:

Legend:
- Hostel (red)
- Bar (blue)
- Convenience store (green)

The hotels are all located in Manhattan and the hostel and The bar are close. There are 42 hotels in this area. The hostel surrounded by the bar and convenience store will be first selected. The hostels on west Broadway are close to the bars. There are at least 20 bars close to the hostels at Broadway.Also, they are also equipped with the convenience store.Therefore, The Hotel at west Broadway will be firstly analyzed. These hostels are listed as follows.the convenience store.Therefore, The Hotel at west Broadway will be firstly analyzed. These hostels are listed as follows.

	Name	Address
12	Aka Tribeca	85 W Broadway,
16	Smythe Thompson Hotel	86 W Broadway
18	Smyth Hotel	85 W Broadway
19	The Frederick Hotel	95 W Broadway
20	Cosmopolitan Hotel - TriBeCa	95 W Broadway
25	The Frederick Hotel	95 West Broadway
40	Red lipstick	95 W Broadway

- Secondly, There are 4 hotels located at Greenwich Village and Soho.
  - Only the .Duane Street Hotel and Eight Beta Suite achieved the requirement, close to the bar and the convenience store. Therefore. These 2 hostels will also be evaluated.

- Also, The Four Season Hotel and Millennium Hilton as a big brand and which also access the requirement will also be selected.

- The Acquis Executive Lounge has a good package.

- Also nice package for the JC's Hotel New York and The Beekman, A Thompson Hotel

Result:
This part will deal with the evaluation of the hotel above by checking their rating.

Hostel in West Broadway	
Aka Tribeca	has not been rated yet.
Smythe Thompson Hotel	has not been rated yet.
Smyth Hotel	has not been rated yet.
The Frederick Hotel	8.2
Cosmopolitan Hotel - TriBeCa	6.1
The Frederick Hotel	has not been rated yet.
Red lipstick	has not been rated yet.
Greenwich Village and Soho	
Duane Street Hotel	6.8
Eight Beta Suite	has not been rated yet.
Particular selected hotels	
Four Seasons Hotel	9.2
Millennium Hilton	7.0
Acquis Executive Lounge	has not been rated yet.
JCs Hotel New York	has not been rated yet.
The Beekman, A Thompson Hotel	has not been rated yet.

Clustering:

Due to the neighborhood is too board to categorized the hotel. Therefore, I categorized the hotel by the street.

	street	Hotel	Latitude	Longitude
0	Barclay	1	40.707314	-74.005450
1	Broadway	1	40.712842	-74.007740
2	Church St	1	40.707800	-74.012900
3	Greenwich Village and Soho	2	40.715858	-74.007446
4	Nassau street	2	40.709300	-74.008700
5	West Broadway	7	40.715285	-74.009151

Clustering:

Discussion

From the result above, it can be observed that many selected hotels have not been rated yet. However, it can still make some progress. If you want to stay in West Broadway, The Frederick Hotel should be a good choice based on our limited information. For Greenwich Village and Soho, it seems that it is not a place to compare with others. If the customer doesn't want to live in a crowded bar area, Four Seasons Hotel and Millennium Hilton would be recommended. Also, It can be observed that in the particular area, The hotel is quite close to the bar. it may be due to the complement relationship between these 2 services.

Conclusion:

All in All, this project is finished. If someone follows the suggestion of this report which I suppose no one will do, please tell me about the experience. there are also some new ideas after doing this report. For example, is there a positive relationship between the number of the hostel and the bar. Does the hostel close to the bar will have higher attendance than the hotel routine from the bar? I think it is an interesting question to investigate. I hope you would like this project:)