

BATTLE OF NEIGHBOURHOODS

Introduction

NYC & Company has released its latest tourism figures, which found that in 2018, New York City welcomed a record 65.2 million visitors, comprising 51.6 million domestic and 13.5 million international visitors, the ninth consecutive year of tourism growth. A record 37.7 million hotel room nights were sold citywide last year, generating \$623 million in estimated hotel occupancy tax revenues.

Through this project , I would like to help tourists from across the world to choose the most appropriate hotel to check-into

Problem Statement

When a tourist is trying to book a hotel room at a particular tourist destination,

then the hotels will be graded based on the following parameters

- The current Ratings
- The number of trending places nearby
- The number of likes received

Data Source

Hotels of New York City.

Data source : Foursquare API

Methodology

1. Get the list of hotels in New York City

	ID	Name	Category
0	56d8c0f8498edb854f926e6a	The Beekman, A Thompson Hotel	Hotel
1	57c640ad498e74977f98372f	Four Seasons Hotel New York Downtown	Hotel
2	49efcc88f964a52006691fe3	Smyth Hotel	Hotel
3	54aed577498ee5fc196739f7	Residence Inn by Marriott New York Downtown Ma...	Hotel
4	5bd4cc646adb5002c1ced5c	Moxy NYC Downtown	Hotel
5	3fd66200f964a520bbe61ee3	The Roxy Hotel	Hotel

2. For each hotel , get the number of likes and ratings

	ID	Latitude	Likes	Longitude	Name	Ratings
0	56d8c0f8498edb854f926e6a	40.711173	208.0	-74.006702	The Beekman, A Thompson Hotel	9.2
1	57c640ad498e74977f98372f	40.712612	67.0	-74.009380	Four Seasons Hotel New York Downtown	9.2
2	49efcc88f964a52006691fe3	40.715144	62.0	-74.009183	Smyth Hotel	8.4
3	54aed577498ee5fc196739f7	40.709563	54.0	-74.009718	Residence Inn by Marriott New York Downtown Ma...	8.1
4	5bd4cc646adb5002c1ced5c	40.710662	31.0	-74.007969	Moxy NYC Downtown	7.8
5	3fd66200f964a520bbe61ee3	40.719341	496.0	-74.005044	The Roxy Hotel	8.7

3. Get the total number of trending places in a radius of 1000m for each hotel
4. Calculate the score for the hotel based on the above parameters.
5. Sort the hotels based on the grade and recommend to the tourist

	ID	Name	Latitude	Longitude	Likes	Ratings	Trending	Score
0	3fd66200f964a520bbe61ee3	The Roxy Hotel	40.719341	-74.005044	496.0	8.7	231	1215.1
1	5547ffe8498ec8a2c668a412	NOMO SOHO	40.719892	-74.000083	328.0	8.3	235	1057.9
2	4f22ca77e4b0ed3396a83a05	Conrad	40.715035	-74.015840	293.0	8.7	227	1000.1
3	4bc7ab4c14d79521c6e367e9	W New York - Downtown	40.709137	-74.013651	249.0	7.8	231	965.4
4	56d8c0f8498edb854f926e6a	The Beekman, A Thompson Hotel	40.711173	-74.006702	208.0	9.2	238	949.6
5	57f0689d498e7d49d9189369	The Bar Room at Temple Court	40.711448	-74.006802	192.0	9.4	238	934.2

6. For the most recommended hotel, use Folium to plot all the nearby venues using the information collected.

	venue.name	venue.location.lat	venue.location.lng
0	Aire Ancient Baths	40.718141	-74.004941
1	SKY TING YOGA	40.718124	-74.003051
2	Gotan	40.719217	-74.006642
3	Spring Studios	40.720915	-74.006207
4	The Django	40.719365	-74.004880
5	Terra Wine Bar	40.719268	-74.006505

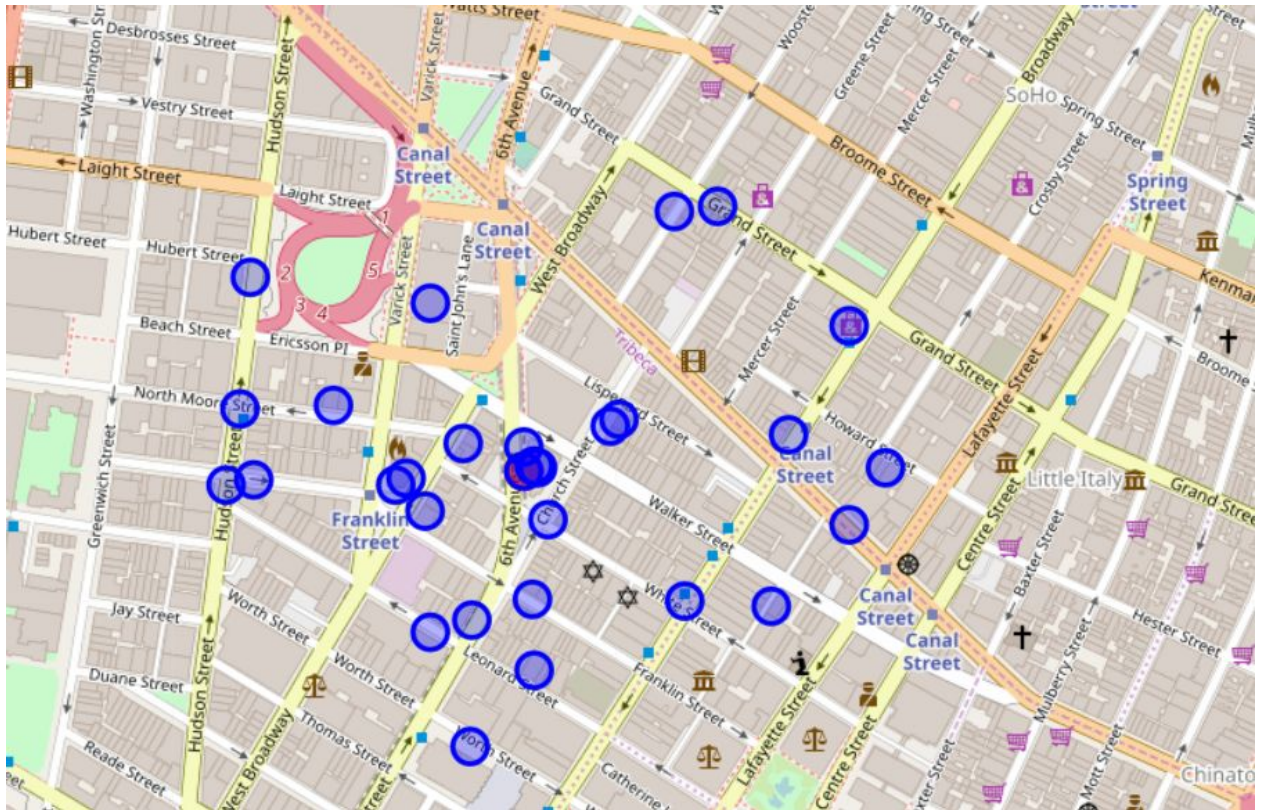
Results

The most suited hotel for a new tourist to stay in NY city is The Roxy Hotel
It has a total score of 1215 and tops the table.

The number of likes : 496

Ratings :8.7

Trending places nearby :231



Conclusion

There are definitely other parameters that need to be considered before booking a hotel room such as the price, the priority of the trending place and the availability. But due to insufficient data, I have constricted my scope of parameters to the above mentioned ones.

