### CONSIDER COMPETITORS IN THE HOTEL INDUSTRY IN MANHATTAN

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#### 1. Business Problem

There is an Hotel name: "the Hilton Times Square" - the address at 234 W 42nd St, New York, NY 10036 USA - its owner wants to find out about his opponents. He want find 30 hotels in a location close to his hotel for review. Based on the price, quality and distance characteristics of his hotel, he will propose the most effective online advertising plan.

## 2. Data acquisition and cleaning

#### 2.1.Data sources

Map data is taken from: https://geo.nyu.edu/catalog/nyu 2451 34572

Data from the hotel is taken from: https://foursquare.com/

#### 2.2.Data cleaning

From the New York map, I chose a smaller area, Manhattan, which the hotel belongs to. Then take the coordinates of Hilton Times Square hotel located at 234 W 42nd St, New York, NY 10036, USA, from the website https://foursquare.com/. Next is to turn raw data into a dataframe format and eliminate missing and duplicate data.

### 3. Methodology

I utilize the Foursquare API to explore the neighborhoods and segment them arn more about your possibilities to load the data.

# 4. Report

## 4.1. List of hotels and distance to Hilton TImes Square hotel

	name	categories	address	cc	city	country	cross Street	distance	formattedAddress	labeledLatLngs	lat	Ing	neighborhood	postalCode	state	
0	Paramount Hotel	Hotel	235 W 46th St	US	New York	United States	NaN	351	[235 W 46th St, New York, NY 10036, United Sta	[{'Ing': -73.98717696388796, 'lat': 40.7594749	40.759475	-73.987177	NaN	10036	NY	4adbaf34f964
1	Hotel Edison	Hotel	228 W 47th St	US	New York	United States	at 8th Ave	407	[228 W 47th St (at 8th Ave), New York, NY 1003	[{'Ing': -73.98608770066558, 'lat': 40.7596663	40.759666	-73.986088	NaN	10036	NY	4b4bbe3ff964
2	AC Hotel Times Square	Hotel	260 W 40th St	US	New York	United States	40th btw 7th & 8th Ave	182	[260 W 40th St (40th btw 7th & 8th Ave), New Y	[{'Ing': -73.99031690674605, 'lat': 40.7556572	40.755657	-73.990317	NaN	10018	NY	5ac67754a9e4
3	Aliz Hotel	Hotel	310 W 40th St	US	New York	United States	NaN	267	[310 W 40th St, New York, NY 10018, United Sta	[{'ing': -73.99157595205548, 'lat': 40.7562071	40.756207	-73.991576	NaN	10018	NY	5bc65d8e18
4	The Belvedere Hotel	Hotel	319 W 48th St	US	New York	United States	btw 8th Ave & 9th Ave	572	[319 W 48th St (btw 8th Ave & 9th Ave) New Yo	[{'Ing': -73.9880682833074, 'lat': 40.76159900	40.761599	-73.988068	NaN	10036	NY	4af0ae0df964

## 4.2 Location of the hotel on the map



## 5. Conclusion:

We can see around the Hilton Times Square hotel area there are many hotels with different prices and quality.