



Analysis of NYC Hotels Listed on Tripadvisor



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Agenda

- Motivation
- Methodology
- Surface Analysis
- Variables for Success
 - Location
 - Quality of Life
- Conclusion
- Next steps



Photo: Merrion Row Hotel and Public House
Source: Tripadvisor.com

Motivation

- Exploration of opportunities for hotel businesses to grow.
- Confirmation of successful business strategies.
- Recognizing common consumer interests
- Opportunity for personal growth by analyzing data using scrapy package of python



Methodology

Extracted the following information from Tripadvisor.com using scrapy:

- Company Name
- Overall Rating from Tripadvisor
- Consumer Ratings
- Number of Reviews
- Address
- Number of Restaurants within 0.3 mi
- Number of Attractions within 0.3 mi
- Tripadvisor Walking Grade (Activities within walking distance)
- Hotel service (Property Amenities, Room features, Room service)

714 Hotel entries pulled

The screenshot displays the Tripadvisor website interface for searching hotels in New York City. The top navigation bar includes links for Post, Trips, Inbox, Profile, and a JOIN button. The main header shows the location path: United States > New York (NY) > New York City > New York City Hotels. A map on the left shows the location of New York City with a 'View map' button. The search results are for 'New York City Hotels and Places to Stay' with a price range of \$0 - \$499+. The search criteria are: Check In: Mon, 01/27/20; Check Out: Tue, 01/28/20; Guests: 1 room, 2 adults, 0 children. The results are sorted by 'Traveler Ranked' and show 808 properties. The first few results are: AKA Times Square (714 reviews), Gardens Suites (2,288 reviews), and Merriem Row Hot... (320 reviews). Below these, there are two featured hotel cards: 'Moxy NYC Downtown' and 'Hotel Giraffe by Library Hotel Collection'. Both cards show a price of \$233 and a 'View Deal' button. The 'Moxy NYC Downtown' card also shows a 'Sponsored' label and a 'View all 14 deals from \$233' link. The 'Hotel Giraffe by Library Hotel Collection' card shows a 'Top Rated' badge and a 'View all 12 deals from \$233' link. The left sidebar contains filters for Price, Popular, Amenities, Deals, and Property types.

tripadvisor

Post Trips Inbox Profile JOIN Search

New York City Hotels Things to do Restaurants Flights Vacation Rentals Shopping Vacation Packages Cruises Rental Cars ...

United States > New York (NY) > New York City > New York City Hotels Best Lodging in New York City (with Prices)

New York City Hotels and Places to Stay

Lowest prices for

Check In Mon, 01/27/20 Check Out Tue, 01/28/20 Guests 1 room, 2 adults, 0 children

808 properties in New York City Sort by: Traveler Ranked

Recently viewed in New York City

AKA Times Square (714) Contact accommodation for availability.

Gardens Suites ... (2,288) Contact accommodation for availability.

Merriem Row Hot... (320) Contact accommodation for availability.

Collapse

Moxy NYC Downtown Sponsored

Hotels.com \$276 \$233 View Deal

Expedia.com \$233 eDreams \$233 Nustay.com \$276 View all 14 deals from \$233

Hotel Giraffe by Library Hotel Collection

Hotels.com \$233 View Deal

Expedia.com \$233 Booking.com \$233 Priceline \$233 View all 12 deals from \$233

Price \$0 - \$499 + Price per night

Popular

4 stars 492

Breakfast included 212

5 stars 95

Amenities

Free Wifi 465

Breakfast included 95

Pool 37

Free parking 7

Deals

Properties with special offers

Free cancellation

Reserve now, pay at stay

Property types

Hotels 502

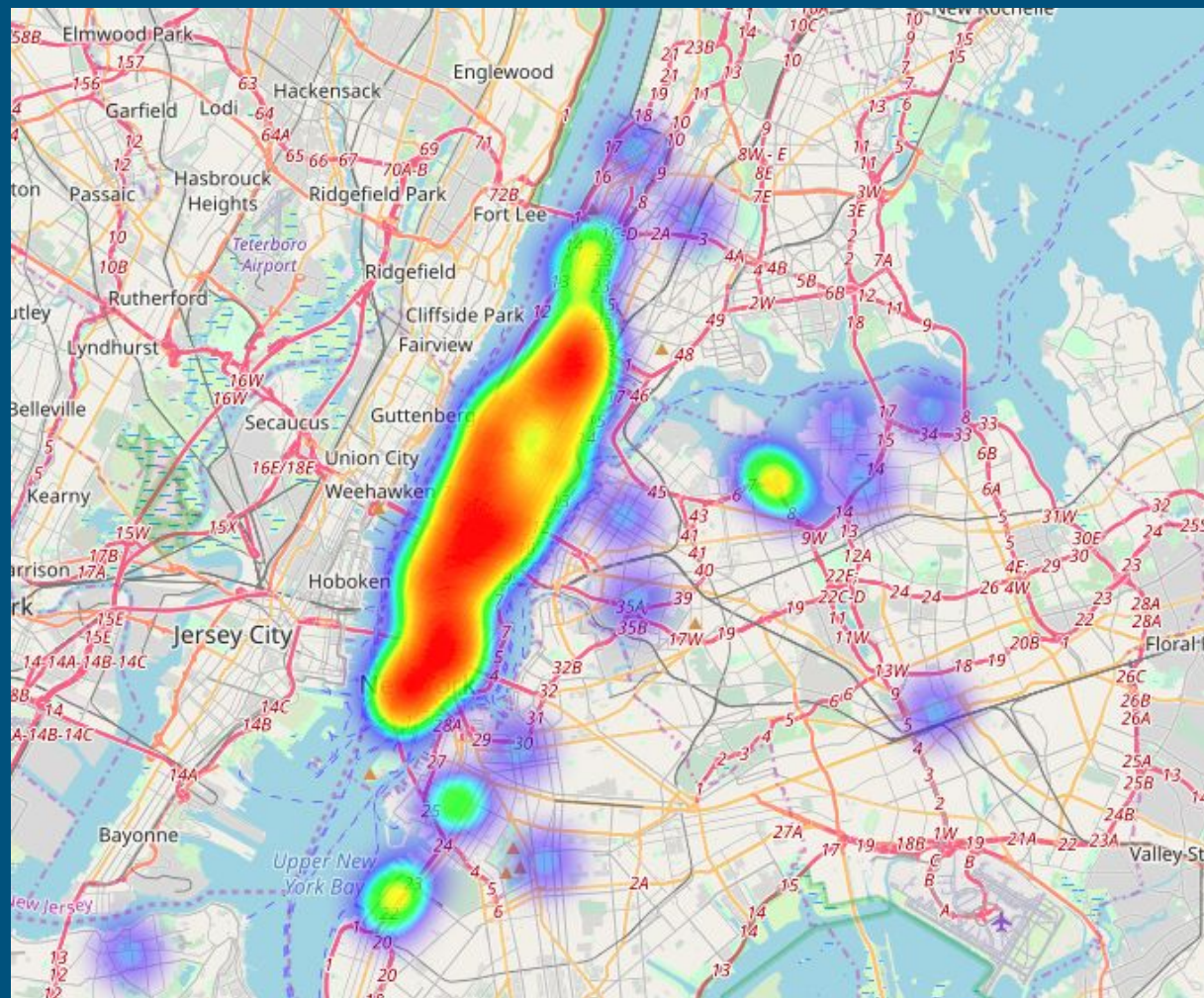
Condos 84

Surface Analysis

Hotel Location

Heat map of all hotel listings

- Warm colors = Higher density
- Cool colors = Lower density



Hotel Ratings

Quantitative outlook of overall hotel ratings.

- Highest rating = 5.0
- Lowest rating = 1.0

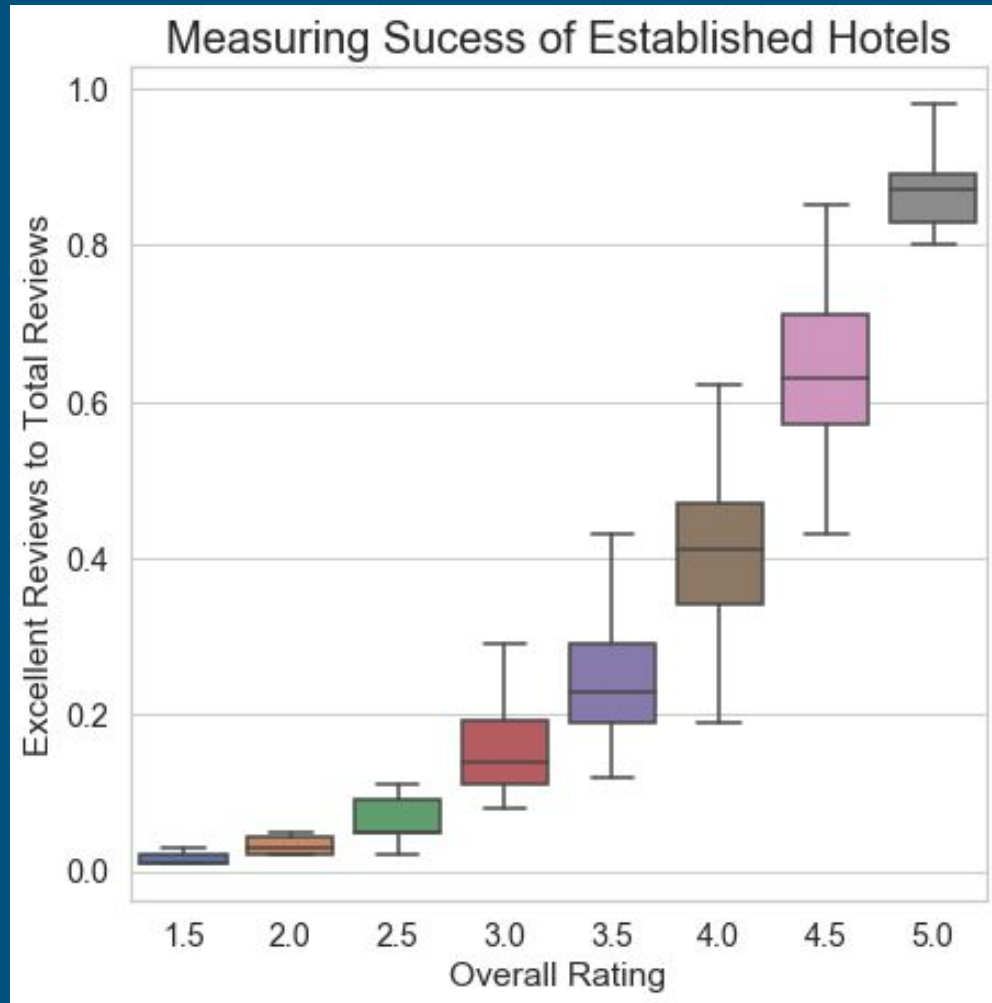


Measuring Success

Comparison of overall hotel ratings to the ratio of received excellent reviews to total reviews.

Technique only works with established companies (Reviews ≥ 50)

High ratings companies maintain high excellent review scores equates to consumer satisfaction.

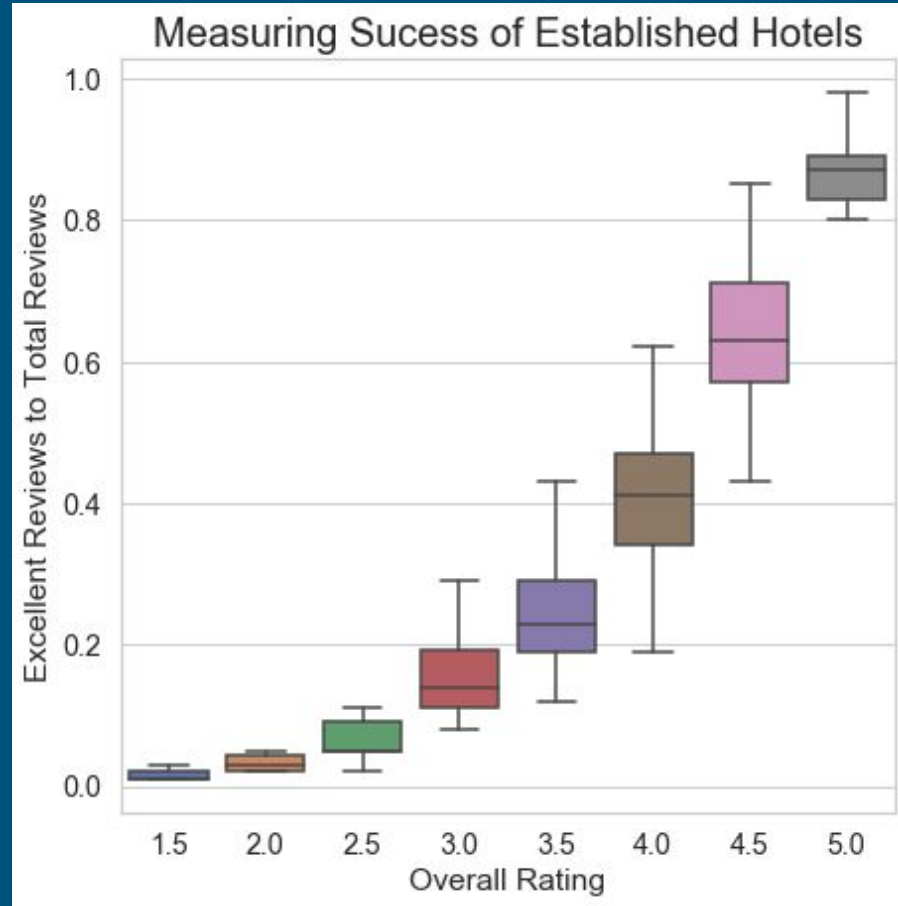


Variables for Success

Classification Class

Define following terms to classify established companies (reviews ≥ 50):

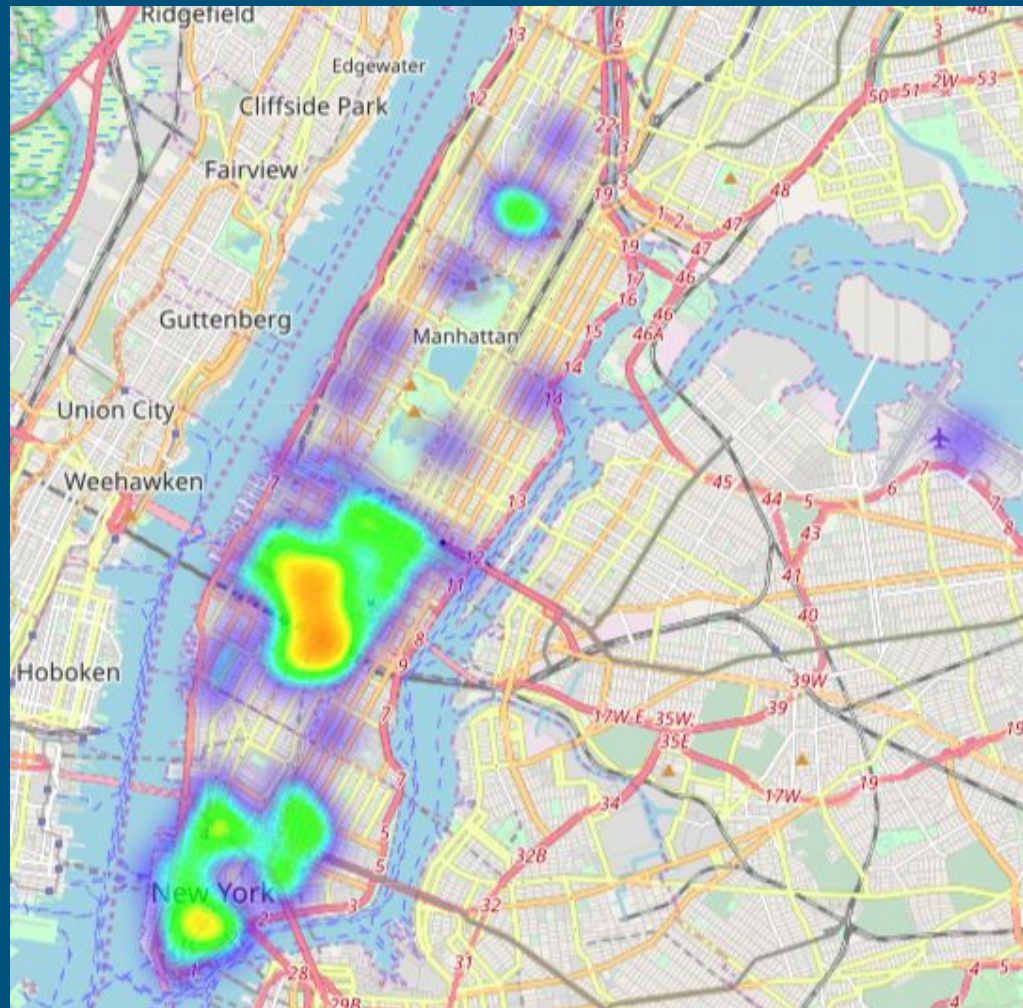
- Excellent: Overall ratings > 4.0
- Good: Overall ratings $3.0 - 4.0$
- Poor: Overall ratings < 3.0



Excellent Hotels

157 locations of excellent hotels
visualized using a heat map

Maps focused on Manhattan



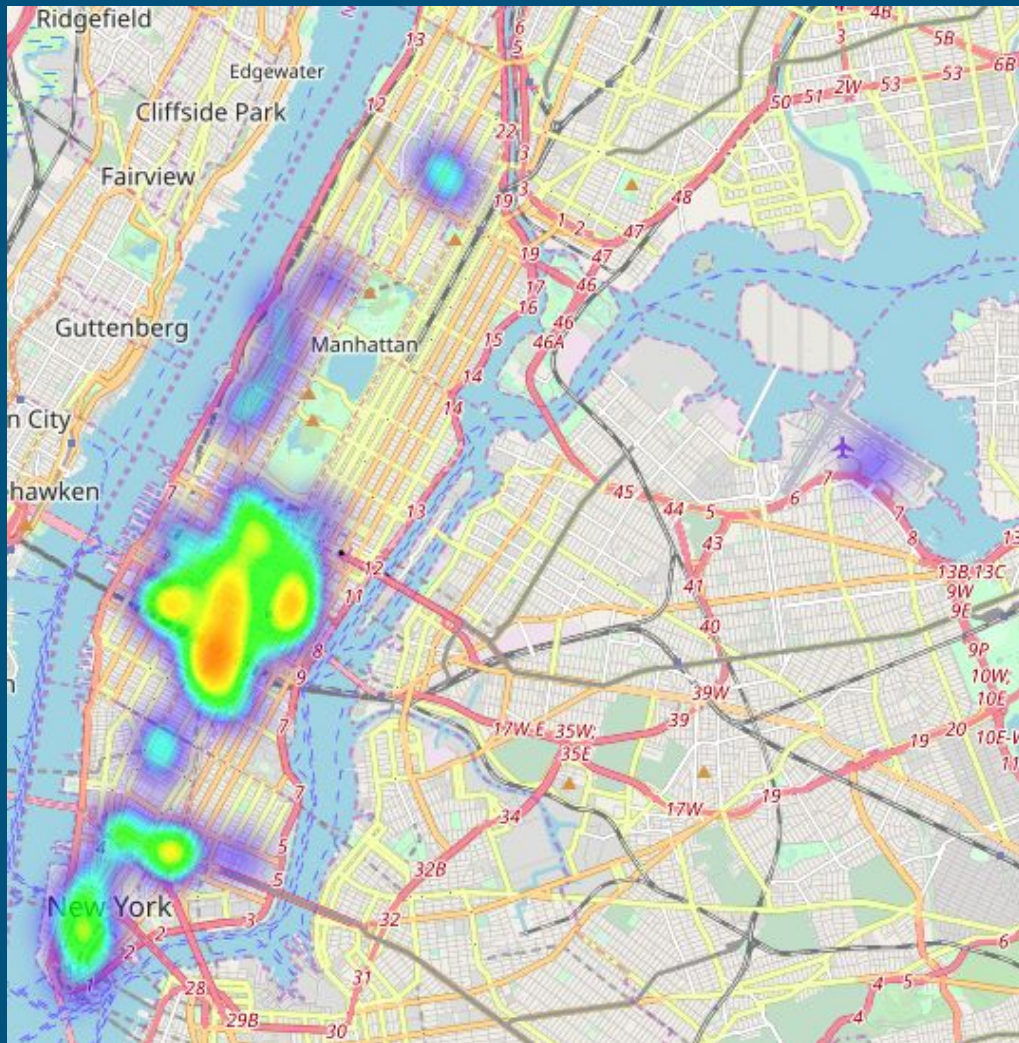
Good Hotels

284 locations of good hotels
visualized using a heat map



Poor Hotels

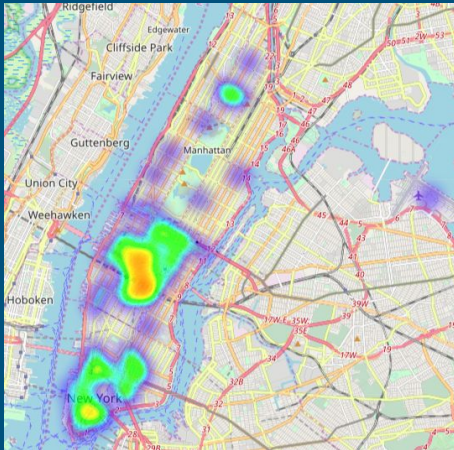
78 locations of poor hotels
visualized using a heat map



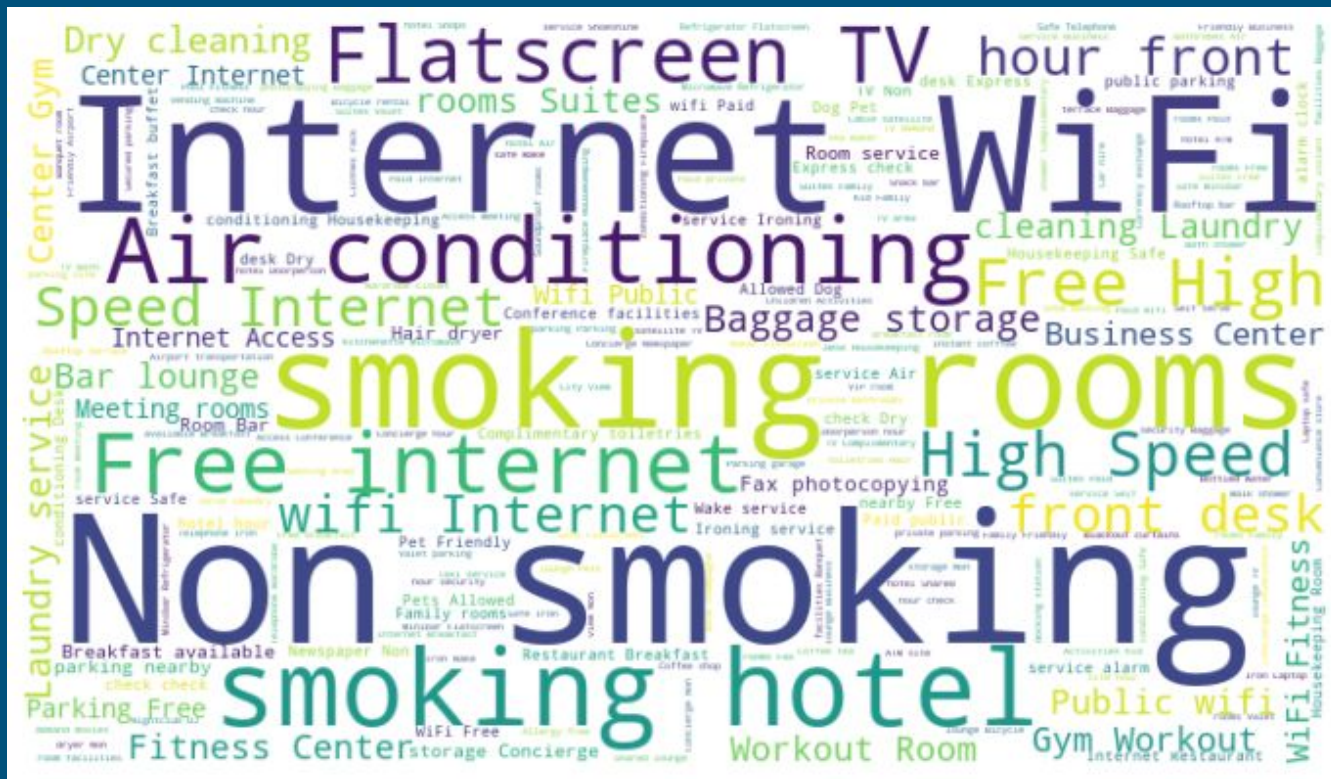
Success Variable: Location

Maps display that location is not an indicator of success.

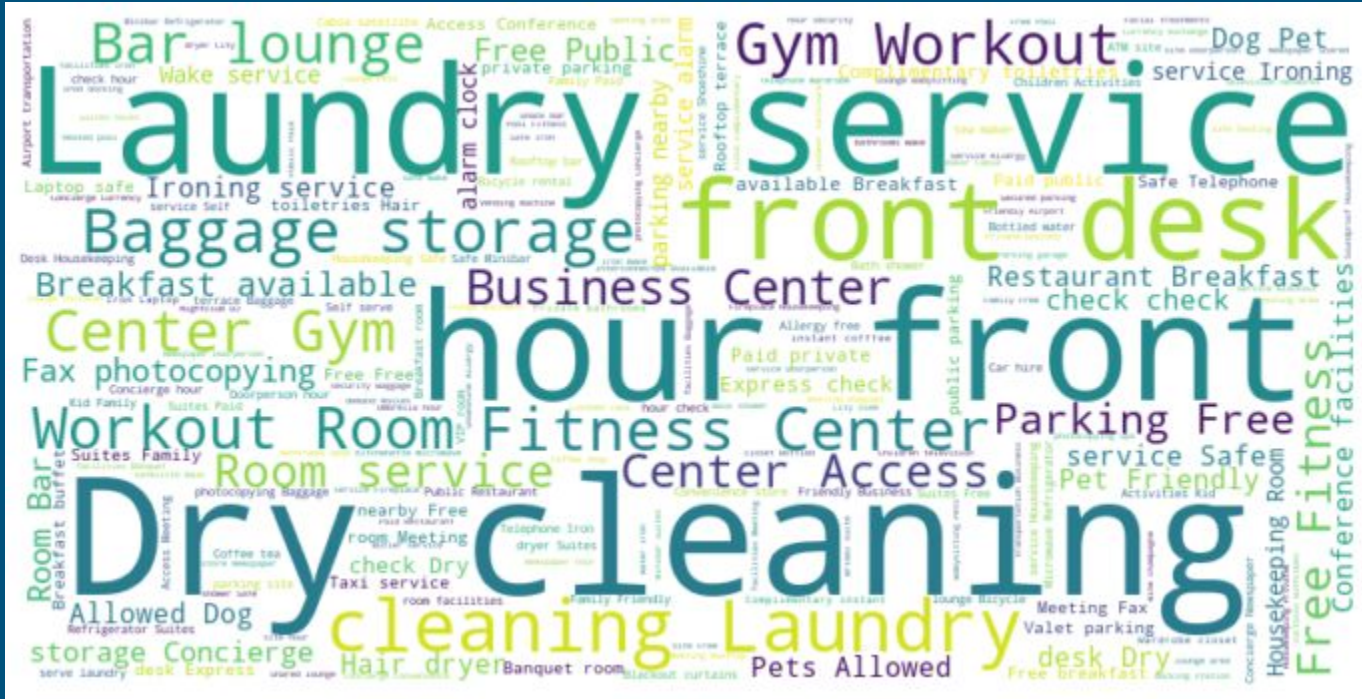
Takeaway: When starting a new hotel business in NYC, Manhattan is a preferred location, but should consider resources towards other variables for higher success.



Common Hotel Services

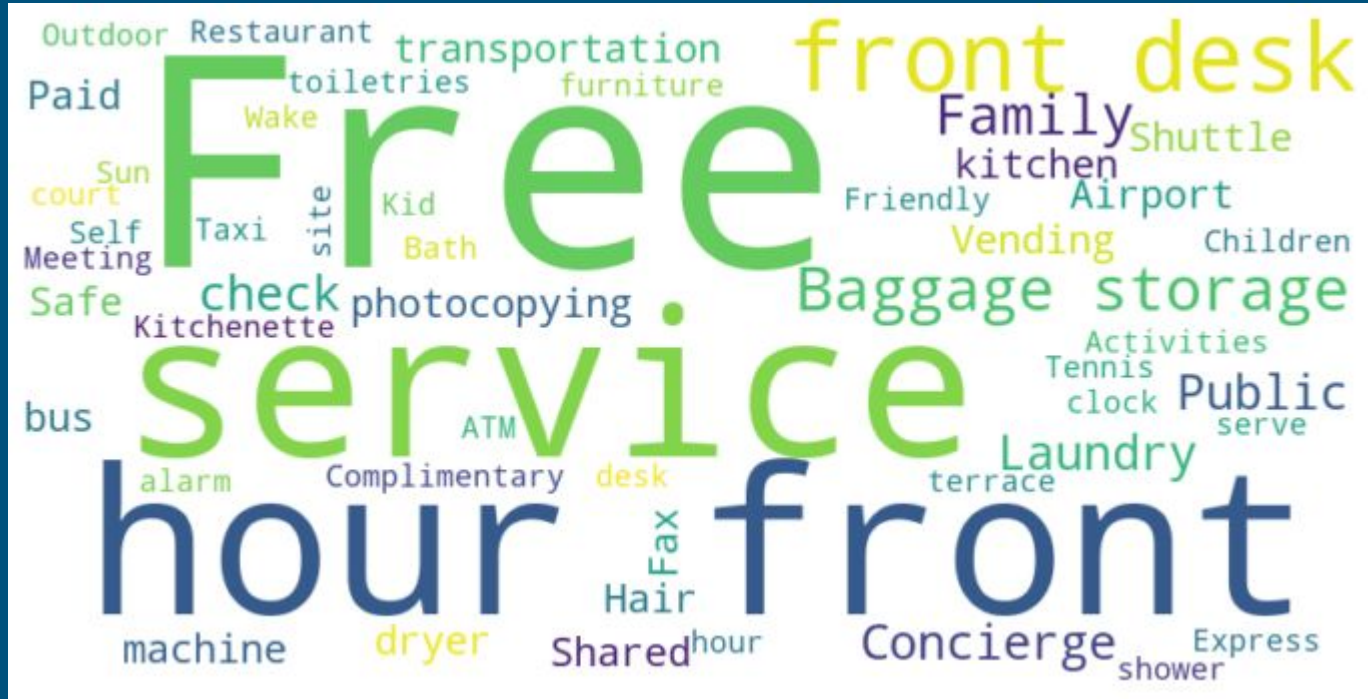


214 unique services found, Avg 14.75 services/hotel



39 unique services found, Avg 14.75 services/hotel

39 unique services found, Avg 14.75 services/hotel



Success Variable: Services

1. Businesses should meet consumer expectations on hotel services.
2. The differences of average number of listed services between classified classes are marginal.
3. Successful businesses list unique services as incentive.
4. Unless promoting “Free internet”, avoid using the word “Free”.



Photo: The Knickerbocker Hotel
Source: Tripadvisor.com

Conclusion

NYC Hotels listed on Tripadvisor displays many listings are located in Manhattan, however, there is no distinct relationship between business success and location.

For business growth, companies should list unique services and pursue excellent reviews

This information is valuable for consulting companies, hotel businesses, and completing travel platforming sites.

Photo: Park Terrace Hotel on Bryant Park
Source: Tripadvisor.com



Next Steps for this Project:

Create an application that will allow you to find a hotel with the desired features.

Incorporate a method to efficiently extract price deals for analyzing price prediction.

Photo: The Kitano Hotel New York
Source: Tripadvisor.com





Thank you



To find more information about
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