

Opening a Hotel in Miami

Introduction

According to growthink.com, there are 74,372 hotels in the United States. The market for hotels has grown at a rate of 4.7% for the past five years. Nowhere is the need for a new hotel stronger than in Miami, Florida. Miami leads the nation in hotel occupancy, rates, and revenue. As a thriving cultural, musical, vacation, and financial hub, the influx of tourists, both domestic and international, and businessmen, Miami is a destination location for a variety of travelers. There is no better location to build a new hotel than the city which has the demand and need for more rooms. The question is: where to open a new hotel in Miami?

Business Problem

The objective of this final assignment is to select the best location in Miami to open a new hotel. Using data science methodology and machine learning techniques such as clustering, this assignment seeks to answer the question: in which Miami neighborhood should a hotel group choose to open a new hotel?

Target Audience

The target audience of this assignment is hotel groups and management services seeking a business opportunity to open a hotel in Miami. This project is timely because the demand for hotels is only increasing and competition between hotels will continue to increase as well. Selecting the ideal location to open a hotel will be important in securing the success or failure of the hotel.

Data

We need data from reliable sources for analysis:

- Wikipedia List of Miami Neighborhoods: [https://en.wikipedia.org/wiki/Category:Neighborhoods in Miami](https://en.wikipedia.org/wiki/Category:Neighborhoods_in_Miami)

-This Wikipedia page contains a list of neighborhoods in Miami. Using BeautifulSoup and Python, we will conduct web scraping and extract the list of neighborhoods from this html. Then we will use the geocoder package to get the geo-coordinates of each neighborhood.

- Foursquare Developers Access to venue data: <https://foursquare.com/>

- We will make calls to the Foursquare API to obtain venue data, specifically hotel data, for the neighborhoods in Miami.