

# Coursera Capstone

## IBM Applied Data Science Capstone

Recommending Nightlife Destinations in Berlin, Germany



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# **Introduction**

In the decades following Cold War reunification, tourist activity in Berlin has nearly quadrupled. Berlin's hospitality sector increased by 25.3 percent between 2007 and 2013 alone, with 10.4% of employment growth being in the 'drinking establishment' category (Garcia, 2015). Tourism has affected various aspects of society and culture in Berlin, driving growth in local creative arts and increasing the space of urban gentrification. 'Alternative' tourism zones are popular; travelers seek 'authentic' experiences at local bars, pubs, nightclubs, lounges, and discos. Known as the number one nightlife destination in Europe, Berlin attracts people from different walks of life, from techno-tourists seeking to get lost in the music, to creative young migrants pursuing a better life. Cheaper flights and accommodation continue to attract the masses. Nighttime venues are always full, and nightlife and nocturnal leisure services have seen an increase in revenue in recent years (Oktay, 2015). In response, the number of pubs and bars in Berlin has nearly doubled in the last 10 years. Clearly, Berlin has the infrastructure and culture to host young travelers from all over the world; the goal of this project is to recommend the most attractive destinations to these youthful visitors. As a future traveler myself, the results of this project will provide me useful insights as I consider destinations to visit.

## **Problem Statement**

*Tourists and visitors do not know the best localities for nightlife in Berlin, Germany.*

When visiting a new city or country, many tourists prefer to plan out accommodation and transportation ahead of time, often based on the sites they intend to see and the places they want to visit. Given this and the attractiveness of Berlin's nightlife scene, it seems that information mapping the concentration of nightclubs and bars in the city will be useful to prospective tourists and individuals in the hospitality sector as a result.

## **Target Audience**

Finding of this project will be directly useful to travelers planning to actively engage in Berlin nightlife. While the current COVID-19 crisis has severely limited travel between countries, I foresee that this data will be necessary as businesses seek to safely return to normal. By identifying Berlin localities with a heavy concentration of nightlife venues, local authorities can perhaps better contain tourist activities within certain geographic regions, reducing local exposure to foreign visitors and monitoring overall infection rates. Additionally, future businesses owners in the service and hospitality sector may find this information useful when planning new ventures related to tourist activities, such as the opening of a new restaurant location or the purchase of available property for a potential Airbnb.

# **Data**

To solve this problem, we will use the following data:

- List of localities in Berlin, Germany

- Source: Wikipedia page  
[https://en.wikipedia.org/wiki/Category:Localities\\_of\\_Berlin](https://en.wikipedia.org/wiki/Category:Localities_of_Berlin)
  - Description: This list contains 96 localities (or *Ortsteile*, in German).
- Latitude and longitude coordinates of these localities
  - Source: Python Geocoder package
  - Description: 96 lat and long coordinate pairs corresponding to the locations of the 96 Berlin localities
- Venue data, bars and nightclub data in particular
  - Source: Foursquare API, Nightlife Spot category
  - Description: Includes names, locations, and other descriptive tags of bars, breweries, lounges, nightclubs, and related nightlife locations