Introduction: The business problem and the target market

Scenario: You are a travel agent with access to a great data scientist in the team

- Business Problem: The International Conference on Data Science for Workforce Management ICDSWM will take place on January 28-29, 2022 in New York, United States. In this scenario, a lot of international delegates will attend the conference: many of them will be travelling to New York for the first time. As New York is such a huge city, it can be scary for a data scientist to visit alone for the first time. Many other data scientists from different countries, need to plan their travel to New York - flights are the easy part. The event will take place at Piers 92/94 in Manhattan, New York. As this many of the target audience's first time visiting New York, so they want to know about the most highly recommended hotels/restaurants/recreation places close to the venue after each long day of data science lectures overload.

- Target Market: Attendees for The International Conference on Data Science for Workforce Management ICDSWM, as well as the travel agency's future clients for big events where we can demonstrate our results of previous client satisfaction.

# The data which will be used to solve the problem and the source of the data

- Fortunately we have access to Foursquare data, as well as good data scientist in our team.

- We will have to look for the most highly recommended hotels/restaurants/recreation places close to the venue which will be illustrated in an IBM Watson Studio Notebook. We will use the API from Foursquare determine the pre-mentioned data.

- Our success will be measured by the manual reviews (Survey Monkey *mock results*) we receive from our delegates we are doing the travel planning for, asking key questions which we can use for future clients and events planning.

Methodology section

- The data scientist will determine suggestions for the top restuarants/hotels/recreation facilities based on consumer ratings to suggest to the delegates. We will apply the Folium library to visualize the neighborhoods close to Piers 92/94 in Manhattan, New York by:
  - Download and Explore Dataset: Load and explore the data, transform the data into a pandas dataframe, loop through the data and fill the dataframe one row at a time, use geopy library to get the latitude and longitude values, create a map of Manhattan with neighborhood superimposed on top, import data from Foursquare, get the top recommended restuarants/hotels/recreation facilities that are within a close radius of Piers 92/94, send the GET request and examine the results and then clean the json and structure it into a pandas dataframe
  - We can then explore and analyze the most highly recommended hotels/restaurants/recreation places close to the venue
  - Analyze the neighbourhood for the most highly recommended hotels/restaurants/recreation places within a close radius of Piers 92/94
  - Cluster the neighbourhood on a map
  - Use Survey Monkey to see how our delegates rated their experience (*mock results*)

Results section: where you discuss the results.
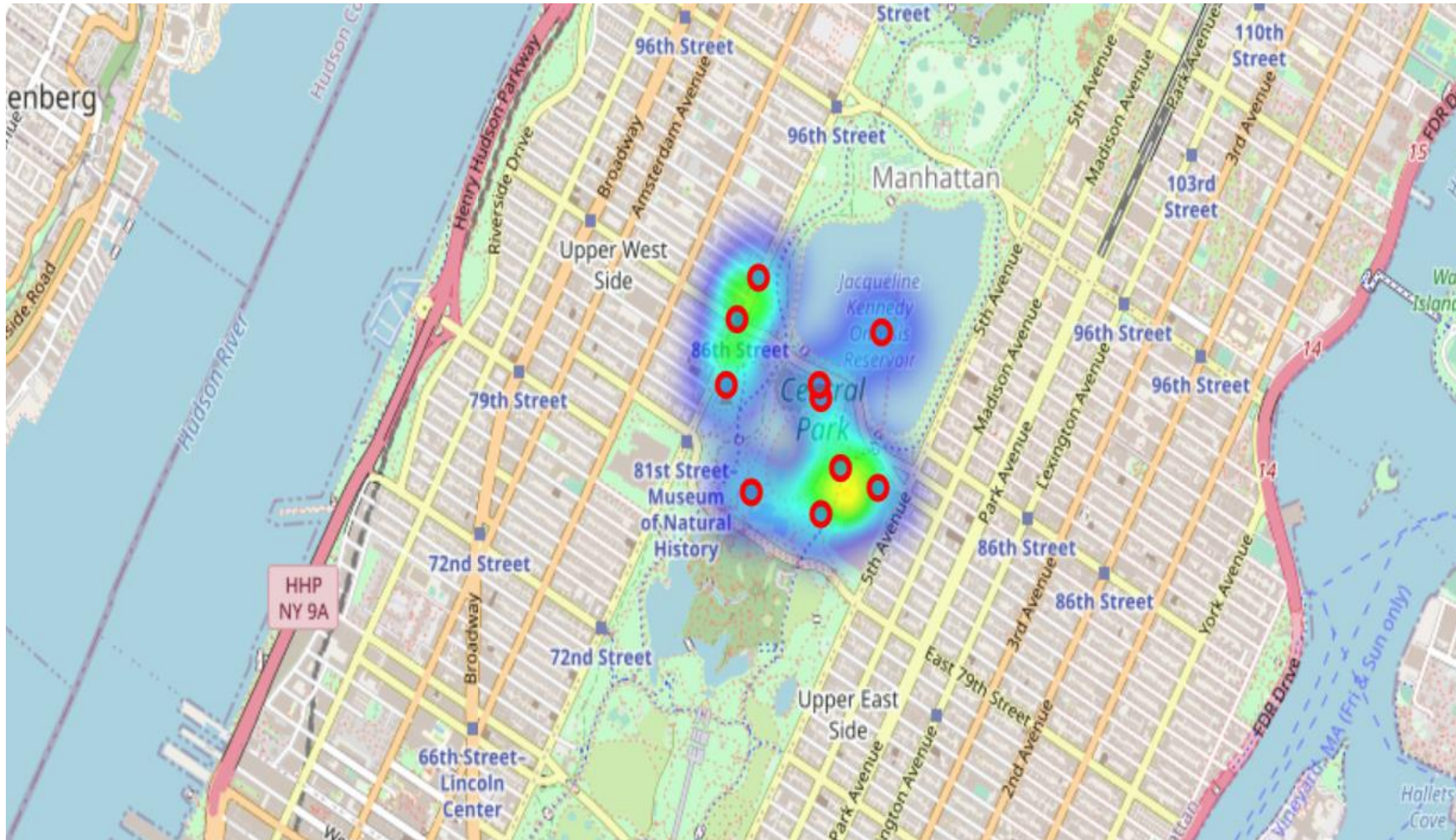
By applying the methodology, we found that top 9 recommended restuarants/hotels/recreation facilities are:

- Delacorte Theater
- The Obelisk (Cleopatra's Needle)
- Temple of Dendur
- Alexander Hamilton Statue
- Central Park
- Central Park Great Lawn Softball Field #7
- Summit Rock
- Jacqueline Kennedy Onassis Reservoir
- Central Park West
- Central Park West II

Discussion section where you discuss any observations you noted and any recommendations you can make based on the results.

- Due to the location of the conference centre, we could see that most of the highly recommended places was in and around Central Park.

- As the venue of the conference centre is a bit far from most of the restuarants.

- Based on the pre-mentioned: we decided to offer the delegates a shuttle services after each day of the conference to travel to and from Time Square to get a good taste of New York.

Conclusion section where you conclude the report

- Based on the Survey Monkey data feedback which each delegate completed, we could see that they did enjoy Central Park, but the main attraction was Time Square.

- The shuttle service proved to be a great idea and most of the delegates will use our travel services again in future.