

# **Coursera**

# **Capstone Project**

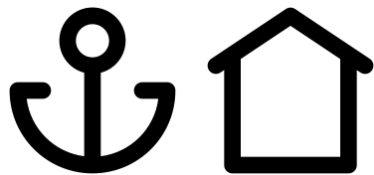
## **PRESENTATION**

**Analyzing potential public  
working spaces in New York**

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**June 2020**

# Introduction

As a consequence of the current pandemic, millions of people are facing the challenges of working from home. Many large companies like Google and Apple have extended their work from home policy to the end of the year, while others are considering extending their policy permanently. And while working from home has worked for certain employees, others find themselves permanently anchored to the home even as cities begin to re-open.

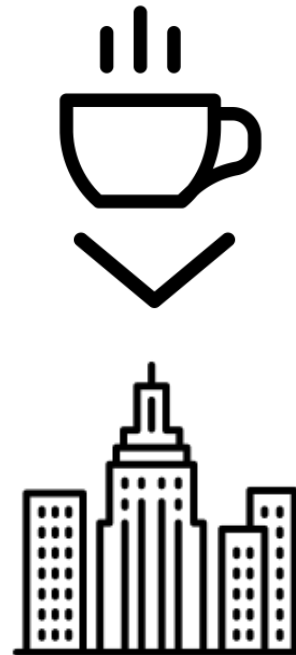


“Our best estimate is that 25-30% of the workforce will be working-from-home multiple days a week by the end of 2021.”

[Kate Lister, President of Global Workplace Analytics](#)

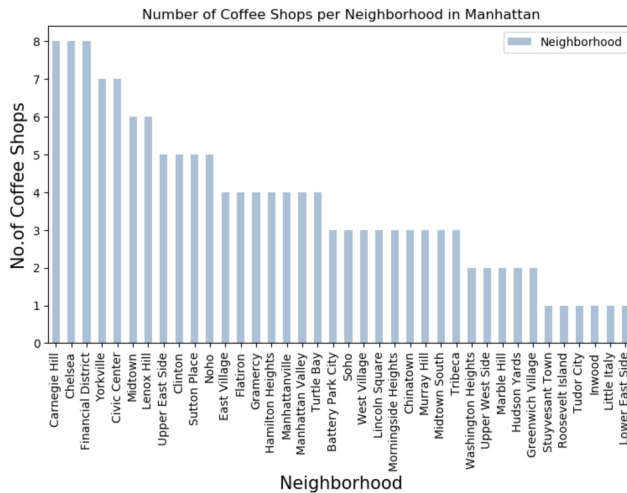
# Approach

- For this project, we will look for **alternate workplaces for employees in Manhattan**, New York City.
- We will focus on **coffee shops** and will be retrieving data from two sources:
  - ◆ **Neighborhood Data**, including neighborhood names in Manhattan as well as latitude and longitude coordinates.
    - Source: “2014 New York City Neighborhood Names” ([https://geo.nyu.edu/catalog/nyu\\_2451\\_34572](https://geo.nyu.edu/catalog/nyu_2451_34572)).
  - ◆ **Venue data**, including names, addresses, neighborhoods, venue description (in this case ‘coffee shop’), reviews and rating.
    - Source: Foursquare API



# What data?

- A big portion of this project is the retrieval and processing of the data:
  - ◆ From the neighborhood data, we retrieved the latitude, longitude, and names of all **5 boroughs** and **306 neighborhoods** in New York City. We then filtered down to only focus on the neighborhoods in **Manhattan**.
  - ◆ From the Foursquare API, we retrieved all of the venues with the category '**coffee shop**'. Foursquare API returned 140 coffee shops that matched this criteria.
  - ◆ We then merged both tables to see the **distribution of coffee shops per neighborhood**.



# What are people saying?

→ Focusing on the neighborhoods with the highest number of coffee shops, we can begin to **retrieve the reviews (tips)** from the Foursquare API for **Carnegie Hill, Chelsea, and Financial District**.

- ◆ By using the Foursquare API, we **can only retrieve two reviews per venue** using the personal account.
- ◆ For each neighborhood, we have a total of **16 reviews each** that we can further analyze.
- ◆ By combining the reviews into a text file, we can then easily **create a word cloud** for each of the neighborhoods. The **larger the text, the more frequent** each of these words is being used.



## Chelsea



## Financial District



# But can I work from here?

- Next, we want to find the coffee shops that are viable to work from. We'll search through the reviews with keywords such as **'work', 'wifi', or 'laptops'**.
  - ◆ Our data returns three viable options in Carnegie Hill neighborhood - **Variety Coffee Roasters, Starbucks, and DTUT.**
  - ◆ We can use *folium* to map these locations and visualize where they are located.

## Reviews

“...good atmosphere/customer service, coziness, and **wifi**...”

“...excellent alternative [...] if you **like working at coffee shops.**”

“...**easily found and used outlets** for my devices.”

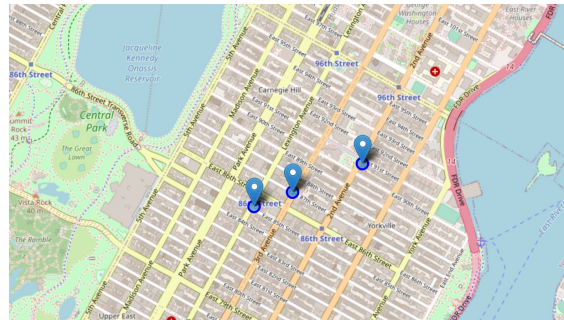
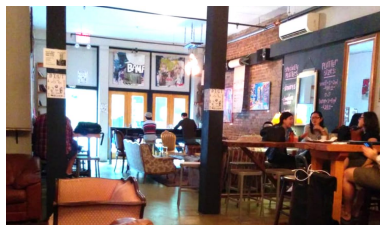
Variety Coffee Roasters



Starbucks



DTUT



Carnegie Hill