The New York Botanical Garden is a living museum, an educational institution, and a plant research and conservation organization visited by millions annually, over 250 acres and 1 million plants it is a great tourist attraction for those far and near https://www.nybg.org/

Problem: The garden is a major tourist attraction, and visitors generally want to see all they can while in the area, so why not enjoy a nice takeout picnic from Little Italy on the grounds of the garden. **But how will you find Little Italy and the best option?**

Target Audience: NYC Staycation, Tourists, Locals

Solution: Provide a simple list and map showing the recommended deli's in the area that offer great takeout options

How/Data: First let's see how large the Borough is, by checking the number of neighborhoods in the Bronx. This will be found by downloading and cleansing data from the *new_york data csv* from wk 3

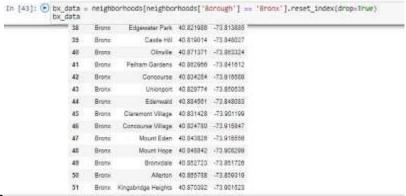
- 1. Methodology: Once you have an idea of how large the Bronx borough is when we
- 2. Extract the Bronx borough from the new_york data csv
- 3. Cluster neighborhoods with Machine Learning to see how many exist and notice the results are too large
- 4. Read into a dataframe, you will see quickly that we need to filter even more
- 5. Cluster neighborhoods with Machine Learning to see how many exist
- 6. So we take another approach by finding the coordinates of the Botanical Garden using Geopy
- 7. Then utilize *Foursquare* to pull Api's for Italian restaurants within 1500m
- 8. Filtering further specifically on Deli's to ensure you land right in the heart of Little Italy
- 9. Folium is an excellent tool to map out the results, so you will find a map below that shows how close the recommended Deli's are to the garden

Discussion: After cleansing the data, and reading it into a Dataframe (see below), a very nice list of restaurants return, but we want to focus on Deli's as this will give us the best option for quick takeaway food

Conclusion: We found two neighborhood gems in Little Italy that will give many options for food to pickup enroute to the garden for a fabulous garden picnic

Enjoy the gems of the NY Botanical Garden and Arthur Avenue | Little Italy in the Bronx, New York

By importing New York City Data via json, we can see how many neighborhoods fall



into a borough

There are 51 neighborhoods in the Bronx, so a general search would be too broad

Using Geophy we can locate the latitude and longitude coordinates of the Botanical garden

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In [53]: 
#gathering location for New York Botonical Garden

address = '1988 Southern Blvd Branx, NY'

geolocator = Nominatim(user_agent="foursquare_agent")
location = geolocator_geocode(address)
latitude = location.latitude
longitude = location.longitude
print(latitude, longitude)

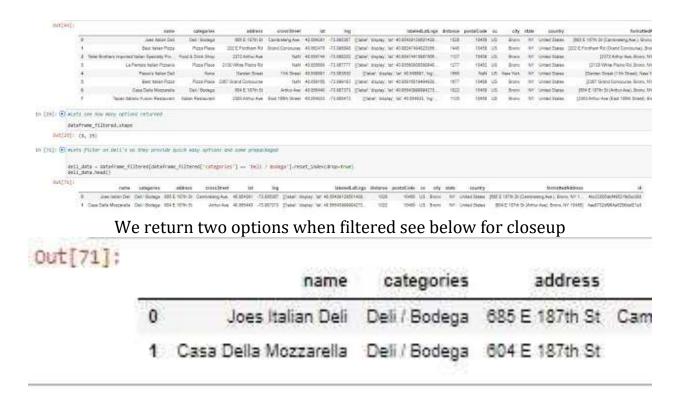
48.8626168 -73.87979189880184

In [54]: 
#searching Italian restaurants nearby
search_query = 'Italian'
radius = 1588
print(search_query + ' .... CK!')

ttalian ... OK!
```

In the above step, we utilized Foursquare to search for Italian restaurants near the garden by passing its coordinates to obtain API's

After cleansing the data, and reading it into a Dataframe (see below), a very nice list of restaurants return, but we want to focus on Deli's as this will give us the best option for quick takeaway food



World renowned Arthur Ave or Little Italy in the Bronx is only 1 mile away! Little Italy Arthur Avenue



The photo to the right is courtesy of https://www.antoniostrattoria.com/

To see just how close it is to the garden, lets take a look at the map generated using folium





Photos courtesy of Trip Advisor and Facebook Reviews for Casa Della Mozzarella Deli



Conclusion: We found two neighborhood gems in Little Italy that will give many options for food to pickup enroute to the garden for a fabulous garden picnic!

TIP: The Orchid show is happening soon