

Applied-Data-Science-Capstone

Peer-graded Assignment: Capstone Project - The Battle of Neighborhoods

Now that you have been equipped with the skills and the tools to use location data to explore a geographical location, over the course of two weeks, you will have the opportunity to be as creative as you want and come up with an idea to leverage the Foursquare location data to explore or compare neighborhoods or cities of your choice or to come up with a problem that you can use the Foursquare location data to solve.

1) Introduction/Business Problem

Clearly define a problem or an idea of your choice, where you would need to leverage the Foursquare location data to solve or execute. Remember that data science problems always target an audience and are meant to help a group of stakeholders solve a problem, so make sure that you explicitly describe your audience and why they would care about your problem.

The purpose of this project to assist persons looking to open a new Caribbean restaurant in New York City to choose the right location. This would be done by providing data about the income and population of each neighbourhood as well as the competitors already present in the same regions.

Questions that can be asked using the above mentioned datasets

- What is best location in New York City for Caribbean Cuisine ?
- Which areas have potential Caribbean Restaurant Market ?
- Which all areas lack Caribbean Restaurants ?

2) Data

Describe the data that you will be using to solve the problem or execute your idea. Remember that you will need to use the Foursquare location data to solve the problem or execute your idea. You can absolutely use other datasets in combination with the Foursquare location data. So make sure that you provide adequate explanation and discussion, with examples, of the data that you will be using, even if it is only Foursquare location data.

For this project we need the following data :

New York City data that contains list Boroughs, Neighborhoods along with their latitude and longitude.

Data source : https://cocl.us/new_york_dataset (https://cocl.us/new_york_dataset)

Description : This data set contains the required information. And we will use this data set to explore various neighborhoods of new york city.

Caribbean resturants in each neighborhood of new york city.

Data source : Fousquare API

Description : By using this api we will get all the venues in each neighborhood. We can filter these venues to get only caribbean resturants.

GeoSpace data

Data source : <https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm>
(<https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm>)

Description : By using this geo space data we will get the New york Borough boundaries that will help us visualize choropleth map.

In [1]:

```
import pandas as pd
import numpy as np
pd.set_option('display.max_columns', None)
pd.set_option('display.max_rows', None)
import requests
from bs4 import BeautifulSoup
import geocoder
import os
import folium # map rendering Library
from geopy.geocoders import Nominatim # convert an address into Latitude and Longitude
values
# Matplotlib and associated plotting modules
import matplotlib.pyplot as plt
import matplotlib.cm as cm
import matplotlib.colors as colors
%matplotlib inline

print('Libraries imported.')
```

Libraries imported.

In [2]:

```
#function to get the geocodes i.e Latitude and Longitude of a given location using geopy.
def geo_location(address):
    # get geo location of address
    geolocator = Nominatim(user_agent="ny_explorer")
    location = geolocator.geocode(address)
    latitude = location.latitude
    longitude = location.longitude
    return latitude,longitude
```

In [13]:

```
#function to interact with FourSquare API and get top 100 venues within a radius of 1000 metres for a given latitude and longitude
def get_venues(lat,lng):

    #set variables
    radius=1000
    LIMIT=100
    CLIENT_ID = 'AJD2V44P2WUEHA5EJNYN5NEARTK44AF4W4VXH10H04J4SAQP' # your Foursquare ID
    CLIENT_SECRET = '2C0153Y5FM2BTBD1LAQHRLRVGZXARUW001NAPXLA5JYPUHVYY' # your Foursquare Secret
    VERSION = '20191223' # Foursquare API version

    #url to fetch data from foursquare api
    url = 'https://api.foursquare.com/v2/venues/explore?&client_id={}&client_secret={}&v={}&ll={},{}&radius={}&limit={}'.format(
        CLIENT_ID,
        CLIENT_SECRET,
        VERSION,
        lat,
        lng,
        radius,
        LIMIT)

    # get all the data
    results = requests.get(url).json()
    venue_data=results["response"]["groups"][0]['items']
    venue_details=[]
    for row in venue_data:
        try:
            venue_id=row['venue']['id']
            venue_name=row['venue']['name']
            venue_category=row['venue']['categories'][0]['name']
            venue_details.append([venue_id,venue_name,venue_category])
        except KeyError:
            pass

    column_names=['ID','Name','Category']
    df = pd.DataFrame(venue_details,columns=column_names)
    return df
```

In [14]:

```
# function to get venue details like like count , rating , tip counts for a given venue
id. This will be used for ranking.
def get_venue_details(venue_id):

    CLIENT_ID = 'AJD2V44P2WUEHA5EJNYN5NEARTK44AF4W4VXH10H04J4SAQP' # your Foursquare ID
    CLIENT_SECRET = '2C0153Y5FM2BTBD1LAQHRLRVGZXARUW001NAPXLA5JYPUHVVY' # your Foursquare Secret
    VERSION = '20191223' # Foursquare API version

    #url to fetch data from foursquare api
    url = 'https://api.foursquare.com/v2/venues/{}?&client_id={}&client_secret={}&v={}'
    .format(
        venue_id,
        CLIENT_ID,
        CLIENT_SECRET,
        VERSION)

    # get all the data
    results = requests.get(url).json()
    venue_data=results['response']['venue']
    venue_details=[]
    try:
        venue_id=venue_data['id']
        venue_name=venue_data['name']
        venue_likes=venue_data['likes']['count']
        venue_rating=venue_data['rating']
        venue_tips=venue_data['tips']['count']
        venue_details.append([venue_id,venue_name,venue_likes,venue_rating,venue_tips])
    except KeyError:
        pass

    column_names=['ID','Name','Likes','Rating','Tips']
    df = pd.DataFrame(venue_details,columns=column_names)
    return df
```

In [5]:

```

#function to get the new york city data such as Boroughs, Neighborhoods along with their
Latitude and Longitude.
def get_new_york_data():
    url='https://cocl.us/new_york_dataset'
    resp=requests.get(url).json()
    # all data is present in features label
    features=resp['features']

    # define the dataframe columns
    column_names = ['Borough', 'Neighborhood', 'Latitude', 'Longitude']
    # instantiate the dataframe
    new_york_data = pd.DataFrame(columns=column_names)

    for data in features:
        borough = data['properties']['borough']
        neighborhood_name = data['properties']['name']

        neighborhood_latlon = data['geometry']['coordinates']
        neighborhood_lat = neighborhood_latlon[1]
        neighborhood_lon = neighborhood_latlon[0]

        new_york_data = new_york_data.append({'Borough': borough,
                                                'Neighborhood': neighborhood_name,
                                                'Latitude': neighborhood_lat,
                                                'Longitude': neighborhood_lon}, ignore_index=
True)

    return new_york_data

```

In [7]:

```

new_york_data=get_new_york_data()
new_york_data.head()

```

Out[7]:

	Borough	Neighborhood	Latitude	Longitude
0	Bronx	Wakefield	40.894705	-73.847201
1	Bronx	Co-op City	40.874294	-73.829939
2	Bronx	Eastchester	40.887556	-73.827806
3	Bronx	Fieldston	40.895437	-73.905643
4	Bronx	Riverdale	40.890834	-73.912585

In [8]:

```

new_york_data.shape

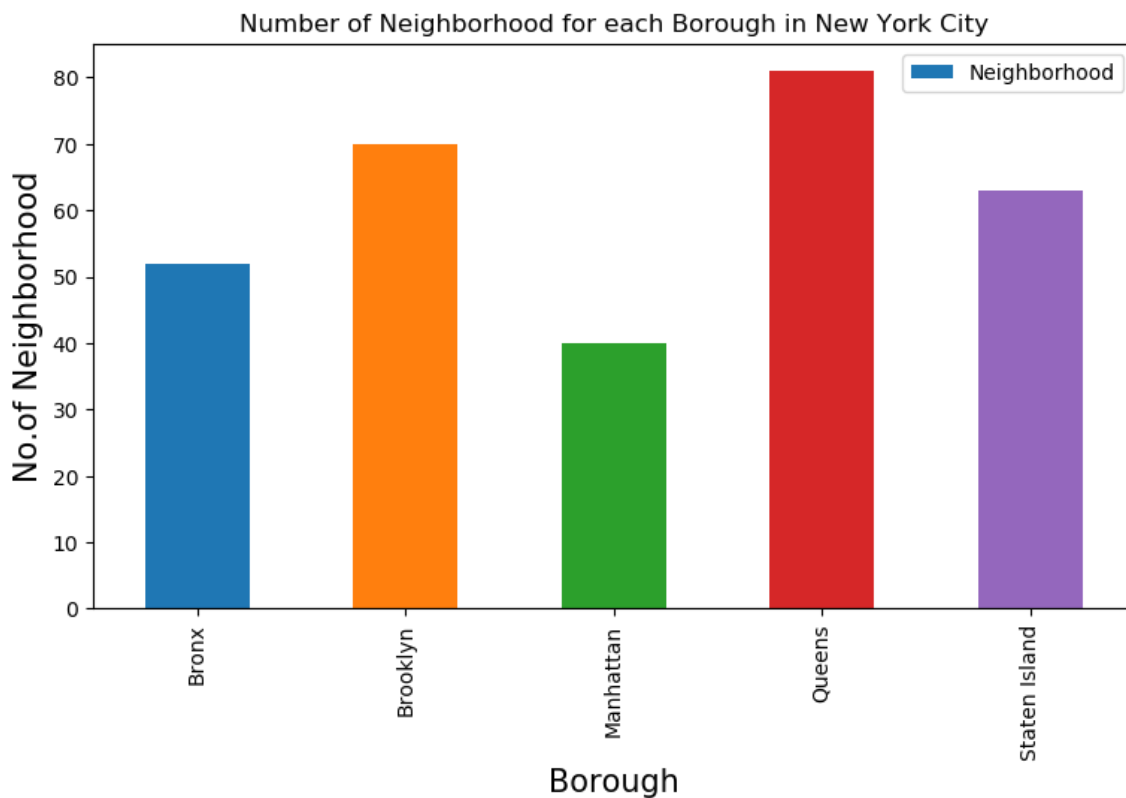
```

Out[8]:

(306, 4)

In [9]:

```
plt.figure(figsize=(9,5), dpi = 100)
# title
plt.title('Number of Neighborhood for each Borough in New York City')
#On x-axis
plt.xlabel('Borough', fontsize = 15)
#On y-axis
plt.ylabel('No.of Neighborhood', fontsize=15)
#giving a bar plot
new_york_data.groupby('Borough')['Neighborhood'].count().plot(kind='bar')
#legend
plt.legend()
#displays the plot
plt.show()
```



From this barchart we see Queens has has the highest number of Neighborhoods.

Now we will get Caribbean resturants for each Neighborhood

In [15]:

```
# prepare neighborhood list that contains caribbean restaurants
column_names=['Borough', 'Neighborhood', 'ID','Name']
caribbean_rest_ny=pd.DataFrame(columns=column_names)
count=1
for row in new_york_data.values.tolist():
    Borough, Neighborhood, Latitude, Longitude=row
    venues = get_venues(Latitude,Longitude)
    caribbean_restaurants=venues[venues['Category']=='Caribbean Restaurant']
    print('(',count, '/',len(new_york_data),')','caribbean Restaurants in '+Neighborhood+
', '+Borough+':'+str(len(caribbean_restaurants)))
    for restaurant_detail in caribbean_restaurants.values.tolist():
        id, name , category=restaurant_detail
        caribbean_rest_ny = caribbean_rest_ny.append({'Borough': Borough,
                                                            'Neighborhood': Neighborhood,
                                                            'ID': id,
                                                            'Name' : name
                                                            }, ignore_index=True)

count+=1
```

(1 / 306) caribbean Resturants in Wakefield, Bronx:4
(2 / 306) caribbean Resturants in Co-op City, Bronx:2
(3 / 306) caribbean Resturants in Eastchester, Bronx:5
(4 / 306) caribbean Resturants in Fieldston, Bronx:0
(5 / 306) caribbean Resturants in Riverdale, Bronx:0
(6 / 306) caribbean Resturants in Kingsbridge, Bronx:1
(7 / 306) caribbean Resturants in Marble Hill, Manhattan:1
(8 / 306) caribbean Resturants in Woodlawn, Bronx:1
(9 / 306) caribbean Resturants in Norwood, Bronx:2
(10 / 306) caribbean Resturants in Williamsbridge, Bronx:7
(11 / 306) caribbean Resturants in Baychester, Bronx:1
(12 / 306) caribbean Resturants in Pelham Parkway, Bronx:0
(13 / 306) caribbean Resturants in City Island, Bronx:0
(14 / 306) caribbean Resturants in Bedford Park, Bronx:1
(15 / 306) caribbean Resturants in University Heights, Bronx:0
(16 / 306) caribbean Resturants in Morris Heights, Bronx:0
(17 / 306) caribbean Resturants in Fordham, Bronx:1
(18 / 306) caribbean Resturants in East Tremont, Bronx:0
(19 / 306) caribbean Resturants in West Farms, Bronx:0
(20 / 306) caribbean Resturants in High Bridge, Bronx:1
(21 / 306) caribbean Resturants in Melrose, Bronx:0
(22 / 306) caribbean Resturants in Mott Haven, Bronx:0
(23 / 306) caribbean Resturants in Port Morris, Bronx:0
(24 / 306) caribbean Resturants in Longwood, Bronx:0
(25 / 306) caribbean Resturants in Hunts Point, Bronx:0
(26 / 306) caribbean Resturants in Morrisania, Bronx:1
(27 / 306) caribbean Resturants in Soundview, Bronx:0
(28 / 306) caribbean Resturants in Clason Point, Bronx:0
(29 / 306) caribbean Resturants in Throgs Neck, Bronx:0
(30 / 306) caribbean Resturants in Country Club, Bronx:0
(31 / 306) caribbean Resturants in Parkchester, Bronx:3
(32 / 306) caribbean Resturants in Westchester Square, Bronx:0
(33 / 306) caribbean Resturants in Van Nest, Bronx:2
(34 / 306) caribbean Resturants in Morris Park, Bronx:0
(35 / 306) caribbean Resturants in Belmont, Bronx:1
(36 / 306) caribbean Resturants in Spuyten Duyvil, Bronx:0
(37 / 306) caribbean Resturants in North Riverdale, Bronx:0
(38 / 306) caribbean Resturants in Pelham Bay, Bronx:0
(39 / 306) caribbean Resturants in Schuylerville, Bronx:0
(40 / 306) caribbean Resturants in Edgewater Park, Bronx:0
(41 / 306) caribbean Resturants in Castle Hill, Bronx:0
(42 / 306) caribbean Resturants in Olinville, Bronx:5
(43 / 306) caribbean Resturants in Pelham Gardens, Bronx:2
(44 / 306) caribbean Resturants in Concourse, Bronx:1
(45 / 306) caribbean Resturants in Unionport, Bronx:1
(46 / 306) caribbean Resturants in Edenwald, Bronx:3
(47 / 306) caribbean Resturants in Bay Ridge, Brooklyn:0
(48 / 306) caribbean Resturants in Bensonhurst, Brooklyn:0
(49 / 306) caribbean Resturants in Sunset Park, Brooklyn:0
(50 / 306) caribbean Resturants in Greenpoint, Brooklyn:0
(51 / 306) caribbean Resturants in Gravesend, Brooklyn:0
(52 / 306) caribbean Resturants in Brighton Beach, Brooklyn:0
(53 / 306) caribbean Resturants in Sheepshead Bay, Brooklyn:0
(54 / 306) caribbean Resturants in Manhattan Terrace, Brooklyn:0
(55 / 306) caribbean Resturants in Flatbush, Brooklyn:9
(56 / 306) caribbean Resturants in Crown Heights, Brooklyn:6
(57 / 306) caribbean Resturants in East Flatbush, Brooklyn:4
(58 / 306) caribbean Resturants in Kensington, Brooklyn:1
(59 / 306) caribbean Resturants in Windsor Terrace, Brooklyn:0
(60 / 306) caribbean Resturants in Prospect Heights, Brooklyn:1
(61 / 306) caribbean Resturants in Brownsville, Brooklyn:2

(62 / 306) caribbean Resturants in Williamsburg, Brooklyn:0
 (63 / 306) caribbean Resturants in Bushwick, Brooklyn:1
 (64 / 306) caribbean Resturants in Bedford Stuyvesant, Brooklyn:4
 (65 / 306) caribbean Resturants in Brooklyn Heights, Brooklyn:0
 (66 / 306) caribbean Resturants in Cobble Hill, Brooklyn:0
 (67 / 306) caribbean Resturants in Carroll Gardens, Brooklyn:0
 (68 / 306) caribbean Resturants in Red Hook, Brooklyn:0
 (69 / 306) caribbean Resturants in Gowanus, Brooklyn:0
 (70 / 306) caribbean Resturants in Fort Greene, Brooklyn:1
 (71 / 306) caribbean Resturants in Park Slope, Brooklyn:1
 (72 / 306) caribbean Resturants in Cypress Hills, Brooklyn:0
 (73 / 306) caribbean Resturants in East New York, Brooklyn:1
 (74 / 306) caribbean Resturants in Starrett City, Brooklyn:1
 (75 / 306) caribbean Resturants in Canarsie, Brooklyn:5
 (76 / 306) caribbean Resturants in Flatlands, Brooklyn:5
 (77 / 306) caribbean Resturants in Mill Island, Brooklyn:0
 (78 / 306) caribbean Resturants in Manhattan Beach, Brooklyn:0
 (79 / 306) caribbean Resturants in Coney Island, Brooklyn:2
 (80 / 306) caribbean Resturants in Bath Beach, Brooklyn:0
 (81 / 306) caribbean Resturants in Borough Park, Brooklyn:0
 (82 / 306) caribbean Resturants in Dyker Heights, Brooklyn:0
 (83 / 306) caribbean Resturants in Gerritsen Beach, Brooklyn:0
 (84 / 306) caribbean Resturants in Marine Park, Brooklyn:1
 (85 / 306) caribbean Resturants in Clinton Hill, Brooklyn:1
 (86 / 306) caribbean Resturants in Sea Gate, Brooklyn:0
 (87 / 306) caribbean Resturants in Downtown, Brooklyn:1
 (88 / 306) caribbean Resturants in Boerum Hill, Brooklyn:0
 (89 / 306) caribbean Resturants in Prospect Lefferts Gardens, Brooklyn:1

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(90 / 306) caribbean Resturants in Ocean Hill, Brooklyn:1
 (91 / 306) caribbean Resturants in City Line, Brooklyn:0
 (92 / 306) caribbean Resturants in Bergen Beach, Brooklyn:0
 (93 / 306) caribbean Resturants in Midwood, Brooklyn:0
 (94 / 306) caribbean Resturants in Prospect Park South, Brooklyn:11
 (95 / 306) caribbean Resturants in Georgetown, Brooklyn:1
 (96 / 306) caribbean Resturants in East Williamsburg, Brooklyn:0
 (97 / 306) caribbean Resturants in North Side, Brooklyn:1
 (98 / 306) caribbean Resturants in South Side, Brooklyn:0
 (99 / 306) caribbean Resturants in Ocean Parkway, Brooklyn:0
 (100 / 306) caribbean Resturants in Fort Hamilton, Brooklyn:0
 (101 / 306) caribbean Resturants in Chinatown, Manhattan:0
 (102 / 306) caribbean Resturants in Washington Heights, Manhattan:1
 (103 / 306) caribbean Resturants in Inwood, Manhattan:0
 (104 / 306) caribbean Resturants in Hamilton Heights, Manhattan:2
 (105 / 306) caribbean Resturants in Manhattanville, Manhattan:0
 (106 / 306) caribbean Resturants in Central Harlem, Manhattan:2
 (107 / 306) caribbean Resturants in East Harlem, Manhattan:0
 (108 / 306) caribbean Resturants in Upper East Side, Manhattan:0
 (109 / 306) caribbean Resturants in Yorkville, Manhattan:0
 (110 / 306) caribbean Resturants in Lenox Hill, Manhattan:0
 (111 / 306) caribbean Resturants in Roosevelt Island, Manhattan:1
 (112 / 306) caribbean Resturants in Upper West Side, Manhattan:0
 (113 / 306) caribbean Resturants in Lincoln Square, Manhattan:0
 (114 / 306) caribbean Resturants in Clinton, Manhattan:0
 (115 / 306) caribbean Resturants in Midtown, Manhattan:0
 (116 / 306) caribbean Resturants in Murray Hill, Manhattan:0
 (117 / 306) caribbean Resturants in Chelsea, Manhattan:0
 (118 / 306) caribbean Resturants in Greenwich Village, Manhattan:1
 (119 / 306) caribbean Resturants in East Village, Manhattan:1
 (120 / 306) caribbean Resturants in Lower East Side, Manhattan:0
 (121 / 306) caribbean Resturants in Tribeca, Manhattan:0

(122 / 306) caribbean Resturants in Little Italy, Manhattan:0
(123 / 306) caribbean Resturants in Soho, Manhattan:0
(124 / 306) caribbean Resturants in West Village, Manhattan:0
(125 / 306) caribbean Resturants in Manhattan Valley, Manhattan:0
(126 / 306) caribbean Resturants in Morningside Heights, Manhattan:0
(127 / 306) caribbean Resturants in Gramercy, Manhattan:0
(128 / 306) caribbean Resturants in Battery Park City, Manhattan:0
(129 / 306) caribbean Resturants in Financial District, Manhattan:0
(130 / 306) caribbean Resturants in Astoria, Queens:0
(131 / 306) caribbean Resturants in Woodside, Queens:0
(132 / 306) caribbean Resturants in Jackson Heights, Queens:0
(133 / 306) caribbean Resturants in Elmhurst, Queens:0
(134 / 306) caribbean Resturants in Howard Beach, Queens:0
(135 / 306) caribbean Resturants in Corona, Queens:0
(136 / 306) caribbean Resturants in Forest Hills, Queens:1
(137 / 306) caribbean Resturants in Kew Gardens, Queens:1
(138 / 306) caribbean Resturants in Richmond Hill, Queens:2
(139 / 306) caribbean Resturants in Flushing, Queens:0
(140 / 306) caribbean Resturants in Long Island City, Queens:0
(141 / 306) caribbean Resturants in Sunnyside, Queens:1
(142 / 306) caribbean Resturants in East Elmhurst, Queens:0
(143 / 306) caribbean Resturants in Maspeth, Queens:0
(144 / 306) caribbean Resturants in Ridgewood, Queens:0
(145 / 306) caribbean Resturants in Glendale, Queens:0
(146 / 306) caribbean Resturants in Rego Park, Queens:0
(147 / 306) caribbean Resturants in Woodhaven, Queens:0
(148 / 306) caribbean Resturants in Ozone Park, Queens:1
(149 / 306) caribbean Resturants in South Ozone Park, Queens:2
(150 / 306) caribbean Resturants in College Point, Queens:1
(151 / 306) caribbean Resturants in Whitestone, Queens:0
(152 / 306) caribbean Resturants in Bayside, Queens:0
(153 / 306) caribbean Resturants in Auburndale, Queens:0
(154 / 306) caribbean Resturants in Little Neck, Queens:0
(155 / 306) caribbean Resturants in Douglaston, Queens:0
(156 / 306) caribbean Resturants in Glen Oaks, Queens:0
(157 / 306) caribbean Resturants in Bellerose, Queens:0
(158 / 306) caribbean Resturants in Kew Gardens Hills, Queens:0
(159 / 306) caribbean Resturants in Fresh Meadows, Queens:0
(160 / 306) caribbean Resturants in Briarwood, Queens:0
(161 / 306) caribbean Resturants in Jamaica Center, Queens:4
(162 / 306) caribbean Resturants in Oakland Gardens, Queens:0
(163 / 306) caribbean Resturants in Queens Village, Queens:2
(164 / 306) caribbean Resturants in Hollis, Queens:0
(165 / 306) caribbean Resturants in South Jamaica, Queens:1
(166 / 306) caribbean Resturants in St. Albans, Queens:4
(167 / 306) caribbean Resturants in Rochdale, Queens:1
(168 / 306) caribbean Resturants in Springfield Gardens, Queens:2
(169 / 306) caribbean Resturants in Cambria Heights, Queens:4
(170 / 306) caribbean Resturants in Rosedale, Queens:4
(171 / 306) caribbean Resturants in Far Rockaway, Queens:1
(172 / 306) caribbean Resturants in Broad Channel, Queens:0
(173 / 306) caribbean Resturants in Breezy Point, Queens:0
(174 / 306) caribbean Resturants in Steinway, Queens:0
(175 / 306) caribbean Resturants in Beechhurst, Queens:0
(176 / 306) caribbean Resturants in Bay Terrace, Queens:0
(177 / 306) caribbean Resturants in Edgemere, Queens:0
(178 / 306) caribbean Resturants in Arverne, Queens:1
(179 / 306) caribbean Resturants in Rockaway Beach, Queens:0
(180 / 306) caribbean Resturants in Neponsit, Queens:0
(181 / 306) caribbean Resturants in Murray Hill, Queens:0
(182 / 306) caribbean Resturants in Floral Park, Queens:0

(183 / 306) caribbean Resturants in Holliswood, Queens:1
(184 / 306) caribbean Resturants in Jamaica Estates, Queens:0
(185 / 306) caribbean Resturants in Queensboro Hill, Queens:0
(186 / 306) caribbean Resturants in Hillcrest, Queens:0
(187 / 306) caribbean Resturants in Ravenswood, Queens:0
(188 / 306) caribbean Resturants in Lindenwood, Queens:0
(189 / 306) caribbean Resturants in Laurelton, Queens:8
(190 / 306) caribbean Resturants in Lefrak City, Queens:0
(191 / 306) caribbean Resturants in Belle Harbor, Queens:0
(192 / 306) caribbean Resturants in Rockaway Park, Queens:0
(193 / 306) caribbean Resturants in Somerville, Queens:1
(194 / 306) caribbean Resturants in Brookville, Queens:1
(195 / 306) caribbean Resturants in Bellaire, Queens:0
(196 / 306) caribbean Resturants in North Corona, Queens:1
(197 / 306) caribbean Resturants in Forest Hills Gardens, Queens:1
(198 / 306) caribbean Resturants in St. George, Staten Island:1
(199 / 306) caribbean Resturants in New Brighton, Staten Island:1
(200 / 306) caribbean Resturants in Stapleton, Staten Island:0
(201 / 306) caribbean Resturants in Rosebank, Staten Island:0
(202 / 306) caribbean Resturants in West Brighton, Staten Island:0
(203 / 306) caribbean Resturants in Grymes Hill, Staten Island:0
(204 / 306) caribbean Resturants in Todt Hill, Staten Island:0
(205 / 306) caribbean Resturants in South Beach, Staten Island:0
(206 / 306) caribbean Resturants in Port Richmond, Staten Island:0
(207 / 306) caribbean Resturants in Mariner's Harbor, Staten Island:0
(208 / 306) caribbean Resturants in Port Ivory, Staten Island:0
(209 / 306) caribbean Resturants in Castleton Corners, Staten Island:0
(210 / 306) caribbean Resturants in New Springville, Staten Island:0
(211 / 306) caribbean Resturants in Travis, Staten Island:0
(212 / 306) caribbean Resturants in New Dorp, Staten Island:0
(213 / 306) caribbean Resturants in Oakwood, Staten Island:0
(214 / 306) caribbean Resturants in Great Kills, Staten Island:0
(215 / 306) caribbean Resturants in Eltingville, Staten Island:0
(216 / 306) caribbean Resturants in Annadale, Staten Island:0
(217 / 306) caribbean Resturants in Woodrow, Staten Island:0
(218 / 306) caribbean Resturants in Tottenville, Staten Island:0
(219 / 306) caribbean Resturants in Tompkinsville, Staten Island:1
(220 / 306) caribbean Resturants in Silver Lake, Staten Island:0
(221 / 306) caribbean Resturants in Sunnyside, Staten Island:0
(222 / 306) caribbean Resturants in Ditmas Park, Brooklyn:8
(223 / 306) caribbean Resturants in Wingate, Brooklyn:6
(224 / 306) caribbean Resturants in Rugby, Brooklyn:8
(225 / 306) caribbean Resturants in Park Hill, Staten Island:0
(226 / 306) caribbean Resturants in Westerleigh, Staten Island:0
(227 / 306) caribbean Resturants in Graniteville, Staten Island:0
(228 / 306) caribbean Resturants in Arlington, Staten Island:0
(229 / 306) caribbean Resturants in Arrochar, Staten Island:0
(230 / 306) caribbean Resturants in Grasmere, Staten Island:0
(231 / 306) caribbean Resturants in Old Town, Staten Island:0
(232 / 306) caribbean Resturants in Dongan Hills, Staten Island:0
(233 / 306) caribbean Resturants in Midland Beach, Staten Island:0
(234 / 306) caribbean Resturants in Grant City, Staten Island:0
(235 / 306) caribbean Resturants in New Dorp Beach, Staten Island:0
(236 / 306) caribbean Resturants in Bay Terrace, Staten Island:0
(237 / 306) caribbean Resturants in Huguenot, Staten Island:0
(238 / 306) caribbean Resturants in Pleasant Plains, Staten Island:0
(239 / 306) caribbean Resturants in Butler Manor, Staten Island:0
(240 / 306) caribbean Resturants in Charleston, Staten Island:0
(241 / 306) caribbean Resturants in Rossville, Staten Island:0
(242 / 306) caribbean Resturants in Arden Heights, Staten Island:0
(243 / 306) caribbean Resturants in Greenridge, Staten Island:0

(244 / 306) caribbean Restaurants in Heartland Village, Staten Island:0
(245 / 306) caribbean Restaurants in Chelsea, Staten Island:0
(246 / 306) caribbean Restaurants in Bloomfield, Staten Island:0
(247 / 306) caribbean Restaurants in Bulls Head, Staten Island:0
(248 / 306) caribbean Restaurants in Carnegie Hill, Manhattan:0
(249 / 306) caribbean Restaurants in Noho, Manhattan:1
(250 / 306) caribbean Restaurants in Civic Center, Manhattan:0
(251 / 306) caribbean Restaurants in Midtown South, Manhattan:1
(252 / 306) caribbean Restaurants in Richmond Town, Staten Island:0
(253 / 306) caribbean Restaurants in Shore Acres, Staten Island:0
(254 / 306) caribbean Restaurants in Clifton, Staten Island:0
(255 / 306) caribbean Restaurants in Concord, Staten Island:0
(256 / 306) caribbean Restaurants in Emerson Hill, Staten Island:0
(257 / 306) caribbean Restaurants in Randall Manor, Staten Island:0
(258 / 306) caribbean Restaurants in Howland Hook, Staten Island:0
(259 / 306) caribbean Restaurants in Elm Park, Staten Island:0
(260 / 306) caribbean Restaurants in Remsen Village, Brooklyn:7
(261 / 306) caribbean Restaurants in New Lots, Brooklyn:3
(262 / 306) caribbean Restaurants in Paerdegat Basin, Brooklyn:4
(263 / 306) caribbean Restaurants in Mill Basin, Brooklyn:1
(264 / 306) caribbean Restaurants in Jamaica Hills, Queens:2
(265 / 306) caribbean Restaurants in Utopia, Queens:0
(266 / 306) caribbean Restaurants in Pomonok, Queens:0
(267 / 306) caribbean Restaurants in Astoria Heights, Queens:0
(268 / 306) caribbean Restaurants in Claremont Village, Bronx:1
(269 / 306) caribbean Restaurants in Concourse Village, Bronx:3
(270 / 306) caribbean Restaurants in Mount Eden, Bronx:0
(271 / 306) caribbean Restaurants in Mount Hope, Bronx:0
(272 / 306) caribbean Restaurants in Sutton Place, Manhattan:0
(273 / 306) caribbean Restaurants in Hunters Point, Queens:0
(274 / 306) caribbean Restaurants in Turtle Bay, Manhattan:0
(275 / 306) caribbean Restaurants in Tudor City, Manhattan:0
(276 / 306) caribbean Restaurants in Stuyvesant Town, Manhattan:0
(277 / 306) caribbean Restaurants in Flatiron, Manhattan:0
(278 / 306) caribbean Restaurants in Sunnyside Gardens, Queens:0
(279 / 306) caribbean Restaurants in Blissville, Queens:1
(280 / 306) caribbean Restaurants in Fulton Ferry, Brooklyn:0
(281 / 306) caribbean Restaurants in Vinegar Hill, Brooklyn:0
(282 / 306) caribbean Restaurants in Weeksville, Brooklyn:5
(283 / 306) caribbean Restaurants in Broadway Junction, Brooklyn:1
(284 / 306) caribbean Restaurants in Dumbo, Brooklyn:0
(285 / 306) caribbean Restaurants in Manor Heights, Staten Island:0
(286 / 306) caribbean Restaurants in Willowbrook, Staten Island:0
(287 / 306) caribbean Restaurants in Sandy Ground, Staten Island:0
(288 / 306) caribbean Restaurants in Egbertville, Staten Island:0
(289 / 306) caribbean Restaurants in Roxbury, Queens:0
(290 / 306) caribbean Restaurants in Homecrest, Brooklyn:0
(291 / 306) caribbean Restaurants in Middle Village, Queens:0
(292 / 306) caribbean Restaurants in Prince's Bay, Staten Island:0
(293 / 306) caribbean Restaurants in Lighthouse Hill, Staten Island:0
(294 / 306) caribbean Restaurants in Richmond Valley, Staten Island:0
(295 / 306) caribbean Restaurants in Malba, Queens:0
(296 / 306) caribbean Restaurants in Highland Park, Brooklyn:0
(297 / 306) caribbean Restaurants in Madison, Brooklyn:0
(298 / 306) caribbean Restaurants in Bronxdale, Bronx:0
(299 / 306) caribbean Restaurants in Allerton, Bronx:4
(300 / 306) caribbean Restaurants in Kingsbridge Heights, Bronx:0
(301 / 306) caribbean Restaurants in Erasmus, Brooklyn:11
(302 / 306) caribbean Restaurants in Hudson Yards, Manhattan:0
(303 / 306) caribbean Restaurants in Hammels, Queens:1
(304 / 306) caribbean Restaurants in Bayswater, Queens:0

```
( 305 / 306 ) caribbean Restaurants in Queensbridge, Queens:1  
( 306 / 306 ) caribbean Restaurants in Fox Hills, Staten Island:0
```

In [16]:

```
caribbean_rest_ny.head()
```

Out[16]:

	Borough	Neighborhood	ID	Name
0	Bronx	Wakefield	4d375ce799fe8eec99fd2355	Ripe Kitchen & Bar
1	Bronx	Wakefield	4c9e50e38afca09379b2ff15	Ali's Roti Shop
2	Bronx	Wakefield	4c10f6aece57c92804a682d2	Jackie's West Indian Bakery
3	Bronx	Wakefield	4bf5c0a294b2a5937c42acee	Golden Krust Caribbean Restaurant
4	Bronx	Co-op City	4baab2b0f964a520c7803ae3	Country Thyme Cuisine

In [17]:

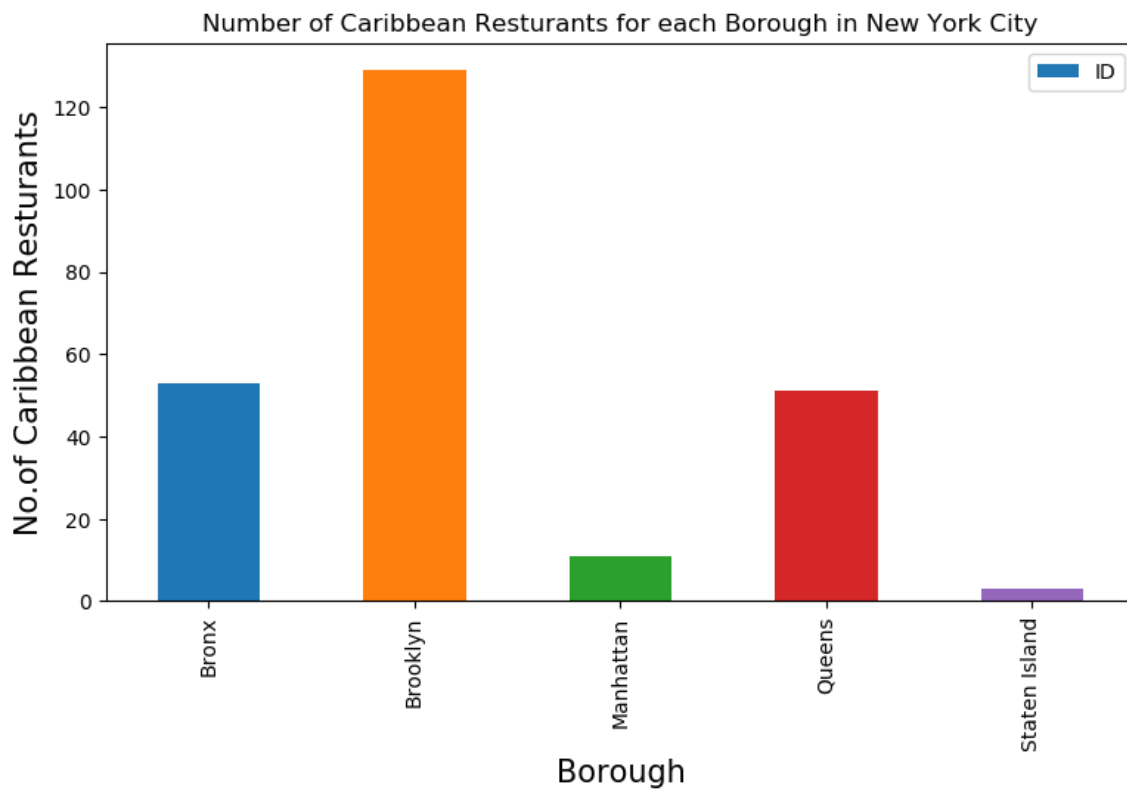
```
caribbean_rest_ny.shape
```

Out[17]:

```
(247, 4)
```

In [18]:

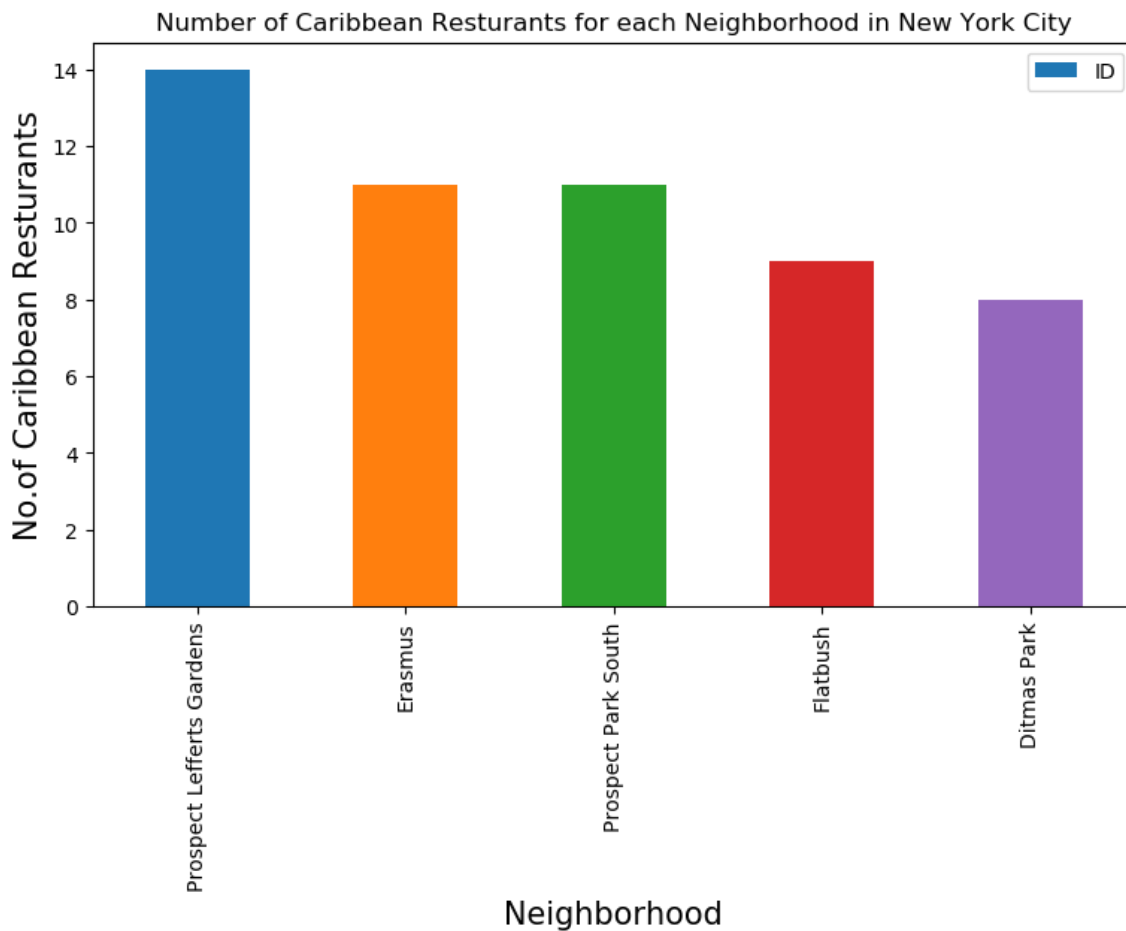
```
plt.figure(figsize=(9,5), dpi = 100)
# title
plt.title('Number of Caribbean Resturants for each Borough in New York City')
#On x-axis
plt.xlabel('Borough', fontsize = 15)
#On y-axis
plt.ylabel('No.of Caribbean Resturants', fontsize=15)
#giving a bar plot
caribbean_rest_ny.groupby('Borough')['ID'].count().plot(kind='bar')
#legend
plt.legend()
#displays the plot
plt.show()
```



From the barchart we see Brooklyn has the highest number.

In [19]:

```
plt.figure(figsize=(9,5), dpi = 100)
# title
plt.title('Number of Caribbean Resturants for each Neighborhood in New York City')
#On x-axis
plt.xlabel('Neighborhood', fontsize = 15)
#On y-axis
plt.ylabel('No.of Caribbean Resturants', fontsize=15)
#giving a bar plot
caribbean_rest_ny.groupby('Neighborhood')['ID'].count().nlargest(5).plot(kind='bar')
#legend
plt.legend()
#displays the plot
plt.show()
```



In [20]:

```
caribbean_rest_ny[caribbean_rest_ny['Neighborhood']=='Prospect Lefferts Gardens']
```

Out[20]:

	Borough	Neighborhood	ID	Name
93	Brooklyn	Prospect Lefferts Gardens	4a6cba95f964a52073d11fe3	Peppa's Jerk Chicken
94	Brooklyn	Prospect Lefferts Gardens	4d0e9e455b8a8cfa5e50eb83	De Hot Pot Roti Shop
95	Brooklyn	Prospect Lefferts Gardens	4bdcade72a3a0f470fecb3b6	MangoSeed Restaurant
96	Brooklyn	Prospect Lefferts Gardens	54fbad6b498e83b622d3c796	The Food Sermon
97	Brooklyn	Prospect Lefferts Gardens	4c79b5f683a7bfb7527f7ff8	Errol's Caribbean Bakery
98	Brooklyn	Prospect Lefferts Gardens	4e0904426284d9ee92de668b	Golden Krust Caribbean Restaurant
99	Brooklyn	Prospect Lefferts Gardens	4b085b46f964a520f50923e3	Gloria's
100	Brooklyn	Prospect Lefferts Gardens	4bd3475c046076b084a97571	Culpepper's
101	Brooklyn	Prospect Lefferts Gardens	4e26eebed16486291ba4d622	Jen's Roti Shop
102	Brooklyn	Prospect Lefferts Gardens	4cd4918576ab721eacf3676a	Soldiers Jamaican
103	Brooklyn	Prospect Lefferts Gardens	4c5dd01cd25320a1a924c77a	De Bamboo Express Restaurant & Bakery
104	Brooklyn	Prospect Lefferts Gardens	4a611b29f964a520dec11fe3	Nio's Trinidad Roti Shop
105	Brooklyn	Prospect Lefferts Gardens	4e21d5c6e4cdf68591898a5e	Caribbean Vibes
106	Brooklyn	Prospect Lefferts Gardens	5a0f90888264443d4b674cdf	Caribbean Social

With a total of 14 Caribbean Restaurants, Prospect Lefferts Gardens in Brooklyn takes the top spot

Time to get the rankings of each restaurant.

In [21]:

```
# prepare neighborhood list that contains caribbean restaurants
column_names=['Borough', 'Neighborhood', 'ID','Name','Likes','Rating','Tips']
caribbean_rest_stats_ny=pd.DataFrame(columns=column_names)
count=1

for row in caribbean_rest_ny.values.tolist():
    Borough,Neighborhood,ID,Name=row
    try:
        venue_details=get_venue_details(ID)
        print(venue_details)
        id,name,likes,rating,tips=venue_details.values.tolist()[0]
    except IndexError:
        print('No data available for id=',ID)
        # we will assign 0 value for these restaurants as they may have been
        #recently opened or details does not exist in FourSquare Database
        id,name,likes,rating,tips=[0]*5
    print('(',count,',',len(caribbean_rest_ny),')','processed')
    caribbean_rest_stats_ny = caribbean_rest_stats_ny.append({'Borough': Borough,
                                                                'Neighborhood': Neighborhood,
                                                                'ID': id,
                                                                'Name' : name,
                                                                'Likes' : likes,
                                                                'Rating' : rating,
                                                                'Tips' : tips
                                                                }, ignore_index=True)

    count+=1
```

	ID	Name	Likes	Rating	Tips
0	4d375ce799fe8eec99fd2355	Ripe Kitchen & Bar	70	8.8	33

(1 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4c9e50e38afca09379b2ff15	Ali's Roti Shop	16	8.7	9

(2 / 247) processed

	ID	Name	Likes	Rating	T
ips					
0	4c10f6aece57c92804a682d2	Jackie's West Indian Bakery	22	7.7	

13
(3 / 247) processed

	ID	Name	Likes	Rat
ing \				
0	4bf5c0a294b2a5937c42acee	Golden Krust Caribbean Restaurant	2	

6.7

Tips

0 1

(4 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4baab2b0f964a520c7803ae3	Country Thyme Cuisine	18	8.4	7

(5 / 247) processed

	ID	Name	Likes	Rat
ing \				
0	4c757642b474a1cd2858b9bf	Golden Krust Caribbean Restaurant	5	

6.2

Tips

0 3

(6 / 247) processed

	ID	Name	Likes	Rating	Tips
0	515cc20ce4b0deb133b8e89b	Fish & Ting	24	8.5	6

(7 / 247) processed

	ID	Name	Likes	Rat
ing \				
0	4c632fbaeb82d13a3c5007d6	Golden Krust Caribbean Restaurant	2	

6.7

Tips

0 2

(8 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4dbf84a24df0f8fd6b88c9b6	Royal Caribbean Bakery	2	6.1	4

(9 / 247) processed

	ID	Name	Likes	Rat
ing \				
0	4c757642b474a1cd2858b9bf	Golden Krust Caribbean Restaurant	5	

6.2

Tips

0 3

(10 / 247) processed

	ID	Name	Likes	Rating
Tips				
0	4c6c47ec1fb2a1434807fbc6	Pimento Caribbean Restaurant	5	5.9

6

(11 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4bd8e98811dcc928f865f833	El Malecon	62	8.5	34

(12 / 247) processed

	ID	Name	Likes	Rating	Tips
--	----	------	-------	--------	------

0 4bd8e98811dcc928f865f833 El Malecon 62 8.5 34
(13 / 247) processed

ID	Name	Likes	Rating	Tips
0 4c9e50e38afca09379b2ff15	Ali's Roti Shop	16	8.7	9

(14 / 247) processed

ID	Name	Likes	Rating	Tips
0 4c031b49310fc9b64787c561	La Nueva Estrella	11	7.0	9

(15 / 247) processed

ID	Name	Likes	Rat
ing \ 0 4b4f7901f964a520090827e3	Golden Krust Caribbean Restaurant	1	6.7

Tips
0 1
(16 / 247) processed

ID	Name	Likes	Rat
ing \ 0 4e4de62abd4101d0d79dae97	Gold Star Jerk And Seafood Center	24	8.0

Tips
0 3
(17 / 247) processed

ID	Name	Likes	Rat
ing \ 0 4ba39e47f964a520944c38e3	Golden Krust Caribbean Restaurant	14	7.5

Tips
0 9
(18 / 247) processed

ID	Name	Likes	Rating	Tips
0 4f2725d3e4b02a950113e0f0	Gooddine	9	7.4	2

(19 / 247) processed

ID	Name	Likes
\ 0 4c0e9b28d64c0f478778285d	Richie Rich Caribbean Taste Restaurant	27

Rating Tips
0 7.6 15
(20 / 247) processed

ID	Name	Likes	Rat
ing \ 0 4e4d6825bd413c4cc670d38c	Golden Krust Caribbean Restaurant	2	6.9

Tips
0 3
(21 / 247) processed

ID	Name	Likes	Rating
\ 0 4cb436afeb65b1f73c3688cd	New Taste West Indian American	8	6.4

Tips
0 3
(22 / 247) processed

ID	Name	Likes	Rating	Tips
0 4ca7451314c337042fad73b	The Dumplin Shop	5	6.0	3

(23 / 247) processed

ID	Name	Likes	Rat
----	------	-------	-----

```
ing \
0 4be5b76e910020a1435fd314 Golden Krust Caribbean Restaurant 23
6.6
```

```
    Tips
0      8
( 24 / 247 ) processed
          ID          Name  Likes  Rating  Tips
0 4c031b49310fc9b64787c561 La Nueva Estrella      11    7.0     9
( 25 / 247 ) processed
          ID          Name  Likes  Rat
ing \
0 4bab5b5bf964a520fba23ae3 Golden Krust Caribbean Restaurant      3
6.8
```

```
    Tips
0      1
( 26 / 247 ) processed
          ID          Name  Likes  Rating  Tips
0 4c1010f5ce57c928f94681d2 The Feeding Tree      24    7.5    16
( 27 / 247 ) processed
          ID          Name  Likes  Rat
ing \
0 4bb794d41261d13a2583e798 Golden Krust Caribbean Restaurant      0
6.6
```

```
    Tips
0      3
( 28 / 247 ) processed
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ing \
0 4b919003f964a520d4c533e3 Golden Krust Caribbean Restaurant      12
7.5
```

```
    Tips
0      7
( 29 / 247 ) processed
          ID          Name  Likes  Rating  Tips
0 5b1c188f1ffe97002c02259f Ajo Y Oregano        6    7.5     2
( 30 / 247 ) processed
          ID          Name  Likes  Rating  Tips
0 4d226c99756e8cfaf0c27e54 Jenny's Roti Shop      2    7.1     6
( 31 / 247 ) processed
          ID          Name  Likes  Rating  Tips
0 5b1c188f1ffe97002c02259f Ajo Y Oregano        6    7.5     2
( 32 / 247 ) processed
          ID          Name  Likes  Rat
ing \
0 4b919003f964a520d4c533e3 Golden Krust Caribbean Restaurant      12
7.5
```

```
    Tips
0      7
( 33 / 247 ) processed
          ID          Name  Likes  Rat
ing \
0 4bab5b5bf964a520fba23ae3 Golden Krust Caribbean Restaurant      3
6.8
```

```
    Tips
0      1
```

(34 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4c07e7f97e3fc9280676ef82	Feroza's Roti Shop	39	7.6	25

(35 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4ba52f5df964a52009e938e3	Golden Krust Caribbean Restaurant			5

7.1

Tips

0 2

(36 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4f627f50e4b04d4b13d32f90	Richie Rich	3	6.0	3

(37 / 247) processed

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(38 / 247) processed

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Index: []

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(39 / 247) processed

	ID	Name	Likes	Rating	Tips
0	5026a2ace4b08ea913bab503	Ultimate Grill	8	7.9	4

(40 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4be5b76e910020a1435fd314	Golden Krust Caribbean Restaurant			23

6.6

Tips

0 8

(41 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4c6daa9e06ed6dcbbe91a422	Concourse Jamaican Bakery	6	6.5	

(42 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4d226c99756e8cfaf0c27e54	Jenny's Roti Shop	2	7.1	6

(43 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4c10f6aece57c92804a682d2	Jackie's West Indian Bakery		7.7	22

(44 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4cb436afef65b1f73c3688cd	New Taste West Indian American		6.4	8

Tips

0 3

(45 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4ca7451314c337042fadcf73b	The Dumplin Shop	5	6.0	3

(46 / 247) processed

	ID	Name	Likes	Rating	Tips
0	52b27c86498e50d126766a68	Footprints Cafe Express	53	7.7	14

(47 / 247) processed

ID	Name	Likes	Rating	Tips
0 54fa4b21498e671122cb4d11	Island Burger	27	8.4	8

(48 / 247) processed

ID	Name	Likes	Rating	Tips
0 4be5ad3a2457a5932fd0ab15	Fisherman's Cove	74	8.5	18

(49 / 247) processed

ID	Name	Likes	Rating	Tips
0 5879815625911e1bb23364a0	Sip unWINE	8	7.4	3

(50 / 247) processed

ID	Name	Likes	Rating	Tips
0 4ce6e9808ef78cfaf09b8f9b	Faye & King's	13	7.4	6

(51 / 247) processed

ID	Name	Likes	Rating	Tips
0 4ce0265e78ddf04df9b3a498	Bake & Things	50	7.7	14

(52 / 247) processed

ID	Name	Likes
\		
0 4bf6df9d4a67c928b49422cf	Golden Krust Caribbean Bakery & Grill	7

Rating	Tips
0 6.5	1

(53 / 247) processed

ID	Name	Likes	Rating	Tips
0 4e29ba65e4cd6c6cb3544891	McBean's Restaurant	7	6.6	3

(54 / 247) processed

ID	Name	Likes	Rating	Tips
0 4f5fcf3de4b0c27826e6c490	Exquisite Restaurant	5	6.1	1

(55 / 247) processed

ID	Name	Likes	Rating	Ti
ps				
0 4ad1577ff964a52020de20e3	Gloria's Caribbean Cuisine	179	8.5	
70				

(56 / 247) processed

ID	Name	Likes
\		
0 57d4b6a1498e4e908dc3d142	Peppa's Jerk Chicken - Crown Heights	40

Rating	Tips
0 8.2	7

(57 / 247) processed

ID	Name	Likes	Rating	Tips
0 4b085b46f964a520f50923e3	Gloria's	30	8.5	12

(58 / 247) processed

ID	Name	Likes	Rating	Tips
0 4e08ba97091afe7702004d43	O's Grill Spot	7	6.7	4

(59 / 247) processed

ID	Name	Likes	Rating	Tips
0 4bddc63ffffdec928d95de6a1	Exquisite Restaurant	3	6.5	7

(60 / 247) processed

ID	Name	Likes	Rat
ing \			
0 4bc3edc04cd9c9b61c1c9821	Golden Krust Caribbean Restaurant	4	
6.2			

Tips
0 7

(61 / 247) processed

ID	Name	Likes	Ratin
g \			
0 4e5d9b2db0fbc0acda43d89e	VIVID Caribbean American Bistro	38	7.

5

Tips

0 12

(62 / 247) processed

ID

Name Likes Rating

Tips

0 4c4cc9d9172b76b0610209d1 Tropical Paradise Restaurant 12 7.1

4

(63 / 247) processed

ID

Name Likes Rating Tips

0 5408fd2f498e50d72d583283 Trelawni Place 25 6.8 10

(64 / 247) processed

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(65 / 247) processed

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Name Likes Rating Tips

0 57e84045498e0ee2333a41d4 Suzy's Roti Parlour 15 7.8 5

(66 / 247) processed

ID

Name Likes Rating Tips

0 5a4d750e3fcee83d3f3ce36c The Islands 53 9.2 15

(67 / 247) processed

ID

Name Like

s \

0 4ef520a36c25074226ff0101 Golden Krust Caribbean Bakery and Grill

1

Rating Tips

0 7.2 1

(68 / 247) processed

ID

Name Likes Rat

ing \

0 4c0fbd6fd64c0f47b13d2a5d Golden Krust Caribbean Restaurant 2

6.4

Tips

0 3

(69 / 247) processed

ID

Name Likes Rating Tips

0 5798f12338fa634535d766d3 Sally Roots 125 8.9 26

(70 / 247) processed

ID

Name Likes Rating Tips

0 562d4a03498ed563c9a7ab8c Kafe Louverture 23 8.4 7

(71 / 247) processed

ID

Name Likes Rating Tips

0 5650f85b498ecdb849435a7d Angela's 55 8.3 31

(72 / 247) processed

ID

Name Likes Rating Tips

0 4a623b9df964a52076c31fe3 A & A Bake & Doubles 94 8.8 57

(73 / 247) processed

ID

Name Likes Rating Tips

0 4c3dbd0d980320a176608ce4 Tastee Pattee 12 7.8 6

(74 / 247) processed

ID

Name Likes Rating

\

0 5ae70ca64c954c002c618bff Imani Caribbean Kitchen & Bar 29 8.3

Tips

0 2

(75 / 247) processed

	ID	Name	Likes	Rating	Tips
0	5a2b4cad1f74406acebf1baa	Negril	28	8.1	3

(76 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4bc5ee81db8fa593846e9b37	Island Pot Restaurant	21	6.3	12

(77 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4c50b469375c0f47c406bb92	Golden Krust Caribbean Restaurant	2	6.7	

Tips
0 1

(78 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4c1843941436a593e12e8d75	De Islands Caribbean Resturant	17	7.4	

Tips
0 11

(79 / 247) processed

	ID	Name	Likes	Rating	Tips
0	5324a973498e4a9ae2e3bc77	Chloe's Restaurant and Lounge	14	6.6	

Tips
0 3

(80 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4c15458477cea59341f4d160	Golden Krust Caribbean Restaurant	6	6.6	

Tips
0 3

(81 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4baebdcef964a520ebd33be3	Bamboo Garden	13	6.0	11

(82 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4cb39fba6c26952153f9b9d9	Dougie's Jamaican Cuisine	7	6.1	

(83 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4c1321d0b7b9c928c029a937	Blue Mountain Farm	29	8.1	5

(84 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4c47260096abd13a1cc96f01	Topaze Restaurant	10	7.4	1

(85 / 247) processed

	ID	Name	Likes	Rating	Tips
0	5408fd2f498e50d72d583283	Trelawni Place	25	6.8	10

(86 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4bfd2559f61dc9b6bc8a9ede	Golden Krust Caribbean Restaurant	5	6.7	

Tips
0 4

(87 / 247) processed

Empty DataFrame

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(88 / 247) processed

	ID	Name	Likes	Rating	Tips
0	45053091f964a520e6381fe3	Footprints Cafe	65	6.9	39

(89 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4bd8c4572e6f0f47d3820808	Golden Krust Caribbean Restaurant		6.9	1

Tips

0 4

(90 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4b6b21aff964a520e0f42be3	Golden Krust Caribbean Bakery and Grill		6.9	3

Rating Tips

0 7.2 3

(91 / 247) processed

	ID	Name	Likes	Rating	Tips
0	5ae70ca64c954c002c618bff	Imani Caribbean Kitchen & Bar	29	8.3	

Tips

0 2

(92 / 247) processed

	ID	Name	Likes	Rating	Tips
0	5945bcb842d8c24270976841	Likkle More Jerk	18	7.9	4

(93 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4a6cba95f964a52073d11fe3	Peppa's Jerk Chicken	161	9.0	57

(94 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4d0e9e455b8a8cfa5e50eb83	De Hot Pot Roti Shop	73	8.8	23

(95 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4bdcade72a3a0f470fecb3b6	MangoSeed Restaurant	177	8.7	77

(96 / 247) processed

	ID	Name	Likes	Rating	Tips
0	54fbad6b498e83b622d3c796	The Food Sermon	164	9.2	38

(97 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4c79b5f683a7bfb7527f7ff8	Errol's Caribbean Bakery	11	8.0	5

(98 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4e0904426284d9ee92de668b	Golden Krust Caribbean Restaurant		7.8	12

Tips

0 8

(99 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4b085b46f964a520f50923e3	Gloria's	30	8.5	12

(100 / 247) processed

ID	Name	Likes	Rating	Tips
0 4bd3475c046076b084a97571	Culpepper's	20	7.2	13
(101 / 247) processed				
ID	Name	Likes	Rating	Tips
0 4e26eebed16486291ba4d622	Jen's Roti Shop	16	7.7	7
(102 / 247) processed				
ID	Name	Likes	Rating	Tips
0 4cd4918576ab721eac3676a	Soldiers Jamaican	20	7.3	9
(103 / 247) processed				
ID	Name	Likes	Rating	Tips
0 4c5dd01cd25320a1a924c77a	De Bamboo Express Restaurant & Bakery	11		
\				
Rating Tips				
0	7.3	4		
(104 / 247) processed				
ID	Name	Likes	Rating	Tips
0 4a611b29f964a520dec11fe3	Nio's Trinidad Roti Shop	31	7.6	13
(105 / 247) processed				
ID	Name	Likes	Rating	Tips
0 4e21d5c6e4cdf68591898a5e	Caribbean Vibes	14	7.5	6
(106 / 247) processed				
ID	Name	Likes	Rating	Tips
0 5a0f90888264443d4b674cdf	Caribbean Social	16	7.1	8
(107 / 247) processed				
ID	Name	Likes	Rating	Tips
0 4c0fbd6fd64c0f47b13d2a5d	Golden Krust Caribbean Restaurant	2		
ing \				
6.4				
Tips				
0	3			
(108 / 247) processed				
ID	Name	Likes	Rating	Tips
0 57597fd8498e2922f0ff1b22	Island Express	26	8.8	4
(109 / 247) processed				
ID	Name	Likes	Rating	Tips
0 4d69b5bfde28224b66f646be	fisherman's Cove	22	7.5	5
(110 / 247) processed				
ID	Name	Likes	Rating	Tips
0 4cb8984bbac937044c4fde7c	Golden Krust Caribbean Restaurant	4		
ing \				
7.2				
Tips				
0	1			
(111 / 247) processed				
ID	Name	Likes	Rating	Tips
0 4bdcade72a3a0f470fecb3b6	MangoSeed Restaurant	177	8.7	77
(112 / 247) processed				
ID	Name	Likes	Rating	Tips
0 4a6cba95f964a52073d11fe3	Peppa's Jerk Chicken	161	9.0	57
(113 / 247) processed				
ID	Name	Likes	Rating	Tips
0 57e84045498e0ee2333a41d4	Suzy's Roti Parlour	15	7.8	5
(114 / 247) processed				
ID	Name	Likes	Rating	Tips
0 4e26eebed16486291ba4d622	Jen's Roti Shop	16	7.7	7
(115 / 247) processed				
ID	Name	Likes	Rating	Tips
0 5a0f90888264443d4b674cdf	Caribbean Social	16	7.1	8

(116 / 247) processed

ID	Name	Likes	Rating	Tips
0 4a611b29f964a520dec11fe3	Nio's Trinidad Roti Shop	31	7.6	13

(117 / 247) processed

ID	Name	Likes
0 4c5dd01cd25320a1a924c77a	De Bamboo Express Restaurant & Bakery	11

Rating	Tips
0 7.3	4

(118 / 247) processed

ID	Name	Likes	Rating	Tips
0 5879815625911e1bb23364a0	Sip unWINE	8	7.4	3

(119 / 247) processed

ID	Name	Likes	Rating
0 4bfd2559f61dc9b6bc8a9ede	Golden Krust Caribbean Restaurant	5	6.7

Tips
0 4

(120 / 247) processed

ID	Name	Likes	Rating	Tips
0 5671fec0498e79759c2ce17b	Pearl's	181	8.9	46

(121 / 247) processed

ID	Name	Likes	Rating	Tips
0 4afcba6af964a5206d2522e3	La Casa del Mofongo	163	8.0	61

(122 / 247) processed

ID	Name	Likes	Rating	Tips
0 4eb32c34e5fa17fc85cc483f	Wat's On Your Plate	25	8.8	21

(123 / 247) processed

ID	Name	Likes	Rating	Tips
0 4a7a35faf964a520dee81fe3	One Stop Patty Shop	13	7.7	10

(124 / 247) processed

ID	Name	Likes	Rating	Tips
0 5645609b498e47952f22cd7d	Jerkyz	7	7.5	1

(125 / 247) processed

ID	Name	Likes	Rating	Tips
0 4cc8b398e7926dcbbdbd5777	Little Ochie	7	7.1	3

(126 / 247) processed

ID	Name	Likes	Rating	Tips
0 4f5660c3e4b0ac8e5470d4b2	Melting Pot Cuisine	15	8.2	9

(127 / 247) processed

ID	Name	Likes	Rating
0 4d9e8aa89b91a1cdc7c958c0	Miss Lily's & Melvin's Juice Box	970	9.1

Tips
0 346

(128 / 247) processed

ID	Name	Likes	Rating	Tips
0 537822d3498edcf629cebd3d	Miss Lily's 7A	571	9.2	168

(129 / 247) processed

ID	Name	Likes	Rating	Tips
0 4af6f269f964a5204a0422e3	Cabana Restaurant & Bar	126	8.2	89

(130 / 247) processed

ID	Name	Likes	Rating	Tips
0 4b9d2a05f964a520769536e3	Kaieeteur Restaurant	23	7.9	14

(131 / 247) processed

ID	Name	Likes	Rating	Tips
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0 4b9d2a05f964a520769536e3 Kaieteur Restaurant 23 7.9 14
( 132 / 247 ) processed
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      ID      Name  Likes  Rating  Tips
0 51edc3a0498ed5eb9f8c5643 El Gran Canario 3 5.8 4
( 133 / 247 ) processed
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s \
0 4bf6cd2d13aed13ac039eaf7 Golden Krust Caribbean Bakery and Grill
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( 134 / 247 ) processed
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0 4da0da7563b5a35d809ddb19 The Legend Cookhouse Guyana Cuisine 5
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0 7.2 2
( 136 / 247 ) processed
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s
0 4d793f73132d8eec4f7815be G's Restaurant and Bakery 6 6.6
1
( 137 / 247 ) processed
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0 4b8abd9cf964a520b07d32e3 Mangu Grill 12 6.2 7
( 138 / 247 ) processed
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      ID      Name  Likes  Rating  Tips
0 4bce1e93cc8cd13a37c8c3cf Jamaican Flavors 23 8.0 9
( 139 / 247 ) processed
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0 4c0eeb0415c2ef3bad541b08 Genesis #1 27 8.4 13
( 140 / 247 ) processed
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      ID      Name  Likes  Rating  Tips
0 5130c73e72da35b105337efe Anita's Roti Shop 7 6.8 0
( 141 / 247 ) processed
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      ID      Name  Likes  Rating
ing \
0 4c82afb974d7b60cf60983d8 Golden Krust Caribbean Restaurant 3
6.4
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      Tips
0 1
( 142 / 247 ) processed
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      ID      Name  Likes  Rating
ing \
0 4e07913db61c60b045464228 Golden Krust Caribbean Restaurant 2
6.2
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      Tips
0 3
( 143 / 247 ) processed
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0 4da790e66a2364c7a3a17b86 Tropical Jerk 26 6.2 11
( 144 / 247 ) processed
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      ID      Name  Likes  Rating  Tips
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0 5130c73e72da35b105337efe Anita's Roti Shop 7 6.8 0
(145 / 247) processed

ID	Name	Likes	Rating	Tips
0 4ca8f719d971b1f77e0b1ae1	The Smokehouse	63	8.1	26

(146 / 247) processed

ID	Name	Likes	Rating	Tips
0 50bd54b3e4b0b38c68eb38c7	jamaican flavors	6	6.9	2

(147 / 247) processed

ID	Name	Like
0 4e4cfce5bd413c4cc66dd93d	Golden Krust Caribbean Bakery and Grill	

5

Rating	Tips
7.0	1

(148 / 247) processed

ID	Name	Likes	Rating	Tips
0 4e08c252d4c03ae0b9d1be28	Kriss West Indian Restaurant	7	6.5	2

(149 / 247) processed

ID	Name	Likes	Rating	Tips
0 4b778264f964a520d69e2ee3	The Door	238	8.7	91

(150 / 247) processed

ID	Name	Likes	Rating	T
0 4d3206725017a093183c459b	Jamaican Flavors Restaurant	8	7.7	

4
(151 / 247) processed

ID	Name	Likes	Rat
0 4c2cd1bad1a10f47c20dfa64	Golden Krust Caribbean Restaurant	1	

6.9

Tips
2

(152 / 247) processed

ID	Name	Likes	Rating	Tips
0 4dcde05f183899ddf4c4b4fa	Good Taste Catering	14	7.3	2

(153 / 247) processed

ID	Name	Likes	Rat
0 4cc1bac501fb236aeb579aba	Golden Krust Caribbean Restaurant	21	

7.6

Tips
8

(154 / 247) processed

ID	Name	Likes	Rating	Tips
0 4c75c2ec604a370462c88349	Whipped Treats	10	8.2	10

(155 / 247) processed

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(156 / 247) processed

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0 4fde48afe4b0b4dd29a80328	Henrica's Restaurant And Lounge	20	7.

9

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Tips
0 7
( 157 / 247 ) processed
ID Name Likes Rating Tips
0 52d0cb3511d271f8bcf46c1f Pa-Nash Eurosoul 9 7.1 2
( 158 / 247 ) processed
ID Name Likes Rating Tip
s
0 543024d9498ea11026e7f349 c & j jamaican restaurant 5 5.8
0
( 159 / 247 ) processed
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0 4b5b34e8f964a5202ceb28e3 Golden Krust 6 5.9 4
( 160 / 247 ) processed
ID Name Likes Rat
ing \
0 4ded1ea66365d208a47006cd Golden Krust Caribbean Restaurant 3
6.2

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Tips
0 2
( 161 / 247 ) processed
ID Name Likes Rating Tips
0 4d31ea9cb6093704551ef1df Goody's 29 8.8 14
( 162 / 247 ) processed
ID Name Like
s \
0 4e4cfecbbd413c4cc66dd85d Golden Krust Caribbean Bakery and Grill
0

```

```

Rating Tips
0 6.8 1
( 163 / 247 ) processed
ID Name Likes Ratin
g \
0 4fde48afe4b0b4dd29a80328 Henrica's Restaurant And Lounge 20 7.
9

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Tips
0 7
( 164 / 247 ) processed
ID Name Likes Rating Tips
0 51368f29e4b0349e2a7a408d Jamaica Breeze 14 8.1 4
( 165 / 247 ) processed
ID Name Likes Rating Tips
0 4b9aeef1f964a52089e435e3 Jerk Hut 11 7.8 0
( 166 / 247 ) processed
ID Name Likes Rating T
ips
0 4d3206725017a093183c459b Jamaican Flavors Restaurant 8 7.7
4
( 167 / 247 ) processed
ID Name Likes Rating Tips
0 52d0cb3511d271f8bcf46c1f Pa-Nash Eurosoul 9 7.1 2
( 168 / 247 ) processed
ID Name Likes Rating Tips
0 4b5b34e8f964a5202ceb28e3 Golden Krust 6 5.9 4
( 169 / 247 ) processed
ID Name Likes Rating Tip
s
0 543024d9498ea11026e7f349 c & j jamaican restaurant 5 5.8

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(170 / 247) processed

Empty DataFrame

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(171 / 247) processed

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0	4d31ea9cb6093704551ef1df	Goody's	29	8.8	14

(172 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4c2cd1bad1a10f47c20dfa64	Golden Krust Caribbean Restaurant	1	6.9	

Tips

0 2

(173 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4fe22a8ce4b079e1961d356b	King Empanadas	7	6.0	4

(174 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4af6f269f964a5204a0422e3	Cabana Restaurant & Bar	126	8.2	89

(175 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4bafbddbf964a520df1c3ce3	Golden Krust Caribbean Bakery and Grill	2		

Rating Tips

0 6.0 7

(176 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4bafbddbf964a520df1c3ce3	Golden Krust Caribbean Bakery and Grill	2		

Rating Tips

0 6.0 7

(177 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4bafbddbf964a520df1c3ce3	Golden Krust Caribbean Bakery and Grill	2		

Rating Tips

0 6.0 7

(178 / 247) processed

	ID	Name	Likes	Rating	Tips
0	57597fd8498e2922f0ff1b22	Island Express	26	8.8	4

(179 / 247) processed

	ID	Name	Likes	Rating	Tips
0	5879815625911e1bb23364a0	Sip unWINE	8	7.4	3

(180 / 247) processed

	ID	Name	Likes	Rating	Tips
0	57e84045498e0ee2333a41d4	Suzy's Roti Parlour	15	7.8	5

(181 / 247) processed

	ID	Name	Likes	Rating	Tips
0	4d69b5bfde28224b66f646be	fisherman's Cove	22	7.5	5

(182 / 247) processed

	ID	Name	Likes	Rating	Tips
--	----	------	-------	--------	------

```
ing \
0 4cb8984bbac937044c4fde7c Golden Krust Caribbean Restaurant 4
7.2
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Tips
0 1
( 183 / 247 ) processed
ID Name Likes Rating Tips
0 4e26eebed16486291ba4d622 Jen's Roti Shop 16 7.7 7
( 184 / 247 ) processed
ID Name Likes Rating Tips
0 5a0f90888264443d4b674cdf Caribbean Social 16 7.1 8
( 185 / 247 ) processed
ID Name Likes
\
0 4bf6df9d4a67c928b49422cf Golden Krust Caribbean Bakery & Grill 7
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Rating Tips
0 6.5 1
( 186 / 247 ) processed
ID Name Likes Rating Tips
0 4c030121187ec928511cb57b Ali's Roti Shop 95 8.7 25
( 187 / 247 ) processed
ID Name Likes
\
0 5562849a498ea88df7dcc1d3 Crown Heights Royal Cuisine Yard Food 8
```

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Rating Tips
0 7.1 5
( 188 / 247 ) processed
ID Name Likes Rat
ing \
0 4c1d79fa8b3aa59349ba9a5f Golden Krust Caribbean Restaurant 2
6.7
```

```

Tips
0 3
( 189 / 247 ) processed
ID Name Likes Rating Tips
0 4ebc66f88b81967ad17a286a Fisherman's Cove 6 6.7 6
( 190 / 247 ) processed
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ing \
0 4bc3edc04cdfc9b61c1c9821 Golden Krust Caribbean Restaurant 4
6.2
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Tips
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( 191 / 247 ) processed
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0 4b464895f964a520791c26e3 Best Bites 25 7.8 10
( 193 / 247 ) processed
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ing \
0 4bc56cea5935c9b68ef2a5d2 Golden Krust Caribbean Restaurant 4
7.3
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Tips
0 11
( 194 / 247 ) processed
ID Name Likes Rating Tips
0 4e9ecdd9722edab8d2cdf221 Brucee's Patties 18 7.9 7
( 195 / 247 ) processed
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Tips
0 4c8ac3c852a98cfa25c12fe9 Trinidad Roti House & Bakery 5 7.8
6
( 196 / 247 ) processed
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s
0 4bc4c577abf49521628bc593 C & J Jamaican Restaurant 47 6.7 4
1
( 197 / 247 ) processed
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ing \
0 4d8e436cca75b60c194afba8 Golden Krust Caribbean Restaurant 3
7.0

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Tips
0 1
( 198 / 247 ) processed
ID Name Likes Rating Tips
0 4e72a0e5aeb74a608a8735ec Silver Krust Restaurant 15 6.1 1
( 199 / 247 ) processed
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0 4cbdab3f43ec6dcbf554b831 Linda's Restaurant 5 5.6 2
( 200 / 247 ) processed
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0 537822d3498edcf629cebd3d Miss Lily's 7A 571 9.2 168
( 201 / 247 ) processed
ID Name Likes Rating Tip
s
0 4b02e1c0f964a520a44a22e3 Latin American Restaurant 20 8.6 1
3
( 202 / 247 ) processed
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0 4e9ecdd9722edab8d2cdf221 Brucee's Patties 18 7.9 7
( 203 / 247 ) processed
ID Name Likes Rat
ing \
0 4d8e436cca75b60c194afba8 Golden Krust Caribbean Restaurant 3
7.0

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Tips
0 1
( 204 / 247 ) processed
ID Name Likes Rating Tips
0 4505314df964a520e7381fe3 Footprints Cafe 237 7.6 115
( 205 / 247 ) processed
ID Name Like
s \
0 4ef520a36c25074226ff0101 Golden Krust Caribbean Bakery and Grill
1
Rating Tips
0 7.2 1
( 206 / 247 ) processed

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                                ID                                Name    Like
s  \
0  4ed30bce02d5feaa1f657f21  Golden Krust Caribbean Bakery and Grill
4

    Rating  Tips
0      6.9    2
( 207 / 247 ) processed
                                ID                                Name    Likes    Rating  Tips
0  4e72a0e5aeb74a608a8735ec  Silver Krust Restaurant      15      6.1     1
( 208 / 247 ) processed
                                ID                                Name    Likes    Rating  Tips
0  4cbdab3f43ec6dcbf554b831  Linda's Restaurant           5      5.6     2
( 209 / 247 ) processed
                                ID                                Name    Likes    Rating
Tips
0  4c0c4f79bbc676b036f74cd5  Flava II Restaurant & Bakery  10      7.1
5
( 210 / 247 ) processed
                                ID                                Name    Like
s  \
0  4bd30bf6b221c9b699b2d8d0  Golden Krust Caribbean Bakery and Grill
3

    Rating  Tips
0      6.3    3
( 211 / 247 ) processed
                                ID                                Name    Likes    Rating  Tips
0  4bc5ee81db8fa593846e9b37  Island Pot Restaurant        21      6.3    12
( 212 / 247 ) processed
                                ID                                Name    Likes    Rating
\
0  4c1843941436a593e12e8d75  De Islands Caribbean Resturant  17      7.4

    Tips
0     11
( 213 / 247 ) processed
                                ID                                Name    Likes    Rating
\
0  5324a973498e4a9ae2e3bc77  Chloe's Restaurant and Lounge  14      6.6

    Tips
0      3
( 214 / 247 ) processed
                                ID                                Name    Likes    Rating  Tip
s
0  4cb39fba6c26952153f9b9d9  Dougie's Jamaican Cuisine     7      6.1
5
( 215 / 247 ) processed
                                ID                                Name    Likes    Rating  Tips
0  4baebdcef964a520ebd33be3  Bamboo Garden                13      6.0    11
( 216 / 247 ) processed
                                ID                                Name    Like
s  \
0  4b6b21aff964a520e0f42be3  Golden Krust Caribbean Bakery and Grill
3

    Rating  Tips
0      7.2    3
( 217 / 247 ) processed
                                ID                                Name    Likes    Rating  Tips

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0 4c0eeb0415c2ef3bad541b08 Genesis #1 27 8.4 13
(218 / 247) processed

ID Name Likes Rating Tips
0 4bce1e93cc8cd13a37c8c3cf Jamaican Flavors 23 8.0 9
(219 / 247) processed

ID Name Likes Rat
ing \
0 4bb794d41261d13a2583e798 Golden Krust Caribbean Restaurant 0
6.6

Tips
0 3
(220 / 247) processed

ID Name Likes Rating Tips
0 4c1010f5ce57c928f94681d2 The Feeding Tree 24 7.5 16
(221 / 247) processed

ID Name Likes Rating Ti
ps
0 4ebabe2b775b2c800cf27003 Flavas International Grill 18 7.1
11
(222 / 247) processed

ID Name Likes Rating Tip
s
0 4c6daa9e06ed6dcbbe91a422 Concourse Jamaican Bakery 6 6.5
6
(223 / 247) processed

ID Name Like
s \
0 4bf6cd2d13aed13ac039eaf7 Golden Krust Caribbean Bakery and Grill
1

Rating Tips
0 6.9 3
(224 / 247) processed

ID Name Likes Rating Tips
0 4c030121187ec928511cb57b Ali's Roti Shop 95 8.7 25
(225 / 247) processed

ID Name Likes
\
0 5562849a498ea88df7dcc1d3 Crown Heights Royal Cuisine Yard Food 8

Rating Tips
0 7.1 5
(226 / 247) processed

ID Name Likes
s \
0 4d5ea3ed5b276dcb31cafcc5 Golden Krust Caribbean Bakery and Grill
4

Rating Tips
0 6.8 1
(227 / 247) processed

ID Name Likes Rating Tips
0 4ebc66f88b81967ad17a286a Fisherman's Cove 6 6.7 6
(228 / 247) processed

ID Name Likes Rat
ing \
0 4bc3edc04cdfc9b61c1c9821 Golden Krust Caribbean Restaurant 4
6.2

Tips

```
0      7
```

```
( 229 / 247 ) processed
```

```

                                ID                                Name  Likes  Rat
ing \
0  4e42a587aeb79367c7e9f663  Golden Krust Caribbean Restaurant      4
6.4
```

```
Tips
```

```
0      1
```

```
( 230 / 247 ) processed
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                                ID                                Name  Likes  Rating  Tips
0  4c07e7f97e3fc9280676ef82  Feroza's Roti Shop          39      7.6    25
```

```
( 231 / 247 ) processed
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```

                                ID                                Name  Likes  Rat
ing \
0  4ba52f5df964a52009e938e3  Golden Krust Caribbean Restaurant      5
7.1
```

```
Tips
```

```
0      2
```

```
( 232 / 247 ) processed
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                                ID                                Name  Likes  Rating  Tips
0  4f627f50e4b04d4b13d32f90  Richie Rich                3      6.0     3
```

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( 233 / 247 ) processed
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```

```
Columns: [ID, Name, Likes, Rating, Tips]
```

```
Index: []
```

```
No data available for id= 4ba29ed3f964a520e90938e3
```

```
( 234 / 247 ) processed
```

```

                                ID                                Name  Likes  Rating  Tips
0  4b53503bf964a520d29627e3  Exquisite Delight          50      8.7    16
```

```
( 235 / 247 ) processed
```

```

                                ID                                Name  Likes  Rating  Tips
0  4ecd5bf6d3e3521ce230c631  Tastee Pattee              9      7.9     3
```

```
( 236 / 247 ) processed
```

```

                                ID                                Name  Likes  Rating  Tips
0  4be36a22d27a20a12c41925b  Bake & Things Restaurant    49      7.7    26
```

```
( 237 / 247 ) processed
```

```

                                ID                                Name  Likes  Rating  Tips
0  57597fd8498e2922f0ff1b22  Island Express             26      8.8     4
```

```
( 238 / 247 ) processed
```

```

                                ID                                Name  Likes  Rating  Tips
0  4a611b29f964a520dec11fe3  Nio's Trinidad Roti Shop    31      7.6    13
```

```
( 239 / 247 ) processed
```

```

                                ID                                Name  Likes  Rating  Tips
0  4e21d5c6e4cdf68591898a5e  Caribbean Vibes            14      7.5     6
```

```
( 240 / 247 ) processed
```

```

                                ID                                Name  Likes  Rating  Tips
0  4d95f915e07ea35d0f03b402  Trini Breakfast Shed II    20      6.9    12
```

```
( 241 / 247 ) processed
```

```

                                ID                                Name  Likes  Rat
ing \
0  4b66446af964a520621b2be3  Golden Krust Caribbean Restaurant      3
6.7
```

```
Tips
```

```
0      4
```

```
( 242 / 247 ) processed
```

```

                                ID                                Name  Likes  Rating  Tips
0  5879815625911e1bb23364a0  Sip unWINE                  8      7.4     3
```

```
( 243 / 247 ) processed
```

```

ID Name Likes Rating Tip
5
0 4c0c025ca1b32d7fa0e49bf0 Kal's Bakery & Restaurant 11 6.4
5
( 244 / 247 ) processed
ID Name Likes
\
0 4bf6df9d4a67c928b49422cf Golden Krust Caribbean Bakery & Grill 7

Rating Tips
0 6.5 1
( 245 / 247 ) processed
ID Name Likes Rating Tips
0 4d31ea9cb6093704551ef1df Goody's 29 8.8 14
( 246 / 247 ) processed
ID Name Likes Rating Tips
0 4f5660c3e4b0ac8e5470d4b2 Melting Pot Cuisine 15 8.2 9
( 247 / 247 ) processed

```

In [22]:

```
caribbean_rest_stats_ny.head()
```

Out[22]:

	Borough	Neighborhood	ID	Name	Likes	Rating	Tip
0	Bronx	Wakefield	4d375ce799fe8eec99fd2355	Ripe Kitchen & Bar	70	8.8	33
1	Bronx	Wakefield	4c9e50e38afca09379b2ff15	Ali's Roti Shop	16	8.7	9
2	Bronx	Wakefield	4c10f6aece57c92804a682d2	Jackie's West Indian Bakery	22	7.7	13
3	Bronx	Wakefield	4bf5c0a294b2a5937c42acee	Golden Krust Caribbean Restaurant	2	6.7	1
4	Bronx	Co-op City	4baab2b0f964a520c7803ae3	Country Thyme Cuisine	18	8.4	7

In [23]:

```
caribbean_rest_stats_ny.shape
```

Out[23]:

(247, 7)

In [24]:

```
caribbean_rest_ny.shape
```

Out[24]:

(247, 4)

In [25]:

```
caribbean_rest_stats_ny.to_csv('caribbean_rest_stats_ny.csv', index=False)
```

In [26]:

```
caribbean_rest_stats_ny_csv=pd.read_csv('caribbean_rest_stats_ny.csv')
```

In [27]:

```
caribbean_rest_stats_ny_csv.shape
```

Out[27]:

(247, 7)

In [28]:

```
caribbean_rest_stats_ny_csv.head()
```

Out[28]:

	Borough	Neighborhood	ID	Name	Likes	Rating	Tip
0	Bronx	Wakefield	4d375ce799fe8eec99fd2355	Ripe Kitchen & Bar	70	8.8	33
1	Bronx	Wakefield	4c9e50e38afca09379b2ff15	Ali's Roti Shop	16	8.7	9
2	Bronx	Wakefield	4c10f6aece57c92804a682d2	Jackie's West Indian Bakery	22	7.7	13
3	Bronx	Wakefield	4bf5c0a294b2a5937c42acee	Golden Krust Caribbean Restaurant	2	6.7	1
4	Bronx	Co-op City	4baab2b0f964a520c7803ae3	Country Thyme Cuisine	18	8.4	7



In [29]:

```
caribbean_rest_stats_ny.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 247 entries, 0 to 246
Data columns (total 7 columns):
Borough      247 non-null object
Neighborhood  247 non-null object
ID            247 non-null object
Name         247 non-null object
Likes        247 non-null object
Rating       247 non-null float64
Tips         247 non-null object
dtypes: float64(1), object(6)
memory usage: 13.6+ KB
```

In [30]:

```
caribbean_rest_stats_ny['Likes']=caribbean_rest_stats_ny['Likes'].astype('float64')
caribbean_rest_stats_ny['Tips']=caribbean_rest_stats_ny['Tips'].astype('float64')
caribbean_rest_stats_ny.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 247 entries, 0 to 246
Data columns (total 7 columns):
Borough      247 non-null object
Neighborhood  247 non-null object
ID            247 non-null object
Name         247 non-null object
Likes        247 non-null float64
Rating       247 non-null float64
Tips         247 non-null float64
dtypes: float64(3), object(4)
memory usage: 13.6+ KB
```

In [31]:

```
# Resturant with maximum Likes
caribbean_rest_stats_ny.iloc[caribbean_rest_stats_ny['Likes'].idxmax()]
```

Out[31]:

```
Borough      Manhattan
Neighborhood  Greenwich Village
ID            4d9e8aa89b91a1cdc7c958c0
Name         Miss Lily's & Melvin's Juice Box
Likes        970
Rating       9.1
Tips         346
Name: 127, dtype: object
```

In [32]:

```
# Resturant with maximum Rating
caribbean_rest_stats_ny.iloc[caribbean_rest_stats_ny['Rating'].idxmax()]
```

Out[32]:

```
Borough          Brooklyn
Neighborhood      Prospect Heights
ID              5a4d750e3fcee83d3f3ce36c
Name              The Islands
Likes              53
Rating            9.2
Tips              15
Name: 66, dtype: object
```

In [33]:

```
# Resturant with maximum Tips
caribbean_rest_stats_ny.iloc[caribbean_rest_stats_ny['Tips'].idxmax()]
```

Out[33]:

```
Borough          Manhattan
Neighborhood      Greenwich Village
ID              4d9e8aa89b91a1cdc7c958c0
Name      Miss Lily's & Melvin's Juice Box
Likes              970
Rating            9.1
Tips              346
Name: 127, dtype: object
```

Now lets visualize neighborhood with maximum average rating of resturants

In [34]:

```
ny_neighborhood_stats=caribbean_rest_stats_ny.groupby('Neighborhood',as_index=False).mean()[['Neighborhood','Rating']]
ny_neighborhood_stats.columns=['Neighborhood','Average Rating']
```


In [35]:

```
ny_neighborhood_stats.sort_values(['Average Rating'],ascending=False).head(10)
```

Out[35]:

	Neighborhood	Average Rating
26	East Village	9.2
67	Prospect Heights	9.2
56	Noho	9.2
38	Greenwich Village	9.1
58	North Side	8.9
10	Bushwick	8.9
78	Somerville	8.8
1	Arverne	8.8
40	Hammels	8.8
94	Woodlawn	8.7

Top ten rated neighborhoods with top average rating of Cndian resturants

In [36]:

```
ny_borough_stats=caribbean_rest_stats_ny.groupby('Borough',as_index=False).mean()[['Borough','Rating']]
ny_borough_stats.columns=['Borough','Average Rating']
```

In [37]:

```
ny_borough_stats.sort_values(['Average Rating'],ascending=False).head()
```

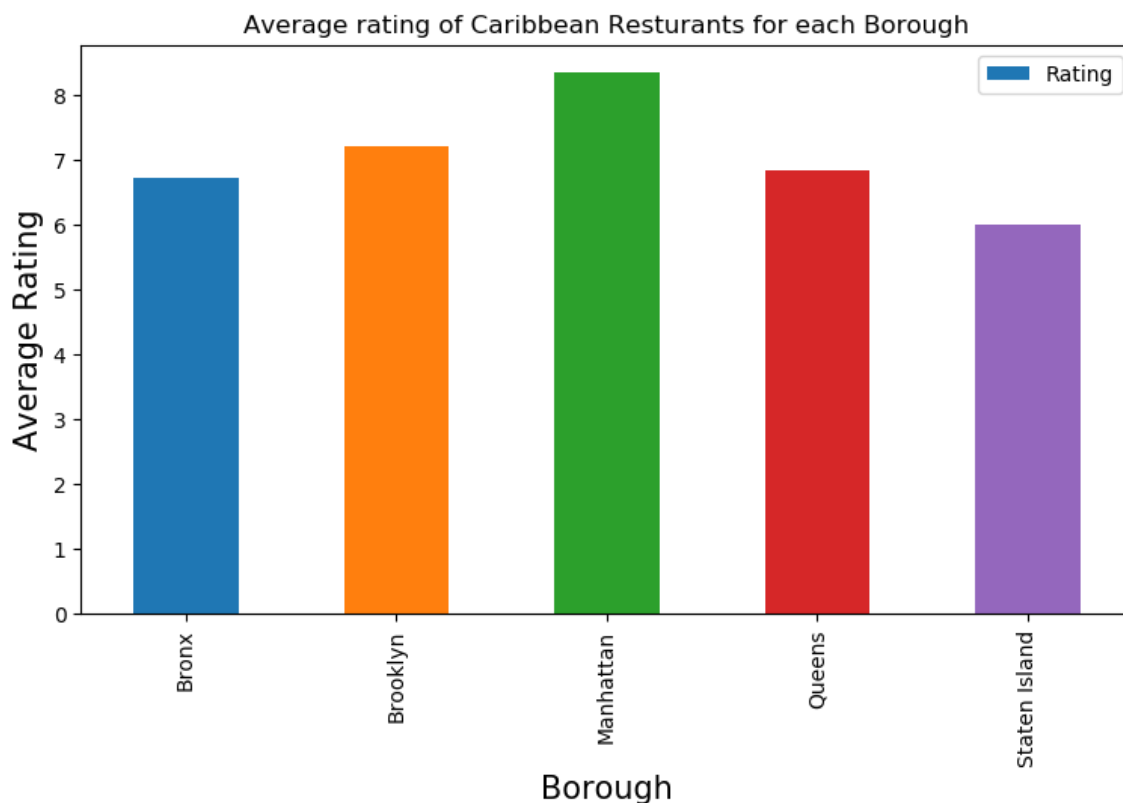
Out[37]:

	Borough	Average Rating
2	Manhattan	8.354545
1	Brooklyn	7.210078
3	Queens	6.850980
0	Bronx	6.722642
4	Staten Island	6.000000

average rating of Caribbean Resturants for each Borough

In [38]:

```
plt.figure(figsize=(9,5), dpi = 100)
# title
plt.title('Average rating of Caribbean Resturants for each Borough')
#On x-axis
plt.xlabel('Borough', fontsize = 15)
#On y-axis
plt.ylabel('Average Rating', fontsize=15)
#giving a bar plot
caribbean_rest_stats_ny.groupby('Borough').mean()['Rating'].plot(kind='bar')
#legend
plt.legend()
#displays the plot
plt.show()
```



Get Neighborhoods with average rating of 8.5 and higher

In [41]:

```
ny_neighborhood_stats=ny_neighborhood_stats[ny_neighborhood_stats['Average Rating']>=8.5]
```

In [42]:

```
ny_neighborhood_stats
```

Out[42]:

	Neighborhood	Average Rating
1	Arverne	8.8
10	Bushwick	8.9
26	East Village	9.2
38	Greenwich Village	9.1
40	Hammels	8.8
47	Kingsbridge	8.5
49	Marble Hill	8.5
51	Midtown South	8.6
56	Noho	9.2
58	North Side	8.9
67	Prospect Heights	9.2
74	Rochdale	8.7
78	Somerville	8.8
94	Woodlawn	8.7

In [43]:

```
ny_neighborhood_stats=pd.merge(ny_neighborhood_stats,new_york_data, on='Neighborhood')
```

In [44]:

```
ny_neighborhood_stats=ny_neighborhood_stats[['Borough','Neighborhood','Latitude','Longitude','Average Rating']]
```

In [45]:

```
ny_neighborhood_stats
```

Out[45]:

	Borough	Neighborhood	Latitude	Longitude	Average Rating
0	Queens	Arverne	40.589144	-73.791992	8.8
1	Brooklyn	Bushwick	40.698116	-73.925258	8.9
2	Manhattan	East Village	40.727847	-73.982226	9.2
3	Manhattan	Greenwich Village	40.726933	-73.999914	9.1
4	Queens	Hammels	40.587338	-73.805530	8.8
5	Bronx	Kingsbridge	40.881687	-73.902818	8.5
6	Manhattan	Marble Hill	40.876551	-73.910660	8.5
7	Manhattan	Midtown South	40.748510	-73.988713	8.6
8	Manhattan	Noho	40.723259	-73.988434	9.2
9	Brooklyn	North Side	40.714823	-73.958809	8.9
10	Brooklyn	Prospect Heights	40.676822	-73.964859	9.2
11	Queens	Rochdale	40.675211	-73.772588	8.7
12	Queens	Somerville	40.597711	-73.796648	8.8
13	Bronx	Woodlawn	40.898273	-73.867315	8.7

In [46]:

```
# create map and display it
ny_map = folium.Map(location=geo_location('New York'), zoom_start=12)
```

In [47]:

```
# instantiate a feature group for the incidents in the dataframe
incidents = folium.map.FeatureGroup()

for lat, lng, in ny_neighborhood_stats[['Latitude', 'Longitude']].values:
    incidents.add_child(
        folium.CircleMarker(
            [lat, lng],
            radius=10, # define how big you want the circle markers to be
            color='yellow',
            fill=True,
            fill_color='blue',
            fill_opacity=0.6
        )
    )
```

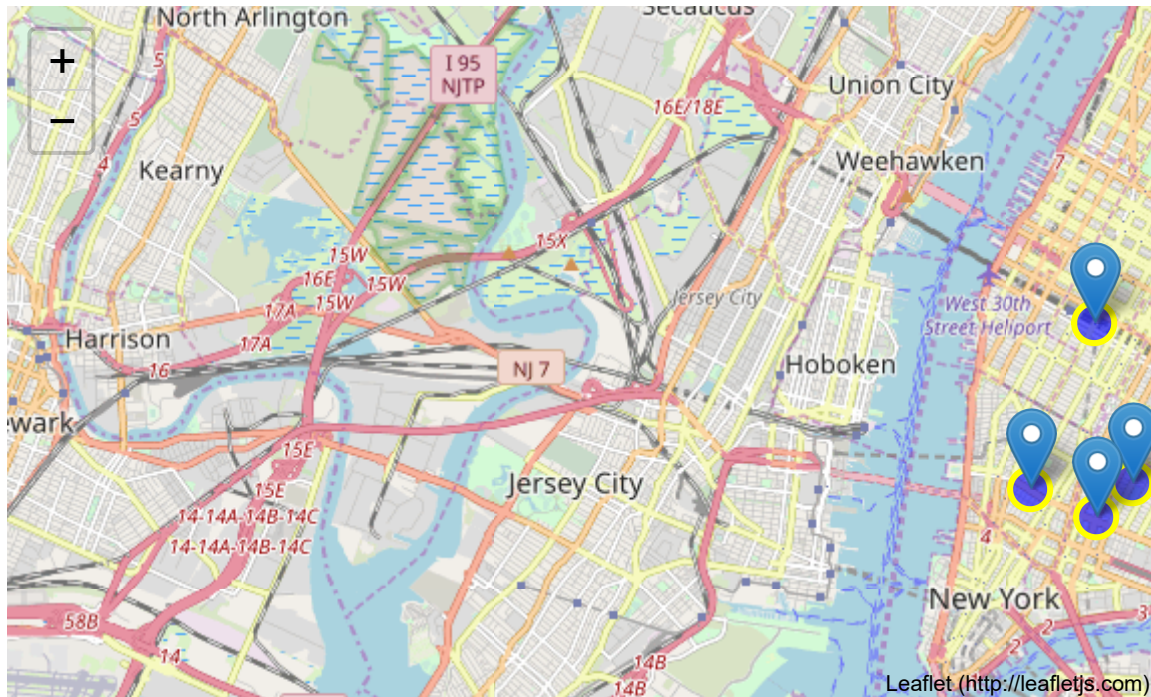
In [48]:

```
ny_neighborhood_stats['Label']=ny_neighborhood_stats['Neighborhood']+', '+ny_neighborhood_stats['Borough']+', ('+ny_neighborhood_stats['Average Rating'].map(str)+')
```

In [49]:

```
# add pop-up text to each marker on the map
for lat, lng, label in ny_neighborhood_stats[['Latitude','Longitude','Label']].values:
    folium.Marker([lat, lng], popup=label).add_to(ny_map)
# add incidents to map
ny_map.add_child(incidents)
```

Out[49]:



In [51]:

```
ny_map = folium.Map(location=geo_location('New York'), zoom_start=12)
ny_geo = r'Borough Boundaries.geojson'

ny_map.choropleth(
    geo_data=ny_geo,
    data=ny_borough_stats,
    columns=['Borough', 'Average Rating'],
    key_on='feature.properties.boro_name',
    fill_color='YlOrRd',
    fill_opacity=0.7,
    line_opacity=0.2,
    legend_name='Average Rating'
)

# display map
# as this is huge map data , we will save it to a file
ny_map.save('borough_rating.html')
```

Conclusion

Prospect Heights(Brooklyn), East Village(Manhattan), Greenwich Village(Manhattan) are some of the best neighborhoods for caribbean cuisine.

Manhattan have potential Caribbean Resturant Market

Staten Island ranks last in average rating of Caribbean Resturants.

Manhattan is the best place to stay if you prefer Caribbean Cuisine.

Limitations

The ranking is purely on basis of rating of resturants

The accuracy of data depends purely depends on the data provided by FourSquare