1.2.1 Identify the city with the highest number of restaurants in the dataset.

```
In [1]:
           import pandas as pd
           data = pd.read_csv(r"C:\Users\HP\OneDrive\Documents\Cognifyz Internship Program\Dataset.csv")
           data
 Out[3]:
                                                                                                                                                                                  Switch
                                                                                                                                                         Has
                                                                                                                                                                  Has
                                                                                                                                                                              Is
                                                                                             Locality
                                                                                                                                                                                                                     Rating
                  Restaurant Restaurant Country
                                                                                                                                                                                      to
                                                                                                                                                                                          Price Aggregate Rating
                                                                                                                                                                                                                             Votes
                                                         City
                                                                  Address
                                                                                Locality
                                                                                                       Longitude
                                                                                                                   Latitude
                                                                                                                              Cuisines
                                                                                                                                       ... Currency
                                                                                                                                                        Table
                                                                                                                                                               Online delivering
                         ID
                                  Name
                                                                                             Verbose
                                                                                                                                                                                   order
                                                                                                                                                                                                                        text
                                                                                                                                                                                          range
                                                                                                                                                                                                     rating
                                                                                                                                                                                                             color
                                                                                                                                                     booking
                                                                                                                                                              delivery
                                                                                                                                                                                   menu
                                                                                          Century City
                                                                Third Floor,
                                                                             Century City
                                                               Century City
                                                                                                Mall,
                                                                                                                               French,
                                Le Petit
                                                                                   Mall,
                                                                                                                                           Botswana
                                                                                                                                                                                                              Dark
                    6317637
                                             162
                                                   Makati City
                                                                     Mall,
                                                                                            Poblacion,
                                                                                                      121.027535 14.565443
                                                                                                                             Japanese.
                                                                                                                                                          Yes
                                                                                                                                                                             No
                                                                                                                                                                                     No
                                                                                                                                                                                              3
                                                                                                                                                                                                        4.8
                                                                                                                                                                                                                    Excellent
                                                                                                                                                                                                                               314
                                                                                                                                                                   No
                                 Souffle
                                                                              Poblacion,
                                                                                                                                             Pula(P)
                                                                  Kalayaan
                                                                                          Makati City,
                                                                                                                              Desserts
                                                                              Makati City
                                                                   Avenu...
                                                                                               Mak...
                                                                Little Tokyo,
                                                                                          Little Tokyo,
                                                                             Little Tokyo,
                                                                2277 Chino
                                                                                              Legaspi
                                 Izakaya
                                                                                Legaspi
                                                                                                                                           Botswana
                                                                                                                                                                                                              Dark
                    6304287
                                             162
                                                                                                      121.014101 14.553708
                                                                                                                                                                                                                    Excellent
                                                                                                                                                                                                                               591
              1
                                                   Makati City
                                                                    Roces
                                                                                              Village,
                                                                                                                             Japanese
                                                                                                                                                         Yes
                                                                                                                                                                   No
                                                                                                                                                                             No
                                                                                 Village,
                                                                                                                                                                                                             Green
                                 Kikufuji
                                                                                                                                             Pula(P)
                                                                   Avenue.
                                                                                           Makati City,
                                                                              Makati City
                                                                 Legaspi..
                                                                                                Ма..
                                                                     Edsa
                                                                                   Edsa
                                                                                                Edsa
                                                                Shangri-La,
                                                                                                                              Seafood,
                                                                             Shangri-La,
                                                                                          Shangri-La,
                                  Heat -
                                                 Mandaluyong
                                                                 1 Garden
                                                                                                                                Asian,
                                                                                                                                           Botswana
                                                                                                                                                                                                                       Very
                                                                                                      121.056831 14.581404
                                                                                                                                                                                                        4.4 Green
                    6300002
                                  Edsa
                                             162
                                                                                Ortigas,
                                                                                                                                                          Yes
                                                                                                                                                                   No
                                                                                                                                                                                                                               270
                                                                                              Ortigas,
                                                                                                                                                                             No
                                                                                                                                                                                     No
                                                                     Way,
                                                                                                                               Filipino,
                                                                                                                                             Pula(P)
                                                                                                                                                                                                                       Good
                             Shangri-La
                                                                            Mandaluyong
                                                                                         Mandaluyong
                                                                   Ortigas,
                                                                                                                                Indian
                                                                                    City
                                                                                            City, Ma...
                                                                  Mandal.
                                                                Third Floor,
                                                                                                 SM
                                                                                    SM
                                                                     Mega
                                                                                            Megamall,
                                                                              Megamall,
                                                  Mandaluyong
                                                                   Fashion
                                                                                              Ortigas,
                                                                                                                                           Botswana
                                                                                                                                                                                                              Dark
                                                                                                                             Japanese,
                    6318506
                                  Ooma
                                             162
                                                                                Ortigas,
                                                                                                      121.056475 14.585318
                                                                                                                                                          No
                                                                                                                                                                   No
                                                                                                                                                                             No
                                                                                                                                                                                     No
                                                                                                                                                                                                             Green
                                                                   Hall, SM
                                                                                         Mandaluyong
                                                                                                                                 Sushi
                                                                                                                                             Pula(P)
                                                                            Mandaluyong
                                                                 Megamall,
                                                                                                City,
                                                                                    City
                                                                                            Mandal...
                                                                       Ο..
                                                                                                 SM
                                                                Third Floor,
                                                                                    SM
                                                                                            Megamall,
                                                                     Mega
                                                                              Megamall,
                                                 Mandaluyong
                                 Sambo
                                                                                              Ortigas,
                                                                                                                                           Botswana
                                                                                                                                                                                                              Dark
                                                                                                                             Japanese,
                                                                                Ortigas,
                    6314302
                                             162
                                                                Atrium, SM
                                                                                                      121.057508 14.584450
                                                                                                                                                          Yes
                                                                                                                                                                   No
                                                                                                                                                                             No
                                                                                                                                                                                     No
                                                                                                                                                                                                             Green
                                                                                         Mandaluyong
                                  Kojin
                                                                                                                                Korean
                                                                                                                                             Pula(P)
                                                                            Mandaluyong
                                                                 Megamall,
                                                                                                City,
                                                                                    City
                                                                  Ortigas..
                                                                                            Mandal..
                                                                  Kemanke
                                                               Karamustafa
                                                                                             Karak<u>ſ</u>ŷ,
                                                                                                                                             Turkish
                                 Naml
                                                                                                                                                                                                                       Very
                                                       Stanbul
                    5915730
                                             208
                                                                      Paa
                                                                                Karak 🕥
                                                                                                       28.977392 41.022793
                                                                                                                               Turkish
                                                                                                                                                          No
                                                                                                                                                                   No
                                                                                                                                                                             No
                                                                                                                                                                                      No
                                                                                                                                                                                                        4.1 Green
                                                                                                                                                                                                                               788
                                                                                              stanbul
                                                                                                                                             Lira(TL)
                                                                                                                                                                                                                       Good
                                 Gurme
                                                                 Mahallesi,
                                                                 R \mid ht \mid m \dots
                                                                   Koûyolu
                                                                                                                                 World
                                                                 Mahallesi,
                                                                                             Koûyolu,
                                                                                                                                                                                                                       Very
                                                                                                                               Cuisine,
                                                                                                                                             Turkish
                    5908749 Ceviz A&C
                                                       Stanbul
                                                                                Koûyolu
           9547
                                             208
                                                                   Muhittin
                                                                                                       29.041297 41.009847
                                                                                                                                                          No
                                                                                                                                                                   No
                                                                                                                                                                             No
                                                                                                                                                                                                        4.2 Green
                                                                                                                                                                                                                              1034
                                                                                              stanbul
                                                                                                                             Patisserie,
                                                                                                                                                                                                                       Good
                                                                                                                                             Lira(TL)
                                                                    £t_nda∩
                                                                                                                                 Cafe
                                                                    Cadd...
                                                                 Kuru<u>e</u>me
                                                                                                                                Italian,
                                                                                           Kuru eme,
                                                                                                                                             Turkish
                                                                 Mahallesi,
                                                       Stanbul
                                                                              Kuru<u>le</u>me
                                                                                                       29.034640 41.055817
           9548
                    5915807
                                 Huqqa
                                             208
                                                                                                                                 World
                                                                                                                                                          No
                                                                                                                                                                   No
                                                                                                                                                                             No
                                                                                                                                                                                     No
                                                                                                                                                                                                        3.7
                                                                                                                                                                                                            Yellow
                                                                                                                                                                                                                       Good
                                                                                                                                                                                                                               661
                                                                                              stanbul
                                                               Muallim Naci
                                                                                                                                             Lira(TL)
                                                                                                                               Cuisine
                                                               Caddesi, N...
                                                                 Kuru<u>e</u>me
                                                                                           Kuru<u>l</u>eme,
                                                                 Mahallesi,
                                                                                                                            Restaurant
                                                                                                                                             Turkish
                                                                                                                                                                                                                       Very
                               Ak Kahve
                                                       stanbul
                                                                              Kuru<u>l</u>eme
                                                                                                       29.036019 41.057979
           9549
                    5916112
                                             208
                                                                                                                                                                                                        4.0 Green
                                                                                                                                                                                                                               901
                                                                                                                                                          No
                                                                                                                                                                   No
                                                                                                                                                                             No
                                                                                                                                                                                     No
                                                               Muallim Naci
                                                                                              Stanbul
                                                                                                                                  Cafe
                                                                                                                                             Lira(TL)
                                                                                                                                                                                                                       Good
                                                               Caddesi, N...
                                                                   Cafeaa
                                Walter's
                                                                 Mahallesi,
                                                                                               Moda,
                                                                                                                                             Turkish
                                                                                                                                                                                                                        Very
                                                       stanbul
                    5927402
                                             208
                                                                                                       29.026016 40.984776
                                                                                                                                                                                                                               591
           9550
                                 Coffee
                                                                Bademalt
                                                                                  Moda
                                                                                                                                 Cafe
                                                                                                                                                          No
                                                                                                                                                                                                        4.0
                                                                                                                                                                                                           Green
                                                                                                                                                                   No
                                                                                                                                                                             No
                                                                                              stanbul
                                                                                                                                             Lira(TL)
                                                                                                                                                                                                                       Good
                                                                 Sokak, No
                               Roastery
                                                                   21/B.
          9551 rows × 21 columns
           city_counts = data['City'].value_counts()
 In [5]: city_counts
           New Delhi
                                   5473
 Out[5]:
                                   1118
           Gurgaon
                                   1080
           Noida
           Faridabad
                                    251
           Ghaziabad
                                     25
           Panchkula
                                      1
           Mc Millan
                                       1
           Mayfield
                                       1
           Macedon
           Vineland Station
           Name: City, Length: 141, dtype: int64
           Total_City = len(data)
           Total_City
           9551
 Out[8]:
           top_City = city_counts.sort_values(ascending=False).index[0]
In [10]:
           top_City
           'New Delhi'
Out[11]:
In [13]: print(f"The city with the most restaurants is : {top_City}")
           The city with the most restaurants is : New Delhi
           1.2.2 Calculate the average rating for restaurants in each city.
          city_rating = data.groupby('City')['Aggregate rating'].mean()
           city_rating
           City
           Abu Dhabi
                                  4.300000
           Agra
                                  3.965000
           Ahmedabad
                                  4.161905
           Albany
                                  3.555000
           Allahabad
                                  3.395000
                                    . . .
```

```
Out[17]
         Weirton
                            3.900000
                            4.250000
         Wellington City
         Winchester Bay
                            3.200000
         Yorkton
                            3.300000
         ftanbul
                          4.292857
         Name: Aggregate rating, Length: 141, dtype: float64
        print(city_rating)
         City
         Abu Dhabi
                            4.300000
         Agra
                            3.965000
         Ahmedabad
                            4.161905
         Albany
                            3.555000
         Allahabad
                            3.395000
                              . . .
         Weirton
                            3.900000
                            4.250000
         Wellington City
         Winchester Bay
                            3.200000
                            3.300000
         Yorkton
         Stanbul
                          4.292857
         Name: Aggregate rating, Length: 141, dtype: float64
```

1.2.3 Determine the city with the highest average rating.

In []:

```
top_city = city_rating.sort_values(ascending=False).index[0]
In [29]: print(f"The city with the highest average restaurant rating is {top_city}")
         The city with the highest average restaurant rating is Inner City
```