Task 2

Task: Votes Analysis

Identify the restaurants with the highest and lowest number of votes.

Analyze if there is a correlation between the number of votes and the rating of a restaurant.

In [1]:

```
# import library
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sb
```

In [2]:

```
df=pd.read_csv("C:\\Users\\abhis\\Downloads\\Dataset .csv")
df
```

Out[2]:

	Restaurant ID	Restaurant Name	Country Code	City	Address	Locality	Locality Verbos
0	6317637	Le Petit Souffle	162	Makati City	Third Floor, Century City Mall, Kalayaan Avenu...	Century City Mall, Poblacion, Makati City	Century Cit Mall, Poblacion Makati City Mak..
1	6304287	Izakaya Kikufuji	162	Makati City	Little Tokyo, 2277 Chino Roces Avenue, Legaspi...	Little Tokyo, Legaspi Village, Makati City	Little Tokyo Legaspi Village Makati City Ma..
2	6300002	Heat - Edsa Shangri-La	162	Mandaluyong City	Edsa Shangri-La, 1 Garden Way, Ortigas, Mandal...	Edsa Shangri-La, Ortigas, Mandaluyong City	Edsa Shangri-La Ortigas Mandaluyon City, Ma..
3	6318506	Ooma	162	Mandaluyong City	Third Floor, Mega Fashion Hall, SM Megamall, O...	SM Megamall, Ortigas, Mandaluyong City	SM Megamall Ortigas Mandaluyon City, Mandal..
4	6314302	Sambo Kojin	162	Mandaluyong City	Third Floor, Mega Atrium, SM Megamall, Ortigas...	SM Megamall, Ortigas, Mandaluyong City	SM Megamall Ortigas Mandaluyon City, Mandal..
...	...	...	...	...	...	...	..
9546	5915730	Naml\ Gurme	208	��stanbul	Kemanke�� Karamustafa Pa��a Mahallesi, R\ht\m ...	Karak�_y	Karak�_y ��stanbu
9547	5908749	Ceviz A��ac\	208	��stanbul	Ko��uyolu Mahallesi, Muhittin ��st�_nda�� Cadd...	Ko��uyolu	Ko��uyolu ��stanbu
9548	5915807	Huqqa	208	��stanbul	Kuru�_e��me Mahallesi, Muallim Naci Caddesi, N...	Kuru�_e��me	Kuru�_e��me ��stanbu
9549	5916112	A���k Kahve	208	��stanbul	Kuru�_e��me Mahallesi, Muallim Naci Caddesi, N...	Kuru�_e��me	Kuru�_e��me ��stanbu
9550	5927402	Walter's Coffee Roastery	208	��stanbul	Cafea��a Mahallesi, Bademalt\ Sokak, No 21/B, ...	Moda	Moda ��stanbu

9551 rows × 21 columns

In [4]:
```
df.groupby(by="Restaurant Name")['Votes'].value_counts()
```

Out[4]:
```
Restaurant Name       Votes
#45                   209      1
#Dilliwaala6          124      1
#InstaFreeze          2        1
#OFF Campus           216      1
#Urban Caf��            49       1
                                ..
t Lounge by Dilmah    34       1
tashas                374      1
wagamama              131      1
{Niche} - Cafe & Bar  492      1
�ukura��a Sofras⁾       296      1
Name: Votes, Length: 9330, dtype: int64
```

In [10]:
```
df.groupby(by="Restaurant Name")['Votes'].mean()
```

Out[10]:
```
Restaurant Name
#45                      209.0
#Dilliwaala6             124.0
#InstaFreeze               2.0
#OFF Campus              216.0
#Urban Caf��                49.0
                          ...
t Lounge by Dilmah        34.0
tashas                   374.0
wagamama                 131.0
{Niche} - Cafe & Bar     492.0
�ukura��a Sofras⁾          296.0
Name: Votes, Length: 7446, dtype: float64
```

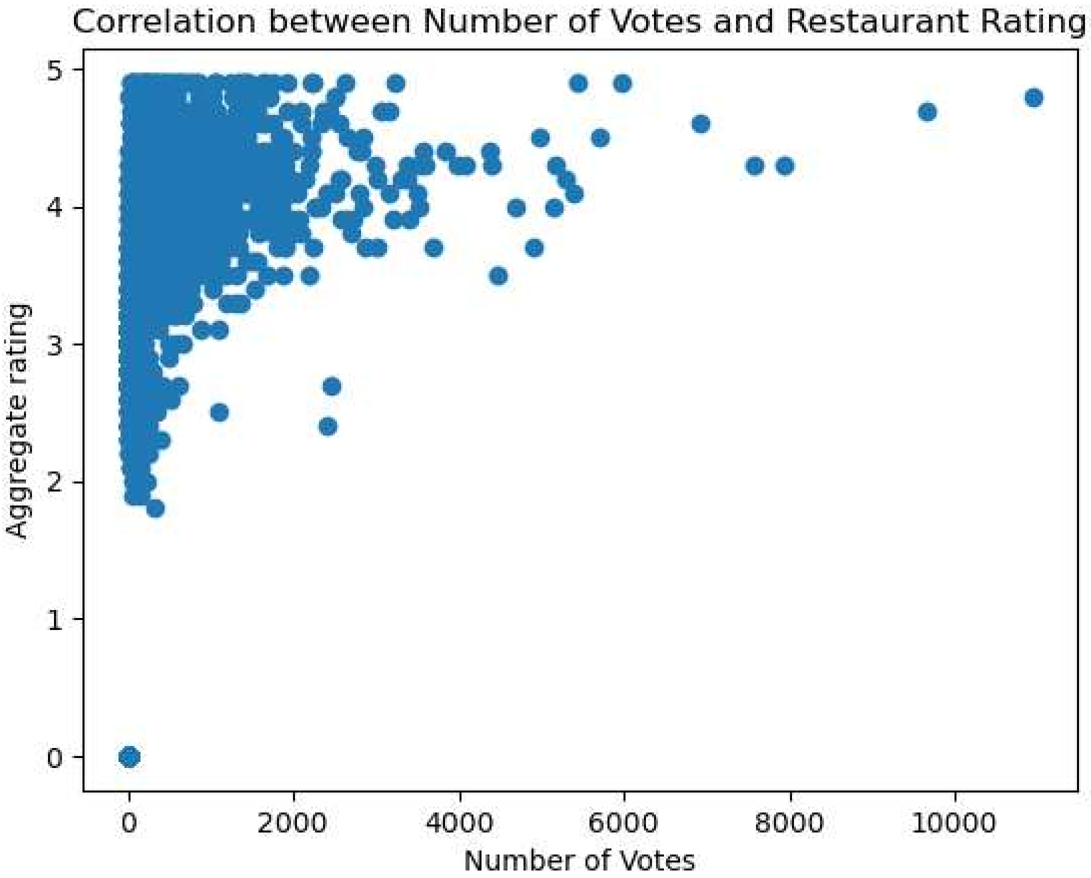
In [8]:
```
df.groupby(by="Restaurant Name")['Votes'].mean().sort_values(ascending=False).head(1)
```

Out[8]:
```
Restaurant Name
Toit    10934.0
Name: Votes, dtype: float64
```

In [9]:
```
df.groupby(by="Restaurant Name")['Votes'].mean().sort_values(ascending=False).tail(1)
```

Out[9]:
```
Restaurant Name
Shree Vinayaga Restaurant    0.0
Name: Votes, dtype: float64
```

In [11]:
```
plt.scatter(df["Votes"], df["Aggregate rating"])
plt.xlabel("Number of Votes")
plt.ylabel("Aggregate rating")
plt.title("Correlation between Number of Votes and Restaurant Rating")
plt.show()
```


Correlation between Number of Votes and Restaurant Rating
Aggregate rating
0
1
2
3
4
5
Number of Votes
0
2000
4000
6000
8000
10000

```
In [ ]:
```