

Identifying and Recommending Best Restaurants

November 6, 2022

```
[1]: #Importing library
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

```
[2]: #Importing Data
data = pd.read_excel("Restaurant_Data.xlsx")
```

```
[3]: #importing country name with country code
country_code = pd.read_excel("Restaurant Country-Code.xlsx")
country_code
```

```
[3]:
```

	Country Code	Country
0	1	India
1	14	Australia
2	30	Brazil
3	37	Canada
4	94	Indonesia
5	148	New Zealand
6	162	Phillipines
7	166	Qatar
8	184	Singapore
9	189	South Africa
10	191	Sri Lanka
11	208	Turkey
12	214	UAE
13	215	United Kingdom
14	216	United States

```
[4]: #merging country name with data
new_data = pd.merge(data,country_code,on='Country Code', how='left')
new_data
```

```
[4]:
```

	Restaurant ID	Restaurant Name	Country Code	City \
0	7402935	Skye	94	Jakarta
1	7410290	Satoo - Hotel Shangri-La	94	Jakarta

2	7420899	Sushi Masa	94	Jakarta
3	7421967	3 Wise Monkeys	94	Jakarta
4	7422489	Avec Moi Restaurant and Bar	94	Jakarta
...
9546	18279289	BMG - All Day Dining	1	Dehradun
9547	2300497	Atmosphere Grill Cafe Sheesha	1	Kanpur
9548	18312106	UrbanCrave	1	Kanpur
9549	3900245	Deena Chat Bhandar	1	Varanasi
9550	18246202	VNS Live Studio	1	Varanasi

	Address \
0	Menara BCA, Lantai 56, Jl. MH. Thamrin, Thamrin...
1	Hotel Shangri-La, Jl. Jend. Sudirman
2	Jl. Tuna Raya No. 5, Penjaringan
3	Jl. Suryo No. 26, Senopati, Jakarta
4	Gedung PIC, Jl. Teluk Betung 43, Thamrin, Jakarta
...	...
9546	140 A, Rajpur Road, Jakhan, Dehradun
9547	8th Floor, J.S. Tower, 16/106 - Mall Road, Kan...
9548	14/125, The Mall, Mall Road, Colonelganj, Para...
9549	D-47/184, Luxa Road, Dashaswmedh Road, Varanasi
9550	Hotel Varuna Ground Floor, 22 Gulab Bagh, Sigr...

	Locality	Locality Verbose \
0	Grand Indonesia Mall, Thamrin	Grand Indonesia Mall, Thamrin, Jakarta
1	Hotel Shangri-La, Sudirman	Hotel Shangri-La, Sudirman, Jakarta
2	Penjaringan	Penjaringan, Jakarta
3	Senopati	Senopati, Jakarta
4	Thamrin	Thamrin, Jakarta
...
9546	Jakhan	Jakhan, Dehradun
9547	Mall Road	Mall Road, Kanpur
9548	Parade	Parade, Kanpur
9549	Dashaswmedh Road	Dashaswmedh Road, Varanasi
9550	Sigra	Sigra, Varanasi

	Longitude	Latitude \
0	106.821999	-6.196778
1	106.818961	-6.203292
2	106.800144	-6.101298
3	106.813400	-6.235241
4	106.821023	-6.196270
...
9546	78.068890	30.362686
9547	80.354002	26.472001
9548	80.342796	26.474986
9549	0.000000	0.000000

9550 82.991694 25.318345

	Cuisines	Average Cost for two \
0	Italian, Continental	800000
1	Asian, Indonesian, Western	800000
2	Sushi, Japanese	500000
3	Japanese	450000
4	French, Western	350000
...
9546	Chinese, North Indian, Fast Food	0
9547	Indian, Chinese, Continental	0
9548	Cafe, Continental, Desserts, Ice Cream, Italia...	0
9549	Street Food	0
9550	Chinese, North Indian	0

	Currency	Has Table booking	Has Online delivery \
0	Indonesian Rupiah(IDR)	No	No
1	Indonesian Rupiah(IDR)	No	No
2	Indonesian Rupiah(IDR)	No	No
3	Indonesian Rupiah(IDR)	No	No
4	Indonesian Rupiah(IDR)	No	No
...
9546	Indian Rupees(Rs.)	No	No
9547	Indian Rupees(Rs.)	No	No
9548	Indian Rupees(Rs.)	No	No
9549	Indian Rupees(Rs.)	No	No
9550	Indian Rupees(Rs.)	No	No

	Price range	Aggregate rating	Rating	color	Rating text	Votes	Country
0	3	4.1	Green	Very Good	1498	Indonesia	
1	3	4.6	Dark Green	Excellent	873	Indonesia	
2	3	4.9	Dark Green	Excellent	605	Indonesia	
3	3	4.2	Green	Very Good	395	Indonesia	
4	3	4.3	Green	Very Good	243	Indonesia	
...	
9546	1	4.3	Green	Very Good	63	India	
9547	1	3.6	Yellow	Good	34	India	
9548	1	3.9	Yellow	Good	127	India	
9549	1	3.8	Yellow	Good	78	India	
9550	1	3.5	Yellow	Good	109	India	

[9551 rows x 20 columns]

```
[5]: #Checking shape of data
new_data.shape
```

[5]: (9551, 20)

```
[6]: #Checking Data information -- Column names & Data types
new_data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
Int64Index: 9551 entries, 0 to 9550
Data columns (total 20 columns):
#   Column                Non-Null Count  Dtype
---  -
0   Restaurant ID         9551 non-null   int64
1   Restaurant Name       9550 non-null   object
2   Country Code         9551 non-null   int64
3   City                 9551 non-null   object
4   Address              9551 non-null   object
5   Locality             9551 non-null   object
6   Locality Verbose     9551 non-null   object
7   Longitude            9551 non-null   float64
8   Latitude             9551 non-null   float64
9   Cuisines             9542 non-null   object
10  Average Cost for two  9551 non-null   int64
11  Currency             9551 non-null   object
12  Has Table booking    9551 non-null   object
13  Has Online delivery  9551 non-null   object
14  Price range         9551 non-null   int64
15  Aggregate rating     9551 non-null   float64
16  Rating color        9551 non-null   object
17  Rating text         9551 non-null   object
18  Votes              9551 non-null   int64
19  Country            9551 non-null   object
dtypes: float64(3), int64(5), object(12)
memory usage: 1.5+ MB
```

```
[7]: #Data columns have spaces in them, so we will replace them with '_' for
      ↪preventing any problem
new_data.columns = new_data.columns.str.replace(' ', '_')
new_data.columns
```

```
[7]: Index(['Restaurant_ID', 'Restaurant_Name', 'Country_Code', 'City', 'Address',
          'Locality', 'Locality_Verbose', 'Longitude', 'Latitude', 'Cuisines',
          'Average_Cost_for_two', 'Currency', 'Has_Table_booking',
          'Has_Online_delivery', 'Price_range', 'Aggregate_rating',
          'Rating_color', 'Rating_text', 'Votes', 'Country'],
          dtype='object')
```

```
[8]: #Checking Null Values
print(new_data.isna().sum())
```

```
Restaurant_ID      0
Restaurant_Name    1
```

```

Country_Code      0
City              0
Address           0
Locality          0
Locality_Verbose  0
Longitude         0
Latitude          0
Cuisines          9
Average_Cost_for_two  0
Currency          0
Has_Table_booking 0
Has_Online_delivery 0
Price_range       0
Aggregate_rating  0
Rating_color      0
Rating_text       0
Votes            0
Country           0
dtype: int64

```

we found 1 null value in Restaurant Name and 9 null values in Cuisines. we will fill that null value with mode of Cuisines column and drop Restaurant Name Null value

```

[9]: #Cheking mode value of Cuisines to replace with Null Value
new_data['Cuisines'].mode()

```

```

[9]: 0    North Indian
      Name: Cuisines, dtype: object

```

```

[10]: #filling Null vallues with mode value -- North Indian
new_data['Cuisines'] = data['Cuisines'].fillna('North Indian')

```

```

[11]: #dropping Restaurant Name null value
new_data.dropna(inplace=True)

```

```

[12]: #checking shape
new_data.shape

```

```

[12]: (9550, 20)

```

```

[13]: #checking for null values if any left
new_data.isna().sum()

```

```

[13]: Restaurant_ID      0
      Restaurant_Name    0
      Country_Code      0
      City              0
      Address           0

```

```

Locality          0
Locality_Verbose  0
Longitude         0
Latitude          0
Cuisines          0
Average_Cost_for_two  0
Currency          0
Has_Table_booking  0
Has_Online_delivery  0
Price_range       0
Aggregate_rating  0
Rating_color      0
Rating_text       0
Votes            0
Country           0
dtype: int64

```

We have dropped Restaurant Name null value and filled Cuisines null values with mode of Cuisines. Now we don't have any null values in data.

```
[14]: #checking duplicate records in the data if there are any
new_data.duplicated().sum()
```

```
[14]: 0
```

there is no duplicate records in data

```
[15]: #Explore the geographical distribution of the restaurants and
#identify the cities with the maximum and minimum number of restaurants
country_dist=new_data.groupby(['Country_Code','Country']).
    .agg(Count=('Restaurant_ID','count'))
country_dist.sort_values(by='Count',ascending=False)
```

```
[15]:
```

	Country_Code	Country	Count
1		India	8651
216		United States	434
215		United Kingdom	80
30		Brazil	60
189		South Africa	60
214		UAE	60
148		New Zealand	40
208		Turkey	34
14		Australia	24
162		Phillipines	22
94		Indonesia	21
166		Qatar	20
184		Singapore	20

191	Sri Lanka	20
37	Canada	4

The above result shows that India has maximum number of restaurants whereas Canada has the minimum.

```
[20]: #grouping data by city wise
data_city = new_data.groupby(["Country","City"]).
    →agg(No_of_Restaurant=("Restaurant_ID",'count'))
#City with max and min restaurant count
data_city.describe()
```

```
[20]:      No_of_Restaurant
count      141.000000
mean         67.730496
std         476.723952
min           1.000000
25%           1.000000
50%          20.000000
75%          20.000000
max        5473.000000
```

The above analysis show that the max value of restaurant in a city is 5473 Whereas the minimum value is 1

```
[21]: #sorting the cities by Number of restaurants
data_city.sort_values(by='No_of_Restaurant',ascending=False)
```

```
[21]:      Country      City      No_of_Restaurant
India      New Delhi      5473
           Gurgaon      1118
           Noida        1080
           Faridabad     251
           Ghaziabad      25
...
           Panchkula      1
Australia  Balingup      1
Indonesia  Bandung       1
Phillipines  Quezon City  1
United States  Winchester Bay  1

[141 rows x 3 columns]
```

we can see that New Delhi has max no of restaurant 5473 where min restaurant is 1 and there are multiple cities where are min restaurant

```
[22]: #Number of Cities with minimum restaurants
min_city_restaurant = data_city[data_city['No_of_Restaurant']==1]
print(min_city_restaurant)
print(min_city_restaurant.count())
```

		No_of_Restaurant
Country	City	
Australia	Armidale	1
	Balingup	1
	Beechworth	1
	Dicky Beach	1
	East Ballina	1
	Flaxton	1
	Forrest	1
	Huskisson	1
	Inverloch	1
	Lakes Entrance	1
	Lorn	1
	Macedon	1
	Mayfield	1
	Middleton Beach	1
	Montville	1
	Palm Cove	1
	Paynesville	1
	Penola	1
	Phillip Island	1
	Tanunda	1
	Trentham East	1
	Victor Harbor	1
Canada	Chatham-Kent	1
	Consort	1
	Vineland Station	1
	Yorkton	1
India	Mohali	1
	Panchkula	1
Indonesia	Bandung	1
Phillipines	Quezon City	1
	Tagaytay City	1
South Africa	Randburg	1
United States	Clatskanie	1
	Cochrane	1
	Fernley	1
	Lakeview	1
	Lincoln	1
	Mc Millan	1
	Miller	1
	Monroe	1

Ojo Caliente	1
Potrero	1
Princeton	1
Vernonia	1
Weirton	1
Winchester Bay	1
No_of_Restaurant	46

dtype: int64

we can see that there are 46 cities with only 1 restaurant in them

```
[23]: #Restaurant franchising is a thriving venture. So, it is very important to
      ↪explore the franchise with most national presence

      #grouping by Restaurant Name
      data_franchising = new_data.groupby(["Restaurant_Name", "Country"]).
      ↪agg(No_of_Franchise=("Restaurant_ID", 'count'))
      data_franchising
```

```
[23]:
```

Restaurant_Name	Country	No_of_Franchise
12212	India	1
Let's Burrrip	India	1
#45	India	1
#Dillliwaala6	India	1
#InstaFreeze	India	1
...
t Lounge by Dilmah	India	1
tashas	South Africa	1
wagamama	New Zealand	1
{Niche} - Cafe & Bar	India	1
İaukura€Üa Sofras€±	Turkey	1

[7472 rows x 1 columns]

```
[24]: #sorting the cities by Number of Franchise
      data_franchising.sort_values(by='No_of_Franchise',ascending=False).head(10)
```

```
[24]:
```

Restaurant_Name	Country	No_of_Franchise
Cafe Coffee Day	India	83
Domino's Pizza	India	79
Subway	India	63
Green Chick Chop	India	51
McDonald's	India	48
Keventers	India	34
Pizza Hut	India	29
Giani	India	29

Baskin Robbins	India	28
Barbeque Nation	India	25

These are the top 10 restaurant that have most reastuarant presence

```
[25]: #creating dummy variable for table booking & online delivery
dummy=['Has_Table_booking', 'Has_Online_delivery']
new_data=pd.get_dummies(new_data,columns=dummy,drop_first=True)
new_data.head()
```

```
[25]: Restaurant_ID      Restaurant_Name  Country_Code    City \
0      7402935                Skye                94  Jakarta
1      7410290      Satoo - Hotel Shangri-La                94  Jakarta
2      7420899                Sushi Masa                94  Jakarta
3      7421967                3 Wise Monkeys                94  Jakarta
4      7422489  Avec Moi Restaurant and Bar                94  Jakarta

                                Address \
0  Menara BCA, Lantai 56, Jl. MH. Thamrin, Thamri...
1      Hotel Shangri-La, Jl. Jend. Sudirman
2      Jl. Tuna Raya No. 5, Penjaringan
3      Jl. Suryo No. 26, Senopati, Jakarta
4  Gedung PIC, Jl. Teluk Betung 43, Thamrin, Jakarta

                                Locality      Locality_Verbose \
0  Grand Indonesia Mall, Thamrin  Grand Indonesia Mall, Thamrin, Jakarta
1      Hotel Shangri-La, Sudirman      Hotel Shangri-La, Sudirman, Jakarta
2      Penjaringan                      Penjaringan, Jakarta
3      Senopati                        Senopati, Jakarta
4      Thamrin                        Thamrin, Jakarta

    Longitude  Latitude      Cuisines  Average_Cost_for_two \
0  106.821999 -6.196778      Italian, Continental      800000
1  106.818961 -6.203292  Asian, Indonesian, Western      800000
2  106.800144 -6.101298      Sushi, Japanese      500000
3  106.813400 -6.235241      Japanese      450000
4  106.821023 -6.196270      French, Western      350000

                                Currency  Price_range  Aggregate_rating  Rating_color \
0  Indonesian Rupiah(IDR)      3      4.1      Green
1  Indonesian Rupiah(IDR)      3      4.6  Dark Green
2  Indonesian Rupiah(IDR)      3      4.9  Dark Green
3  Indonesian Rupiah(IDR)      3      4.2      Green
4  Indonesian Rupiah(IDR)      3      4.3      Green

    Rating_text  Votes    Country  Has_Table_booking_Yes \
0  Very Good    1498  Indonesia      0
```

1	Excellent	873	Indonesia	0
2	Excellent	605	Indonesia	0
3	Very Good	395	Indonesia	0
4	Very Good	243	Indonesia	0

	Has_Online_delivery_Yes
0	0
1	0
2	0
3	0
4	0

[26]: *#Find the ratio between restaurants that allow table booking vs. those that do not allow table booking*

```
table_booking = new_data[new_data['Has_Table_booking_Yes'] == 1]['Restaurant_ID'].count()
print('Allow Table booking - ',table_booking)

not_table_booking = new_data[new_data['Has_Table_booking_Yes'] == 0]['Restaurant_ID'].count()
print('Don\'t allow Table booking - ',not_table_booking)

print('Ratio between restaurants that allow table booking vs. those that do not allow table booking :',
      round((table_booking/not_table_booking),2))
```

Allow Table booking - 1158

Don't allow Table booking - 8392

Ratio between restaurants that allow table booking vs. those that do not allow table booking : 0.14

[27]: *#Find out the percentage of restaurants providing online delivery*

```
online_del = new_data[new_data['Has_Online_delivery_Yes'] == 1]['Restaurant_ID'].count()
print('Has Online Delivery - ',online_del)

not_online_del = new_data[new_data['Has_Online_delivery_Yes'] == 0]['Restaurant_ID'].count()
print('Don\'t have Online Delivery - ',not_online_del)

print('Percentage of restaurants providing online delivery :',
      round(((online_del/len(new_data))*100),1),'%')
```

Has Online Delivery - 2451

Don't have Online Delivery - 7099

Percentage of restaurants providing online delivery : 25.7 %

```
[28]: #Calculate the difference in number of votes for the restaurants that deliver
      ↪and the restaurants that do not deliver

rest_del = new_data[new_data['Has_Online_delivery_Yes'] == 1]['Votes'].sum()
print('Votes for Restaurant that deliver - ',rest_del)

res_not_del = new_data[new_data['Has_Online_delivery_Yes'] == 0]['Votes'].sum()
print('Votes for Restaurant that don\'t deliver - ',res_not_del)

print('Difference in number of votes for the restaurants that deliver and the
      ↪restaurants that do not deliver :',
      abs(rest_del-res_not_del))
```

Votes for Restaurant that deliver - 517914

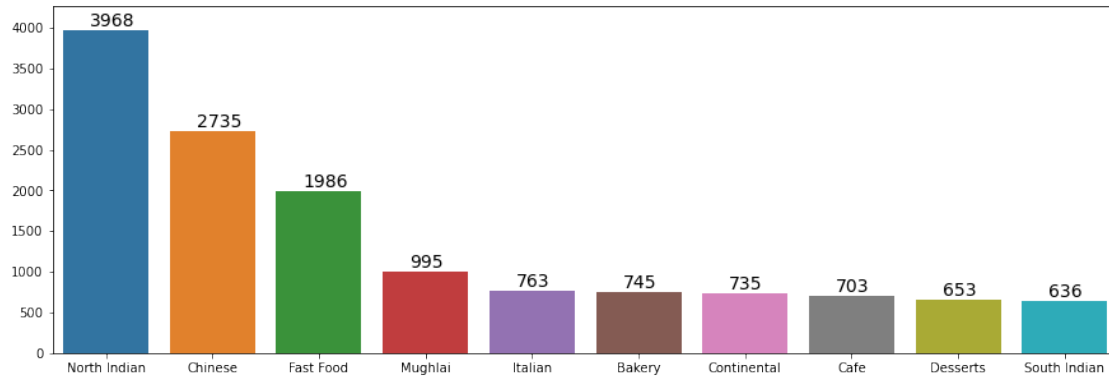
Votes for Restaurant that don't deliver - 979962

Difference in number of votes for the restaurants that deliver and the
restaurants that do not deliver : 462048

```
[29]: #What are the top 10 cuisines served across cities?
list_cuisines = []
for i in new_data.Cuisines.str.split(','):
    list_cuisines.extend(i)
s = pd.Series([i.strip() for i in list_cuisines])
s
```

```
[29]: 0          Italian
1      Continental
2          Asian
3      Indonesian
4          Western
...
19710         Italian
19711      Beverages
19712    Street Food
19713         Chinese
19714    North Indian
Length: 19715, dtype: object
```

```
[30]: plt.figure(figsize = (15,5))
sns.barplot(x = s.value_counts()[:10].index, y = s.value_counts()[:10] )
for i in range(10):
    plt.annotate(s.value_counts()[i], xy = (i-0.15,s.
      ↪value_counts()[i]+50),fontsize = 14)
plt.ylim(0, round(s.value_counts()[0]+300))
plt.show()
```



```
[31]: #What is the maximum and minimum no. of cuisines that a restaurant serves?
new_data['no_cuisines'] = new_data.Cuisines.str.split(',').apply(len)
new_data
```

```
[31]:
```

	Restaurant_ID	Restaurant_Name	Country_Code	City \
0	7402935	Skye	94	Jakarta
1	7410290	Satoo - Hotel Shangri-La	94	Jakarta
2	7420899	Sushi Masa	94	Jakarta
3	7421967	3 Wise Monkeys	94	Jakarta
4	7422489	Avec Moi Restaurant and Bar	94	Jakarta
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	Address \
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2	Jl. Tuna Raya No. 5, Penjaringan
3	Jl. Suryo No. 26, Senopati, Jakarta
4	Gedung PIC, Jl. Teluk Betung 43, Thamrin, Jakarta
...	...
9546	140 A, Rajpur Road, Jakhan, Dehradun
9547	8th Floor, J.S. Tower, 16/106 - Mall Road, Kan...
9548	14/125, The Mall, Mall Road, Colonelganj, Para...
9549	D-47/184, Luxa Road, Dashaswmedh Road, Varanasi
9550	Hotel Varuna Ground Floor, 22 Gulab Bagh, Sigr...

	Locality	Locality_Verbose \
0	Grand Indonesia Mall, Thamrin	Grand Indonesia Mall, Thamrin, Jakarta
1	Hotel Shangri-La, Sudirman	Hotel Shangri-La, Sudirman, Jakarta

2	Penjaringan	Penjaringan, Jakarta
3	Senopati	Senopati, Jakarta
4	Thamrin	Thamrin, Jakarta
...
9546	Jakhan	Jakhan, Dehradun
9547	Mall Road	Mall Road, Kanpur
9548	Parade	Parade, Kanpur
9549	Dashaswmedh Road	Dashaswmedh Road, Varanasi
9550	Sigra	Sigra, Varanasi

	Longitude	Latitude \
0	106.821999	-6.196778
1	106.818961	-6.203292
2	106.800144	-6.101298
3	106.813400	-6.235241
4	106.821023	-6.196270
...
9546	78.068890	30.362686
9547	80.354002	26.472001
9548	80.342796	26.474986
9549	0.000000	0.000000
9550	82.991694	25.318345

	Cuisines ... \
0	Italian, Continental ...
1	Asian, Indonesian, Western ...
2	Sushi, Japanese ...
3	Japanese ...
4	French, Western ...
...	...
9546	Chinese, North Indian, Fast Food ...
9547	Indian, Chinese, Continental ...
9548	Cafe, Continental, Desserts, Ice Cream, Italia... ..
9549	Street Food ...
9550	Chinese, North Indian ...

	Currency	Price_range	Aggregate_rating	Rating_color \
0	Indonesian Rupiah(IDR)	3	4.1	Green
1	Indonesian Rupiah(IDR)	3	4.6	Dark Green
2	Indonesian Rupiah(IDR)	3	4.9	Dark Green
3	Indonesian Rupiah(IDR)	3	4.2	Green
4	Indonesian Rupiah(IDR)	3	4.3	Green
...
9546	Indian Rupees(Rs.)	1	4.3	Green
9547	Indian Rupees(Rs.)	1	3.6	Yellow
9548	Indian Rupees(Rs.)	1	3.9	Yellow
9549	Indian Rupees(Rs.)	1	3.8	Yellow

9550	Indian Rupees(Rs.)	1	3.5	Yellow
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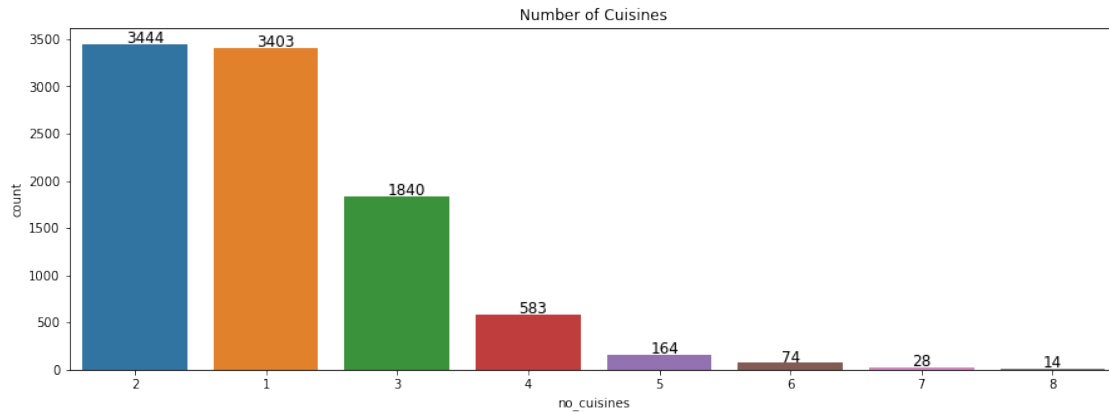
	Rating_text	Votes	Country	Has_Table_booking_Yes	\
0	Very Good	1498	Indonesia	0	
1	Excellent	873	Indonesia	0	
2	Excellent	605	Indonesia	0	
3	Very Good	395	Indonesia	0	
4	Very Good	243	Indonesia	0	
...	
9546	Very Good	63	India	0	
9547	Good	34	India	0	
9548	Good	127	India	0	
9549	Good	78	India	0	
9550	Good	109	India	0	

	Has_Online_delivery_Yes	no_cuisines
0	0	2
1	0	3
2	0	2
3	0	1
4	0	2
...
9546	0	3
9547	0	3
9548	0	6
9549	0	1
9550	0	2

[9550 rows x 21 columns]

```
[32]: plt.figure(figsize = (15,5))
vc = new_data.no_cuisines.value_counts()
sns.countplot('no_cuisines', data=new_data, order = vc.index)
for i in range(len(vc)):
    plt.annotate(vc.iloc[i], xy = (i-0.07,vc.iloc[i]+10), fontsize = 12)
plt.title("Number of Cuisines")
plt.show()
```

C:\Users\might\anaconda3\lib\site-packages\seaborn_decorators.py:36:
FutureWarning: Pass the following variable as a keyword arg: x. From version
0.12, the only valid positional argument will be `data`, and passing other
arguments without an explicit keyword will result in an error or
misinterpretation.
warnings.warn(



The minimum and maximum number of cuisines that restaurant serves is 1 and 8

```
[33]: #Which is the most served cuisine across the restaurant for each city?
cuisines = new_data['Cuisines'].apply(lambda x: pd.Series(x.split(',')))
cuisines.columns
```

```
[33]: Int64Index([0, 1, 2, 3, 4, 5, 6, 7], dtype='int64')
```

```
[34]: #renaming column names
cuisines.columns_
↳=['Cuisine_1','Cuisine_2','Cuisine_3','Cuisine_4','Cuisine_5','Cuisine_6','Cuisine_7','Cuis
cuisines.head()
```

```
[34]:
```

	Cuisine_1	Cuisine_2	Cuisine_3	Cuisine_4	Cuisine_5	Cuisine_6	Cuisine_7	\
0	Italian	Continental	NaN	NaN	NaN	NaN	NaN	
1	Asian	Indonesian	Western	NaN	NaN	NaN	NaN	
2	Sushi	Japanese	NaN	NaN	NaN	NaN	NaN	
3	Japanese	NaN	NaN	NaN	NaN	NaN	NaN	
4	French	Western	NaN	NaN	NaN	NaN	NaN	

	Cuisine_8
0	NaN
1	NaN
2	NaN
3	NaN
4	NaN

```
[35]: #concatinating cuisines to data
cuisines_data = pd.concat([new_data,cuisines],axis=1)
cuisines_data.head()
```

```
[35]:
```

	Restaurant_ID	Restaurant_Name	Country_Code	City	\
0	7402935	Skye	94	Jakarta	

1	7410290	Satoo - Hotel Shangri-La	94	Jakarta
2	7420899	Sushi Masa	94	Jakarta
3	7421967	3 Wise Monkeys	94	Jakarta
4	7422489	Avec Moi Restaurant and Bar	94	Jakarta

	Address \
0	Menara BCA, Lantai 56, Jl. MH. Thamrin, Thamri...
1	Hotel Shangri-La, Jl. Jend. Sudirman
2	Jl. Tuna Raya No. 5, Penjaringan
3	Jl. Suryo No. 26, Senopati, Jakarta
4	Gedung PIC, Jl. Teluk Betung 43, Thamrin, Jakarta

	Locality	Locality_Verbose \
0	Grand Indonesia Mall, Thamrin	Grand Indonesia Mall, Thamrin, Jakarta
1	Hotel Shangri-La, Sudirman	Hotel Shangri-La, Sudirman, Jakarta
2	Penjaringan	Penjaringan, Jakarta
3	Senopati	Senopati, Jakarta
4	Thamrin	Thamrin, Jakarta

	Longitude	Latitude	Cuisines ... \
0	106.821999	-6.196778	Italian, Continental ...
1	106.818961	-6.203292	Asian, Indonesian, Western ...
2	106.800144	-6.101298	Sushi, Japanese ...
3	106.813400	-6.235241	Japanese ...
4	106.821023	-6.196270	French, Western ...

	Has_Online_delivery_Yes	no_cuisines	Cuisine_1	Cuisine_2	Cuisine_3 \
0	0	2	Italian	Continental	NaN
1	0	3	Asian	Indonesian	Western
2	0	2	Sushi	Japanese	NaN
3	0	1	Japanese	NaN	NaN
4	0	2	French	Western	NaN

	Cuisine_4	Cuisine_5	Cuisine_6	Cuisine_7	Cuisine_8
0	NaN	NaN	NaN	NaN	NaN
1	NaN	NaN	NaN	NaN	NaN
2	NaN	NaN	NaN	NaN	NaN
3	NaN	NaN	NaN	NaN	NaN
4	NaN	NaN	NaN	NaN	NaN

[5 rows x 29 columns]

```
[36]: #making new dataframe with cities
cuisine_loc = pd.
↳ DataFrame(cuisines_data[['Country', 'City', 'Locality_Verbose', 'Cuisine_1', 'Cuisine_2', 'Cuisi
↳
↳ 'Cuisine_5', 'Cuisine_6', 'Cuisine_7', 'Cuisine_8']])
```

```
cuisine_loc
```

```
[36]:
```

	Country	City	Locality_Verbose \
0	Indonesia	Jakarta	Grand Indonesia Mall, Thamrin, Jakarta
1	Indonesia	Jakarta	Hotel Shangri-La, Sudirman, Jakarta
2	Indonesia	Jakarta	Penjaringan, Jakarta
3	Indonesia	Jakarta	Senopati, Jakarta
4	Indonesia	Jakarta	Thamrin, Jakarta
...
9546	India	Dehradun	Jakhan, Dehradun
9547	India	Kanpur	Mall Road, Kanpur
9548	India	Kanpur	Parade, Kanpur
9549	India	Varanasi	Dashaswmedh Road, Varanasi
9550	India	Varanasi	Sigra, Varanasi

	Cuisine_1	Cuisine_2	Cuisine_3	Cuisine_4	Cuisine_5 \
0	Italian	Continental	NaN	NaN	NaN
1	Asian	Indonesian	Western	NaN	NaN
2	Sushi	Japanese	NaN	NaN	NaN
3	Japanese	NaN	NaN	NaN	NaN
4	French	Western	NaN	NaN	NaN
...
9546	Chinese	North Indian	Fast Food	NaN	NaN
9547	Indian	Chinese	Continental	NaN	NaN
9548	Cafe	Continental	Desserts	Ice Cream	Italian
9549	Street Food	NaN	NaN	NaN	NaN
9550	Chinese	North Indian	NaN	NaN	NaN

	Cuisine_6	Cuisine_7	Cuisine_8
0	NaN	NaN	NaN
1	NaN	NaN	NaN
2	NaN	NaN	NaN
3	NaN	NaN	NaN
4	NaN	NaN	NaN
...
9546	NaN	NaN	NaN
9547	NaN	NaN	NaN
9548	Beverages	NaN	NaN
9549	NaN	NaN	NaN
9550	NaN	NaN	NaN

```
[9550 rows x 11 columns]
```

```
[37]: #stacking columns
cuisine_loc_stack = pd.DataFrame(cuisine_loc.stack())
```

```
[38]: #melting data with cuisine
keys = [c for c in cuisine_loc if c.startswith('Cuisine')]
a=pd.melt(cuisine_loc, id_vars='Locality_Verbose',
→value_vars=keys,value_name='Cuisines')
```

```
[63]: #melting the stack into one row
max_rate=pd.DataFrame(a.groupby(by=['Locality_Verbose','variable','Cuisines']).
→size().reset_index())
#find the highest restuarant in the city
max_rate
del max_rate['variable']
max_rate.columns=['Locality_Verbose','Cuisines','Count']
max_rate.head()
```

```
[63]:
```

	Locality_Verbose	Cuisines	Count
0	ILD Trade Centre Mall, Sohna Road, Gurgaon	Cafe	1
1	ILD Trade Centre Mall, Sohna Road, Gurgaon	North Indian	1
2	ILD Trade Centre Mall, Sohna Road, Gurgaon	Beverages	1
3	ILD Trade Centre Mall, Sohna Road, Gurgaon	Mughlai	1
4	12th Square Building, Banjara Hills, Hyderabad	Mughlai	1

```
[44]: #find the highest restuarant in the city
loc=max_rate.sort_values('Count', ascending=False).
→groupby(by=['Locality_Verbose'],as_index=False).first()
loc.head()
```

```
[44]:
```

	Locality_Verbose	Cuisines	Count
0	ILD Trade Centre Mall, Sohna Road, Gurgaon	Cafe	1
1	12th Square Building, Banjara Hills, Hyderabad	Mughlai	1
2	A Hotel, Gurdev Nagar, Ludhiana	Chinese	1
3	ARSS Mall, Paschim Vihar, New Delhi	North Indian	1
4	Aaya Nagar, New Delhi	Cuisine Varies	1

```
[45]: rating_res=loc.
→merge(new_data,left_on='Locality_Verbose',right_on='Locality_Verbose',how='inner')

#inner join to merge the two dataframe
df=pd.
→DataFrame(rating_res[['Country','City','Locality_Verbose','Cuisines_x','Count']])

#making a dataframe of rating restaurant
country=rating_res.sort_values('Count', ascending=False).
→groupby(by=['Country'],as_index=False).first()

#grouping the data by country code
con=pd.DataFrame(country[['Country','City','Locality','Cuisines_x','Count']])
```

```

con.columns=['Country','City','Locality','Cuisines','Number of restaurants in_
↳the country']

#renaming the columns
con1=con.sort_values('Number of restaurants in the country', ascending=False)

#sorting the restaurants on the basis of the number of restaurants in the_
↳country
con1[:10]
final_con=con1.drop(con1.index[[7,10]])

```

```
[46]: final_con
```

```

[46]:
      Country      City \
3      India      New Delhi
14  United States      Dubuque
5    New Zealand  Wellington City
1      Brazil      Rio de Janeiro
6    Phillipines  Mandaluyong City
8      Singapore      Singapore
9    South Africa      Cape Town
11     Turkey      Ankara
12      UAE      Abu Dhabi
0    Australia      Victor Harbor
2      Canada  Vineland Station
4    Indonesia      Jakarta
7      Qatar      Doha

      Locality      Cuisines \
3      Connaught Place  North Indian
14      Dubuque      American
5      Te Aro      Cafe
1      Ipanema      Brazilian
6      SM Megamall, Ortigas, Mandaluyong City      Japanese
8      Marina Centre, Downtown Core      Seafood
9      Green Point      Grill
11      Gazi Osman PaÅŰa      World Cuisine
12  Abu Dhabi Mall, Tourist Club Area (Al Zahiyah)      American
0      Victor Harbor  Coffee and Tea
2      Vineland Station      Italian
4      Tebet      Western
7  The Westin Doha Hotel & Spa, Fereej Bin Mahmoud      Thai

      Number of restaurants in the country
3      48
14      9
5      5

```

1	3
6	2
8	2
9	2
11	2
12	2
0	1
2	1
4	1
7	1

```
[47]: #converting the series to dataframe
loc_list=final_con['City']
a_list=loc_list.tolist()
print(a_list)

# converting the series to dataframe
cui_list=final_con['Cuisines']
b_list=cui_list.tolist()
print(b_list)

# converting the series to dataframe
count_list=final_con['Number of restaurants in the country']
c_list=count_list.tolist()
print(c_list)
```

```
['New Delhi', 'Dubuque', 'Wellington City', 'Rio de Janeiro', 'Mandaluyong
City', 'Singapore', 'Cape Town', 'Ankara', 'Abu Dhabi', 'Victor Harbor',
'Vineland Station', 'Jakarta', 'Doha']
['North Indian', 'American', 'Cafe', 'Brazilian', 'Japanese', 'Seafood',
'Grill', 'World Cuisine', 'American', 'Coffee and Tea', 'Italian', 'Western',
'Thai']
[48, 9, 5, 3, 2, 2, 2, 2, 2, 1, 1, 1, 1]
```

```
[48]: rest_cuisines = pd.
↳DataFrame(cuisines_data[['Restaurant_Name','City','Cuisine_1',
'Cuisine_2','Cuisine_3','Cuisine_4',
'Cuisine_5','Cuisine_6','Cuisine_7',
'Cuisine_8']])
rest_cuisines_stack=pd.DataFrame(rest_cuisines.stack()) #stacking the columns
rest_cuisines.head()
```

```
[48]:
```

	Restaurant_Name	City	Cuisine_1	Cuisine_2	Cuisine_3	\
0	Skye	Jakarta	Italian	Continental	NaN	
1	Satoo - Hotel Shangri-La	Jakarta	Asian	Indonesian	Western	
2	Sushi Masa	Jakarta	Sushi	Japanese	NaN	
3	3 Wise Monkeys	Jakarta	Japanese	NaN	NaN	

4	Avec Moi Restaurant and Bar	Jakarta	French	Western	NaN
---	-----------------------------	---------	--------	---------	-----

	Cuisine_4	Cuisine_5	Cuisine_6	Cuisine_7	Cuisine_8
0	NaN	NaN	NaN	NaN	NaN
1	NaN	NaN	NaN	NaN	NaN
2	NaN	NaN	NaN	NaN	NaN
3	NaN	NaN	NaN	NaN	NaN
4	NaN	NaN	NaN	NaN	NaN

```
[49]: cuisines_keys = [c for c in rest_cuisines if c.startswith('Cuisine')]
b = pd.melt(rest_cuisines, id_vars='Restaurant_Name',
↳value_vars=keys,value_name='Cuisines')
#melting the stack into one row
max_rate1 = pd.DataFrame(b.
↳groupby(by=['Restaurant_Name','variable','Cuisines']).size().reset_index())
#find the highest restuarant in the city
max_rate1
del max_rate1['variable']
max_rate1.columns=['Restaurant_Name','Cuisines','Count']
max_rate1.head(20)
```

```
[49]:
```

	Restaurant_Name	Cuisines	Count
0	12212	Fast Food	1
1	Let's Burrp	Chinese	1
2	Let's Burrp	North Indian	1
3	#45	Cafe	1
4	#Dilliwaala6	North Indian	1
5	#InstaFreeze	Ice Cream	1
6	#OFF Campus	Cafe	1
7	#OFF Campus	Continental	1
8	#OFF Campus	Italian	1
9	#OFF Campus	Fast Food	1
10	#Urban Cafè	North Indian	1
11	#Urban Cafè	Chinese	1
12	#Urban Cafè	Italian	1
13	#hashtag	Cafe	1
14	'Ohana	Hawaiian	1
15	10 Downing Street	North Indian	2
16	10 Downing Street	Chinese	2
17	10 To 10 In Delhi	Indian	1
18	10 To 10 In Delhi	Cafe	1
19	11th Avenue Cafe Bistro	Cafe	1

```
[56]: sorted_data = new_data
sorted_data = sorted_data.
↳merge(max_rate1,left_on='Restaurant_Name',right_on='Restaurant_Name',how='left')
sorted_data
```

```

[56]:
      Restaurant_ID      Restaurant_Name  Country_Code      City \
0          7402935              Skye          94      Jakarta
1          7402935              Skye          94      Jakarta
2          7410290  Satoo - Hotel Shangri-La      94      Jakarta
3          7410290  Satoo - Hotel Shangri-La      94      Jakarta
4          7410290  Satoo - Hotel Shangri-La      94      Jakarta
...
23810      18312106      UrbanCrave          1      Kanpur
23811      18312106      UrbanCrave          1      Kanpur
23812      3900245      Deena Chat Bhandar          1      Varanasi
23813      18246202      VNS Live Studio          1      Varanasi
23814      18246202      VNS Live Studio          1      Varanasi

      Address \
0      Menara BCA, Lantai 56, Jl. MH. Thamrin, Thamri...
1      Menara BCA, Lantai 56, Jl. MH. Thamrin, Thamri...
2      Hotel Shangri-La, Jl. Jend. Sudirman
3      Hotel Shangri-La, Jl. Jend. Sudirman
4      Hotel Shangri-La, Jl. Jend. Sudirman
...
23810      14/125, The Mall, Mall Road, Colonelganj, Para...
23811      14/125, The Mall, Mall Road, Colonelganj, Para...
23812      D-47/184, Luxa Road, Dashaswmedh Road, Varanasi
23813      Hotel Varuna Ground Floor, 22 Gulab Bagh, Sigr...
23814      Hotel Varuna Ground Floor, 22 Gulab Bagh, Sigr...

      Locality      Locality_Verbose \
0      Grand Indonesia Mall, Thamrin  Grand Indonesia Mall, Thamrin, Jakarta
1      Grand Indonesia Mall, Thamrin  Grand Indonesia Mall, Thamrin, Jakarta
2      Hotel Shangri-La, Sudirman      Hotel Shangri-La, Sudirman, Jakarta
3      Hotel Shangri-La, Sudirman      Hotel Shangri-La, Sudirman, Jakarta
4      Hotel Shangri-La, Sudirman      Hotel Shangri-La, Sudirman, Jakarta
...
23810      Parade      Parade, Kanpur
23811      Parade      Parade, Kanpur
23812      Dashaswmedh Road      Dashaswmedh Road, Varanasi
23813      Sigra      Sigra, Varanasi
23814      Sigra      Sigra, Varanasi

      Longitude  Latitude \
0      106.821999  -6.196778
1      106.821999  -6.196778
2      106.818961  -6.203292
3      106.818961  -6.203292
4      106.818961  -6.203292
...
23810      80.342796  26.474986

```

23811	80.342796	26.474986
23812	0.000000	0.000000
23813	82.991694	25.318345
23814	82.991694	25.318345

	Cuisines_x	
0	Italian, Continental	...
1	Italian, Continental	...
2	Asian, Indonesian, Western	...
3	Asian, Indonesian, Western	...
4	Asian, Indonesian, Western	...
...
23810	Cafe, Continental, Desserts, Ice Cream, Italia...	...
23811	Cafe, Continental, Desserts, Ice Cream, Italia...	...
23812	Street Food	...
23813	Chinese, North Indian	...
23814	Chinese, North Indian	...

	Aggregate_rating	Rating_color	Rating_text	Votes	Country	
0	4.1	Green	Very Good	1498	Indonesia	
1	4.1	Green	Very Good	1498	Indonesia	
2	4.6	Dark Green	Excellent	873	Indonesia	
3	4.6	Dark Green	Excellent	873	Indonesia	
4	4.6	Dark Green	Excellent	873	Indonesia	
...	
23810	3.9	Yellow	Good	127	India	
23811	3.9	Yellow	Good	127	India	
23812	3.8	Yellow	Good	78	India	
23813	3.5	Yellow	Good	109	India	
23814	3.5	Yellow	Good	109	India	

	Has_Table_booking_Yes	Has_Online_delivery_Yes	no_cuisines	
0	0		0	2
1	0		0	2
2	0		0	3
3	0		0	3
4	0		0	3
...
23810	0		0	6
23811	0		0	6
23812	0		0	1
23813	0		0	2
23814	0		0	2

	Cuisines_y	Count
0	Italian	1
1	Continental	1

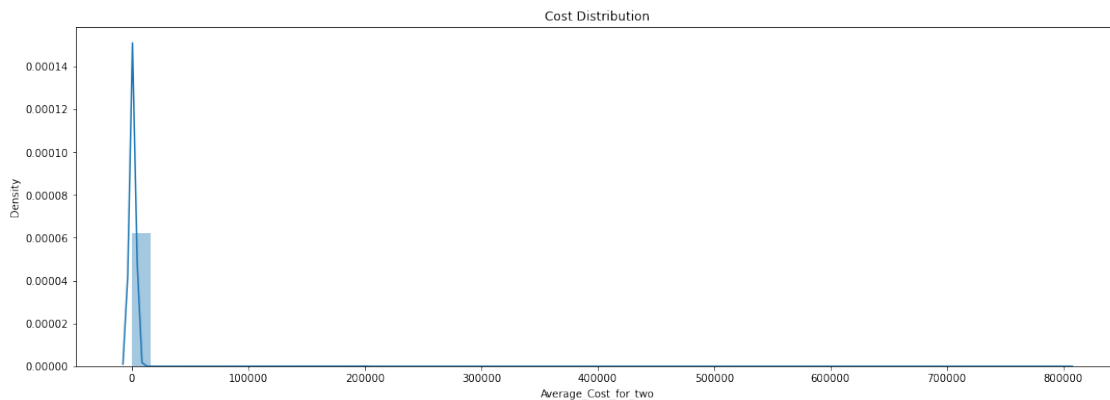
2	Asian	1
3	Indonesian	1
4	Western	1
...
23810	Italian	1
23811	Beverages	1
23812	Street Food	1
23813	Chinese	1
23814	North Indian	1

[23815 rows x 23 columns]

```
[47]: #Distribution of Avg Cost for Two
plt.figure(figsize=(18,6))
sns.distplot(new_data['Average_Cost_for_two'])
plt.title('Cost Distribution')
plt.show()
```

C:\Users\might\anaconda3\lib\site-packages\seaborn\distributions.py:2619:
FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level function for histograms).

```
warnings.warn(msg, FutureWarning)
```



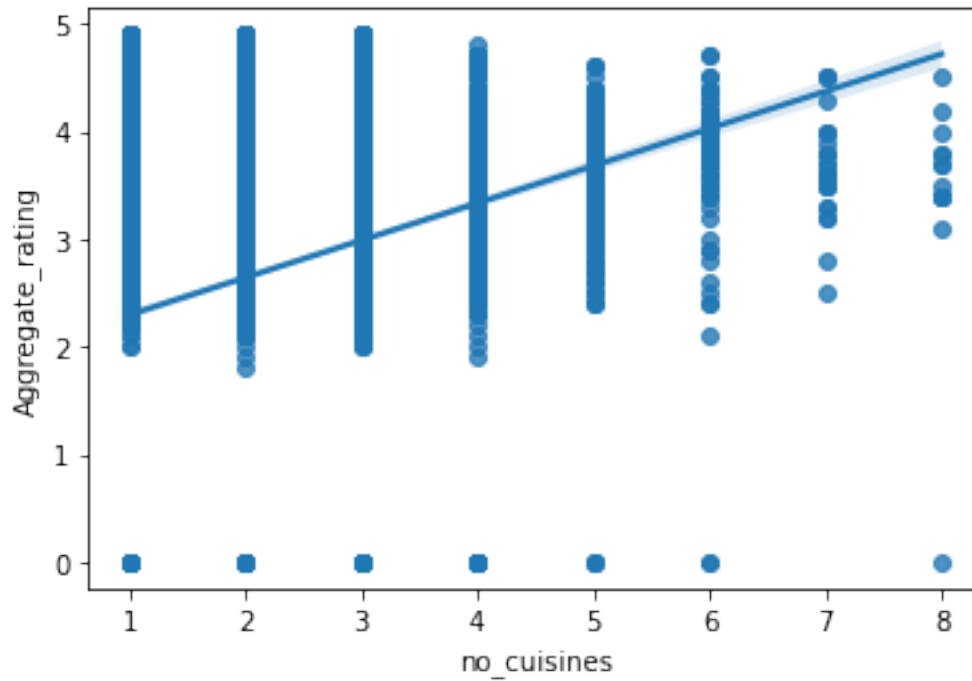
The distribution of cost across the restaurants is skewed to the left.

```
[57]: sns.regplot(x='no_cuisines',y='Aggregate_rating',data=new_data)
new_data[["no_cuisines", "Aggregate_rating"]].corr()
#Number of cuisines is a good factor to decide the rating of a restaurant
```

```
[57]:
```

	no_cuisines	Aggregate_rating
no_cuisines	1.000000	0.249271

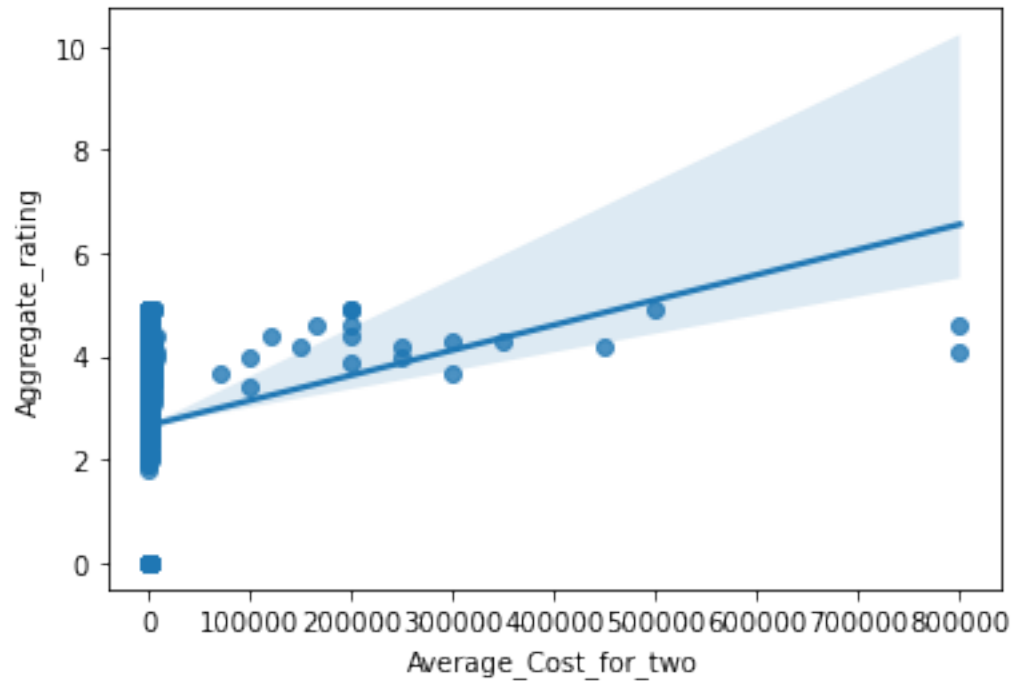
Aggregate_rating 0.249271 1.000000



```
[58]: sns.regplot(x='Average_Cost_for_two',y='Aggregate_rating',data=new_data)
new_data[["Average_Cost_for_two", "Aggregate_rating"]].corr()
#Average cost for two is a weak positive factor to decide the rating of a
↪restaurant
```

```
[58]:
```

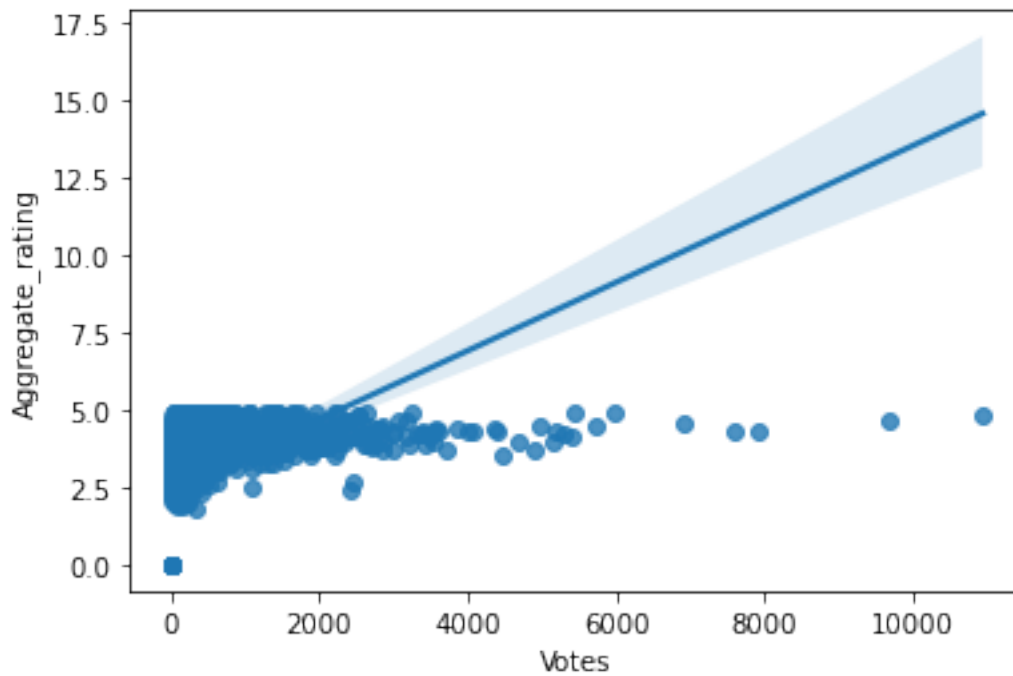
	Average_Cost_for_two	Aggregate_rating
Average_Cost_for_two	1.000000	0.051797
Aggregate_rating	0.051797	1.000000



```
[59]: sns.regplot(x='Votes',y='Aggregate_rating',data=new_data)
new_data[['Votes','Aggregate_rating']].corr()
##Average cost for two can be a factor to decide the rating of a restaurant
```

```
[59]:
```

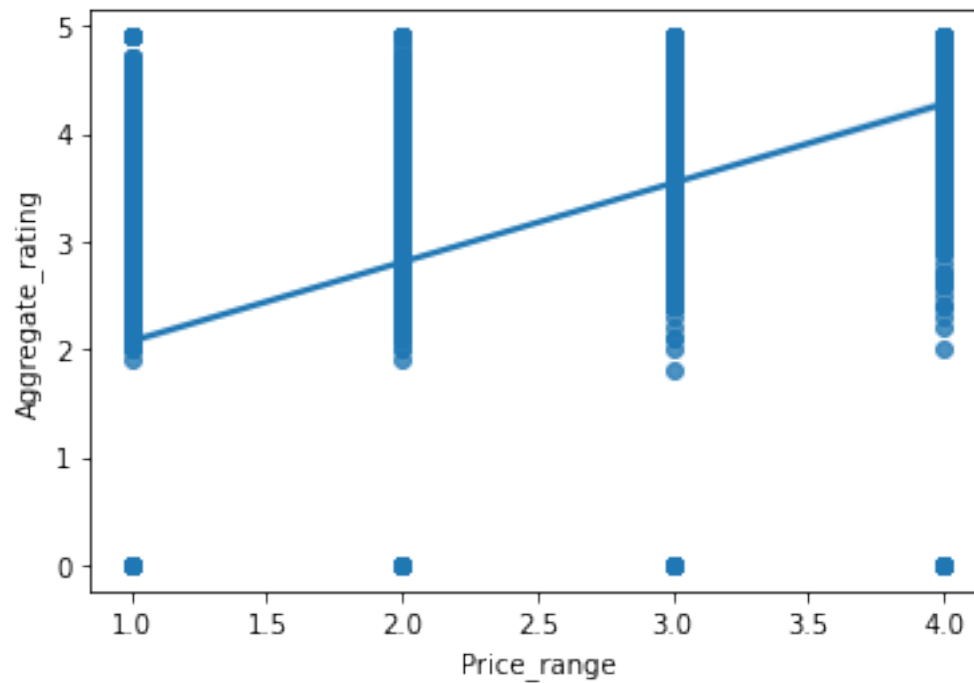
	Votes	Aggregate_rating
Votes	1.000000	0.313598
Aggregate_rating	0.313598	1.000000



```
[60]: sns.regplot(x='Price_range',y='Aggregate_rating',data=new_data)
new_data[['Price_range','Aggregate_rating']].corr()
##Price range can be a factor to decide the rating of a restaurant
```

```
[60]:
```

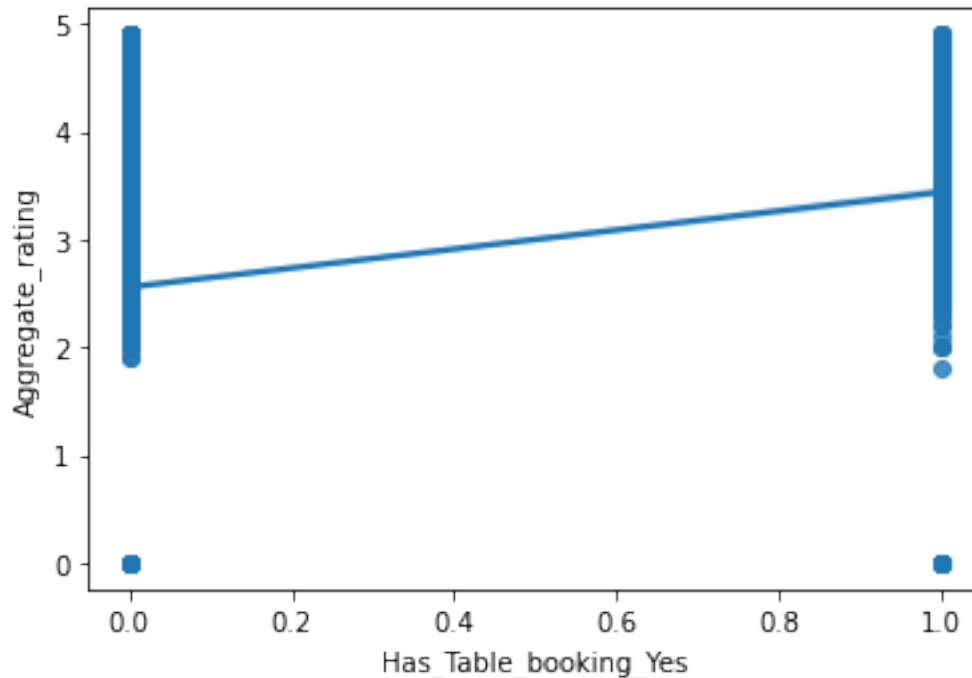
	Price_range	Aggregate_rating
Price_range	1.000000	0.437874
Aggregate_rating	0.437874	1.000000



```
[61]: sns.regplot(x='Has_Table_booking_Yes',y='Aggregate_rating',data=new_data)
new_data[['Has_Table_booking_Yes','Aggregate_rating']].corr()
##Table booking can be a factor to decide the rating of a restaurant
```

```
[61]:
```

	Has_Table_booking_Yes	Aggregate_rating
Has_Table_booking_Yes	1.000000	0.190045
Aggregate_rating	0.190045	1.000000



We have see that there is no single variable that affects the rating strongly, however table booking, online delivery, avg price for two and price range, number of votes do play a part in affecting the rating of a restaurant.

```
[64]: #removing white spaces in cuisines column
sorted_data["Cuisines_y"] = sorted_data["Cuisines_y"].str.strip(inplace=True)
#exporting data to xls file for dashboard
sorted_data.to_excel("Restaurant_Data_Sorted.xls",index=False)
```

C:\Users\might\AppData\Local\Temp\ipykernel_17288\2585693100.py:2:
FutureWarning: As the xlwt package is no longer maintained, the xlwt engine will be removed in a future version of pandas. This is the only engine in pandas that supports writing in the xls format. Install openpyxl and write to an xlsx file instead. You can set the option io.excel.xls.writer to 'xlwt' to silence this warning. While this option is deprecated and will also raise a warning, it can be globally set and the warning suppressed.

```
sorted_data.to_excel("Restaurant_Data_Sorted_Test.xls",index=False)
```

```
[43]: rest_data=pd.read_excel("Restaurant_Data_Sorted.xls")
```

```
[44]: rest_data
```

```
[44]:
```

	Restaurant_ID	Restaurant_Name	Country_Code	City	\
0	7402935	Skye	94	Jakarta	
1	7402935	Skye	94	Jakarta	

2	7410290	Satoo - Hotel Shangri-La	94	Jakarta
3	7410290	Satoo - Hotel Shangri-La	94	Jakarta
4	7410290	Satoo - Hotel Shangri-La	94	Jakarta
...
23810	18312106	UrbanCrave	1	Kanpur
23811	18312106	UrbanCrave	1	Kanpur
23812	3900245	Deena Chat Bhandar	1	Varanasi
23813	18246202	VNS Live Studio	1	Varanasi
23814	18246202	VNS Live Studio	1	Varanasi

	Address \
0	Menara BCA, Lantai 56, Jl. MH. Thamrin, Thamri...
1	Menara BCA, Lantai 56, Jl. MH. Thamrin, Thamri...
2	Hotel Shangri-La, Jl. Jend. Sudirman
3	Hotel Shangri-La, Jl. Jend. Sudirman
4	Hotel Shangri-La, Jl. Jend. Sudirman
...	...
23810	14/125, The Mall, Mall Road, Colonelganj, Para...
23811	14/125, The Mall, Mall Road, Colonelganj, Para...
23812	D-47/184, Luxa Road, Dashaswmedh Road, Varanasi
23813	Hotel Varuna Ground Floor, 22 Gulab Bagh, Sigr...
23814	Hotel Varuna Ground Floor, 22 Gulab Bagh, Sigr...

	Locality	Locality_Verbose \
0	Grand Indonesia Mall, Thamrin	Grand Indonesia Mall, Thamrin, Jakarta
1	Grand Indonesia Mall, Thamrin	Grand Indonesia Mall, Thamrin, Jakarta
2	Hotel Shangri-La, Sudirman	Hotel Shangri-La, Sudirman, Jakarta
3	Hotel Shangri-La, Sudirman	Hotel Shangri-La, Sudirman, Jakarta
4	Hotel Shangri-La, Sudirman	Hotel Shangri-La, Sudirman, Jakarta
...
23810	Parade	Parade, Kanpur
23811	Parade	Parade, Kanpur
23812	Dashaswmedh Road	Dashaswmedh Road, Varanasi
23813	Sigra	Sigra, Varanasi
23814	Sigra	Sigra, Varanasi

	Longitude	Latitude \
0	106.821999	-6.196778
1	106.821999	-6.196778
2	106.818961	-6.203292
3	106.818961	-6.203292
4	106.818961	-6.203292
...
23810	80.342796	26.474986
23811	80.342796	26.474986
23812	0.000000	0.000000
23813	82.991694	25.318345

23814 82.991694 25.318345

	Cuisines_x	
0	Italian, Continental	...
1	Italian, Continental	...
2	Asian, Indonesian, Western	...
3	Asian, Indonesian, Western	...
4	Asian, Indonesian, Western	...
...
23810	Cafe, Continental, Desserts, Ice Cream, Italia...	...
23811	Cafe, Continental, Desserts, Ice Cream, Italia...	...
23812	Street Food	...
23813	Chinese, North Indian	...
23814	Chinese, North Indian	...

	Aggregate_rating	Rating_color	Rating_text	Votes	Country	
0	4.1	Green	Very Good	1498	Indonesia	
1	4.1	Green	Very Good	1498	Indonesia	
2	4.6	Dark Green	Excellent	873	Indonesia	
3	4.6	Dark Green	Excellent	873	Indonesia	
4	4.6	Dark Green	Excellent	873	Indonesia	
...	
23810	3.9	Yellow	Good	127	India	
23811	3.9	Yellow	Good	127	India	
23812	3.8	Yellow	Good	78	India	
23813	3.5	Yellow	Good	109	India	
23814	3.5	Yellow	Good	109	India	

	Has_Table_booking_Yes	Has_Online_delivery_Yes	no_cuisines	
0	0	0	2	
1	0	0	2	
2	0	0	3	
3	0	0	3	
4	0	0	3	
...	
23810	0	0	6	
23811	0	0	6	
23812	0	0	1	
23813	0	0	2	
23814	0	0	2	

	Cuisines_y	Count
0	Italian	1
1	Continental	1
2	Asian	1
3	Indonesian	1
4	Western	1


```

...      ...      ...
23810      Italian      1
23811      Beverages      1
23812      Street Food      1
23813      Chinese      1
23814      North Indian      1

```

```
[23815 rows x 23 columns]
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[ ]:
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