

Task1: Table Booking and Online Delivery

- Determine the percentage of restaurants that offer table booking and online delivery.
- Compare the average ratings of restaurants with table booking and those without.
- Analyze the availability of online delivery among restaurants with different price ranges.

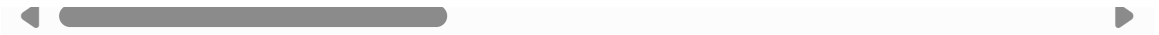
```
In [2]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

```
In [3]: data_df=pd.read_csv('Dataset.csv')
data_df
```

Out[3]:

	Restaurant ID	Restaurant Name	Country Code	City	Address	Locality
0	6317637	Le Petit Souffle	162	Makati City	Third Floor, Century City Mall, Kalayaan Avenu...	Century City Mall, Poblacion, Makati City
1	6304287	Izakaya Kikufuji	162	Makati City	Little Tokyo, 2277 Chino Roces Avenue, Legaspi...	Little Tokyo, Legaspi Village, Makati City
2	6300002	Heat - Edsa Shangri-La	162	Mandaluyong City	Edsa Shangri-La, 1 Garden Way, Ortigas, Mandal...	Edsa Shangri-La, Ortigas, Mandaluyong City
3	6318506	Ooma	162	Mandaluyong City	Third Floor, Mega Fashion Hall, SM Megamall, O...	SM Megamall, Ortigas, Mandaluyong City
4	6314302	Sambo Kojin	162	Mandaluyong City	Third Floor, Mega Atrium, SM Megamall, Ortigas...	SM Megamall, Ortigas, Mandaluyong City
...
9546	5915730	Naml Gurme	208	İstanbul	Kemankeş Karamustafa Paşası Mahallesi, Rıhtım ...	Karaköy
9547	5908749	Ceviz Acağı	208	İstanbul	Koşuyolu Mahallesi, Muhittin Köstendağı Cadd...	Koşuyolu
9548	5915807	Huqqa	208	İstanbul	Kuruçeşme Mahallesi, Muallim Naci Caddesi, N...	Kuruçeşme
9549	5916112	Ak Kahve	208	İstanbul	Kuruçeşme Mahallesi, Muallim Naci Caddesi, N...	Kuruçeşme
9550	5927402	Walter's Coffee Roastery	208	İstanbul	Cafea Mahallesi, Bademaltı Sokak, No 21/B, ...	Moda

9551 rows × 21 columns



In [4]: `data_df.head(30)`

Out[4]:

	Restaurant ID	Restaurant Name	Country Code	City	Address	Locality	Local Verb
0	6317637	Le Petit Souffle	162	Makati City	Third Floor, Century City Mall, Kalayaan Avenu...	Century City Mall, Poblacion, Makati City	Century City Mall, Poblacion, Makati City
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
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, Mandaluyong City
3	6318506	Ooma	162	Mandaluyong City	Third Floor, Mega Fashion Hall, SM Megamall, O...	SM Megamall, Ortigas, Mandaluyong City	Megan Ortigas, Mandaluyong City
4	6314302	Sambo Kojin	162	Mandaluyong City	Third Floor, Mega Atrium, SM Megamall, Ortigas...	SM Megamall, Ortigas, Mandaluyong City	Megan Ortigas, Mandaluyong City
5	18189371	Din Tai Fung	162	Mandaluyong City	Ground Floor, Mega Fashion Hall, SM Megamall, ...	SM Megamall, Ortigas, Mandaluyong City	Megan Ortigas, Mandaluyong City
6	6300781	Buffet 101	162	Pasay City	Building K, SM By The Bay, Sunset Boulevard, M...	SM by the Bay, Mall of Asia Complex, Pasay City	SM by the Bay, Mall of Asia Complex, Pasay City
7	6301290	Vikings	162	Pasay City	Building B, By The Bay, Seaside Boulevard, Mal...	SM by the Bay, Mall of Asia Complex, Pasay City	SM by the Bay, Mall of Asia Complex, Pasay City
8	6300010	Spiral - Sofitel Philippine	162	Pasay City	Plaza Level, Sofitel Philippine	Sofitel Philippine	Sofitel Philippine Plaza Mai

	Restaurant ID	Restaurant Name	Country Code	City	Address	Locality	Local Verb
		Plaza Manila			Plaza Manila, ...	Plaza Manila, Pasay City	Pasay C
9	6314987	Locavore	162	Pasig City	Brixton Technology Center, 10 Brixton Street, ...	Kapitolyo	Kapito Pasig
10	6309903	Silantro Fil-Mex	162	Pasig City	75 East Capitol Drive, Kapitolyo, Pasig City	Kapitolyo	Kapito Pasig
11	6309455	Mad Mark's Creamery & Good Eats	162	Pasig City	23 East Capitol Drive, Kapitolyo, Pasig City	Kapitolyo	Kapito Pasig
12	6318433	Silantro Fil-Mex	162	Quezon City	Second Floor, UP Town Center, Katipunan Avenue...	UP Town Center, Diliman, Quezon City	UP To Cer Dilin Quezon C
13	6310470	Guevarra's	162	San Juan City	387 P. Guevarra Corner Argonne Street, Additio...	Addition Hills	Addit Hills, Juan
14	6314605	Sodam Korean Restaurant	162	San Juan City	17 J. Abad Santos Drive, Little Baguio, San Ju...	Little Baguio	Little Bag San Juan
15	18185059	Cafe Arabelle	162	Santa Rosa	Ayala Mall, Solenad, Nuvali, Santa Rosa - Taga...	Nuvali, Don Jose, Santa Rosa	Nuvali, I Jose, Sa Rosa, Sa R
16	18182702	Nonna's Pasta & Pizzeria	162	Santa Rosa	Ground Floor, Building G, Solenad 3, Nuvali, D...	Solenad 3, Don Jose, Santa Rosa	Solena Don Jo Santa R Santa R
17	6318213	Balay Dako	162	Tagaytay City	Aguinaldo Highway, Tagaytay City	Tagaytay City	Tagaytay C Tagaytay

	Restaurant ID	Restaurant Name	Country Code	City	Address	Locality	Local Verb
18	18255654	Hobing Korean Dessert Cafe	162	Taguig City	Third Floor, BGC Stopover Pavillion, Rizal Drive	BGC Stopover Pavillion, Bonifacio Global City	BGC Stopover Pavillion, Bonifacio Global City
19	6308205	Wildflour Cafe + Bakery	162	Taguig City	Ground Floor, Netlima Building, 4th Avenue Corner	Bonifacio Global City	Bonifacio Global City, Taguig
20	6315438	NIU by Vikings	162	Taguig City	Sixth Floor, SM Aura Premier, C5 Road Corner 2	SM Aura Premier, Bonifacio Global City, Taguig	SM Aura Premier, Bonifacio Global City, Taguig
21	6310406	The Food Hall by Todd English	162	Taguig City	Fifth Floor, SM Aura Premier, C5 Corner 26th S	SM Aura Premier, Bonifacio Global City, Taguig	SM Aura Premier, Bonifacio Global City, Taguig
22	6600681	Chez Michou	30	Brasilia	SCLN, 208, Bloco A, Loja 30, Asa Norte, Brasilia	Asa Norte	Asa Norte, Brasilia
23	6601005	Café Daniel Briand	30	Brasilia	SCLN 104, Bloco A, Loja 26, Asa Norte, Brasilia	Asa Norte	Asa Norte, Brasilia
24	6600292	Casa do Biscoito Mineiro	30	Brasilia	SCLN 210, Bloco D, Loja 36/48, Asa Norte, Bras...	Asa Norte	Asa Norte, Brasilia
25	6600441	Maori	30	Brasilia	CLN 110, Bloco D, Loja 28, Asa Norte, Brasilia	Asa Norte	Asa Norte, Brasilia
26	6600970	Pizza Bessa	30	Brasilia	SCS 214, Bloco C, Loja 40, Asa Sul, Brasilia	Asa Sul	Asa Sul, Brasilia

	Restaurant ID	Restaurant Name	Country Code	City	Address	Locality	Loca Verb
27	6600379	Sushi Loko	30	Brasilia	SCS 213, Bloco C, Loja 35, Asa Sul, Brasilia	Asa Sul	Asa Brasilia
28	6600214	Beirute	30	Brasilia	CLS 109, Bloco A, Loja 2/6, Asa Sul, Brasilia	Asa Sul	Asa Brasilia
29	6601218	New Koto	30	Brasilia	SCS 212, Bloco B, Loja 26, Asa Sul, Brasilia	Asa Sul	Asa Brasilia

30 rows × 21 columns

the percentage of restaurants that offer table booking and online delivery

```
In [5]: count=0
for i in data_df['Has Table booking']:
    if i == 'Yes':
        count=count+1
print(f'The total yes in table booking cases:',count)
total_cases=data_df.shape[0]
condition1=round((count/total_cases)*100,4)

count=0
for i in data_df['Has Online delivery']:
    if i == 'Yes':
        count=count+1
print(f'the total yes in online booking cases:',count)
total_cases=data_df.shape[0]
condition2=round((count/total_cases)*100,4)

print(f'percentage_table_booking:',condition1)
print(f'percentage_table_booking:',condition2)
```

The total yes in table booking cases: 1158
the total yes in online booking cases: 2451
percentage_table_booking: 12.1244
percentage_table_booking: 25.6622

Compare the average ratings of restaurants with table booking and those without

```
In [14]: b=(data_df[data_df['Has Table booking'].str.lower()=='yes']['Aggregate rating'])
B=round(b,3)
b1=(data_df[data_df['Has Table booking'].str.lower()=='no']['Aggregate rating'])
B1=round(b1,3)
```

```
print(f'the average ratings of restaurants with table booking:',B)
print(f'the average ratings of restaurants without table booking:',B1)
```

the average ratings of restaurants with table booking: 3.442

the average ratings of restaurants without table booking: 2.559

Analyze the availability of online delivery among restaurants with different price ranges.

```
In [40]: Analysis = data_df.groupby('Price range')['Has Online delivery'].apply(lambda
        x: (x.str.lower() == 'yes').mean() * 100).reset_index()
# Rename columns
Analysis.columns = ['Price Range', 'Online Delivery(%)']
print(Analysis)
```

	Price Range	Online Delivery(%)
0	1	15.774077
1	2	41.310633
2	3	29.190341
3	4	9.044369

In []: