Task: Table Booking and Online Delivery

Import Libraries

In [1]:
```
import pandas as pd
```

Load the dataset

In [2]:
```
df=pd.read_csv('D:\Intern\Cognifyz Intern\Dataset .csv')
```

Data Characteristics

In [3]:
```
df.head()
```

2	6300002	Heat - Edsa Shangri-La	162	Mandaluyong City	La, 1 Garden Way, Ortigas, Mandal...	Shangri-La, Ortigas, Mandaluyong City	Shangri-La, Ortigas, Mandaluyong City, Ma...	121.0
3	6318506	Ooma	162	Mandaluyong City	Third Floor, Mega Fashion Hall, SM Megamall, O...	SM Megamall, Ortigas, Mandaluyong City	SM Megamall, Ortigas, Mandaluyong City, Mandal...	121.0
4	6314302	Sambo Kojin	162	Mandaluyong City	Third Floor, Mega Atrium, SM Megamall, Ortigas...	SM Megamall, Ortigas, Mandaluyong City	SM Megamall, Ortigas, Mandaluyong City, Mandal...	121.0

Checking the counts of each data

In [4]:
```
print(df['Has Table booking'].value_counts())
```

```
Has Table booking
No     8393
Yes    1158
Name: count, dtype: int64
```

In [5]:
```
print(df['Has Online delivery'].value_counts())
```

```
Has Online delivery
No     7100
Yes    2451
Name: count, dtype: int64
```

Determine the percentage of restaurants that offer table booking and online delivery.

In [6]:
```
booking_per=(1158/9551)*100
on_delivary_per=(2451/9551)*100
```

In [7]:
```
print(f' Percentage of Table Booking={booking_per:.2f}%')
print(f' Percentage of Online Delivary={on_delivary_per:.2f}%')
```

```
 Percentage of Table Booking=12.12%
 Percentage of Online Delivary=25.66%
```

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

In [8]:
```
avg_rating_with_tab_book=1158+df['Votes'].mean()
avg_rating_without_tab_book=8393+df['Votes'].mean()
```

In [9]:
```
print(f"Average rating with Table Booking={avg_rating_with_tab_book:.2f}")
print(f"Average rating without Table Booking={avg_rating_without_tab_book:.2f}
```

```
Average rating with Table Booking=1314.91
Average rating without Table Booking=8549.91
```

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

In [10]:
```
price_groups=df.groupby('Price range').value_counts()
```

In [11]:
```
print(price_groups)
```

```
No                    3.6              Orange        Average      25
1
             309509         Namaste Restaurant
1             New Delhi  Dr Kapoorwali Gali, Munirka, New Delhi
Munirka                                 Munirka, New Delhi
77.170877   28.558629  Chinese                                      300
Indian Rupees(Rs.)  No                 No                   No
No                    0.0               White         Not rated    1
1


..
4            208850         Tresind - Nassima Royal Hotel
214           Dubai      Level 2, Nassima Royal Hotel, Sheikh Zayad Road,
Trade Centre Area, Dubai                                        Nassima Ro
yal Hotel, Trade Centre Area  Nassima Royal Hotel, Trade Centre Area, Duba
i   55.282568   25.223477  Indian                                       50
0                  Emirati Diram(AED)  Yes                No
No                 No                   4.9               Dark Green    E
xcellent    1352     1
             300007         Side Wok
```

In [12]:
```
df.columns=df.columns.str.strip()
```

In [13]:
```
df['Price range']=df['Price range'].astype(str)
```

In [14]:
```
df['Has Online delivery'] = df['Has Online delivery'].apply(lambda x: x.strip(
```

In [15]:
```
print(df[['Price range','Has Online delivery']].head())
```

```
  Price range  Has Online delivery
0           3                False
1           3                False
2           4                False
3           4                False
4           4                False
```

In [16]:
```
del_aval=df.groupby('Price range')['Has Online delivery'].mean()*100
del_aval=del_aval.reset_index()
```

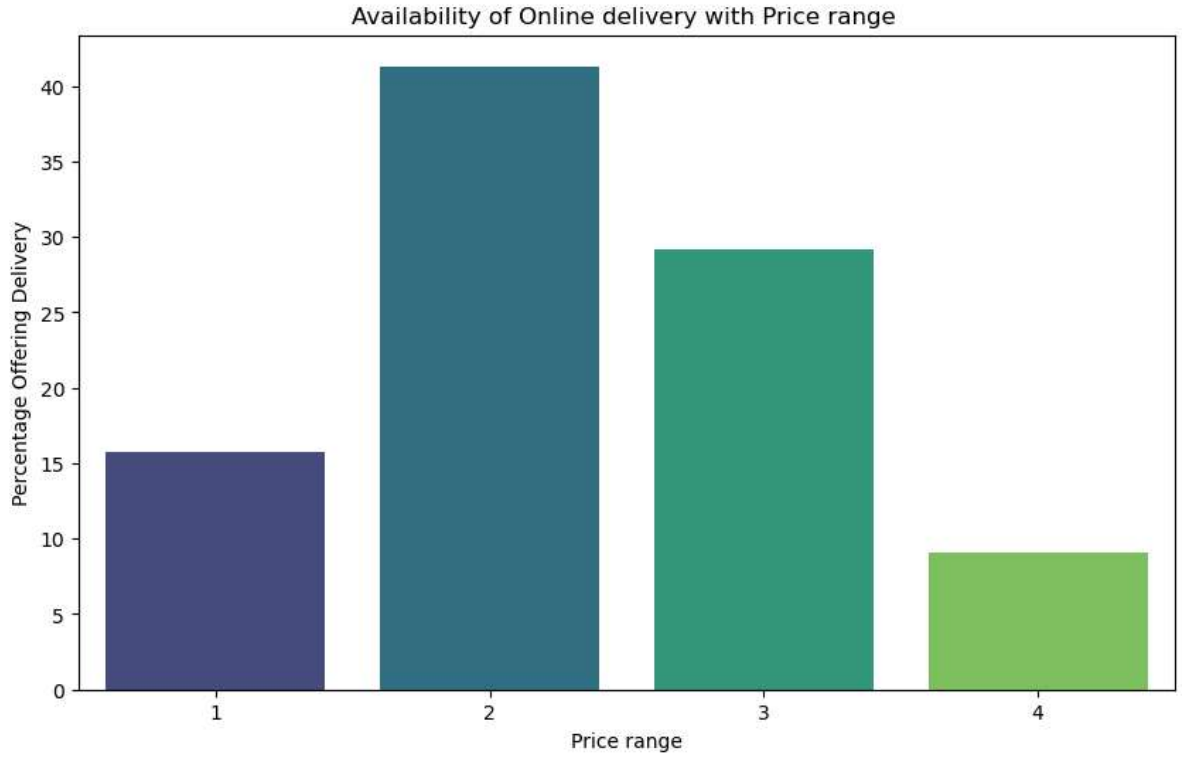
In [17]:
```
del_aval.columns=['Price range','Percentage Offering Delivery']
```

In [18]:
```
print(del_aval)
```

```
  Price range  Percentage Offering Delivery
0           1                     15.774077
1           2                     41.310633
2           3                     29.190341
3           4                      9.044369
```

Visualize the Availability of Online delivery with Price range

In [23]:
```
import matplotlib.pyplot as plt
import seaborn as sns
plt.figure(figsize=(10,6))
sns.barplot(x='Price range',y='Percentage Offering Delivery',data= del_aval ,p
plt.xlabel('Price range')
plt.ylabel=('Percentage Offering Delivary')
plt.title('Availability of Online delivery with Price range')
plt.show()
```



In [ ]: