Zomato Data Analysis Project

Step 1 - Importing Libraries

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

Step 2 - Creating Data Frame

In [2]:
```
dataframe = pd.read_csv("Zomato data .csv")
```

In [3]:
```
dataframe
```

Out[3]:

	name	online_order	book_table	rate	votes	approx_cost(for two people)	listed_in(type)
0	Jalsa	Yes	Yes	4.1/5	775	800	Buffet
1	Spice Elephant	Yes	No	4.1/5	787	800	Buffet
2	San Churro Cafe	Yes	No	3.8/5	918	800	Buffet
3	Addhuri Udupi Bhojana	No	No	3.7/5	88	300	Buffet
4	Grand Village	No	No	3.8/5	166	600	Buffet
...	...	...	...	...	...	...	...
143	Melting Melodies	No	No	3.3/5	0	100	Dining
144	New Indraprasta	No	No	3.3/5	0	150	Dining
145	Anna Kuteera	Yes	No	4.0/5	771	450	Dining
146	Darbar	No	No	3.0/5	98	800	Dining
147	Vijayalakshmi	Yes	No	3.9/5	47	200	Dining

148 rows × 7 columns

Convert the data type of column - rate

In [4]:
```
def handleRate(value):
    value = str(value).split("/")
    value = value [0];
    return float(value)

dataframe['rate'] = dataframe['rate'].apply(handleRate)
print(dataframe.head())
```

```
                  name online_order book_table  rate  votes  \
0                Jalsa          Yes        Yes   4.1    775
1        Spice Elephant          Yes         No   4.1    787
2       San Churro Cafe          Yes         No   3.8    918
3  Addhuri Udupi Bhojana           No         No   3.7     88
4          Grand Village           No         No   3.8    166

   approx_cost(for two people) listed_in(type)
0                          800          Buffet
1                          800          Buffet
2                          800          Buffet
3                          300          Buffet
4                          600          Buffet
```

In [5]:
```
dataframe.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 148 entries, 0 to 147
Data columns (total 7 columns):
 #   Column                       Non-Null Count  Dtype
---  ------                       --------------  -----
 0   name                         148 non-null    object
 1   online_order                 148 non-null    object
 2   book_table                   148 non-null    object
 3   rate                         148 non-null    float64
 4   votes                        148 non-null    int64
 5   approx_cost(for two people)  148 non-null    int64
 6   listed_in(type)              148 non-null    object
dtypes: float64(1), int64(2), object(4)
memory usage: 8.2+ KB
```

Types of Restaurants

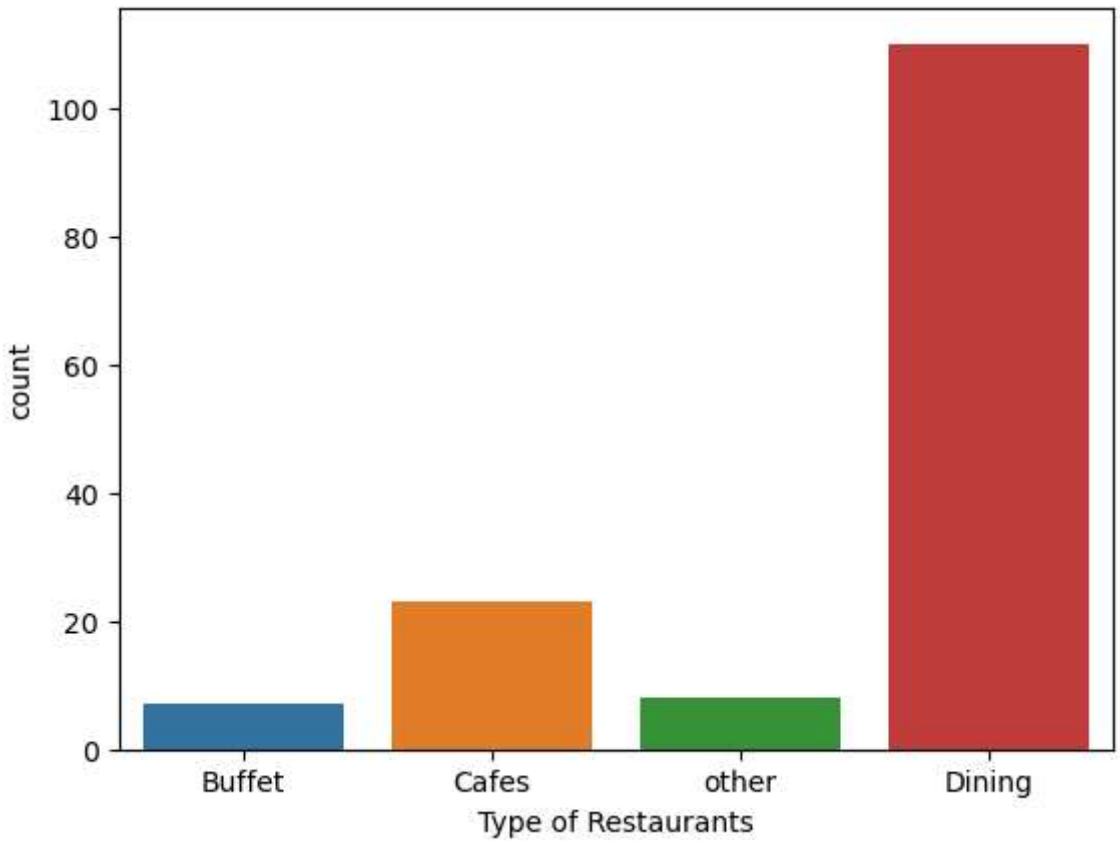
In [6]:
```
dataframe.head()
```

Out[6]:

	name	online_order	book_table	rate	votes	approx_cost(for two people)	listed_in(type)
0	Jalsa	Yes	Yes	4.1	775	800	Buffet
1	Spice Elephant	Yes	No	4.1	787	800	Buffet
2	San Churro Cafe	Yes	No	3.8	918	800	Buffet
3	Addhuri Udupi Bhojana	No	No	3.7	88	300	Buffet
4	Grand Village	No	No	3.8	166	600	Buffet

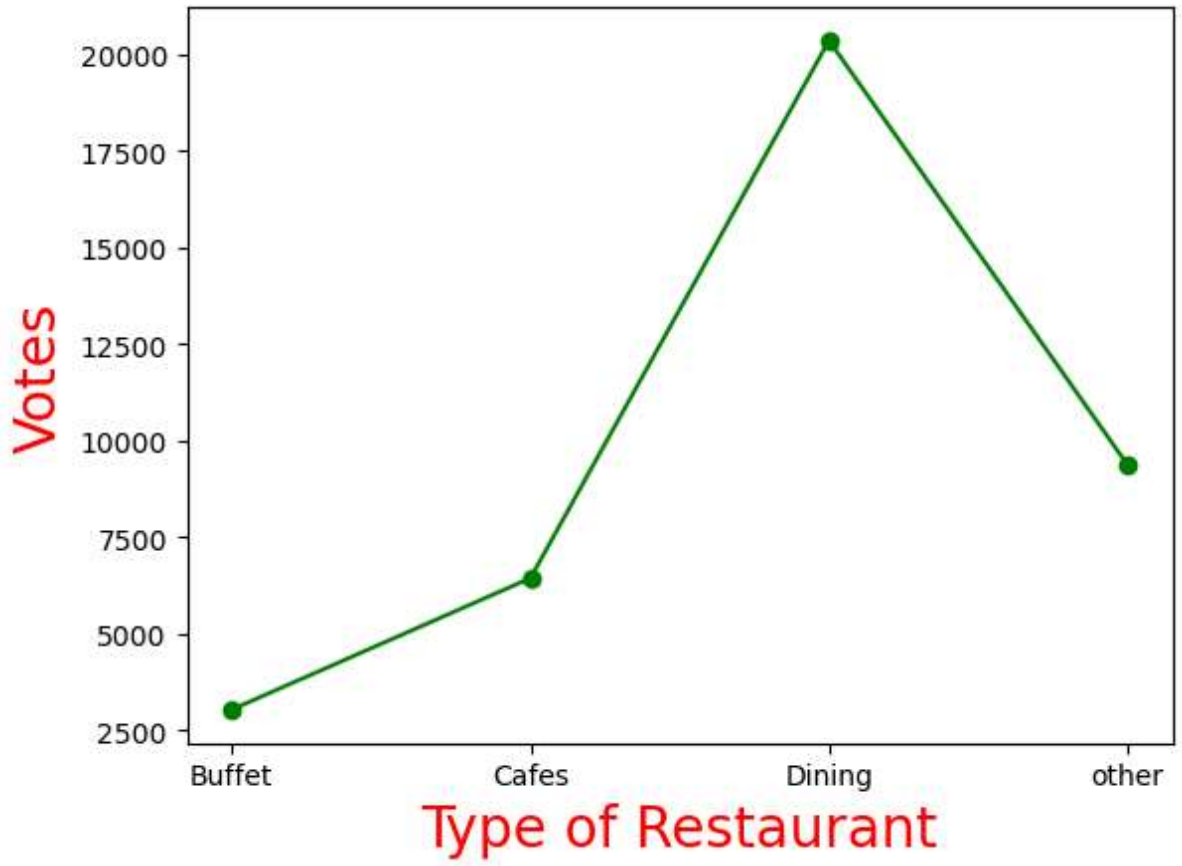
In [7]:
```
sns.countplot(x=dataframe['listed_in(type)'])
plt.xlabel("Type of Restaurants")
```

Out[7]:
```
Text(0.5, 0, 'Type of Restaurants')
```

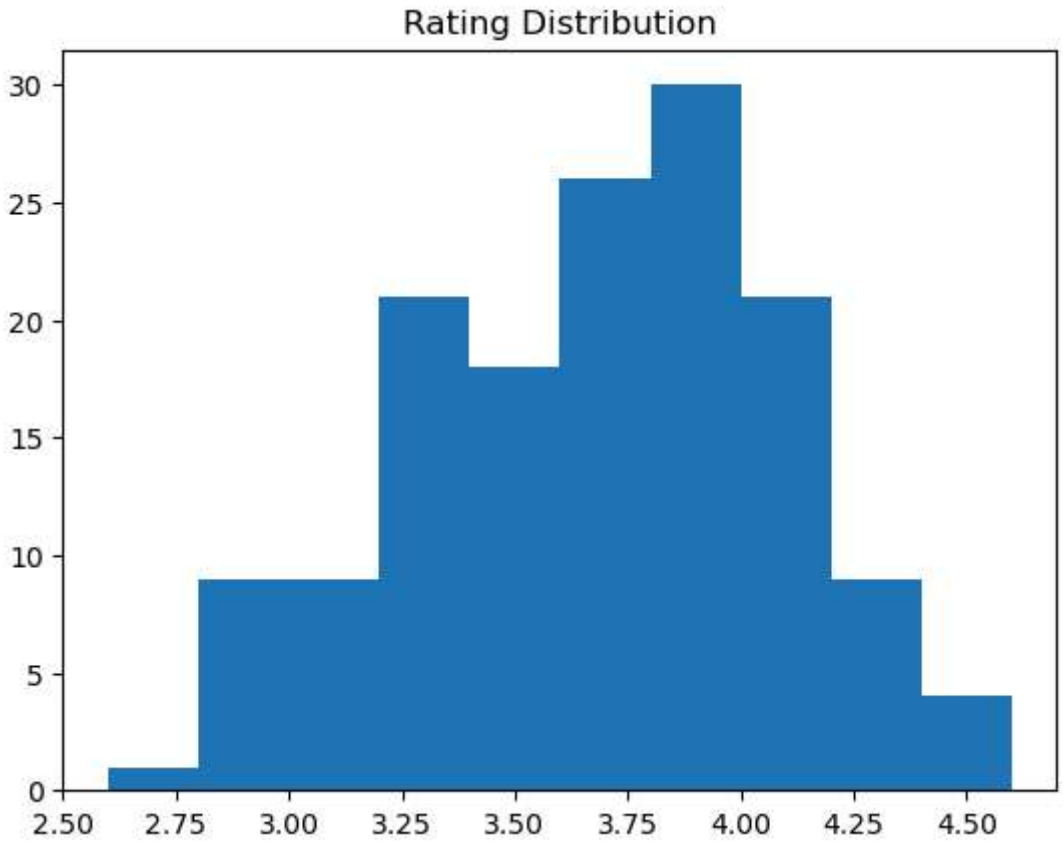


In [8]:
```
grouped_data = dataframe.groupby('listed_in(type)')['votes'].sum()
result = pd.DataFrame({'votes': grouped_data})
plt.plot(result, c="green", marker="o")
plt.xlabel("Type of Restaurant", c="red", size=20)
plt.ylabel("Votes", c="red",size=20)
```

Out[8]:
```
Text(0, 0.5, 'Votes')
```



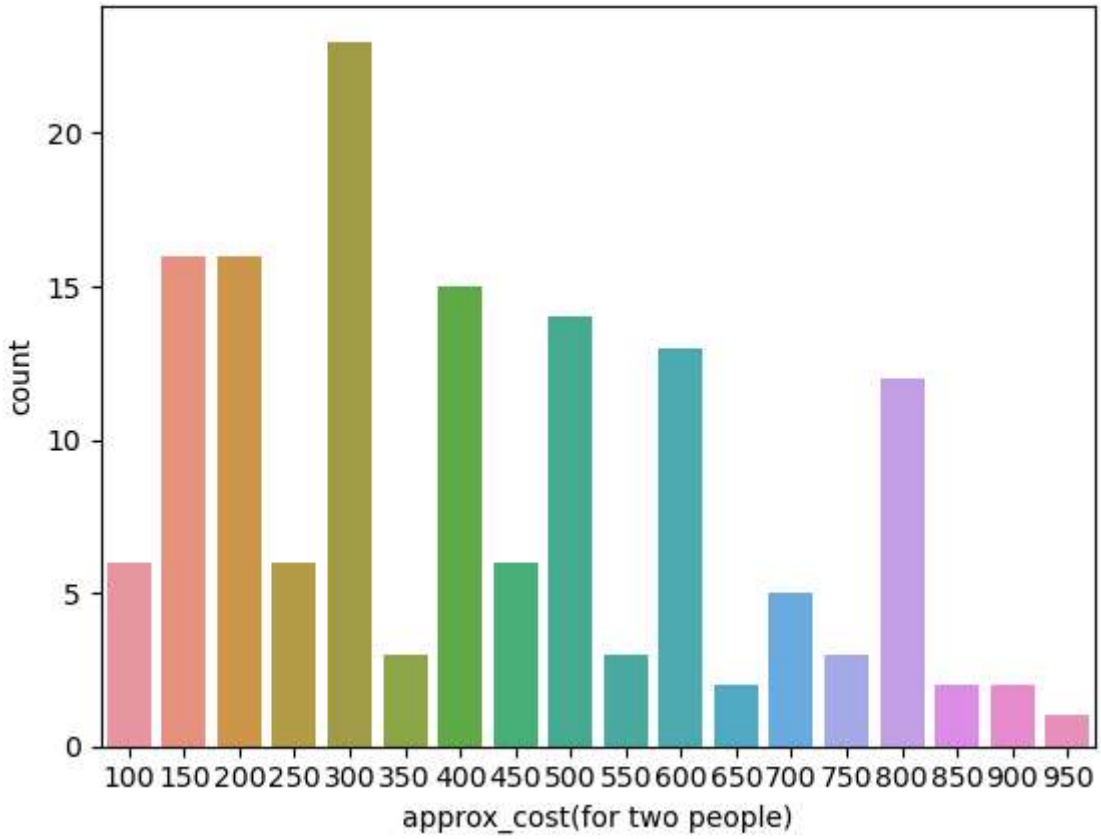
In [9]:
```
plt.hist(dataframe['rate'], bins = 10)
plt.title("Rating Distribution")
plt.show()
```



Average Order Spending By Couples

In [10]:
```
couple_data = dataframe['approx_cost(for two people)']
sns.countplot(x=couple_data)
```

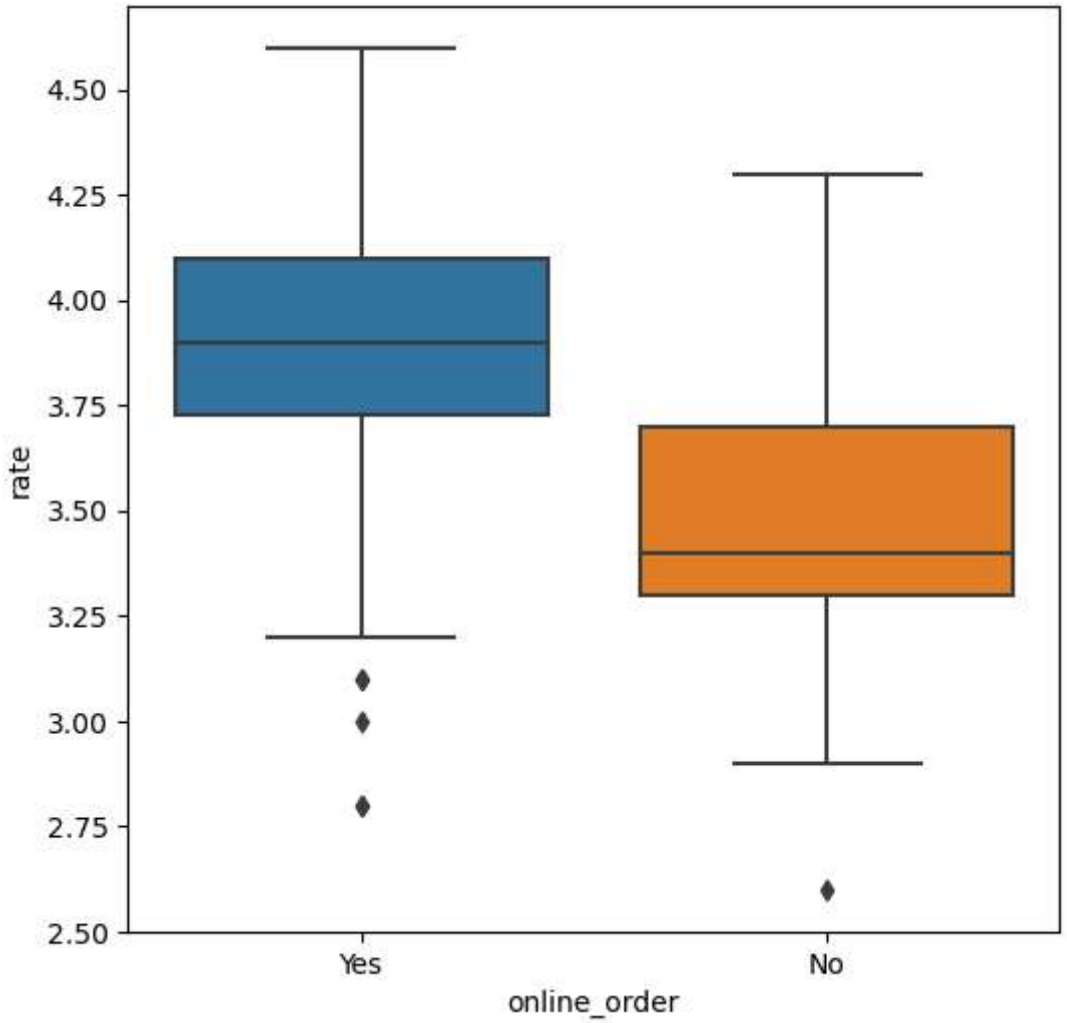
Out[10]:
```
<Axes: xlabel='approx_cost(for two people)', ylabel='count'>
```



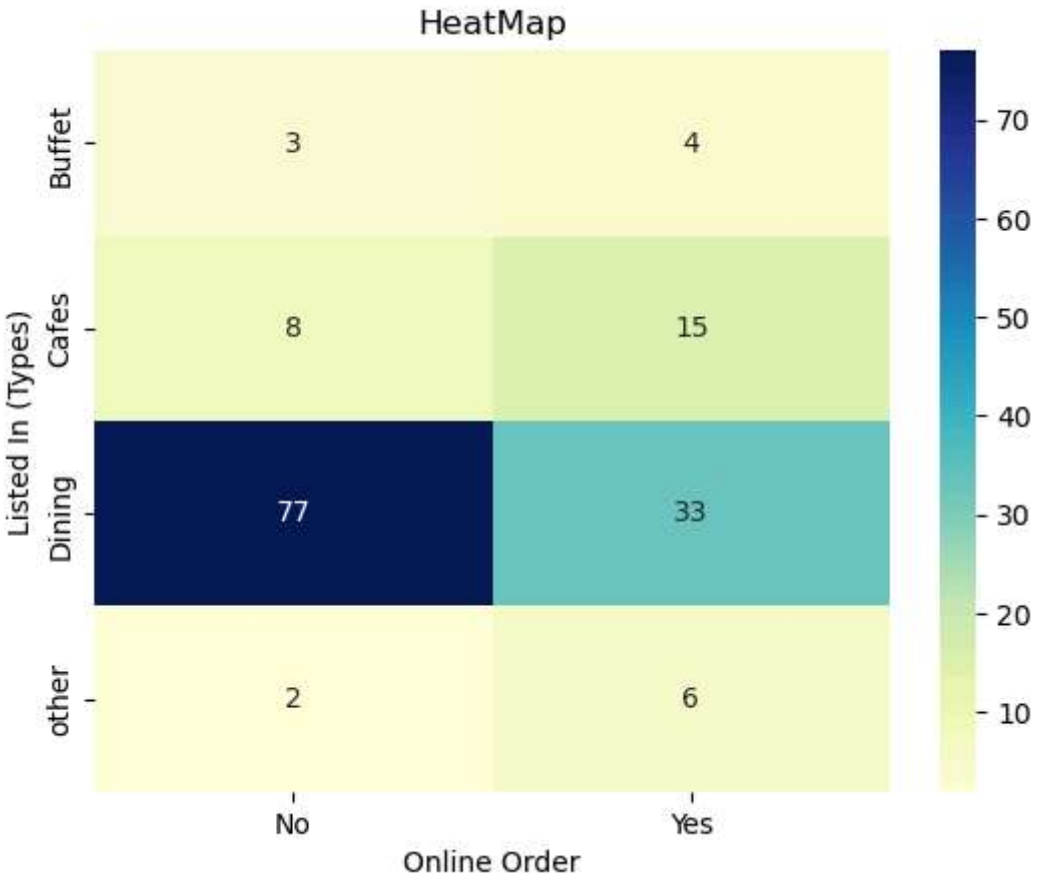
Which mode receives maximum rating ?

In [11]:
```
plt.figure(figsize = (6,6))
sns.boxplot(x='online_order', y='rate', data = dataframe)
```

Out[11]:
```
<Axes: xlabel='online_order', ylabel='rate'>
```



In [20]:
```
pivot_table = dataframe.pivot_table(index = 'listed_in(type)', columns ='online
sns.heatmap(pivot_table, annot=True, cmap="YlGnBu", fmt='d')
plt.title("HeatMap")
plt.xlabel("Online Order")
plt.ylabel("Listed In (Types)")
plt.show()
```



In [ ]:
```

```