

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

```
In [3]: dataframe = pd.read_csv("Zomato data .csv")
print(dataframe.head())

0      name online_order book_table  rate  votes \
1    Spice Elephant      Yes      Yes  4.1/5   775
2    San Churro Cafe      Yes      No  3.8/5   918
3  Addhuri Udupi Bhojana      No      No  3.7/5    88
4    Grand Village      No      No  3.8/5   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]: def handleRate(value):
        value=str(value).split('/')
        value=value[0];
        return float(value)

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

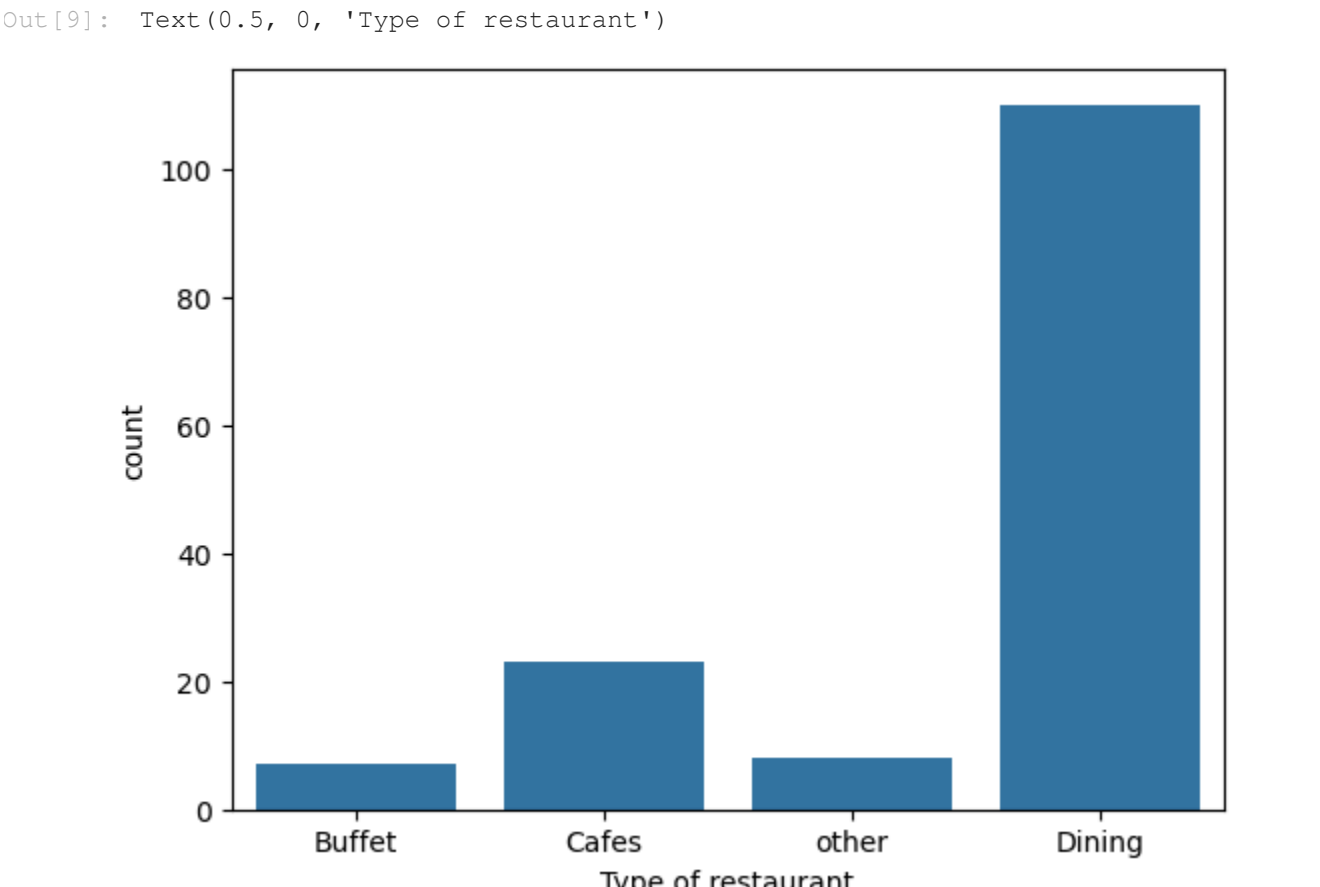
0      name online_order book_table  rate  votes \
1    Spice Elephant      Yes      Yes  4.1   775
2    San Churro Cafe      Yes      No  3.8   918
3  Addhuri Udupi Bhojana      No      No  3.7    88
4    Grand Village      No      No  3.8   166

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

```
In [7]: dataframe.info()

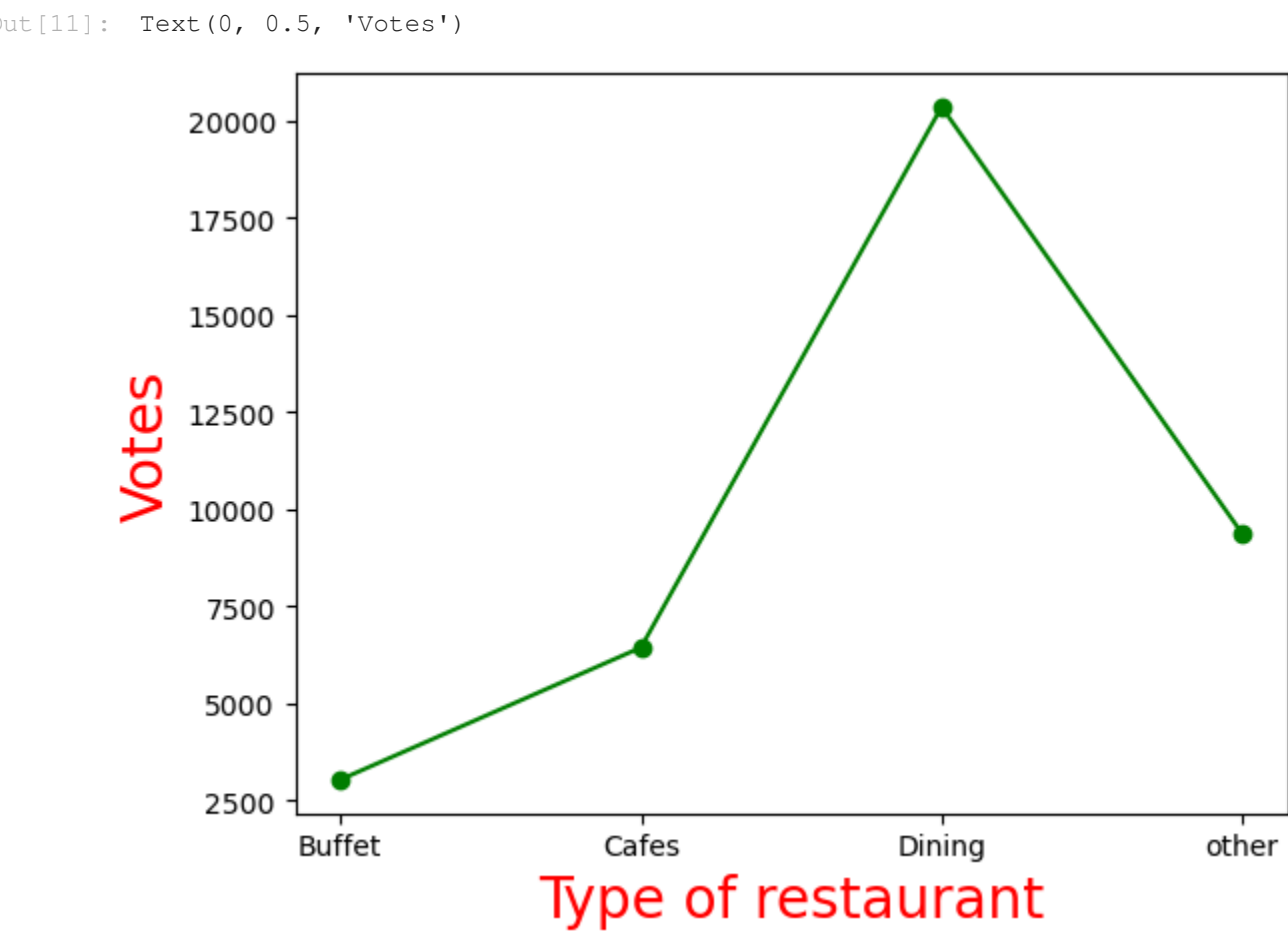
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 148 entries, 0 to 147
Data columns (total 7 columns):
#   Column              Non-Null Count  Dtype
---  -
0   name                148 non-null   object
1   online_order        148 non-null   object
2   book_table          148 non-null   object
3   rate                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
```

```
In [9]: sns.countplot(x=dataframe['listed_in(type)'])
plt.xlabel("Type of restaurant")
```



In [ ]: ##Conclusion: The majority of the restaurants fall into the dining category.

```
In [11]: 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)
```



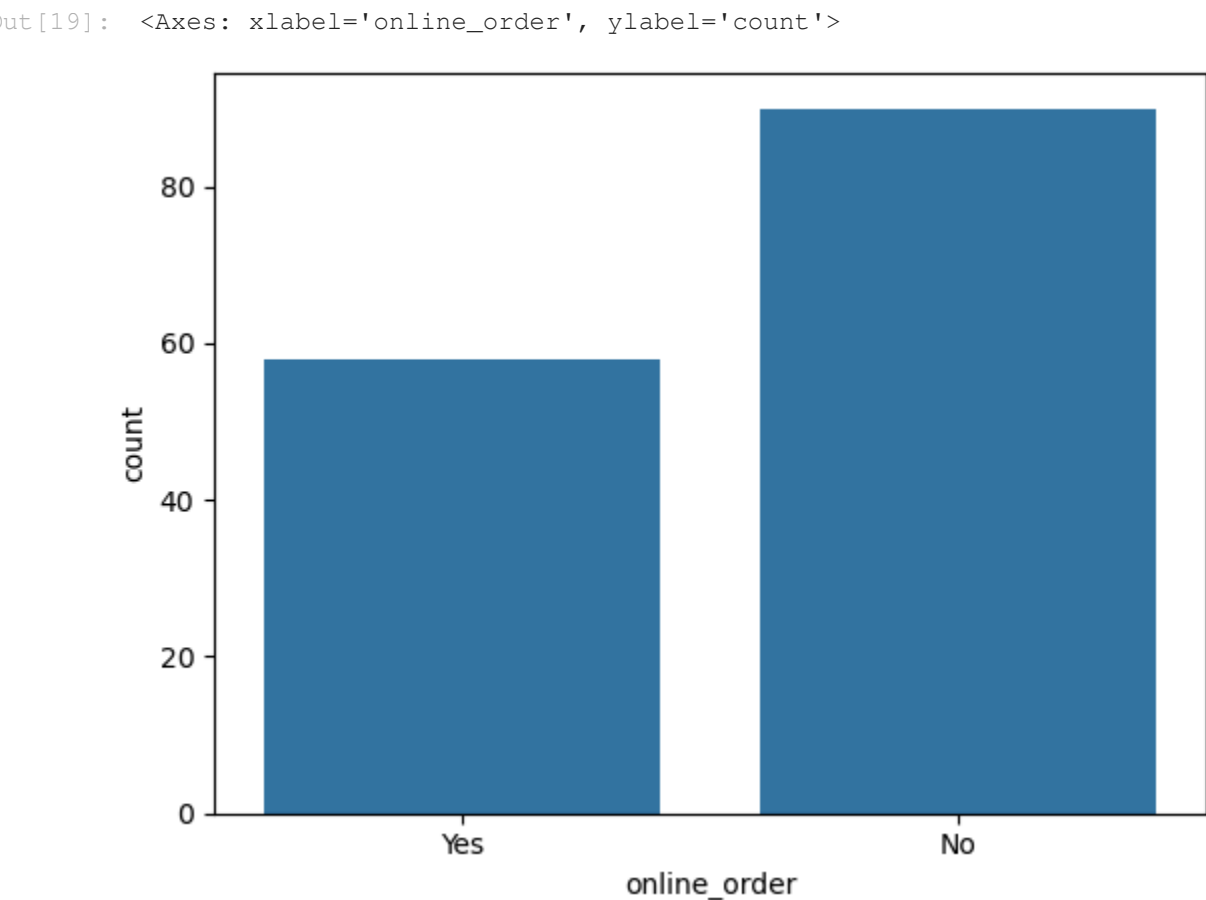
In [13]: #Conclusion: Dining restaurants are preferred by a larger number of individuals.

```
In [15]: max_votes = dataframe['votes'].max()
restaurant_with_max_votes = dataframe.loc[dataframe['votes'] == max_votes, 'name']

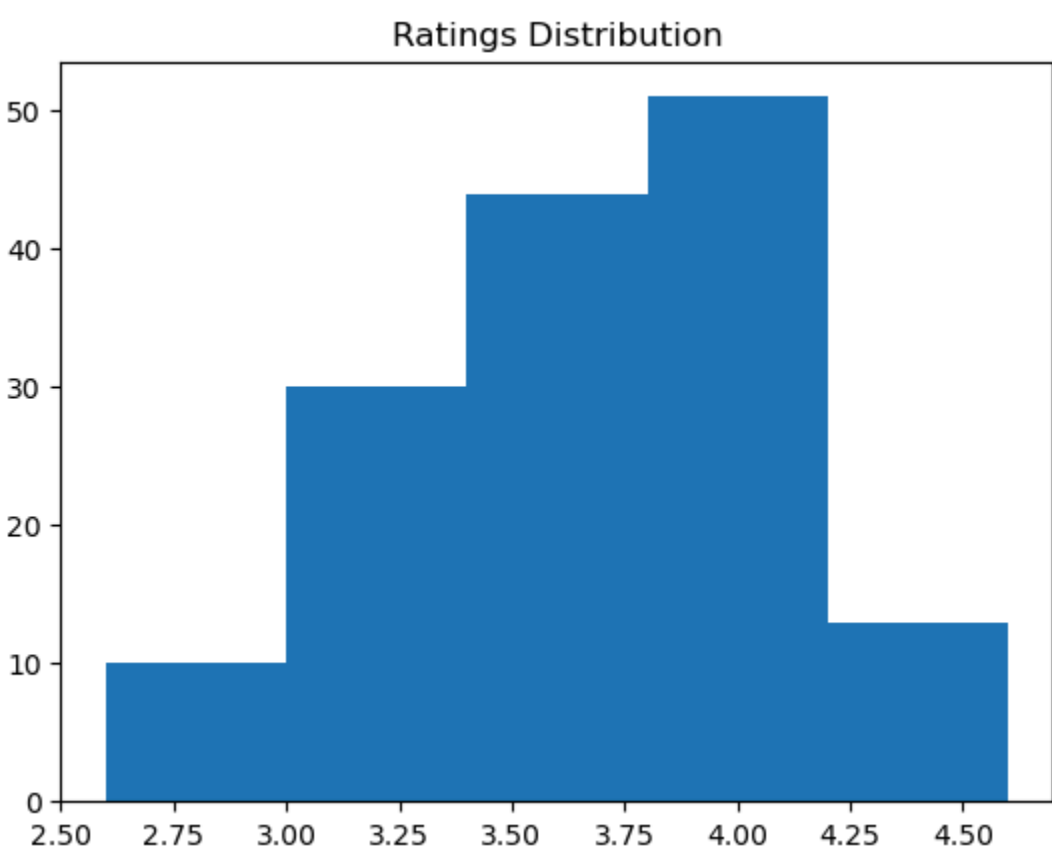
print("Restaurant(s) with the maximum votes:")
print(restaurant_with_max_votes)

Restaurant(s) with the maximum votes:
38  Empire Restaurant
Name: name, dtype: object
```

```
In [19]: sns.countplot(x=dataframe['online_order'])
```

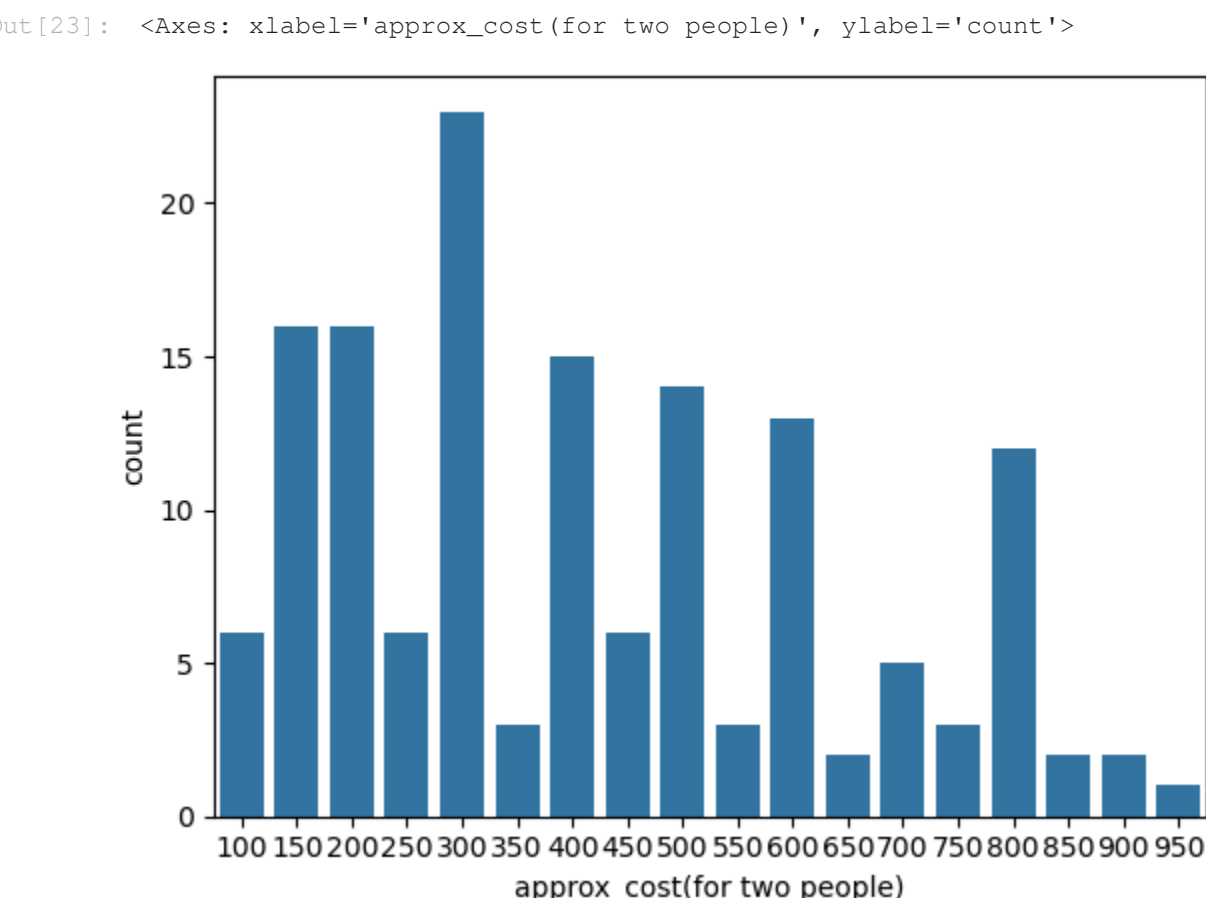


```
In [21]: plt.hist(dataframe['rate'],bins=5)
plt.title("Ratings Distribution")
plt.show()
```

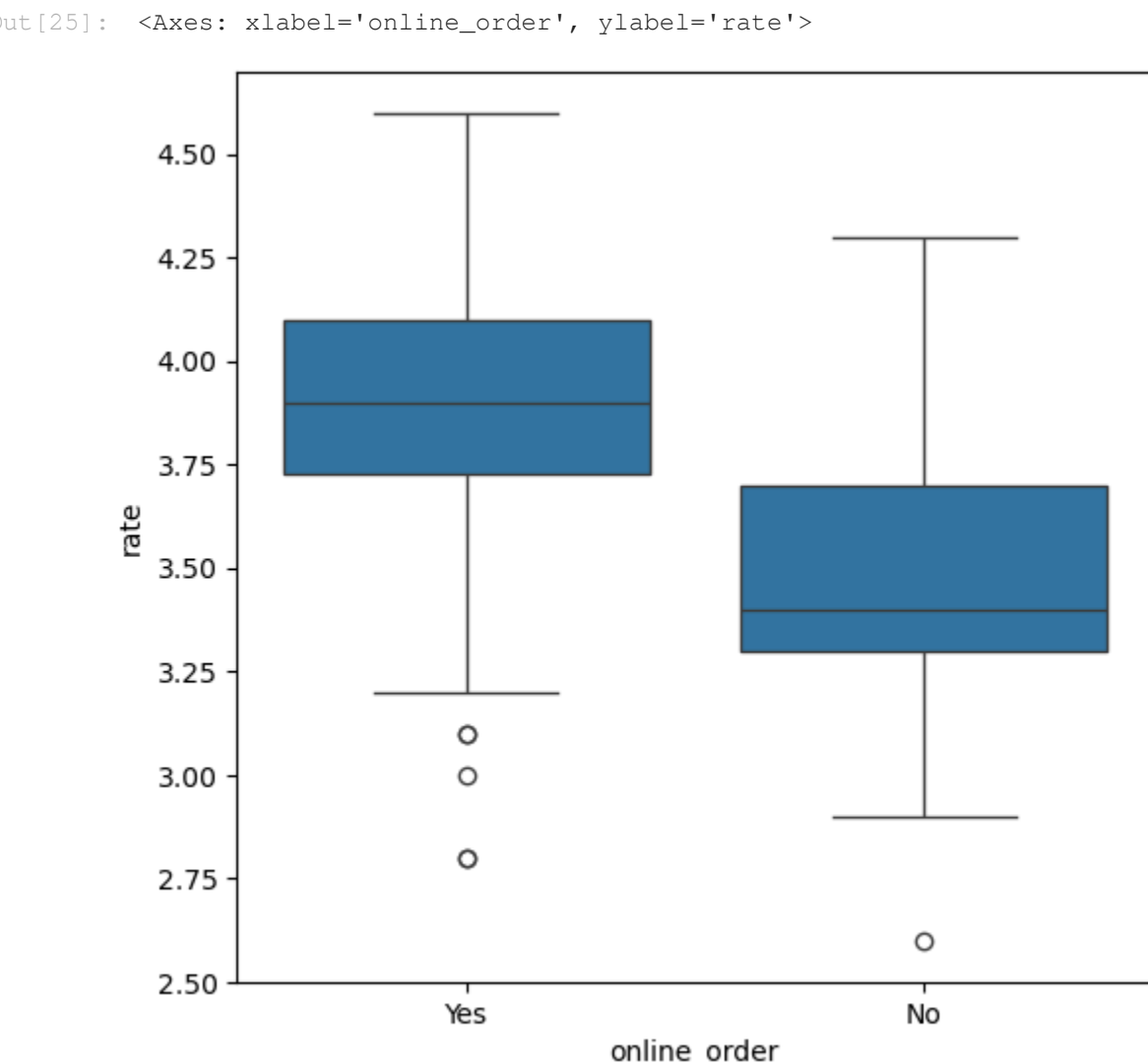


In [ ]: #Conclusion: The majority of restaurants received ratings ranging from 3.5 to 4.

```
In [23]: couple_data=dataframe['approx_cost(for two people)']
sns.countplot(x=couple_data)
```



```
In [25]: plt.figure(figsize = (6,6))
sns.boxplot(x = 'online_order', y = 'rate', data = dataframe)
```



In [ ]: #CONCLUSION: Offline orders received lower ratings in comparison to online orders, which obtained excellent ratings

```
In [27]: pivot_table = dataframe.pivot_table(index='listed_in(type)', columns='online_order', aggfunc='size', fill_value=0)
sns.heatmap(pivot_table, annot=True, cmap='YlGnBu', fmt='d')
plt.title("Heatmap")
plt.xlabel("Online Order")
plt.ylabel("Listed In (Type)")
plt.show()
```

