

# Swiggy Data analysis project :

## import libraries

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

## Create the data frame

```
dataframe = pd.read_csv("Swiggy data .csv")
print(dataframe)
```

	name	online_order	book_table	rate	votes	\
0	Jalsa	Yes	Yes	4.1/5	775	
1	Spice Elephant	Yes	No	4.1/5	787	
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	
...	...	...	...	...	...	
143	Melting Melodies	No	No	3.3/5	0	
144	New Indraprasta	No	No	3.3/5	0	
145	Anna Kuteera	Yes	No	4.0/5	771	
146	Darbar	No	No	3.0/5	98	
147	Vijayalakshmi	Yes	No	3.9/5	47	

	approx_cost(for two people)	listed_in(type)
0	800	Buffet
1	800	Buffet
2	800	Buffet
3	300	Buffet
4	600	Buffet
...	...	...
143	100	Dining
144	150	Dining
145	450	Dining
146	800	Dining
147	200	Dining

[148 rows x 7 columns]

dataframe

	name	online_order	book_table	rate	votes	\
0	Jalsa	Yes	Yes	4.1/5	775	
1	Spice Elephant	Yes	No	4.1/5	787	
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	
...	...	...	...	...	...	
143	Melting Melodies	No	No	3.3/5	0	
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145	Anna Kuteera	Yes	No	4.0/5	771	
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147	Vijayalakshmi	Yes	No	3.9/5	47	

	approx_cost(for two people)	listed_in(type)
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...	...	...
143	100	Dining
144	150	Dining
145	450	Dining
146	800	Dining
147	200	Dining

[148 rows x 7 columns]

## convert the data type of column - rate

```
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	\
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	approx_cost(for two people)	listed_in(type)
0	800	Buffet
1	800	Buffet

2	800	Buffet
3	300	Buffet
4	600	Buffet

```
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
```

## Type of restaurant

```
dataframe.head()
```

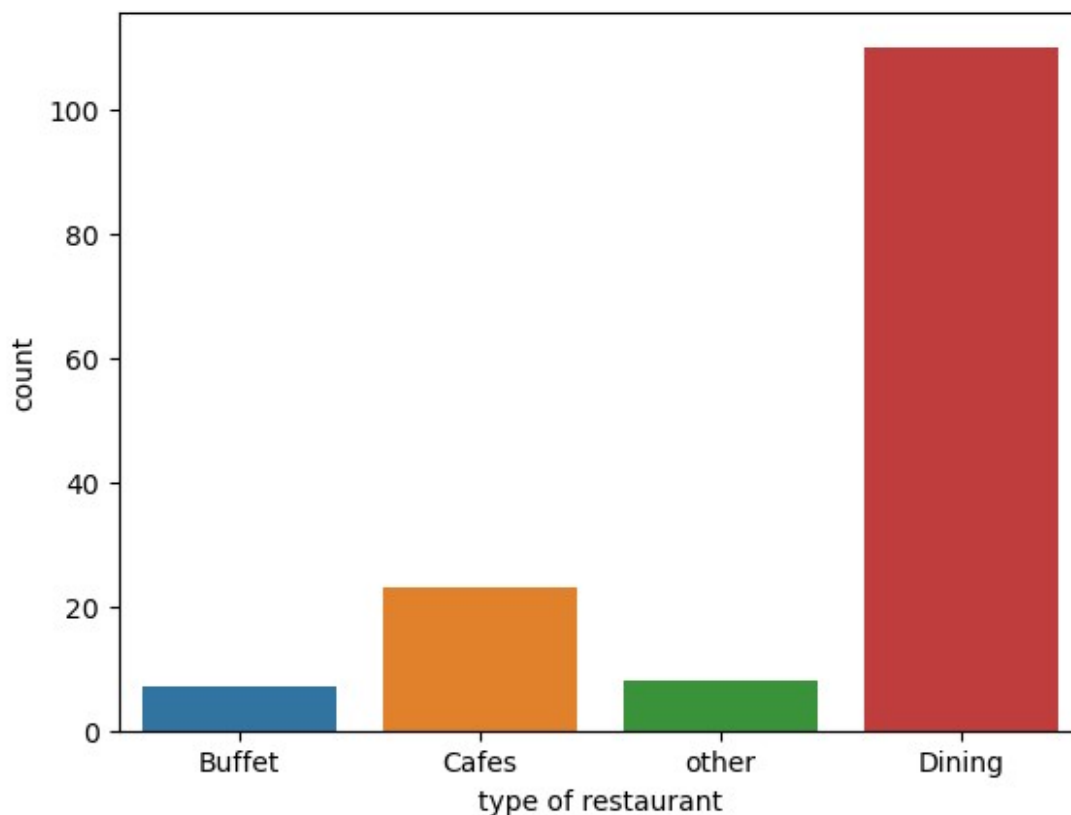
	name	online_order	book_table	rate	votes	\
0	Jalsa	Yes	Yes	4.1	775	
1	Spice Elephant	Yes	No	4.1	787	
2	San Churro Cafe	Yes	No	3.8	918	
3	Addhuri Udipi Bhojana	No	No	3.7	88	
4	Grand Village	No	No	3.8	166	

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

```
sns.countplot(x=dataframe['listed_in(type)'])
```

```
plt.xlabel("type of restaurant")
```

```
Text(0.5, 0, 'type of restaurant')
```



```
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 Udipi 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

```
dataframe.tail()
```

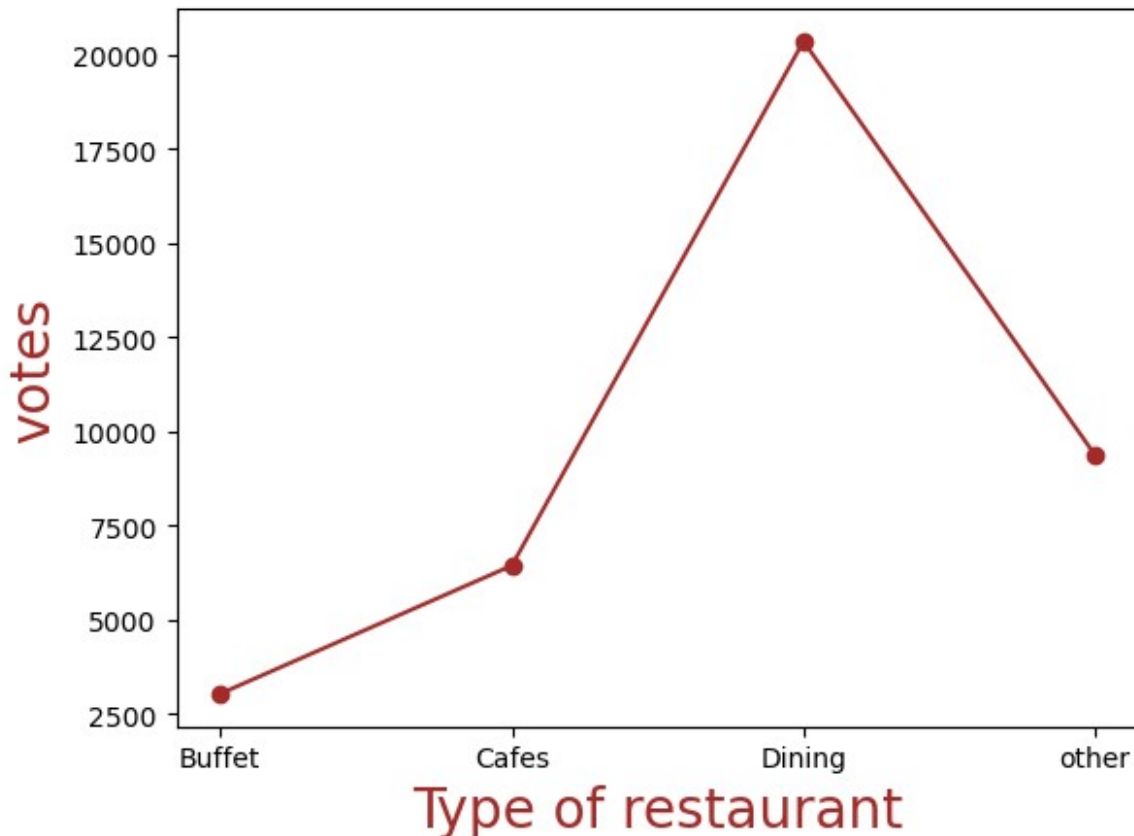
	name	online_order	book_table	rate	votes	\
143	Melting Melodies	No	No	3.3	0	
144	New Indraprasta	No	No	3.3	0	
145	Anna Kuteera	Yes	No	4.0	771	
146	Darbar	No	No	3.0	98	
147	Vijayalakshmi	Yes	No	3.9	47	

```

approx_cost(for two people) listed_in(type)
143                        100      Dining
144                        150      Dining
145                        450      Dining
146                        800      Dining
147                        200      Dining

grouped_data = dataframe.groupby('listed_in(type)')['votes'].sum()
result = pd.DataFrame({'votes': grouped_data})
plt.plot(result, c="brown", marker="o")
plt.xlabel("Type of restaurant", c="brown", size=20)
plt.ylabel("votes", c="brown", size=20)
Text(0, 0.5, 'votes')

```



```

dataframe.head()

```

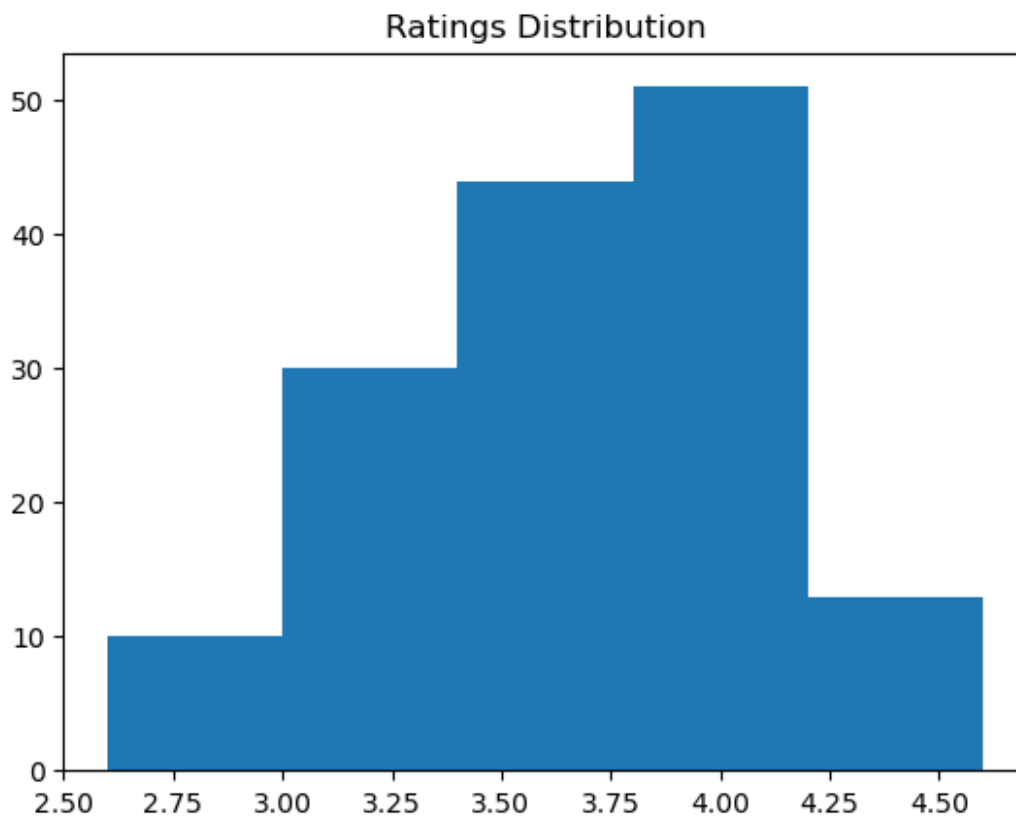
	name	online_order	book_table	rate	votes	\
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1	Spice Elephant	Yes	No	4.1	787	
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4	Grand Village	No	No	3.8	166	

```

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

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

```



## Average order spending by couples

```

dataframe.head()

```

	name	online_order	book_table	rate	votes	\
0	Jalsa	Yes	Yes	4.1	775	
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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	

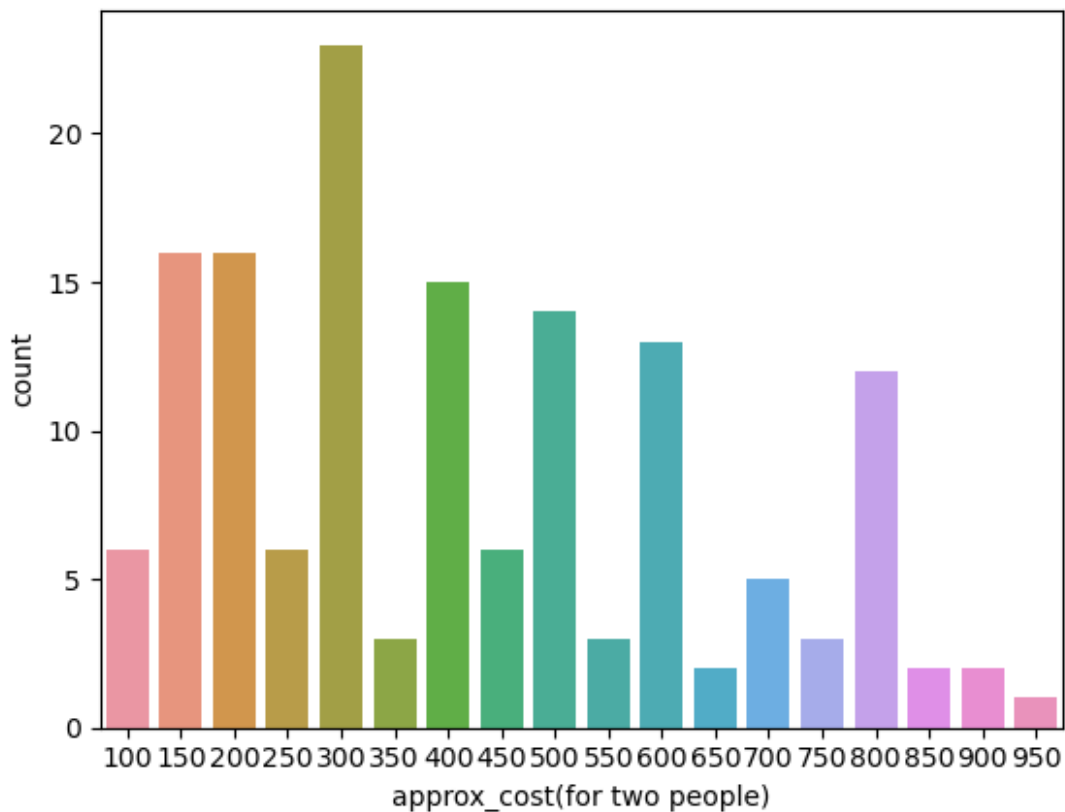
```

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

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

<Axes: xlabel='approx_cost(for two people)', ylabel='count'>

```



which mode receives maximum rating

```

dataframe.head()

```

	name	online_order	book_table	rate	votes	\
0	Jalsa	Yes	Yes	4.1	775	
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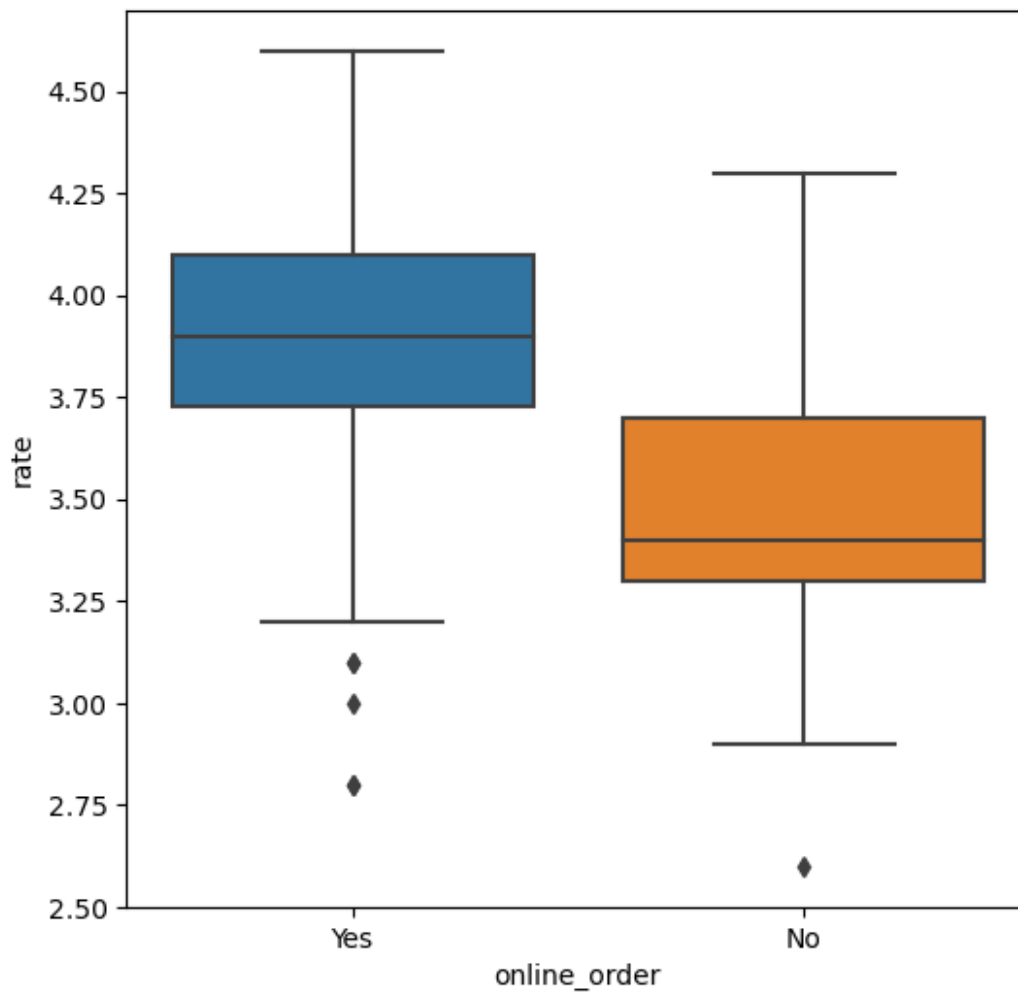
```

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

plt.figure(figsize=(6,6))
sns.boxplot(x = 'online_order', y = 'rate', data = dataframe)

<Axes: xlabel='online_order', ylabel='rate'>

```



```

dataframe.head()

```

	name	online_order	book_table	rate	votes	\
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	approx_cost(for two people)	listed_in(type)
0	800	Buffet
1	800	Buffet
2	800	Buffet
3	300	Buffet
4	600	Buffet

```
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()
```

