# 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
                                                                votes
                                                         rate
                      Jalsa
0
                                       Yes
                                                   Yes
                                                        4.1/5
                                                                  775
1
                                                    No 4.1/5
                                                                  787
             Spice Elephant
                                       Yes
2
           San Churro Cafe
                                                    No 3.8/5
                                                                  918
                                       Yes
3
     Addhuri Udupi Bhojana
                                        No
                                                    No 3.7/5
                                                                   88
4
              Grand Village
                                                    No 3.8/5
                                        No
                                                                  166
                                       . . .
                                                                  . . .
          Melting Melodies
                                                        3.3/5
143
                                                                    0
                                        No
                                                    No
144
            New Indraprasta
                                        No
                                                    No 3.3/5
                                                                    0
               Anna Kuteera
                                                    No 4.0/5
                                                                  771
145
                                       Yes
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
                                             Buffet
                               600
                                             Dining
143
                               100
144
                               150
                                             Dining
145
                               450
                                             Dinina
146
                               800
                                             Dining
147
                               200
                                             Dining
[148 rows x 7 columns]
dataframe
```

```
name online order book table
                                                                 votes
                                                           rate
0
                       Jalsa
                                        Yes
                                                    Yes
                                                         4.1/5
                                                                    775
1
             Spice Elephant
                                        Yes
                                                     No
                                                         4.1/5
                                                                    787
2
            San Churro Cafe
                                        Yes
                                                        3.8/5
                                                                    918
                                                     No
3
     Addhuri Udupi Bhojana
                                         No
                                                     No 3.7/5
                                                                     88
4
              Grand Village
                                                         3.8/5
                                         No
                                                     No
                                                                    166
                                        . . .
                                                    . . .
                                                                    . . .
143
           Melting Melodies
                                                         3.3/5
                                                                      0
                                         No
                                                     No
144
            New Indraprasta
                                         No
                                                     No
                                                         3.3/5
                                                                      0
145
               Anna Kuteera
                                        Yes
                                                     No 4.0/5
                                                                    771
146
                      Darbar
                                         No
                                                        3.0/5
                                                                     98
                                                     No
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]
```

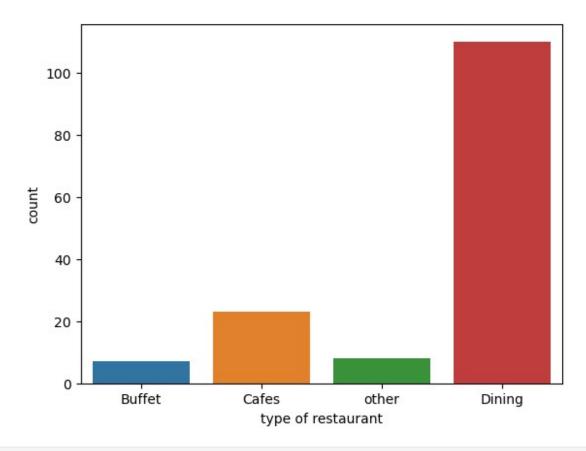
#### convert the data type of column - rate

```
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 \
0
                                    Yes
                                                      4.1
                                                              775
1
          Spice Elephant
                                                      4.1
                                                              787
                                    Yes
                                                 No
2
         San Churro Cafe
                                                      3.8
                                                              918
                                    Yes
                                                 No
3
   Addhuri Udupi Bhojana
                                     No
                                                 No
                                                      3.7
                                                               88
           Grand Village
                                                      3.8
                                                              166
                                     No
                                                 No
   approx_cost(for two people) listed_in(type)
0
                                          Buffet
                            800
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
                                    148 non-null
                                                    float64
     rate
 4
     votes
                                    148 non-null
                                                    int64
 5
     approx cost(for two people)
                                   148 non-null
                                                    int64
     listed in(type)
 6
                                    148 non-null
                                                    object
dtypes: float64(1), int64(2), object(4)
memory usage: 8.2+ KB
```

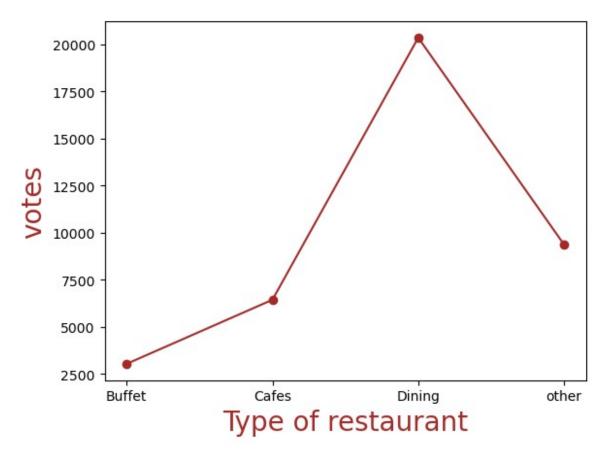
## Type of restaurant

```
dataframe.head()
                     name online order book table
                                                     rate votes \
                    Jalsa
                                   Yes
                                                     4.1
                                               Yes
                                                             775
1
          Spice Elephant
                                                     4.1
                                                             787
                                   Yes
                                                No
2
         San Churro Cafe
                                   Yes
                                                     3.8
                                                             918
                                                No
3
  Addhuri Udupi Bhojana
                                    No
                                                No
                                                     3.7
                                                              88
           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')
```



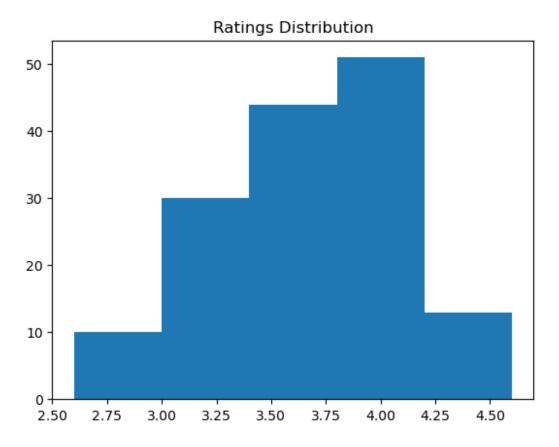
<pre>dataframe.head()</pre>						
0 1 2 3 4	name Jalsa Spice Elephant San Churro Cafe Addhuri Udupi Bhojana Grand Village	Yes Yes No	book_table Yes No No No	rate 4.1 4.1 3.8 3.7 3.8	votes 775 787 918 88 166	\
0 1 2 3 4	approx_cost(for two p	eople) listed_: 800 800 800 300 600	in(type) Buffet Buffet Buffet Buffet Buffet			
<pre>dataframe.tail()</pre>						
14: 14: 14: 14: 14:	Melting Melodies New Indraprasta Anna Kuteera Darbar	line_order boo No No Yes No Yes	No 3 No 3 No 4 No 3	.3 .3 .0 7	es \ 0 0 71 98 47	

```
approx cost(for two people) listed in(type)
143
                                           Dining
                              100
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')
```



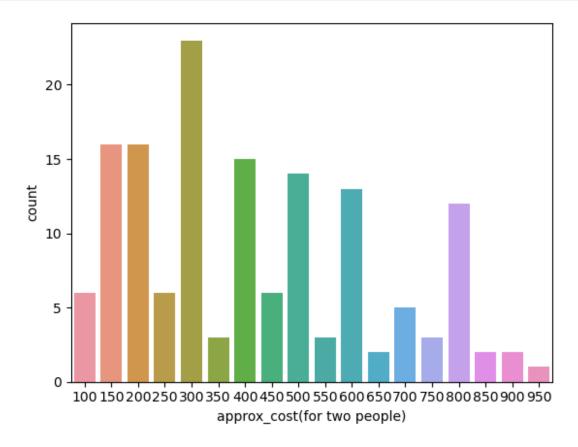
dataframe.head() name online order book table rate votes \ 0 4.1 Jalsa Yes Yes 775 1 Spice Elephant Yes No 4.1 787 2 San Churro Cafe Yes 3.8 918 No 3 Addhuri Udupi Bhojana 3.7 88 No No Grand Village No No 3.8 166

```
approx_cost(for two people) listed_in(type)
0
                                          Buffet
                            800
1
2
                            800
                                          Buffet
                            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

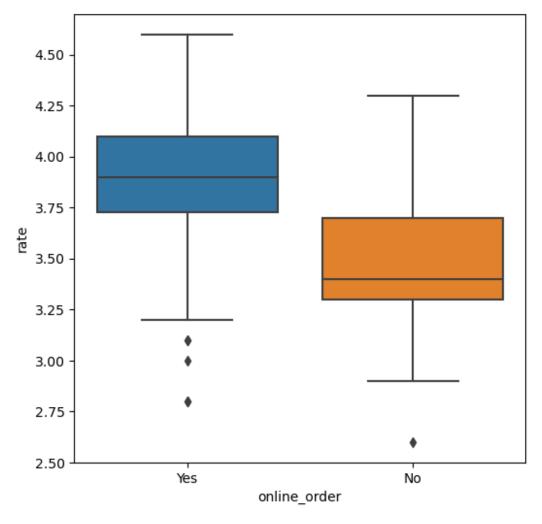
```
approx_cost(for two people) listed_in(type)
0
                                          Buffet
                            800
1
                            800
                                          Buffet
2
                                          Buffet
                            800
3
                            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
                                                        4.1
                                                               775
                                                 Yes
1
          Spice Elephant
                                     Yes
                                                        4.1
                                                               787
                                                  No
2
                                                               918
         San Churro Cafe
                                     Yes
                                                  No
                                                        3.8
3
  Addhuri Udupi Bhojana
                                      No
                                                  No
                                                        3.7
                                                                88
4
            Grand Village
                                                       3.8
                                                               166
                                      No
                                                  No
```

```
approx_cost(for two people) listed_in(type)
0
                            800
                                         Buffet
1
                            800
                                         Buffet
2
                            800
                                         Buffet
3
                                         Buffet
                            300
4
                                         Buffet
                            600
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 \
0
                    Jalsa
                                   Yes
                                                     4.1
                                                             775
                                               Yes
          Spice Elephant
1
                                   Yes
                                                     4.1
                                                             787
                                                No
2
         San Churro Cafe
                                                     3.8
                                                             918
                                   Yes
                                                No
3
  Addhuri Udupi Bhojana
                                    No
                                                No
                                                     3.7
                                                              88
```

```
Grand Village
4
                                    No
                                               No
                                                     3.8
                                                            166
   approx_cost(for two people) listed_in(type)
0
                            800
                                         Buffet
1
2
                            800
                                         Buffet
                            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()
```

