Visualizing Chipotle's Data

This time we are going to pull data directly from the internet. Special thanks to: https://github.com/justmarkham for sharing the dataset and materials.

Step 1. Import the necessary libraries

In [1]:
```
import pandas as pd
import matplotlib.pyplot as plt
from collections import Counter
import seaborn as sns

# set this so the graphs open internally
%matplotlib inline
```

Step 2. Import the dataset from this address.

Step 3. Assign it to a variable called chipo.

In [2]:
```
url = 'https://raw.githubusercontent.com/justmarkham/DAT8/master/data/chipotle.tsv'
chipo = pd.read_csv(url, sep = '\t')
```

Step 4. See the first 10 entries

In [3]:
```
chipo.head(10)
```

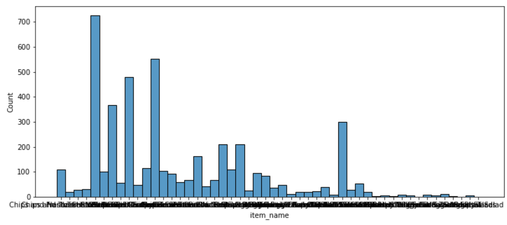
Out[3]:

	order_id	quantity	item_name	choice_description	item_price
0	1	1	Chips and Fresh Tomato Salsa	NaN	$2.39
1	1	1	Izze	[Clementine]	$3.39
2	1	1	Nantucket Nectar	[Apple]	$3.39
3	1	1	Chips and Tomatillo-Green Chili Salsa	NaN	$2.39
4	2	2	Chicken Bowl	[Tomatillo-Red Chili Salsa (Hot), [Black Beans...	$16.98
5	3	1	Chicken Bowl	[Fresh Tomato Salsa (Mild), [Rice, Cheese, Sou...	$10.98
6	3	1	Side of Chips	NaN	$1.69
7	4	1	Steak Burrito	[Tomatillo Red Chili Salsa, [Fajita Vegetables...	$11.75
8	4	1	Steak Soft Tacos	[Tomatillo Green Chili Salsa, [Pinto Beans, Ch...	$9.25
9	5	1	Steak Burrito	[Fresh Tomato Salsa, [Rice, Black Beans, Pinto...	$9.25

Step 5. Create a histogram of the top 5 items bought

In [4]:
```
plt.figure(figsize=(12,5))
sns.histplot(data=chipo, x="item_name")
```

Out[4]:
```
<AxesSubplot:xlabel='item_name', ylabel='Count'>
```



Better way

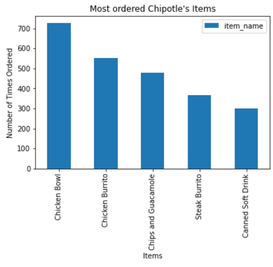
In [5]:
```
x = chipo["item_name"].value_counts().reset_index().loc[0:4]
x
```

Out[5]:

	index	item_name
0	Chicken Bowl	726
1	Chicken Burrito	553
2	Chips and Guacamole	479
3	Steak Burrito	368
4	Canned Soft Drink	301

In [6]:
```
plt.figure(figsize=(12,5))
x.plot(kind='bar', x="index", y="item_name")
plt.xlabel('Items')
plt.ylabel('Number of Times Ordered')
plt.title('Most ordered Chipotle\'s Items')
```

Out[6]:
```
Text(0.5, 1.0, "Most ordered Chipotle's Items")
<Figure size 864x360 with 0 Axes>
```



Step 6. Create a scatterplot with the number of items orderered per order price

Hint: Price should be in the X-axis and Items ordered in the Y-axis

In [7]:
```
chipo["item_price"][0].split("$")[-1]
```

Out[7]:
```
'2.39 '
```

In [8]:
```
x = chipo["item_price"].apply(lambda x: x.split("$")[-1])
chipo["item_price"] = x.astype(float)
chipo["item_price"].dtypes
```

Out[8]:
```
dtype('float64')
```

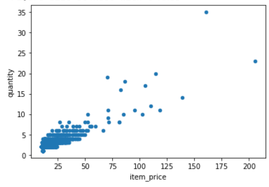
In [9]:
```
order = chipo.groupby("order_id").sum()
order.head(2)
```

Out[9]:

	quantity	item_price
order_id		
1	4	11.56
2	2	16.98

In [10]:
```
plt.figure(figsize=(12,5))
order.plot.scatter(x='item_price', y='quantity')
```

Out[10]:
```
<AxesSubplot:xlabel='item_price', ylabel='quantity'>
<Figure size 864x360 with 0 Axes>
```



In [11]:
```
plt.figure(figsize=(12,5))
sns.scatterplot(data=order,x='item_price', y='quantity')
```

Out[11]:
```
<AxesSubplot:xlabel='item_price', ylabel='quantity'>
```