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

In [2]:
```
tips=sns.load_dataset('tips')
```

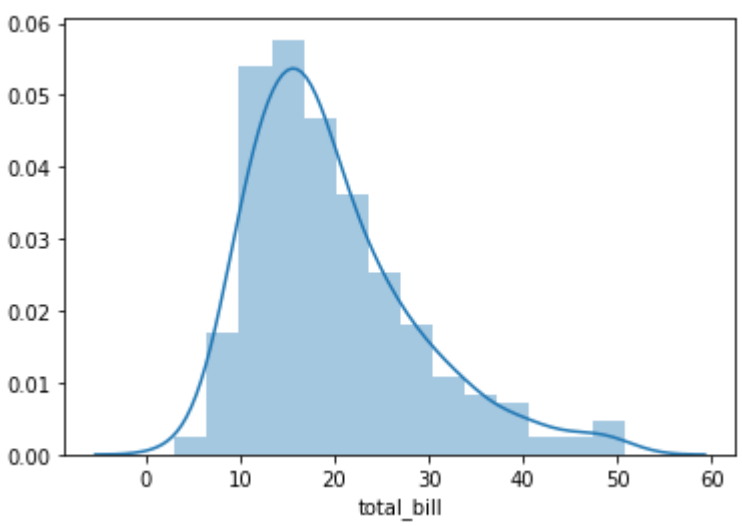
In [3]:
```
tips.head()
```

Out[3]:

	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4

In [4]:
```
sns.distplot(tips['total_bill'])
```

Out[4]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x29d18045a88>
```

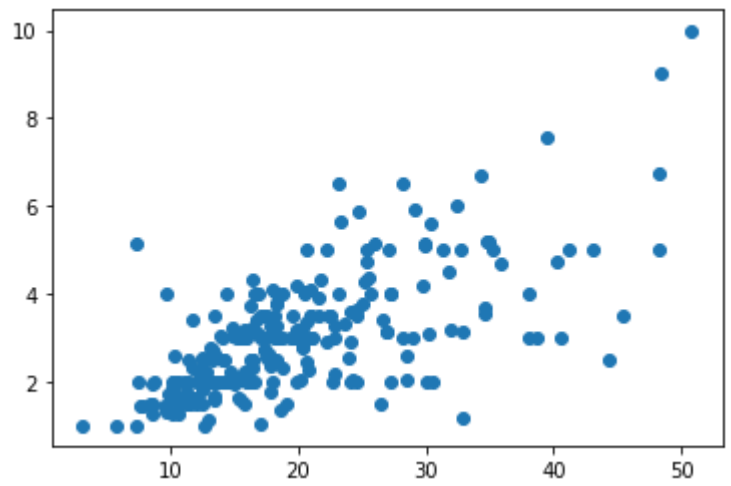


In [5]:
```
tips.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 244 entries, 0 to 243
Data columns (total 7 columns):
 #   Column      Non-Null Count  Dtype   
---  ------      --------------  -----   
 0   total_bill  244 non-null    float64 
 1   tip         244 non-null    float64 
 2   sex         244 non-null    category
 3   smoker      244 non-null    category
 4   day         244 non-null    category
 5   time        244 non-null    category
 6   size        244 non-null    int64   
dtypes: category(4), float64(2), int64(1)
memory usage: 7.3 KB
```

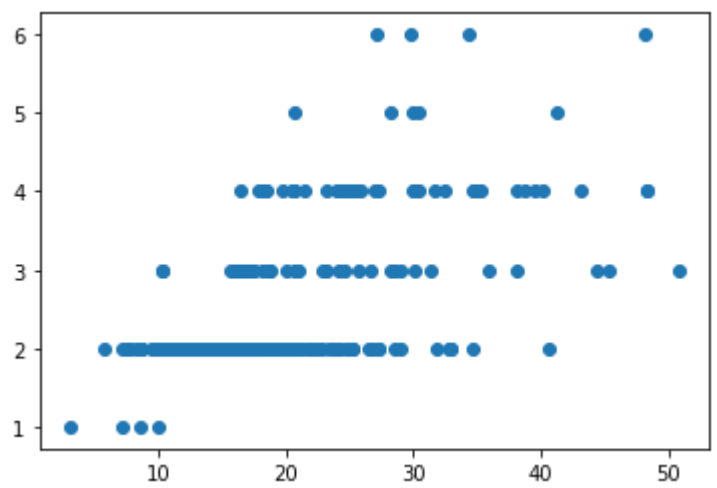
In [6]:
```
plt.scatter(tips['total_bill'], tips ['tip'])
```

Out[6]: <matplotlib.collections.PathCollection at 0x29d181a1f48>



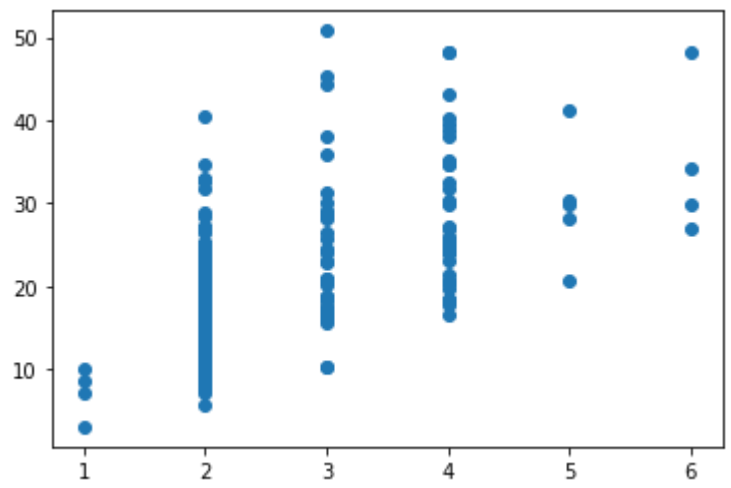
In [7]:
```
plt.scatter(tips['total_bill'], tips ['size'])
```

Out[7]: <matplotlib.collections.PathCollection at 0x29d182176c8>



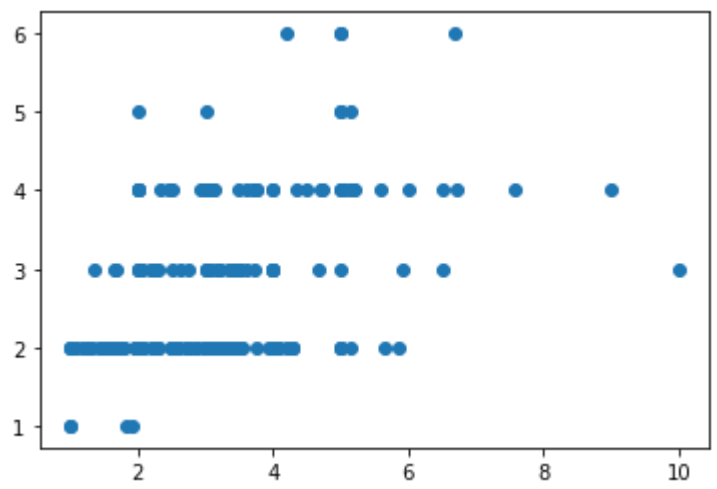
In [8]:
```
plt.scatter(tips['size'], tips ['total_bill'])
```

Out[8]: <matplotlib.collections.PathCollection at 0x29d1827a408>



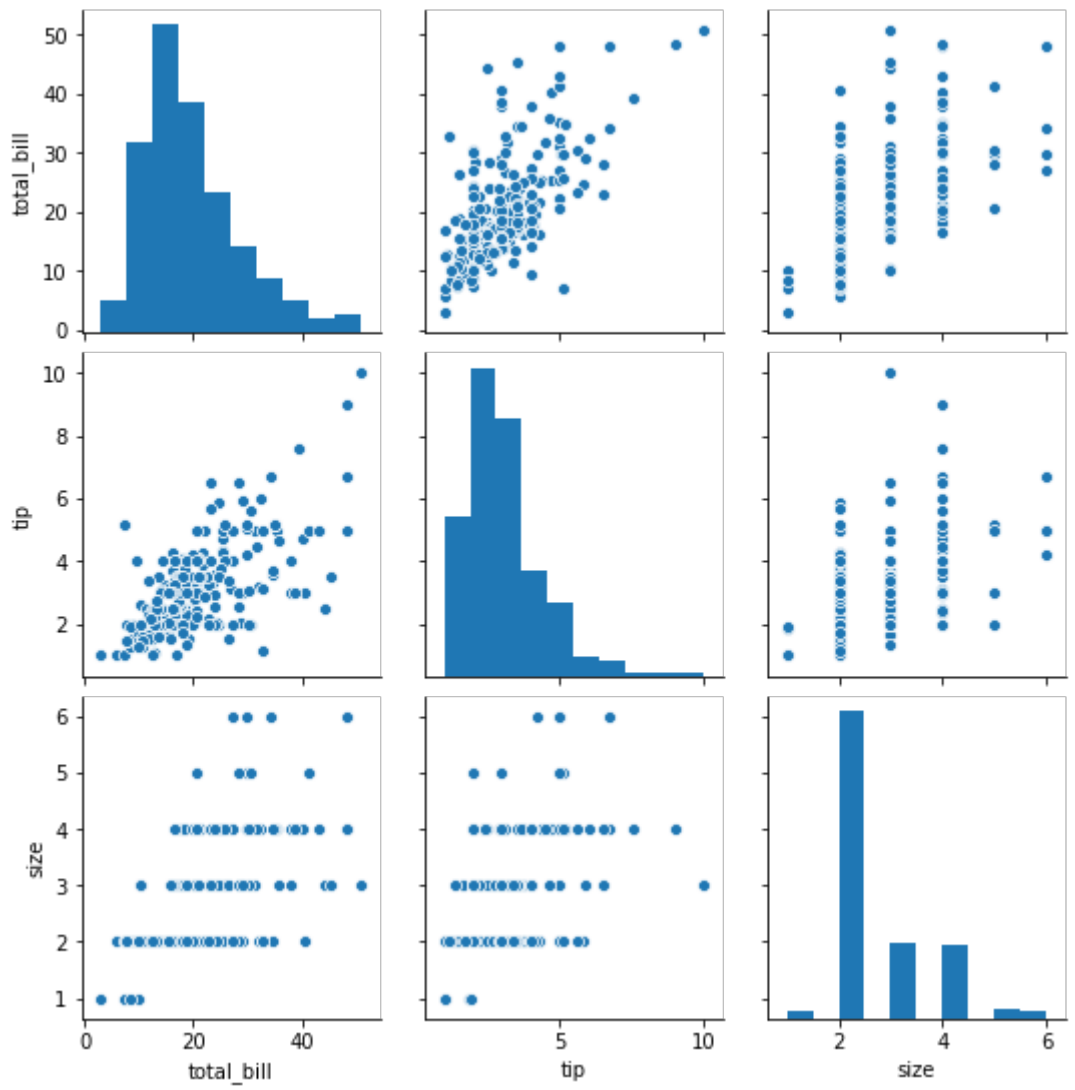
In [9]:
```
plt.scatter(tips['tip'], tips ['size'])
```

Out[9]: <matplotlib.collections.PathCollection at 0x29d182d6c08>



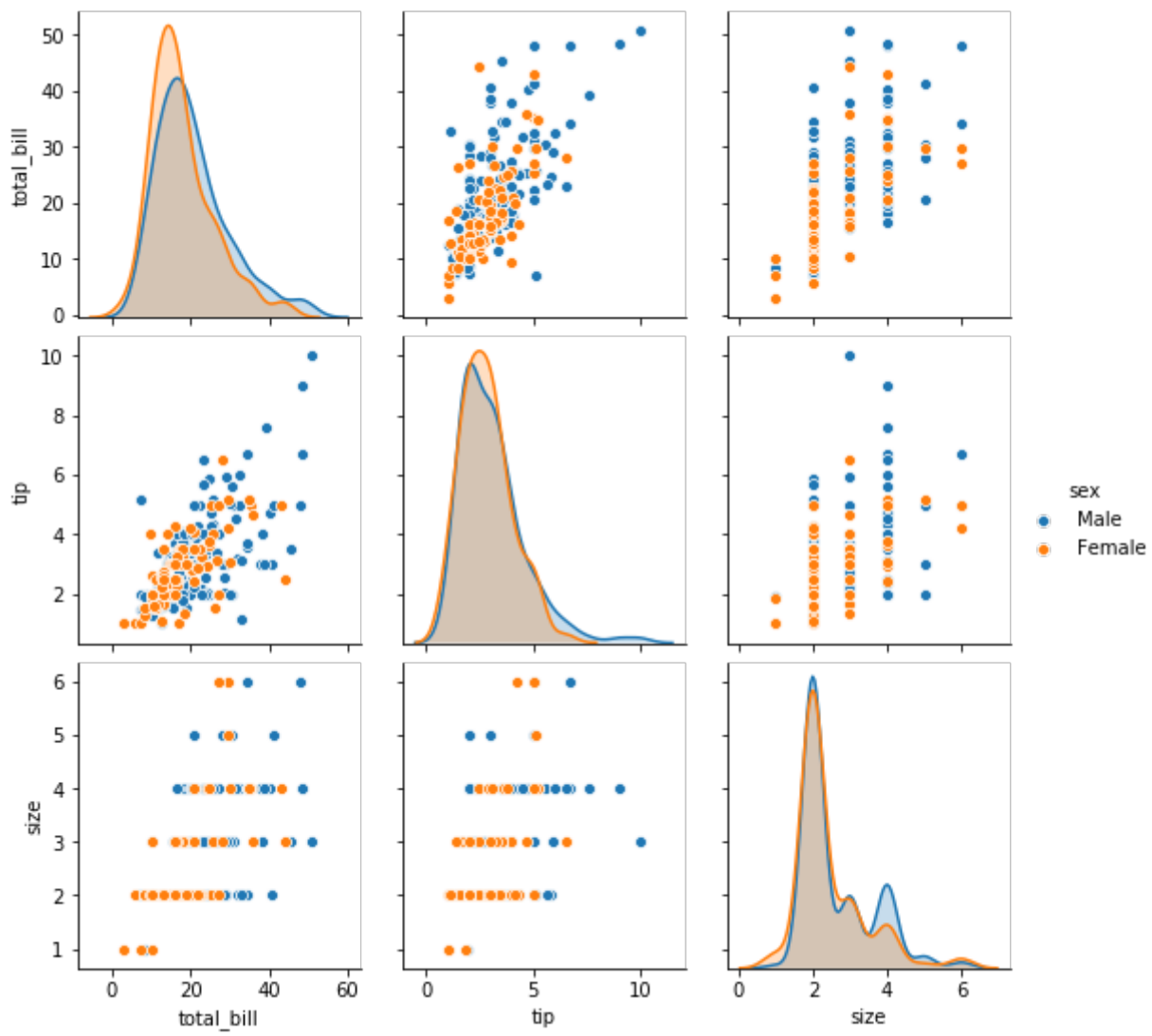
In [10]:
```
sns.pairplot(tips)
```

Out[10]: <seaborn.axisgrid.PairGrid at 0x29d18315ac8>



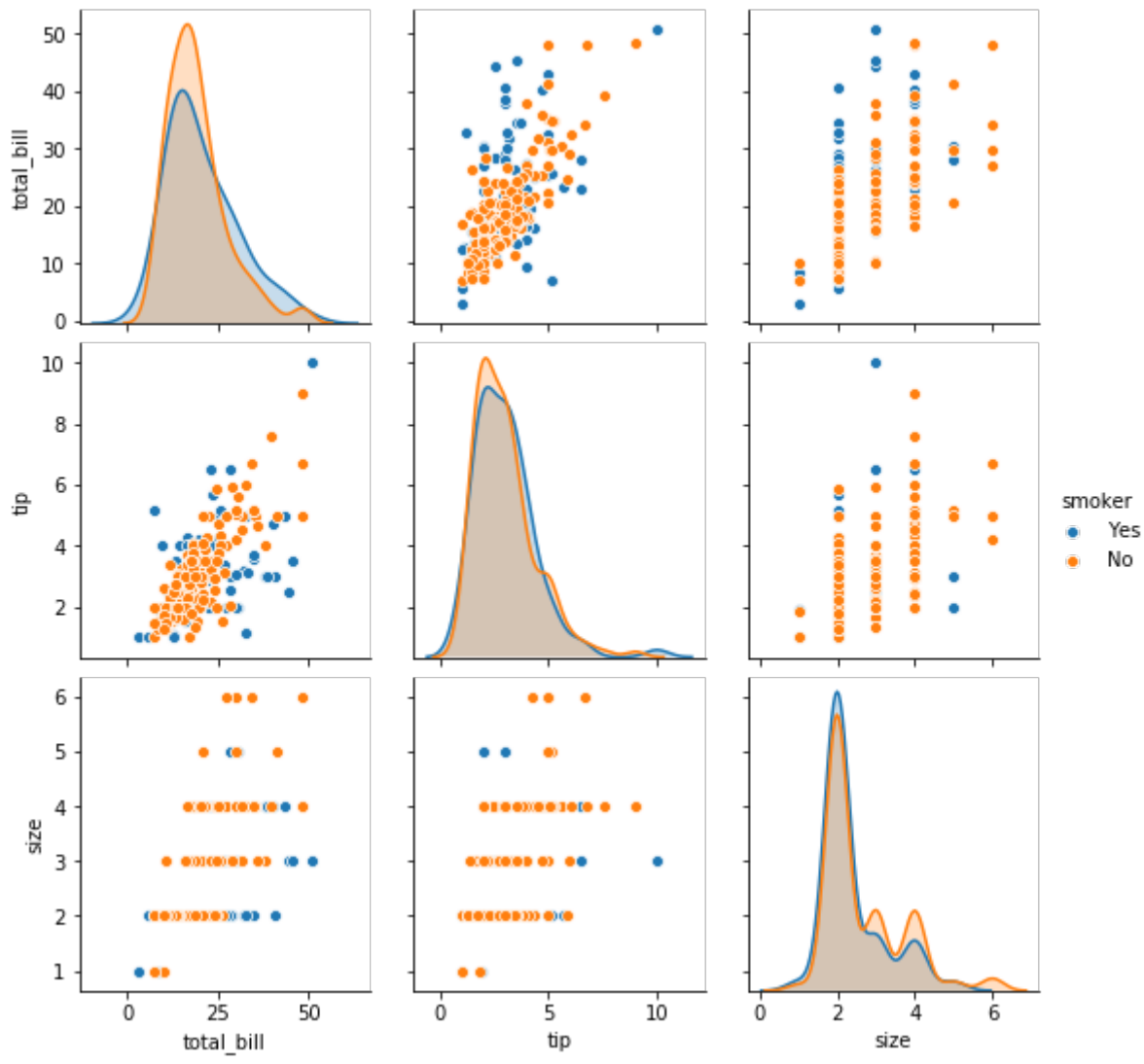
In [11]:
```
sns.pairplot(tips,hue='sex')   # hue is a legend used for splitting categorical data
```

Out[11]: <seaborn.axisgrid.PairGrid at 0x29d188554c8>



In [14]:
```
sns.pairplot(tips,hue='smoker')
```

Out[14]: <seaborn.axisgrid.PairGrid at 0x29d19083bc8>



Bar Plot

In [15]:
```
sns.barplot(x='sex', y='total_bill', data=tips)   # black line is average
```

Out[15]: <matplotlib.axes._subplots.AxesSubplot at 0x29d1b25afc8>