1.Import Library

In [1]:
```
import seaborn as sns
import warnings
warnings.filterwarnings("ignore")
import matplotlib.pyplot as plt
import seaborn as sns
```

2.Import dataset

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

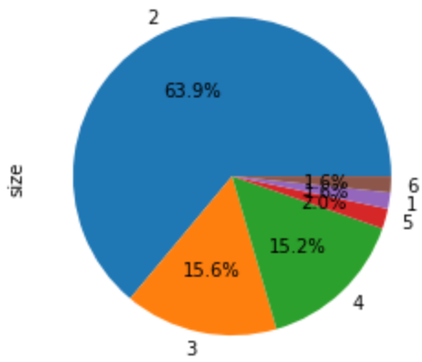
Out[2]:

	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

3.Data Vizulization

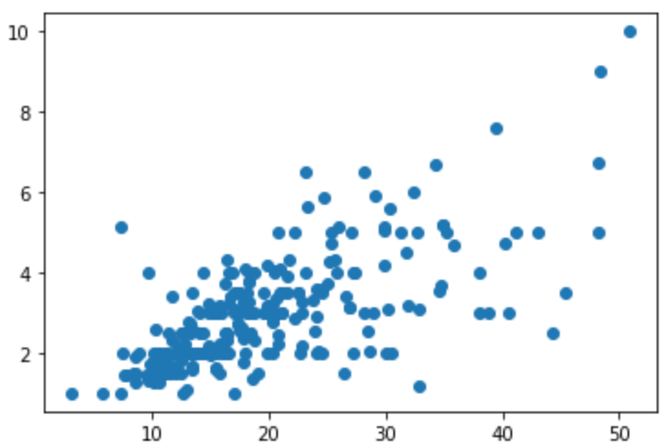
In [3]:
```
data['size'].value_counts().plot(kind="pie",autopct="%1.1f%%",)
```

Out[3]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x1841f16aa60>
```



In [4]:
```
#if person is giving higher amoit of bill expected higer value of tips.
plt.scatter(data.total_bill,data.tip)
```

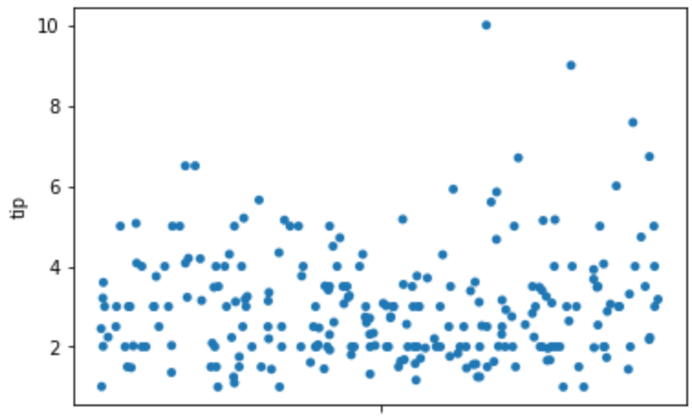
Out[4]:
```
<matplotlib.collections.PathCollection at 0x18421260dc0>
```



Univarient one variable data visulization

In [5]:
```
#strip plot
sns.stripplot(y="tip",data=data,jitter=True)
```

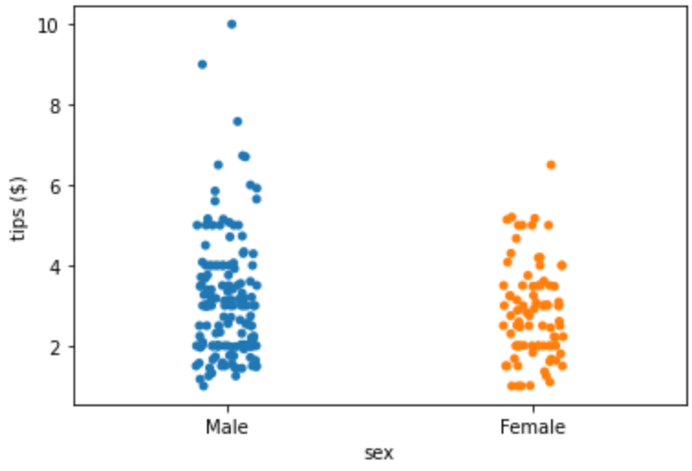
Out[5]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x184212c4f10>
```



Bivarient two variable data visulization

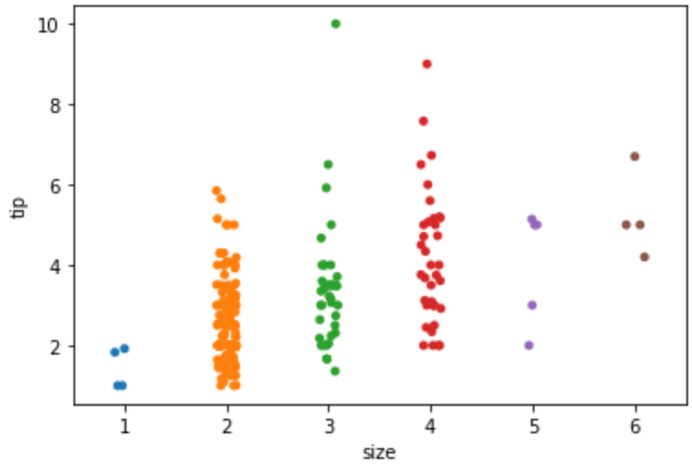
In [6]:
```
#gruping with strip plot
sns.stripplot(y="tip",x="sex",data=data)
plt.ylabel("tips ($)")
```

Out[6]:
```
Text(0, 0.5, 'tips ($)')
```



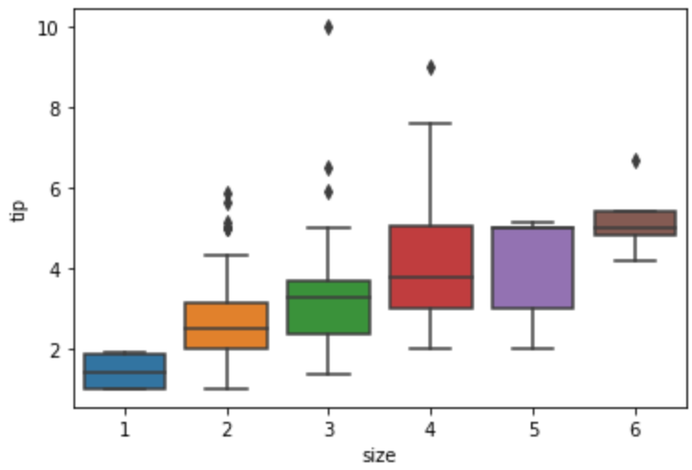
In [7]:
```
sns.stripplot(x="size",y="tip",data=data)
```

Out[7]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x1842233a730>
```



In [8]:
```
sns.boxplot(x="size",y="tip",data=data)
#if table size increase tip is also increase
```

Out[8]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x18422397b50>
```

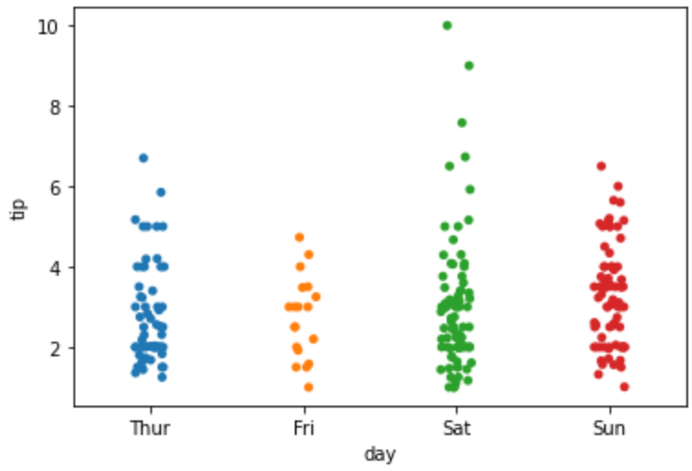


In [9]:
```
#in 5th table size same data (eg=2,2,2,2) avilible so 50%quantile and 75%quantile has same
data[data['size']==5]['tip'].quantile([0.25,0.50,0.75])
```

Out[9]:
```
0.25    3.0
0.50    5.0
0.75    5.0
Name: tip, dtype: float64
```

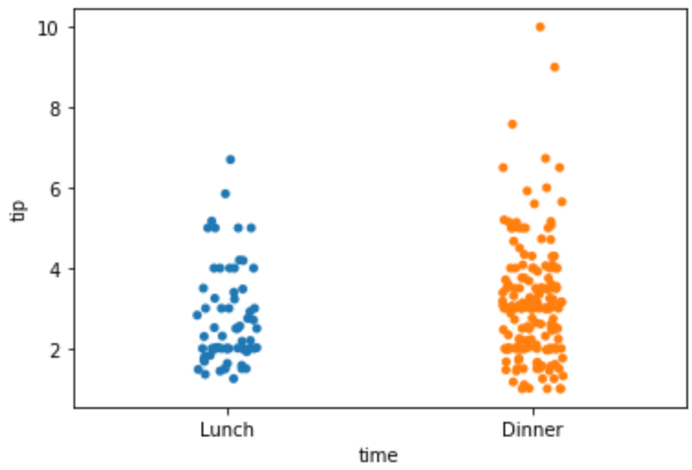
In [10]:
```
#getting more tips on saturday and sunday
sns.stripplot(y="tip",x="day",data=data)
```

Out[10]:
```
<matplotlib.axes._subplots.AxesSubplot at 0x18422444ee0>
```



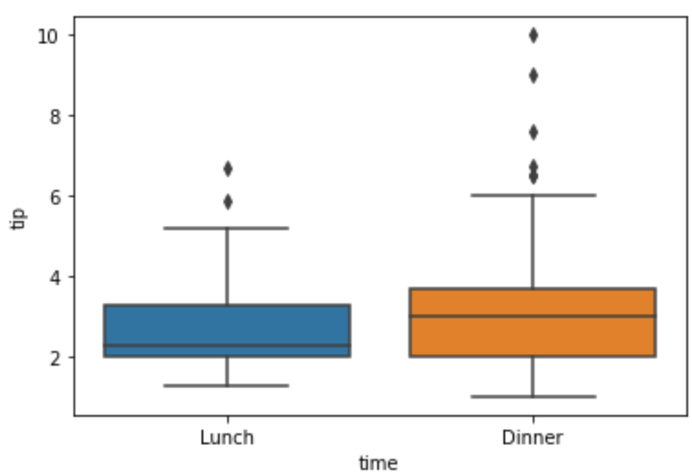
In [11]:
```
#getting more tips on saturday and sunday
sns.stripplot(y="tip",x="time",data=data)
```

Out[11]: <matplotlib.axes._subplots.AxesSubplot at 0x184224b7220>



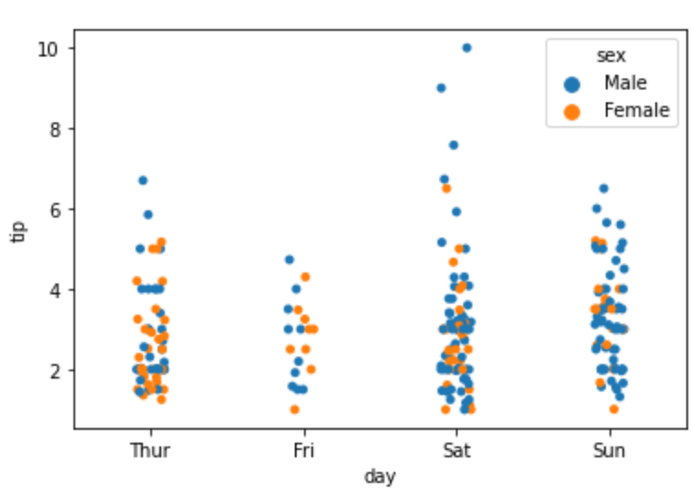
In [12]:
```
sns.boxplot(x="time",y="tip",data=data)
#people coming for dinner lather then lunch
#50% qunatile increase in dinner
```

Out[12]: <matplotlib.axes._subplots.AxesSubplot at 0x18422501e80>



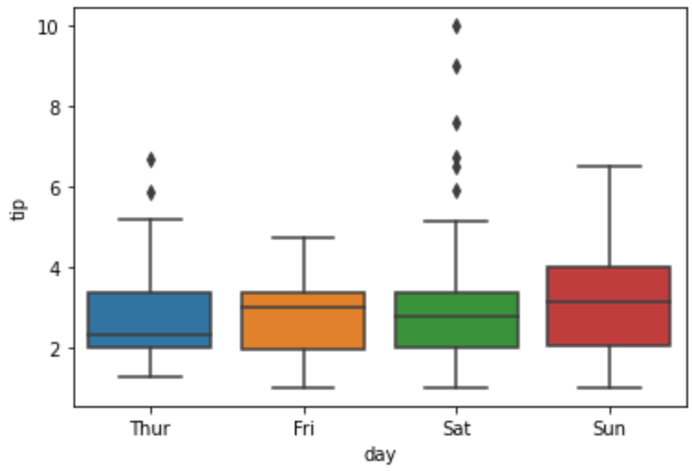
In [13]:
```
sns.stripplot(x="day",y="tip",hue="sex",data=data)
#thursday more ladies coming then male
#male giving more tip then woman
```

Out[13]: <matplotlib.axes._subplots.AxesSubplot at 0x1842255e9d0>



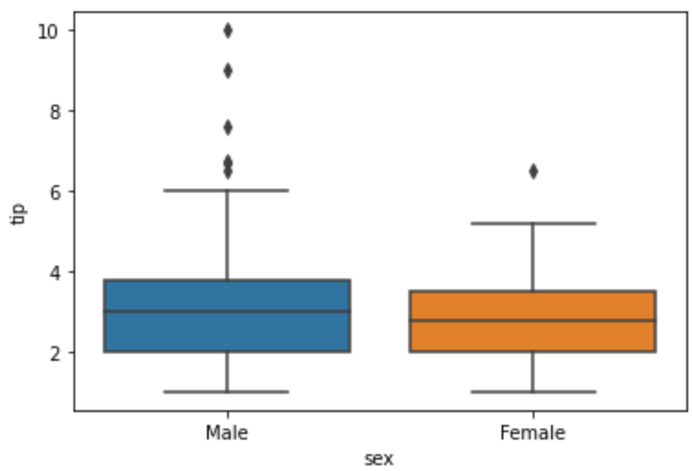
In [14]:
```
sns.boxplot(x="day",y="tip",data=data)
```

Out[14]: <matplotlib.axes._subplots.AxesSubplot at 0x18422570520>



In [15]:
```
sns.boxplot(x="sex",y="tip",data=data)
#male are giving more tip
```

Out[15]: <matplotlib.axes._subplots.AxesSubplot at 0x1842266e340>



In [16]:
```
sns.boxplot(x="smoker",y="tip",data=data)
#no change on tip if person is smoker or not.
```

Out[16]: <matplotlib.axes._subplots.AxesSubplot at 0x184224b7bb0>