Seaborn

March 4, 2023

[20]:
```
import seaborn as sns
```

[27]:
```
iris = sns.load_dataset('iris')
```

[28]:
```
iris
```

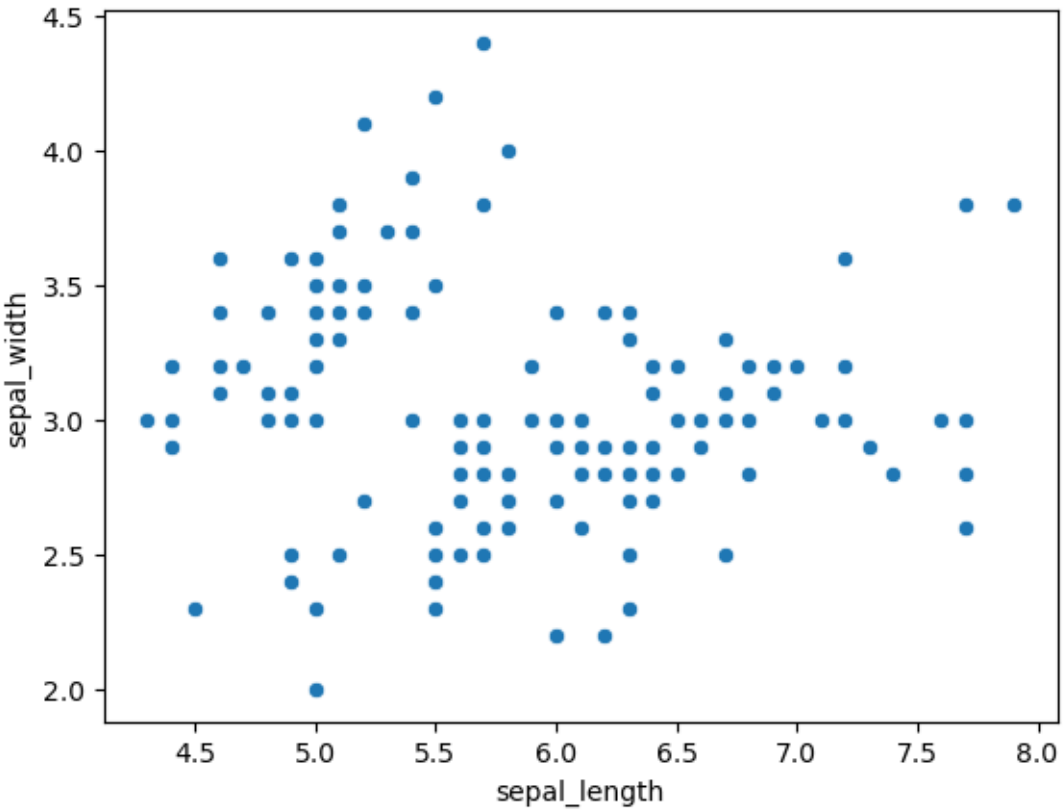
[28]:

	sepal_length	sepal_width	petal_length	petal_width	species
0	5.1	3.5	1.4	0.2	setosa
1	4.9	3.0	1.4	0.2	setosa
2	4.7	3.2	1.3	0.2	setosa
3	4.6	3.1	1.5	0.2	setosa
4	5.0	3.6	1.4	0.2	setosa
..	…	…	…	…	…
145	6.7	3.0	5.2	2.3	virginica
146	6.3	2.5	5.0	1.9	virginica
147	6.5	3.0	5.2	2.0	virginica
148	6.2	3.4	5.4	2.3	virginica
149	5.9	3.0	5.1	1.8	virginica

[150 rows x 5 columns]

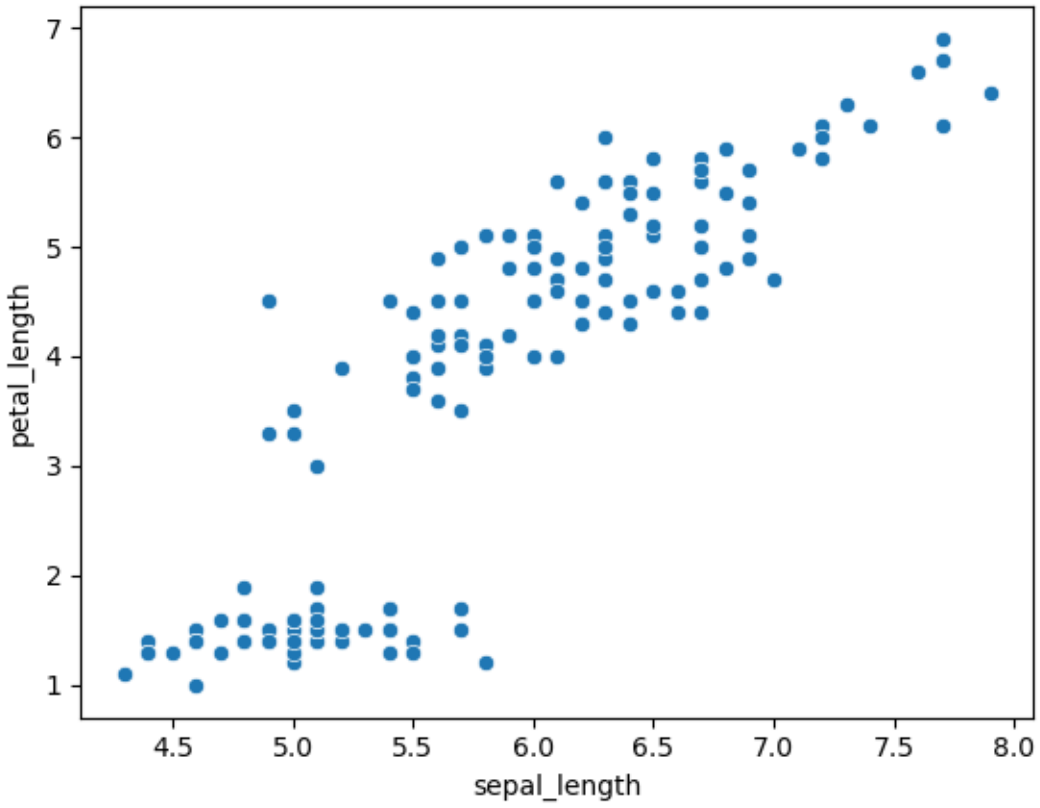
[5]:
```
sns.scatterplot(x = iris.sepal_length, y = iris.sepal_width )
```

[5]:
```
<AxesSubplot: xlabel='sepal_length', ylabel='sepal_width'>
```



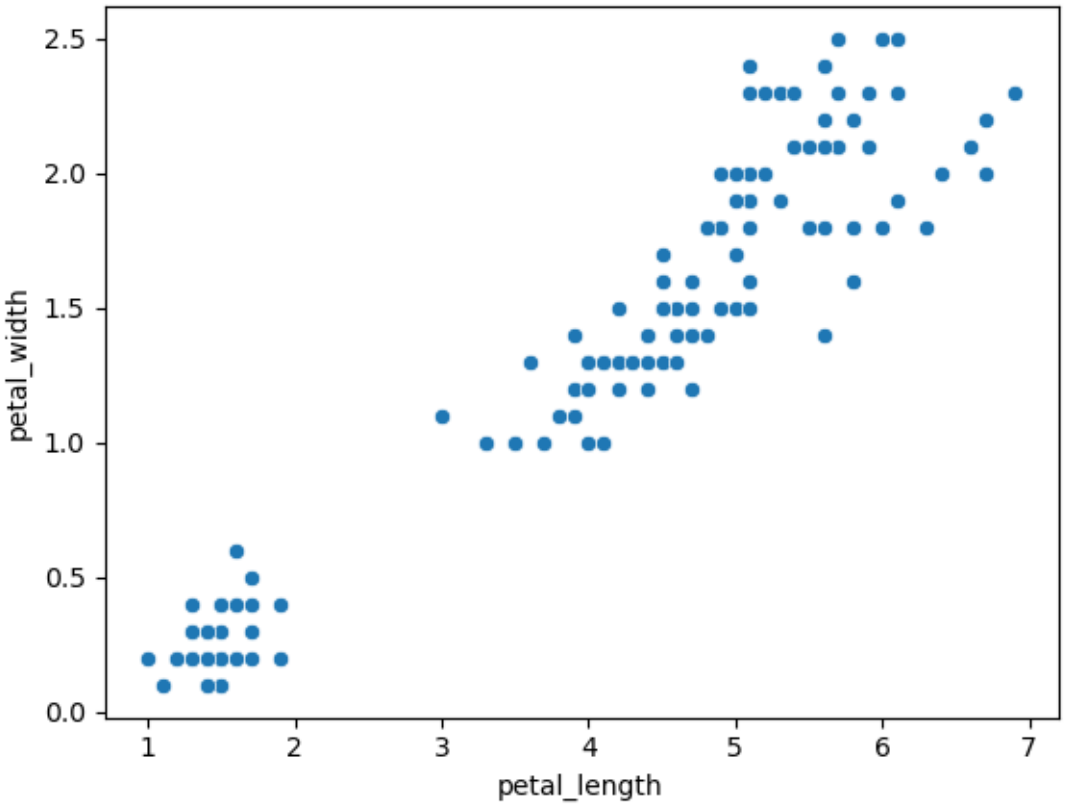
[6]:
```
sns.scatterplot(x = iris.sepal_length, y = iris.petal_length )
```

[6]: <AxesSubplot: xlabel='sepal_length', ylabel='petal_length'>



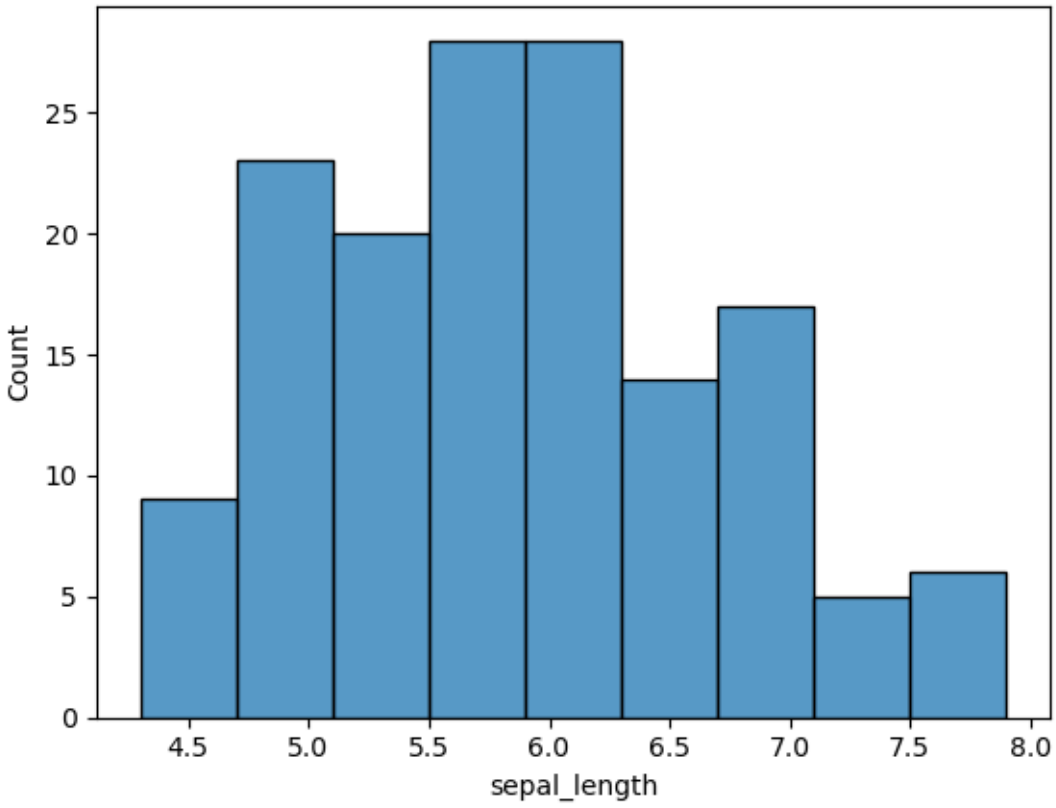
[7]:
```
sns.scatterplot(x = iris.petal_length, y = iris.petal_width )
```

[7]: <AxesSubplot: xlabel='petal_length', ylabel='petal_width'>



[8]:
```
sns.histplot(x = iris['sepal_length'])
```

[8]: <AxesSubplot: xlabel='sepal_length', ylabel='Count'>



[22]:
```
tips = sns.load_dataset('tips')
```

[3]:
```
tips
```

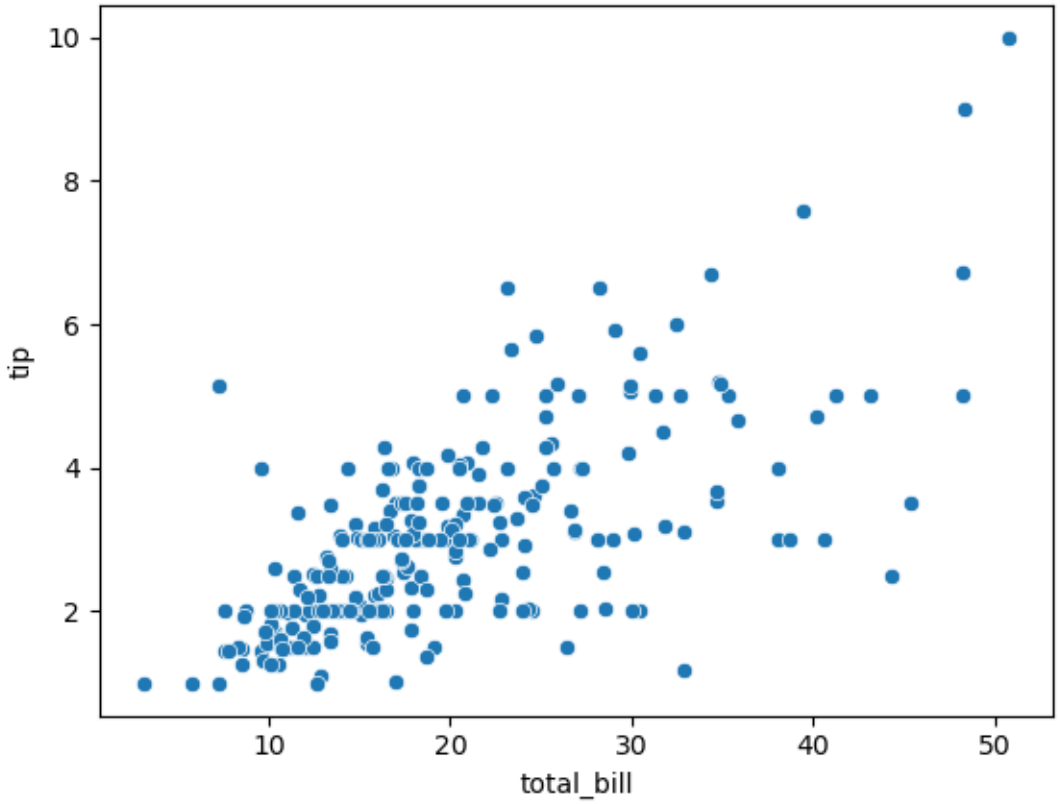
[3]:

	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
..	…	…	…	…	…	…	…
239	29.03	5.92	Male	No	Sat	Dinner	3
240	27.18	2.00	Female	Yes	Sat	Dinner	2
241	22.67	2.00	Male	Yes	Sat	Dinner	2
242	17.82	1.75	Male	No	Sat	Dinner	2
243	18.78	3.00	Female	No	Thur	Dinner	2

[244 rows x 7 columns]

[4]:
```
sns.scatterplot(x = tips.total_bill , y = tips.tip)
```

[4]: <AxesSubplot: xlabel='total_bill', ylabel='tip'>



[5]:
```
tips.head()
```

[5]:

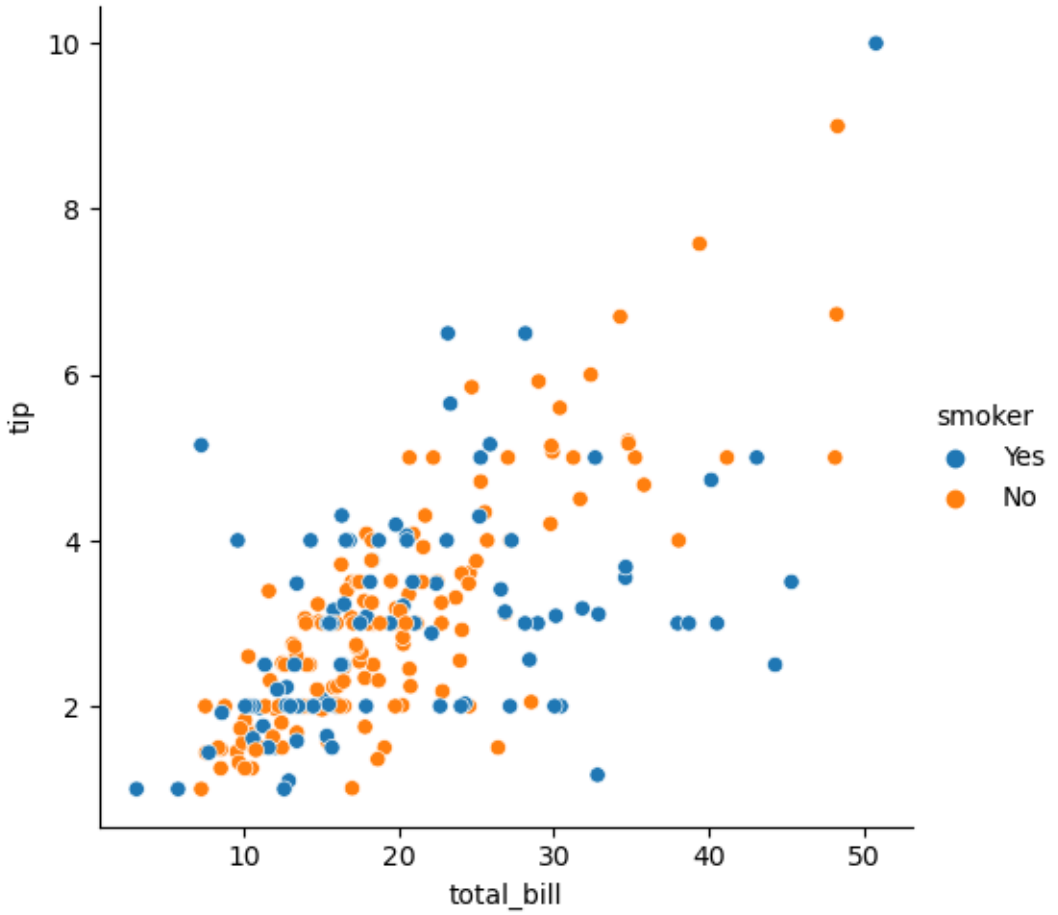
	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4

[8]:
```
tips['smoker'].value_counts()
```

[8]:
```
No     151
Yes     93
Name: smoker, dtype: int64
```

[9]:
```
sns.relplot(x = tips.total_bill,  y= tips.tip, data = tips , hue = 'smoker')
```

[9]: <seaborn.axisgrid.FacetGrid at 0x7f9e4a1a6860>



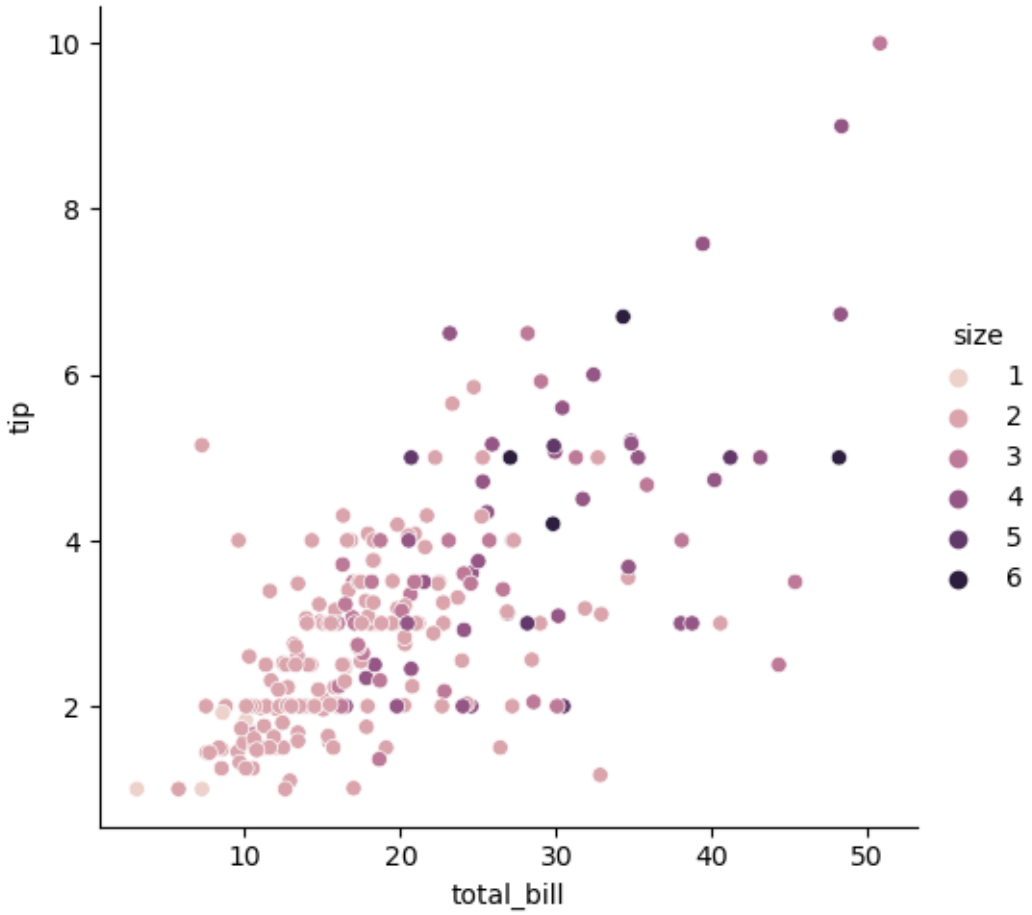
[10]:
```
tips.head()
```

[10]:

	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

[14]:
```
sns.relplot(x = tips.total_bill,  y= tips.tip, data = tips , hue = 'size')
```

[14]:
```
<seaborn.axisgrid.FacetGrid at 0x7f9e49f23790>
```

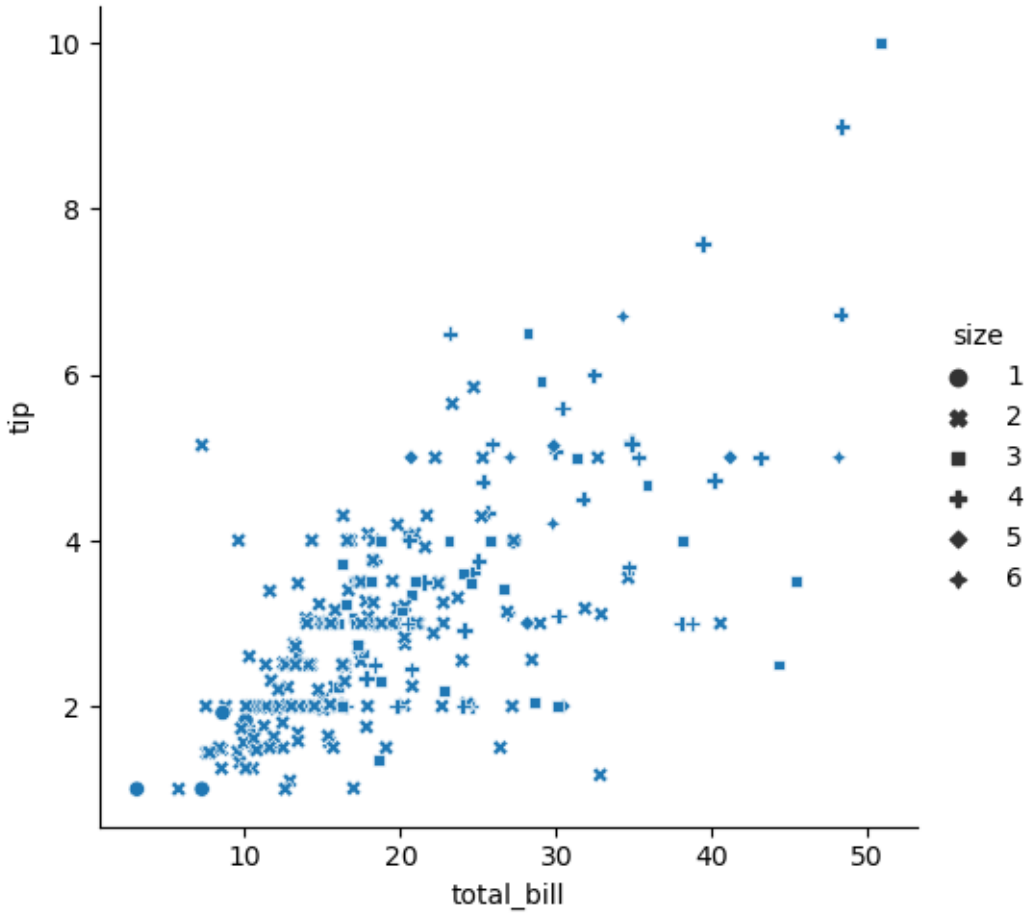


[12]:
```
tips['size'].value_counts()
```

[12]:
```
2    156
3     38
4     37
5      5
1      4
6      4
Name: size, dtype: int64
```

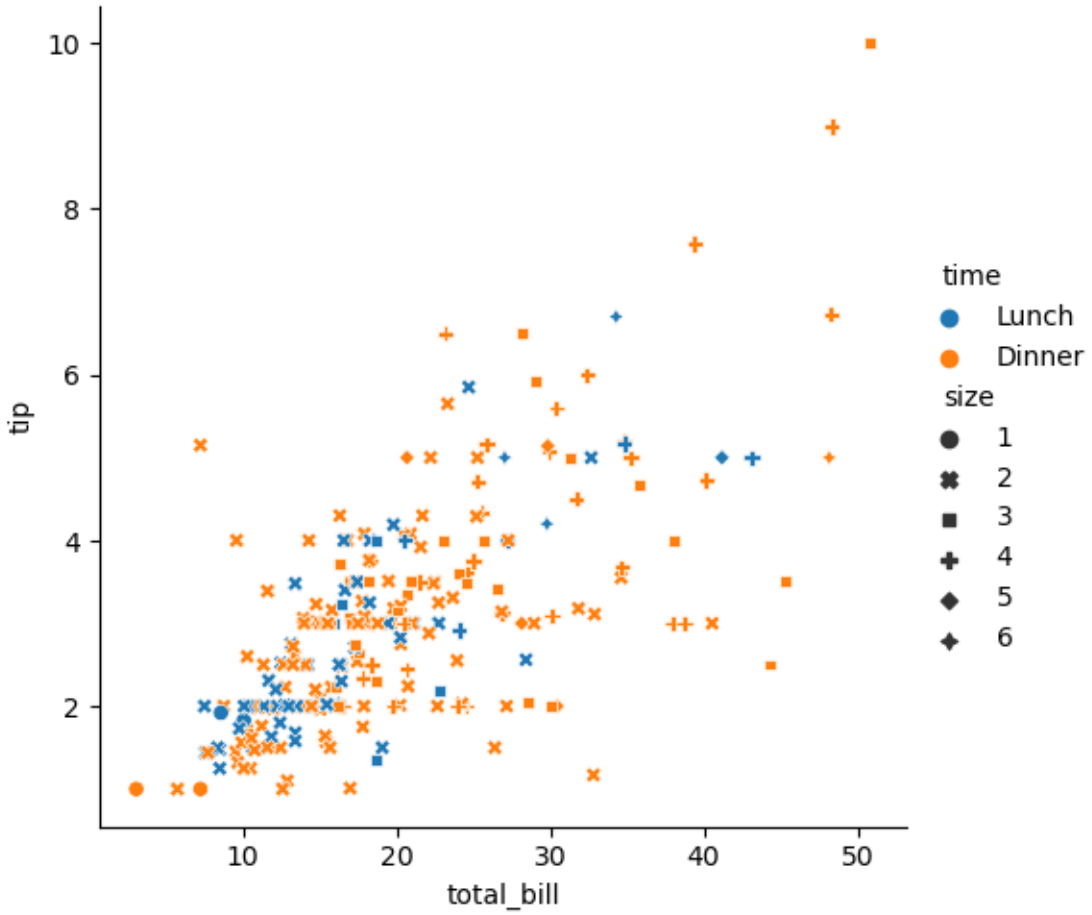
[15]:
```
sns.relplot(x = tips.total_bill,  y= tips.tip, data = tips , style = 'size')
```

[15]:
```
<seaborn.axisgrid.FacetGrid at 0x7f9e49d39d20>
```



[16]:
```
sns.relplot(x = tips.total_bill,  y= tips.tip, data = tips , style = 'size'␣
↪,hue = 'time')
```

[16]: <seaborn.axisgrid.FacetGrid at 0x7f9e49ca8a00>



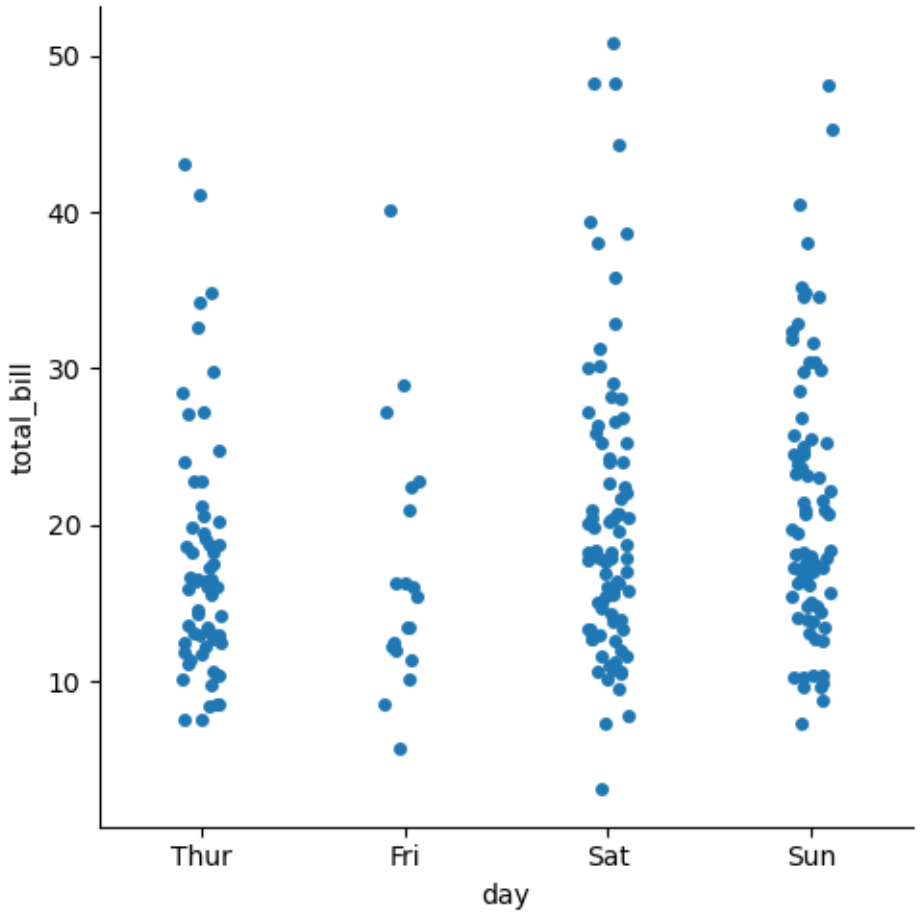
[18]:
```
tips.head()
```

[18]:

	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

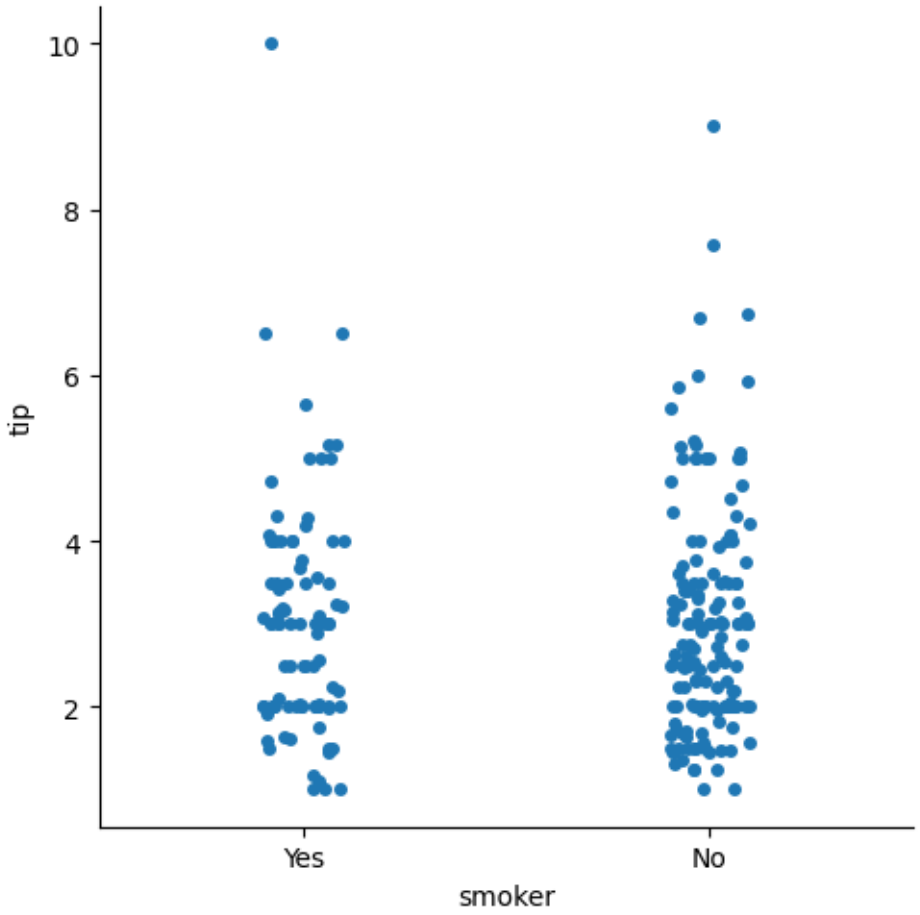
[23]:
```
sns.catplot(x = 'day' , y = 'total_bill' , data = tips)
```

[23]:
```
<seaborn.axisgrid.FacetGrid at 0x7f9e49882fb0>
```



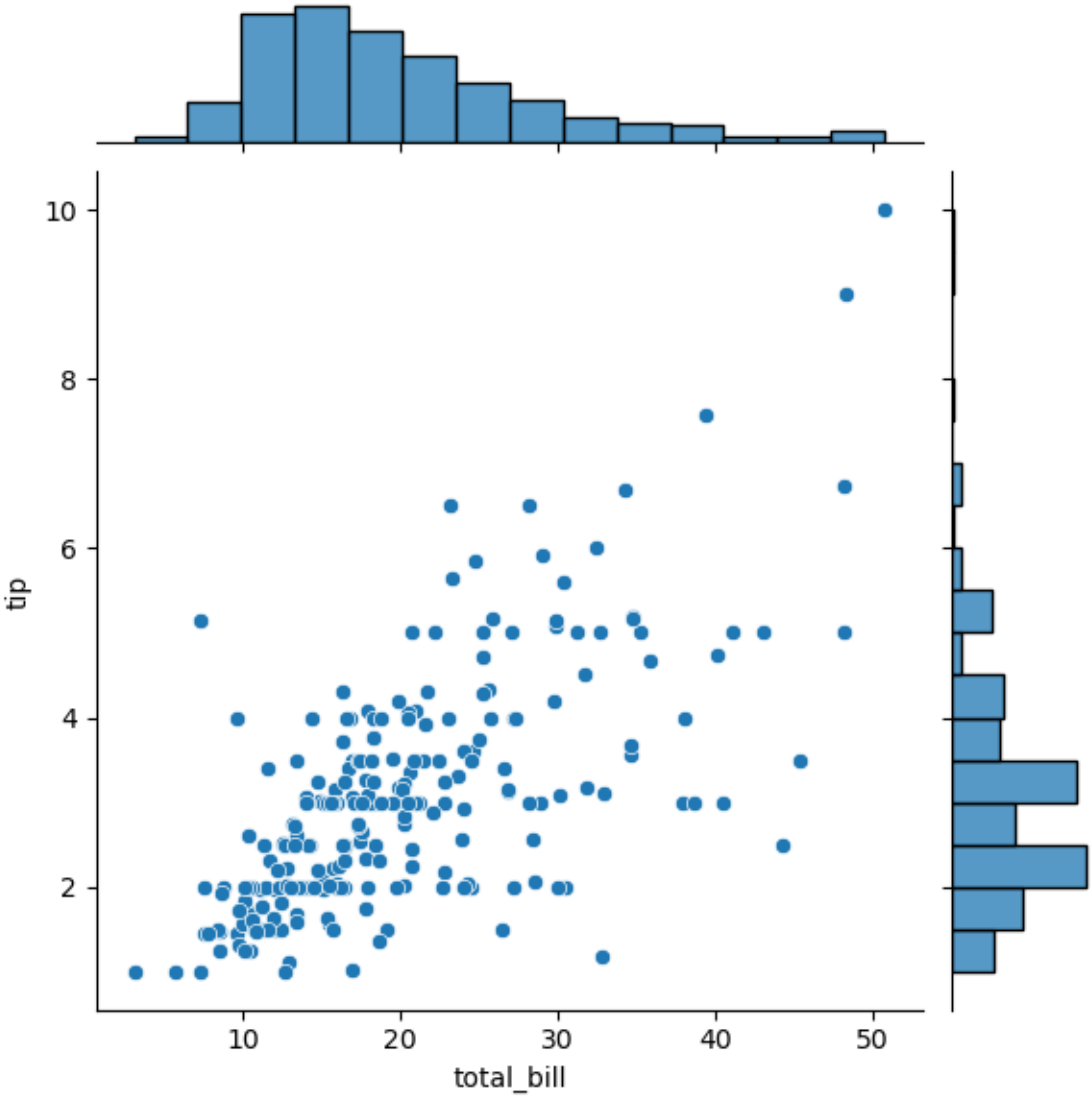
[24]:
```
sns.catplot(x = 'smoker' , y = 'tip' , data = tips)
```

[24]: <seaborn.axisgrid.FacetGrid at 0x7f9e498e9900>



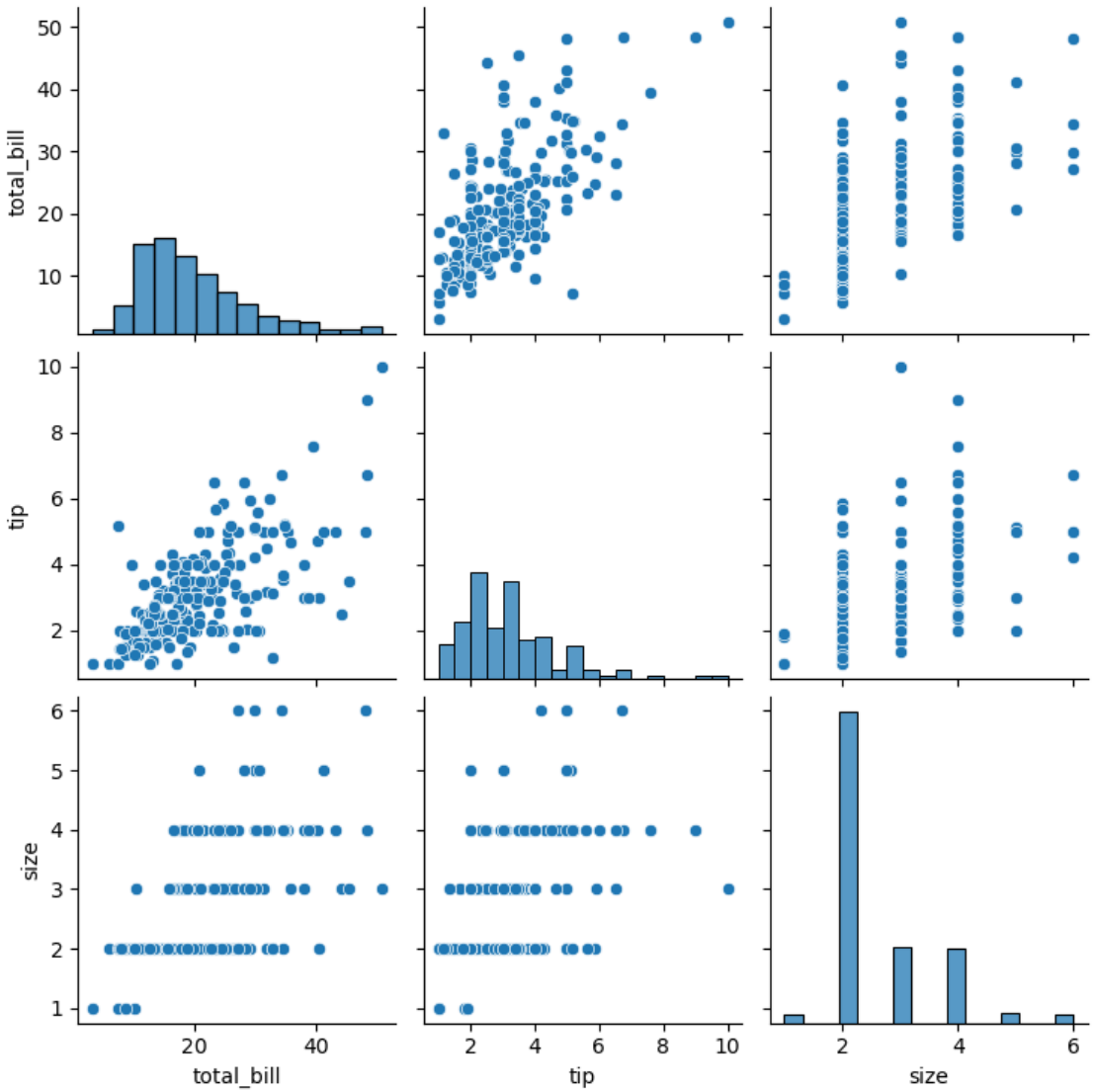
[25]:
```
sns.jointplot(x = tips.total_bill, y= tips.tip)
```

[25]: <seaborn.axisgrid.JointGrid at 0x7f9e4974c8b0>



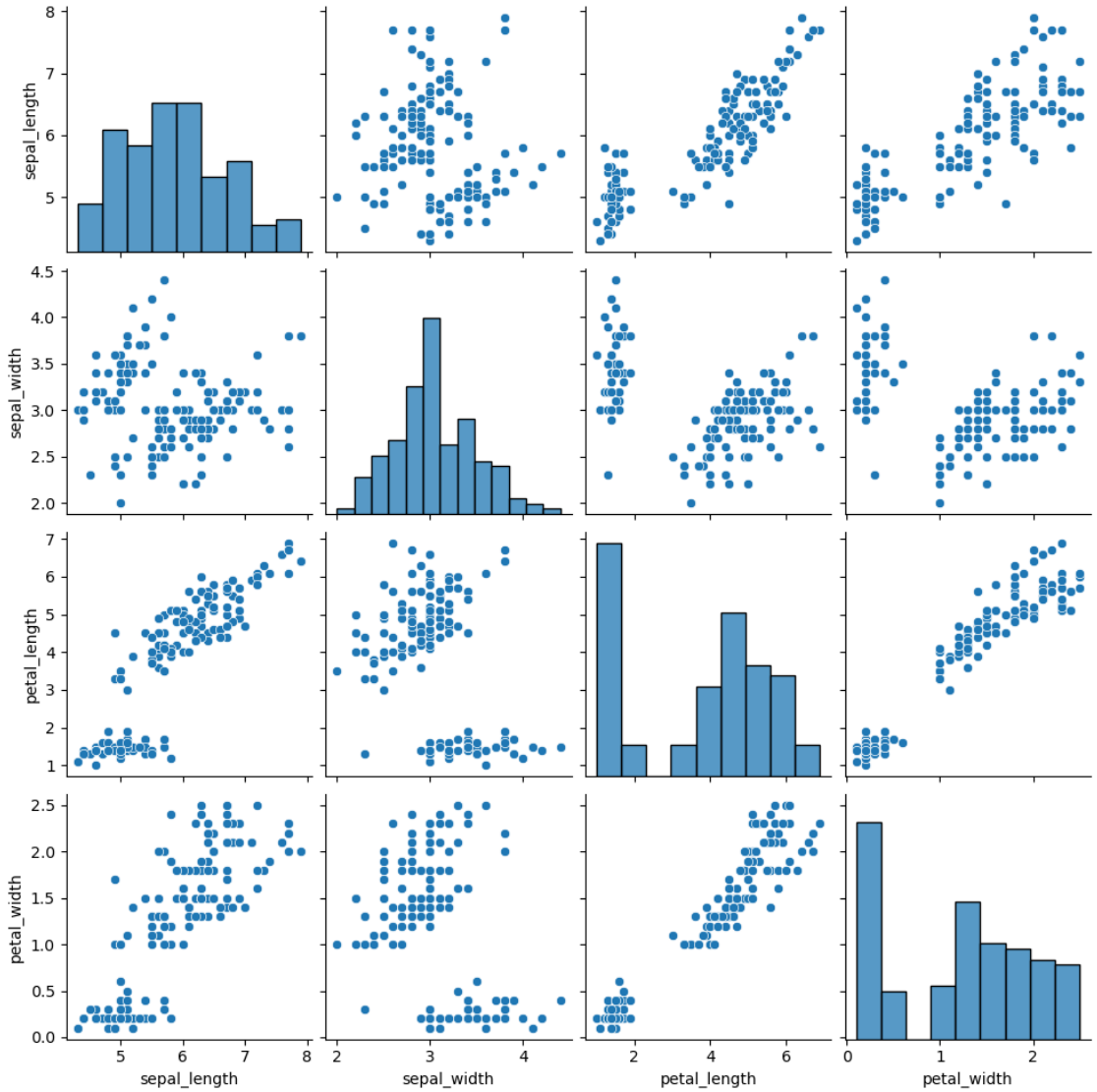
[26]:
```
sns.pairplot(tips)
```

[26]:
```
<seaborn.axisgrid.PairGrid at 0x7f9e49835f90>
```



[29]:
```
sns.pairplot(iris)
```

[29]:
```
<seaborn.axisgrid.PairGrid at 0x7f9e4a3afb50>
```


sepal_length
sepal_width
petal_length
petal_width
sepal_length
sepal_width
petal_length
petal_width

[ ]: