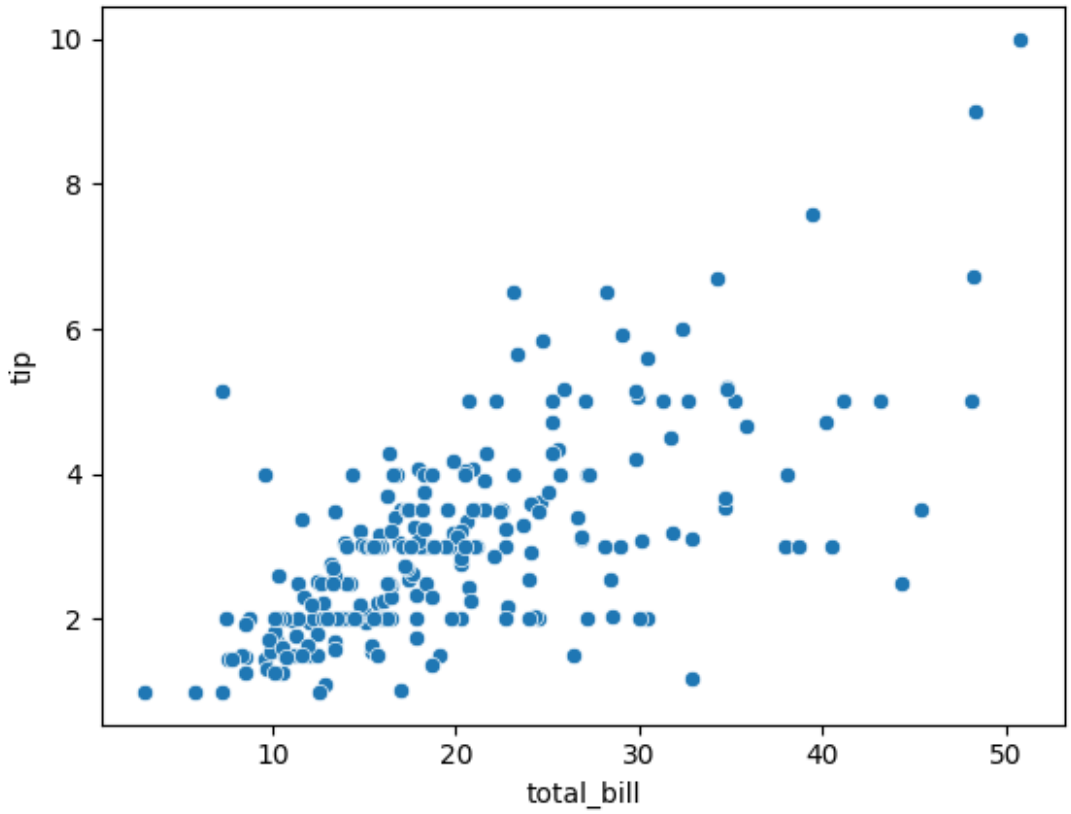
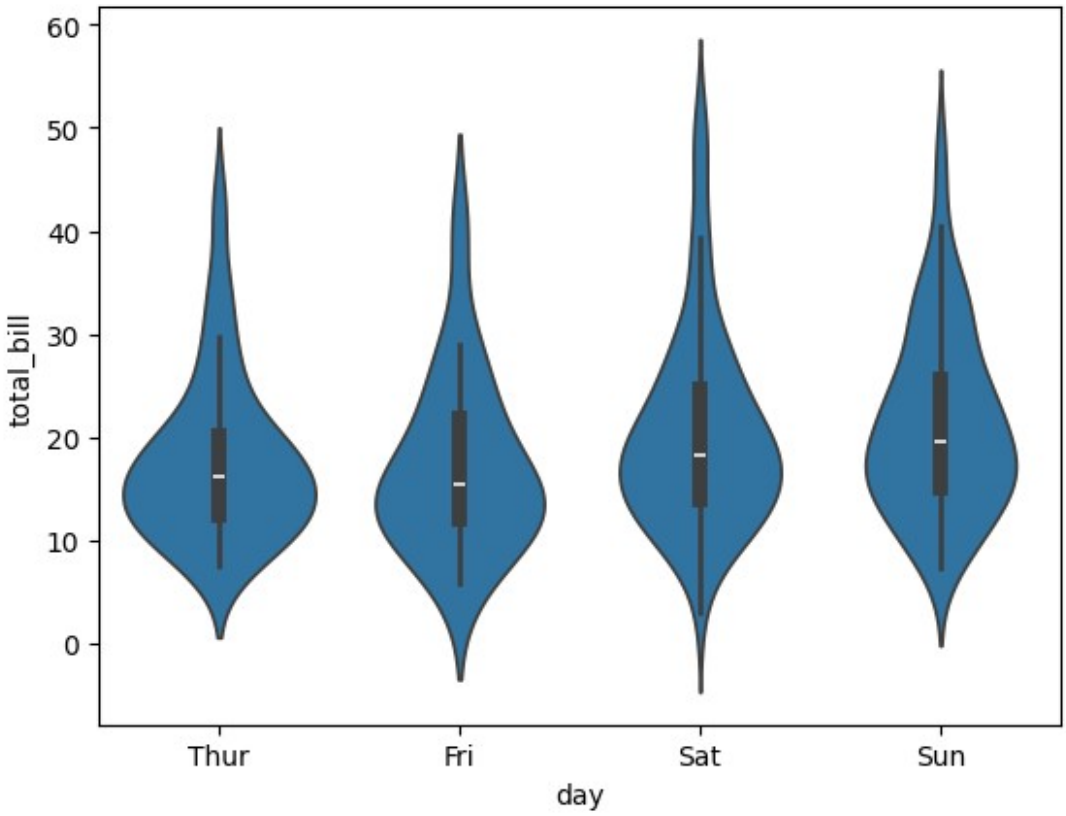
```
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt

tips=sns.load_dataset("tips")
tips.head()
```


```
{"summary":"{\n  \"name\": \"tips\",\n  \"rows\": 244,\n  \"fields\":
[\n    {\n      \"column\": \"total_bill\",\n      \"properties\": {\n
\"dtype\": \"number\",\n        \"std\": 8.902411954856856,\n
\"min\": 3.07,\n        \"max\": 50.81,\n
\"num_unique_values\": 229,\n        \"samples\": [\n          22.12,\
n          20.23,\n          14.78\n        ],\n
\"semantic_type\": \"\",\n        \"description\": \"\"\n      }\
n    },\n    {\n      \"column\": \"tip\",\n      \"properties\": {\n
\"dtype\": \"number\",\n        \"std\": 1.3836381890011826,\n
\"min\": 1.0,\n        \"max\": 10.0,\n        \"num_unique_values\":
123,\n        \"samples\": [\n          3.35,\n          1.5,\n
6.73\n        ],\n        \"semantic_type\": \"\",\n
\"description\": \"\"\n      }\n    },\n    {\n      \"column\":
\"sex\",\n      \"properties\": {\n        \"dtype\": \"category\",\n
\"num_unique_values\": 2,\n        \"samples\": [\n
\"Male\",\n          \"Female\"\n        ],\n
\"semantic_type\": \"\",\n        \"description\": \"\"\n      }\
n    },\n    {\n      \"column\": \"smoker\",\n      \"properties\":
{\n        \"dtype\": \"category\",\n        \"num_unique_values\":
2,\n        \"samples\": [\n          \"Yes\",\n          \"No\"\n
],\n        \"semantic_type\": \"\",\n        \"description\": \"\"\n
}\n    },\n    {\n      \"column\": \"day\",\n      \"properties\": {\
n        \"dtype\": \"category\",\n        \"num_unique_values\": 4,\n
\"samples\": [\n          \"Sat\",\n          \"Fri\"\n        ],\n
\"semantic_type\": \"\",\n        \"description\": \"\"\n      }\
n    },\n    {\n      \"column\": \"time\",\n      \"properties\": {\n
\"dtype\": \"category\",\n        \"num_unique_values\": 2,\n
\"samples\": [\n          \"Lunch\",\n          \"Dinner\"\
n        ],\n        \"semantic_type\": \"\",\n
\"description\": \"\"\n      }\n    },\n    {\n      \"column\":
\"size\",\n      \"properties\": {\n        \"dtype\": \"number\",\n
\"std\": 0,\n        \"min\": 1,\n        \"max\": 6,\n
\"num_unique_values\": 6,\n        \"samples\": [\n          2,\n
3\n        ],\n        \"semantic_type\": \"\",\n
\"description\": \"\"\n      }\n    }\n  ]\
n}","type":"dataframe","variable_name":"tips"}
```

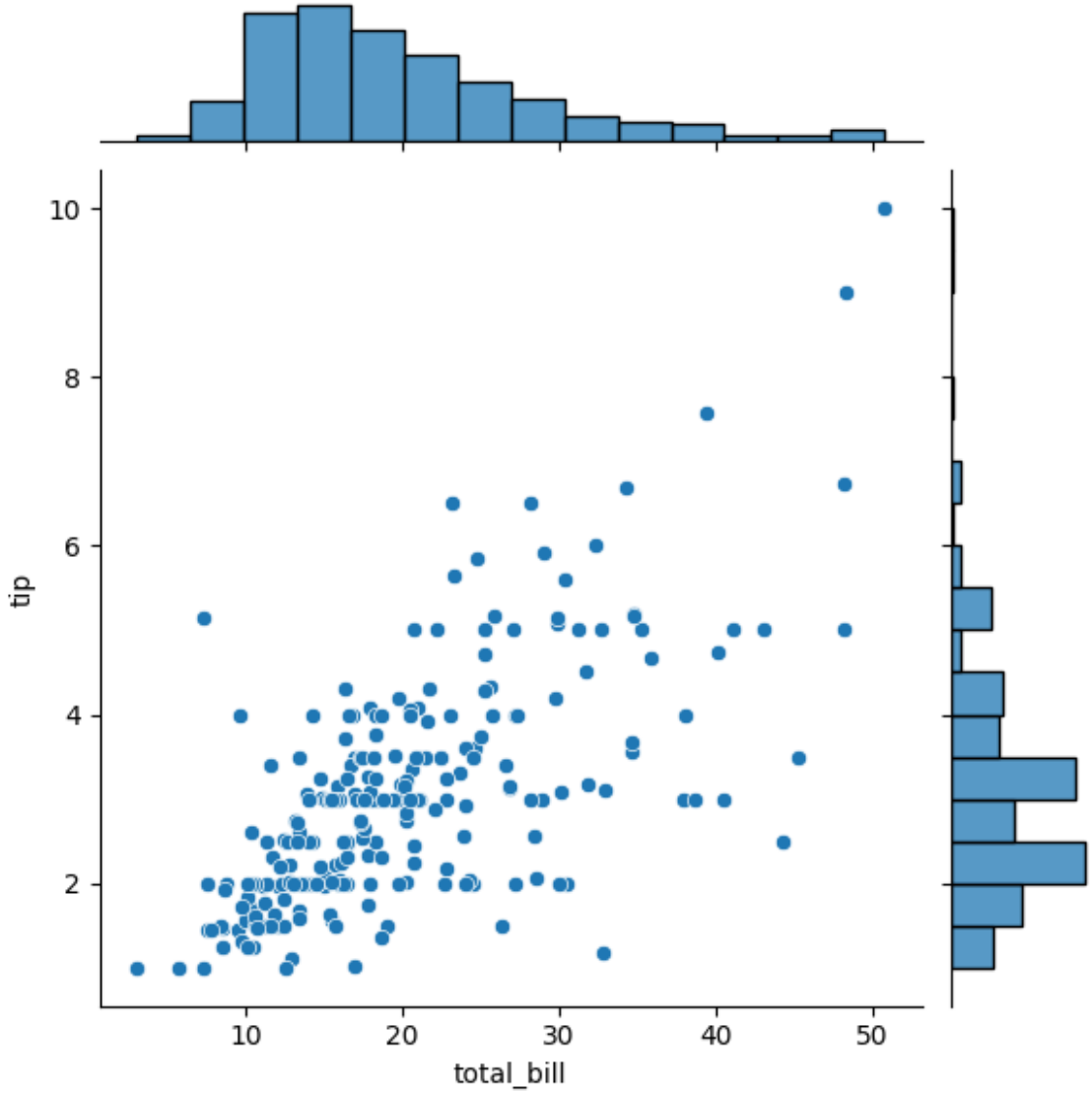

```
sns.scatterplot(x="total_bill",y="tip",data=tips)
plt.show()
```



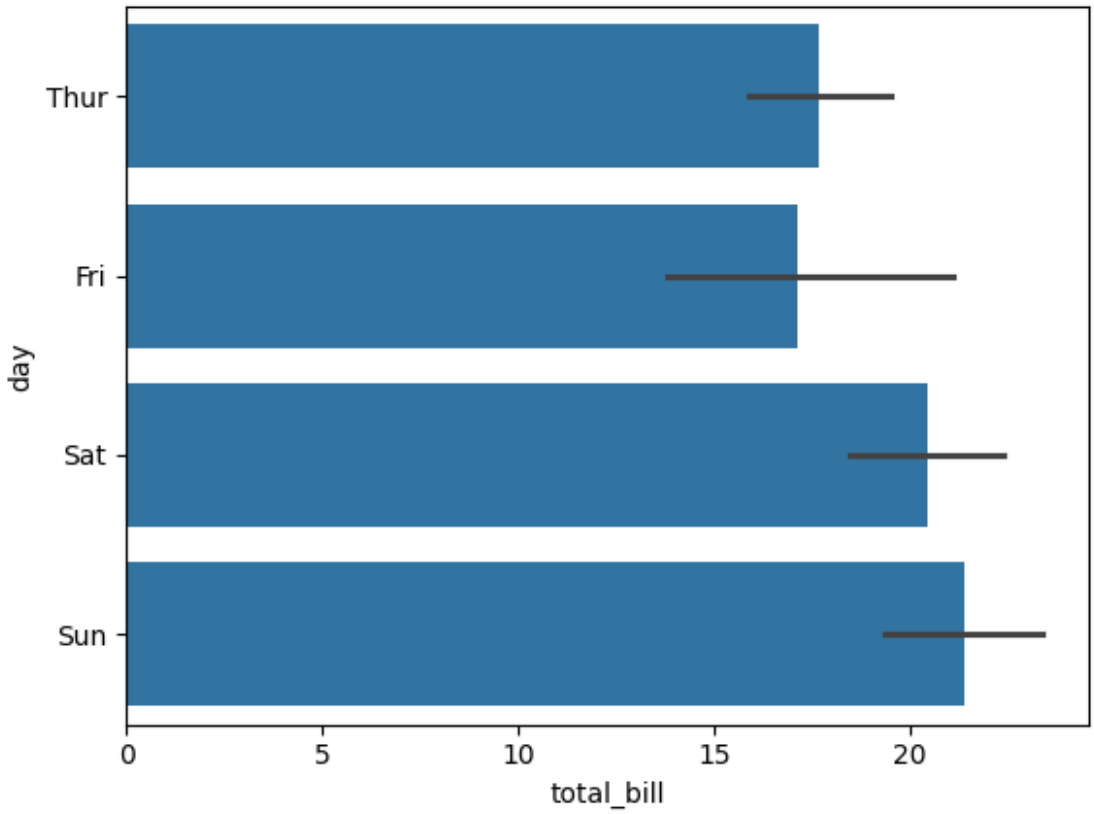

```
sns.violinplot(x="day",y="total_bill",data=tips)
plt.show()
```



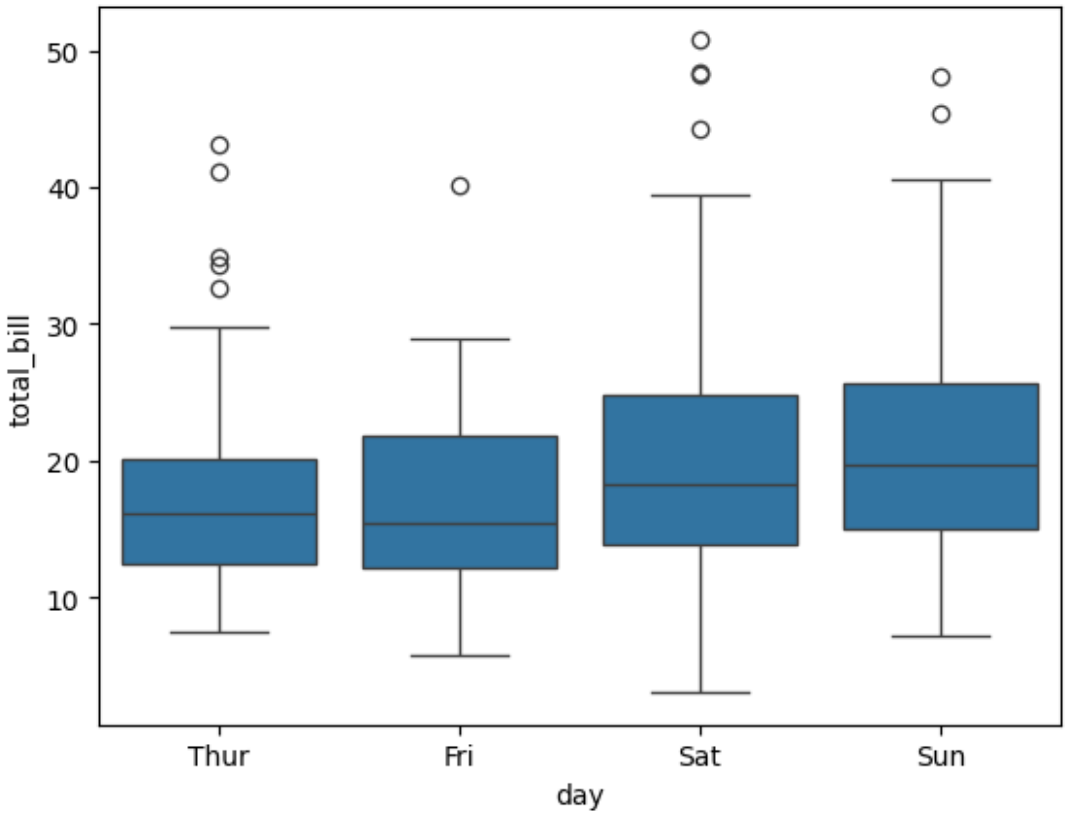

```
sns.jointplot(x="total_bill",y="tip",data=tips)
plt.show()
```



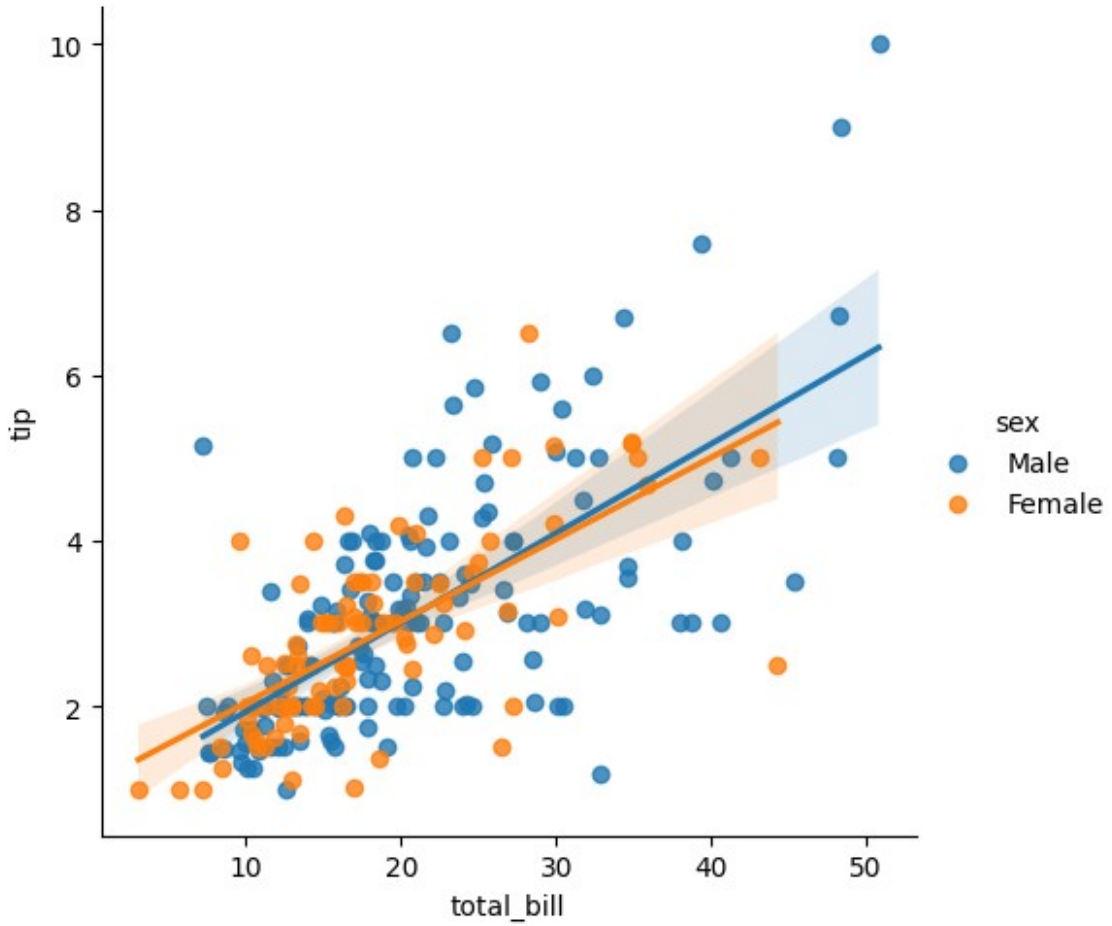

```
sns.barplot(y="day",x="total_bill",data=tips)
plt.show()
```




```
sns.boxplot(x="day",y="total_bill",data=tips)
plt.show()
```




```
sns.lmplot(x="total_bill",y="tip",data=tips,hue="sex")
plt.show()
```

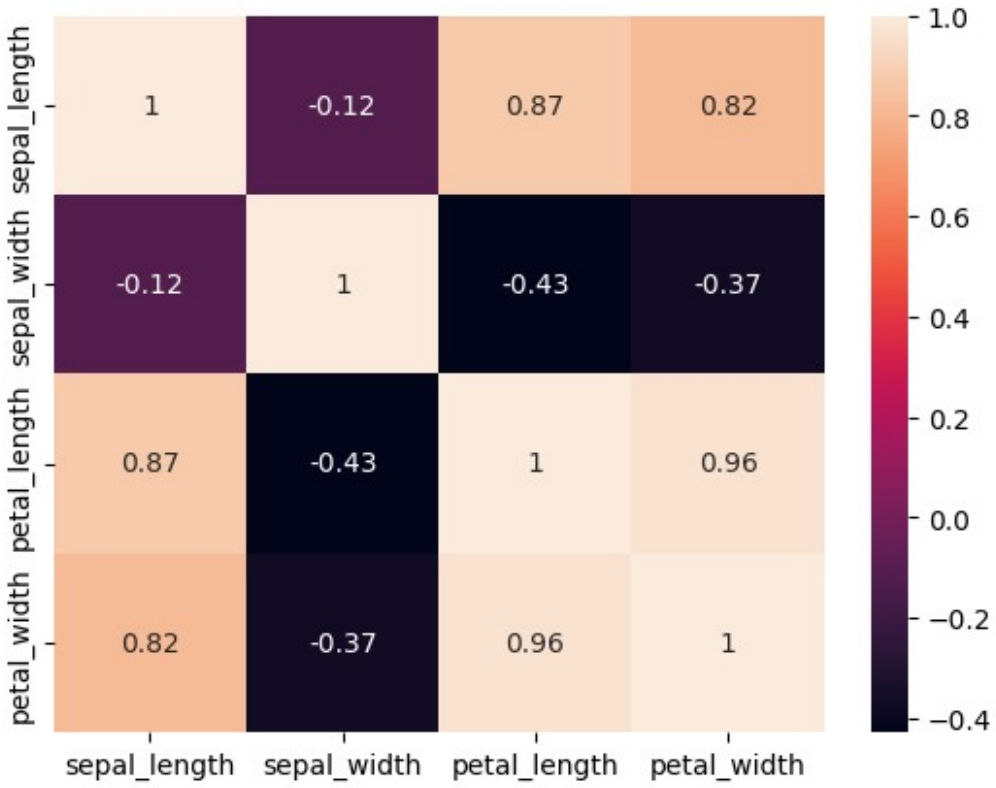



```
iris=sns.load_dataset("iris")
iris.head()
```

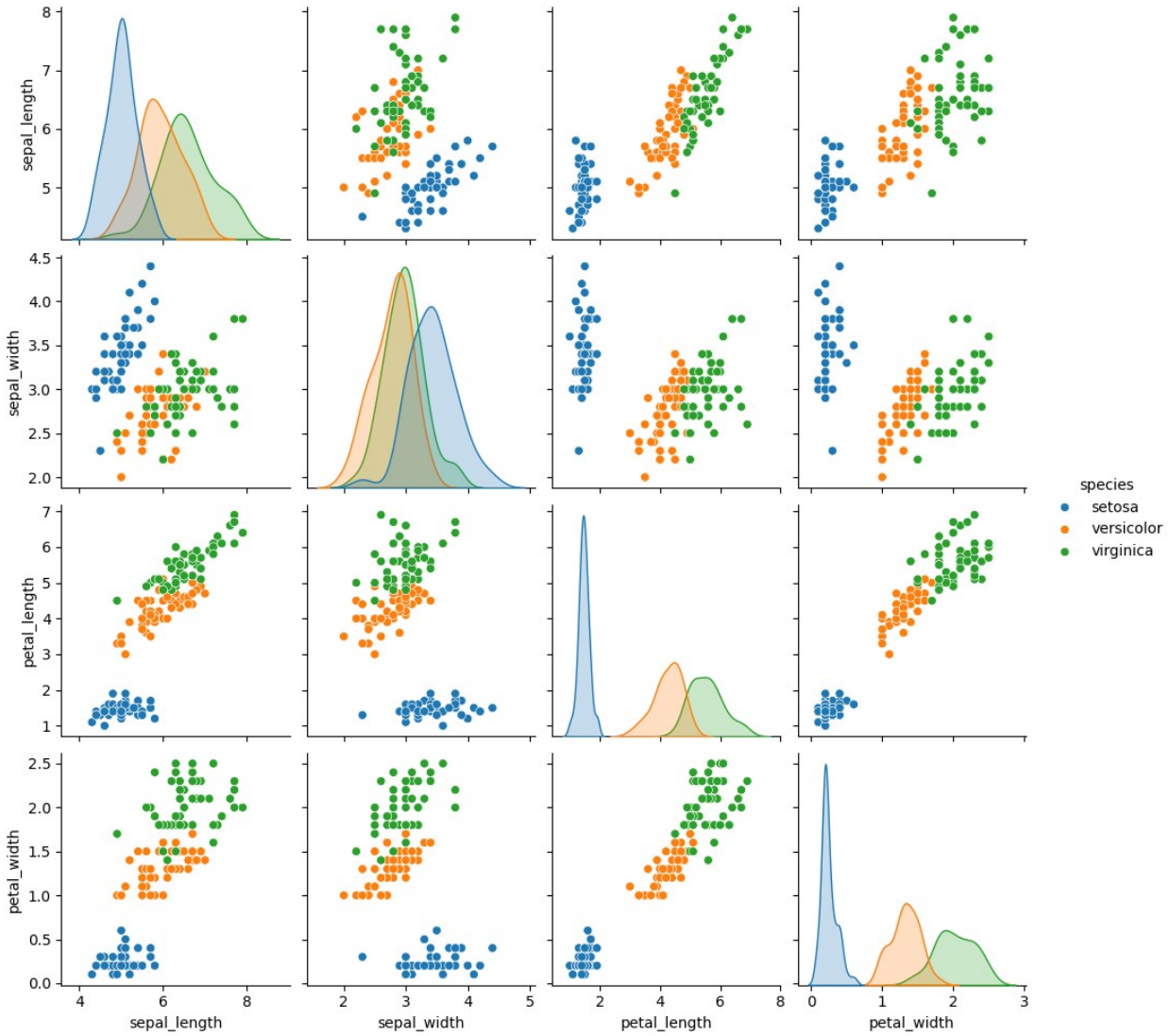

```
{"summary":"{\n  \"name\": \"iris\",\n  \"rows\": 150,\n  \"fields\":
[\n    {\n      \"column\": \"sepal_length\",\n      \"properties\":
{\n        \"dtype\": \"number\",\n        \"std\":
0.8280661279778629,\n        \"min\": 4.3,\n        \"max\": 7.9,\n
\"num_unique_values\": 35,\n        \"samples\": [\n          6.2,\n
4.5,\n          5.6\n        ],\n        \"semantic_type\": \"\",\n
\"description\": \"\"\n      }\n    },\n    {\n      \"column\":
\"sepal_width\",\n      \"properties\": {\n        \"dtype\":
\"number\",\n        \"std\": 0.435866284936698,\n        \"min\":
2.0,\n        \"max\": 4.4,\n        \"num_unique_values\": 23,\n
\"samples\": [\n          2.3,\n          4.0,\n          3.5\n
],\n        \"semantic_type\": \"\",\n        \"description\": \"\"\n
}\n    },\n    {\n      \"column\": \"petal_length\",\n
\"properties\": {\n        \"dtype\": \"number\",\n        \"std\":
1.7652982332594667,\n        \"min\": 1.0,\n        \"max\": 6.9,\n
\"num_unique_values\": 43,\n        \"samples\": [\n          6.7,\n
3.8,\n          3.7\n        ],\n        \"semantic_type\": \"\",\n
\"description\": \"\"\n      }\n    },\n    {\n      \"column\":
```

\"petal_width\",\n   \"properties\": {\n   \"dtype\":
\"number\",\n   \"std\": 0.7622376689603465,\n   \"min\":
0.1,\n   \"max\": 2.5,\n   \"num_unique_values\": 22,\n
\"samples\": [\n   0.2,\n   1.2,\n   1.3\n
],\n   \"semantic_type\": \"\",\n   \"description\": \"\"\n
}\n   },\n   {\n   \"column\": \"species\",\n
\"properties\": {\n   \"dtype\": \"category\",\n
\"num_unique_values\": 3,\n   \"samples\": [\n
\"setosa\",\n   \"versicolor\",\n   \"virginica\"\n
],\n   \"semantic_type\": \"\",\n   \"description\": \"\"\n
}\n   }\n]\n}","type":"dataframe","variable_name":"iris"}

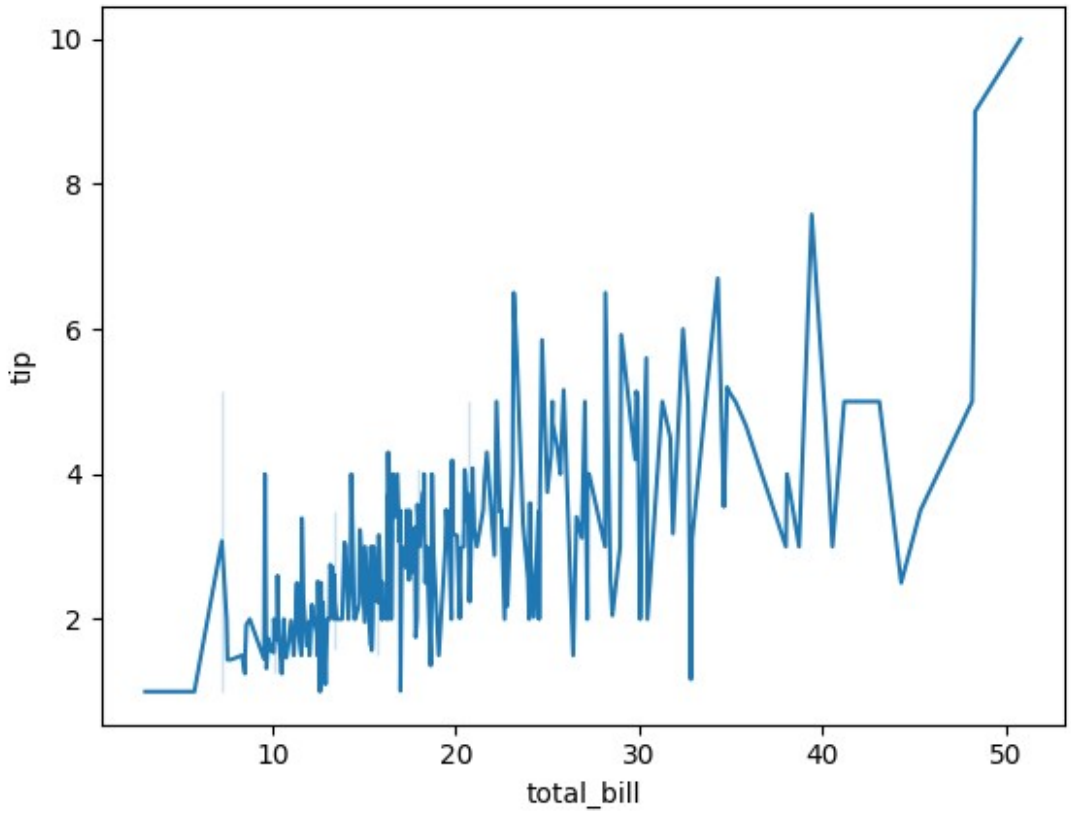
```
correlation_matrix = iris.drop('species', axis=1).corr()
sns.heatmap(correlation_matrix, annot=True)
plt.show()
```



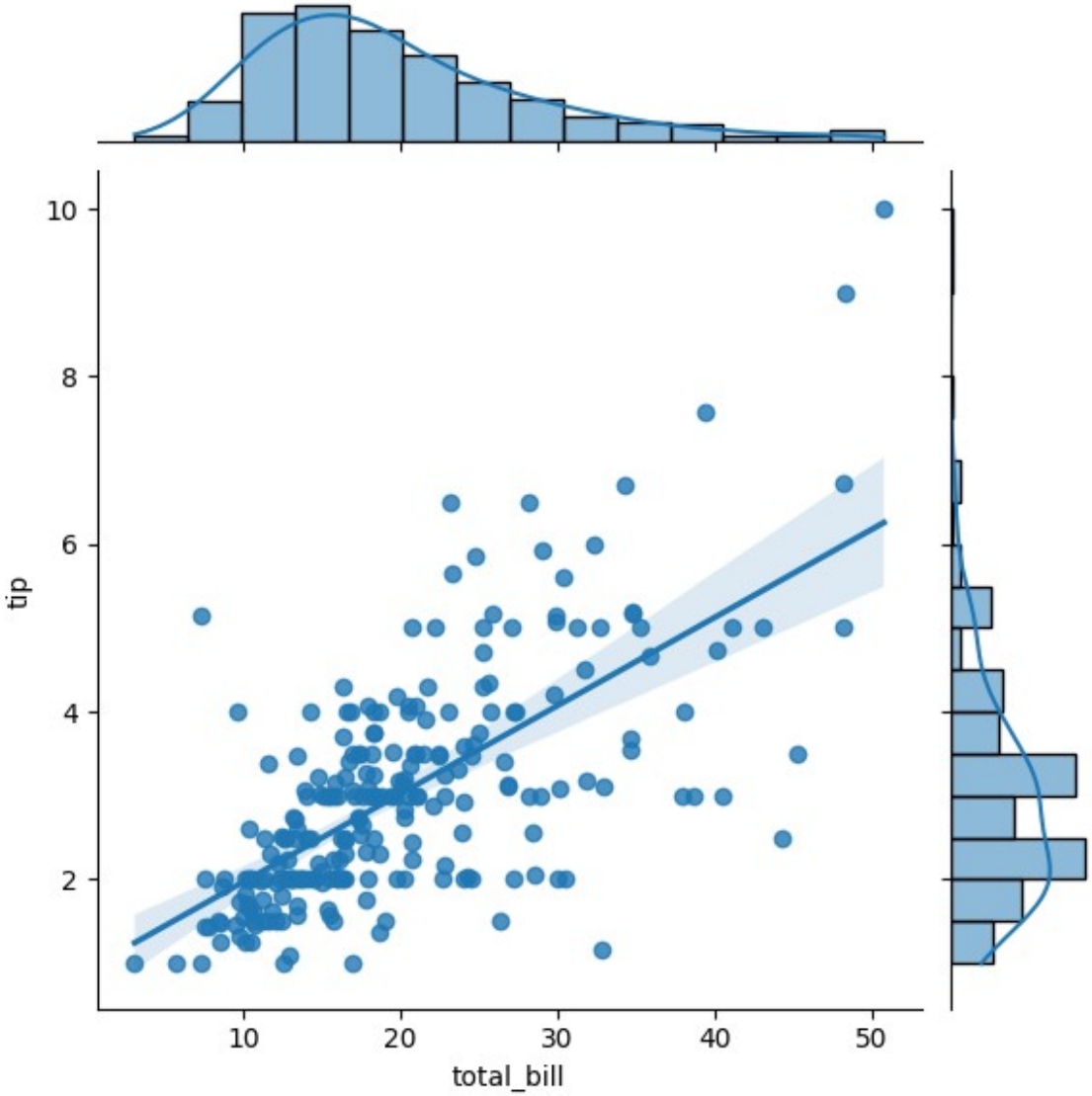

```
sns.pairplot(iris,hue="species")
plt.show()
```




```
sns.lineplot(x="total_bill",y="tip",data=tips)
plt.show()
```




```
sns.jointplot(x="total_bill",y="tip",data=tips,kind="reg")
plt.show()
```


10
8
6
4
2
tip
10
20
30
40
50
total_bill