exercise6

November 2, 2025

[13]:
```
import pandas as pd
import numpy as np
import seaborn as sn
import pandas as pd
import matplotlib.pyplot as plt
```

[14]:
```
df=pd.read_csv('tips.csv')
```

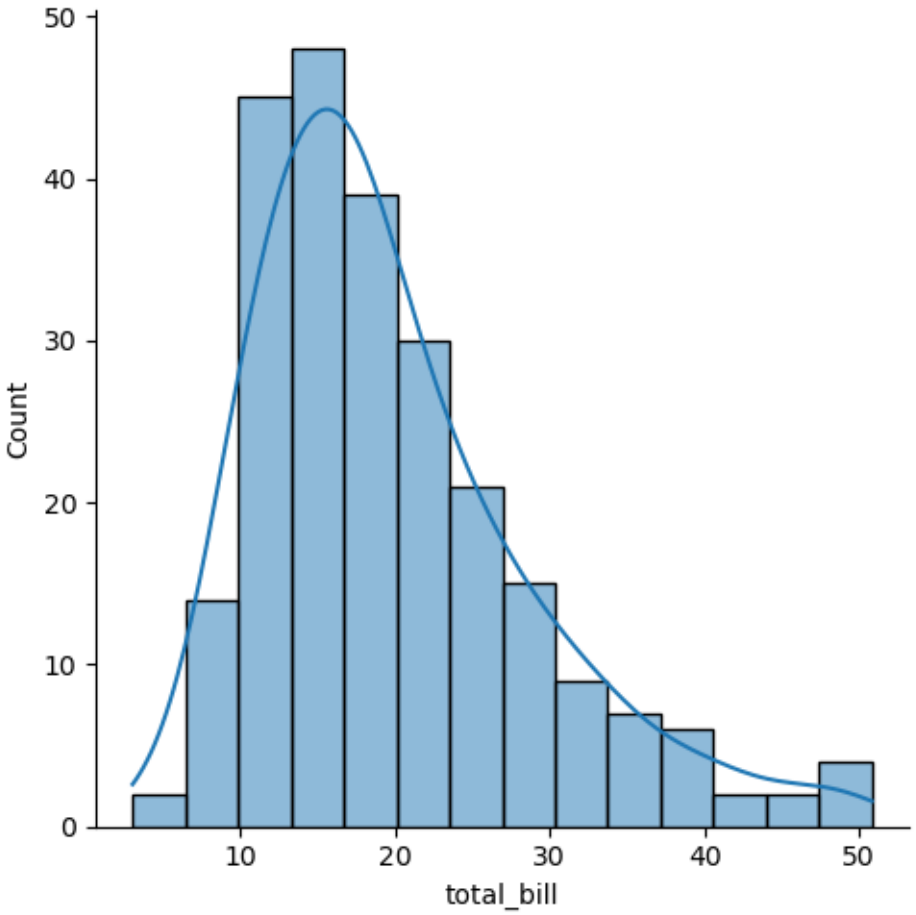
[15]:
```
df.head(10)
```

[15]:

	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
5	25.29	4.71	Male	No	Sun	Dinner	4
6	8.77	2.00	Male	No	Sun	Dinner	2
7	26.88	3.12	Male	No	Sun	Dinner	4
8	15.04	1.96	Male	No	Sun	Dinner	2
9	14.78	3.23	Male	No	Sun	Dinner	2

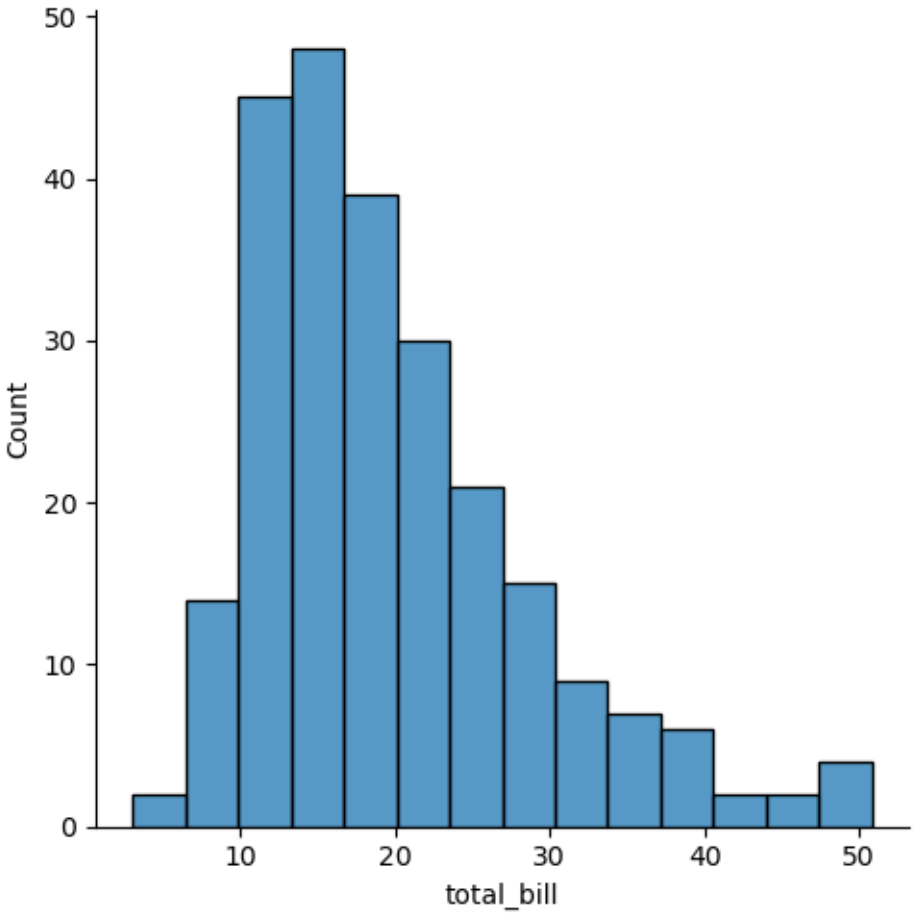
[16]:
```
sn.displot(df.total_bill,kde=True)
```

[16]:
```
<seaborn.axisgrid.FacetGrid at 0x19285a8a490>
```



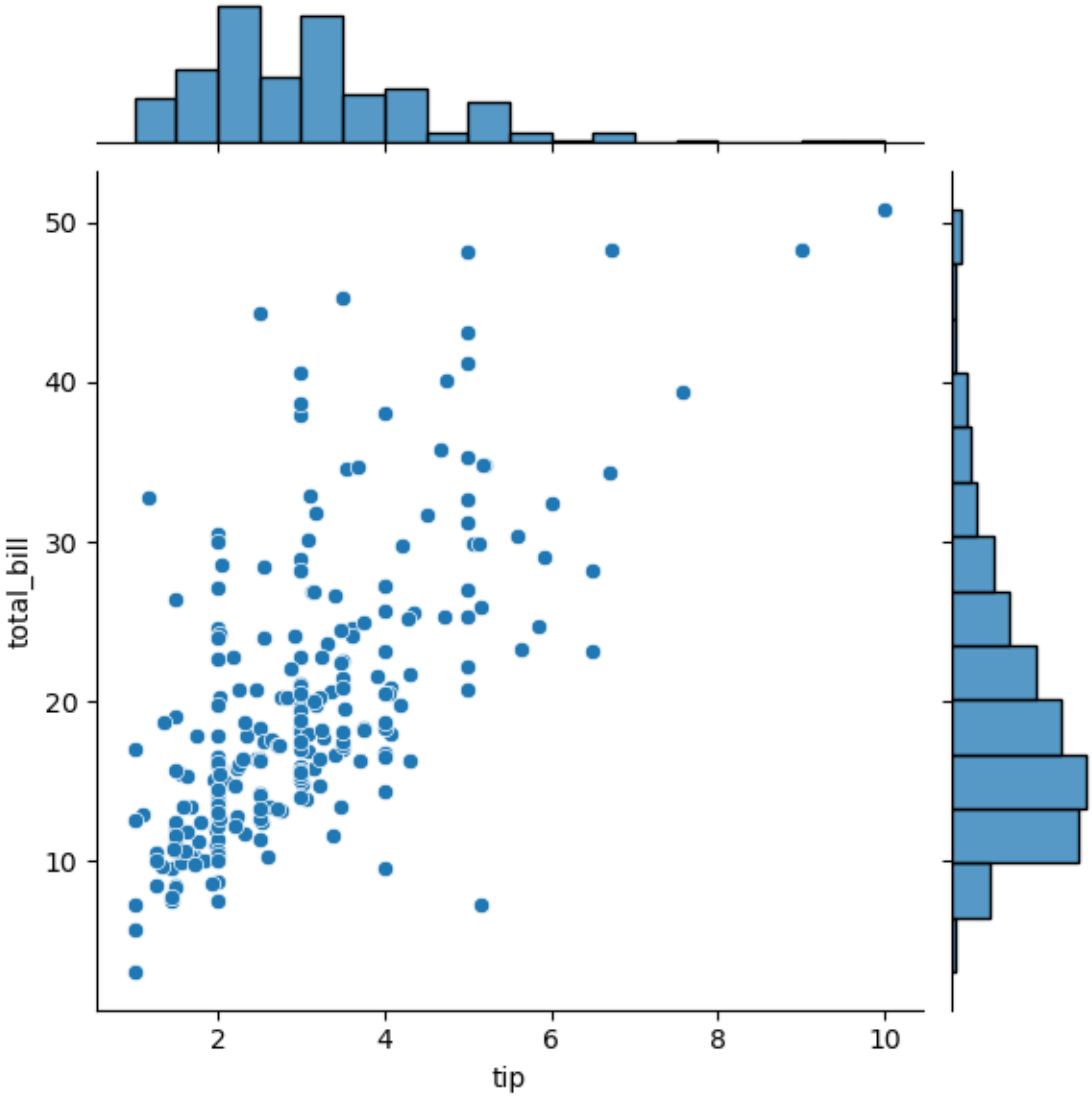
[17]:
```
sn.displot(df.total_bill,kde=False)
```

[17]: <seaborn.axisgrid.FacetGrid at 0x19285e2c7d0>



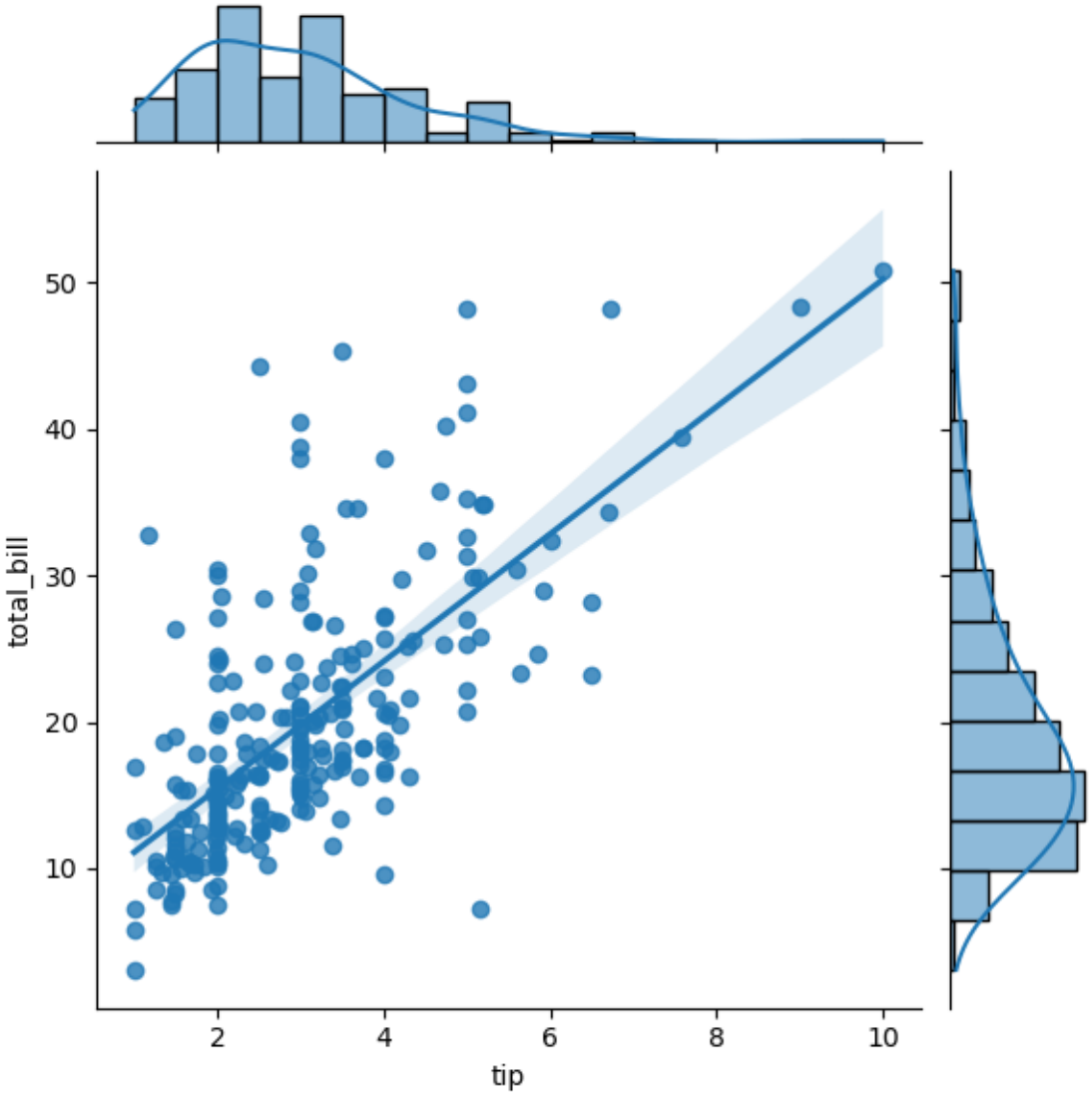
[21]:
```
#plt.scatter(x=df.tip,y=df.total_bill)
sn.jointplot(x=df.tip,y=df.total_bill)
```

[21]: <seaborn.axisgrid.JointGrid at 0x19285f33b10>



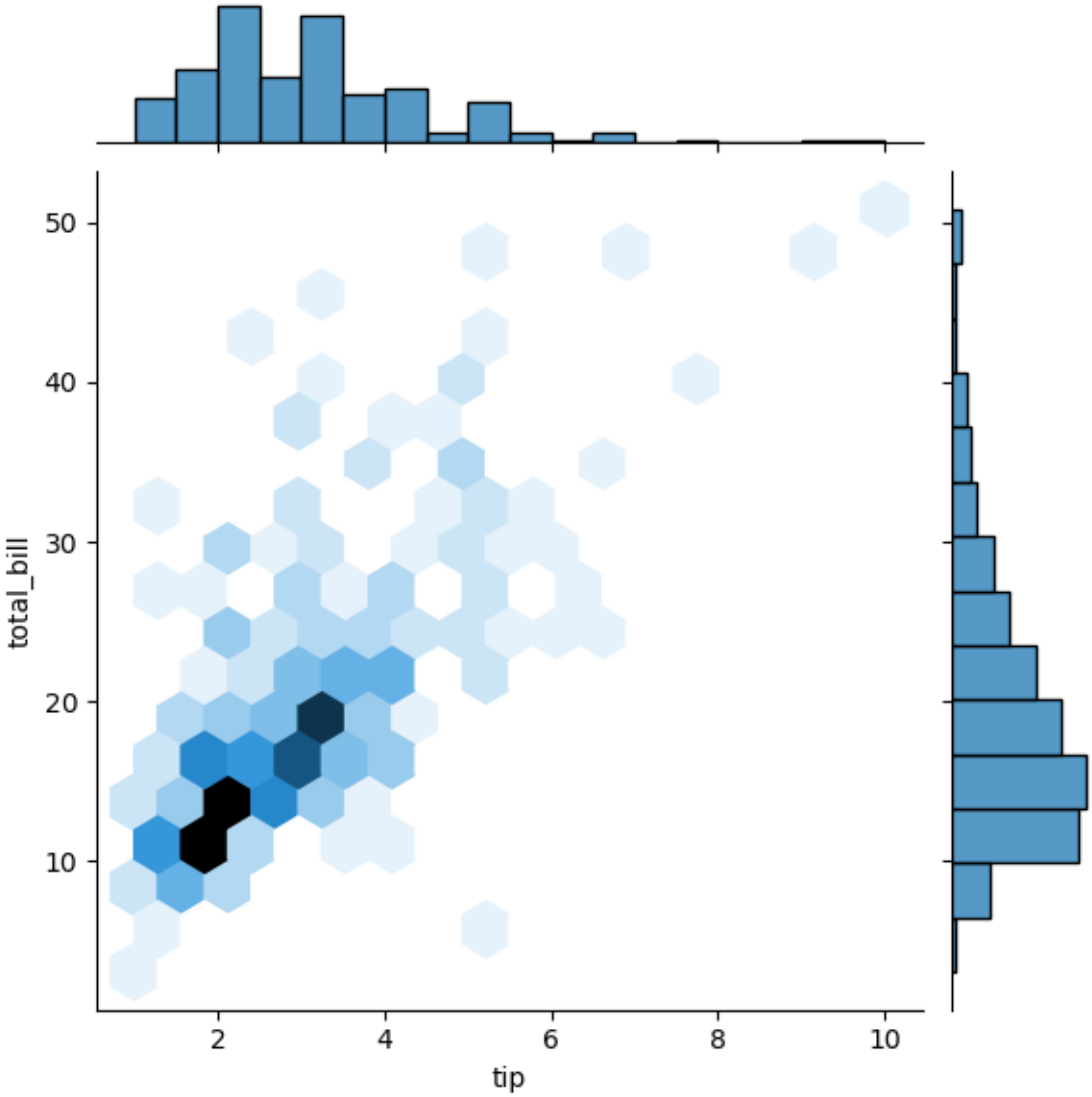
[22]:
```
sn.jointplot(x=df.tip,y=df.total_bill,kind="reg")
```

[22]: <seaborn.axisgrid.JointGrid at 0x1928606d1d0>



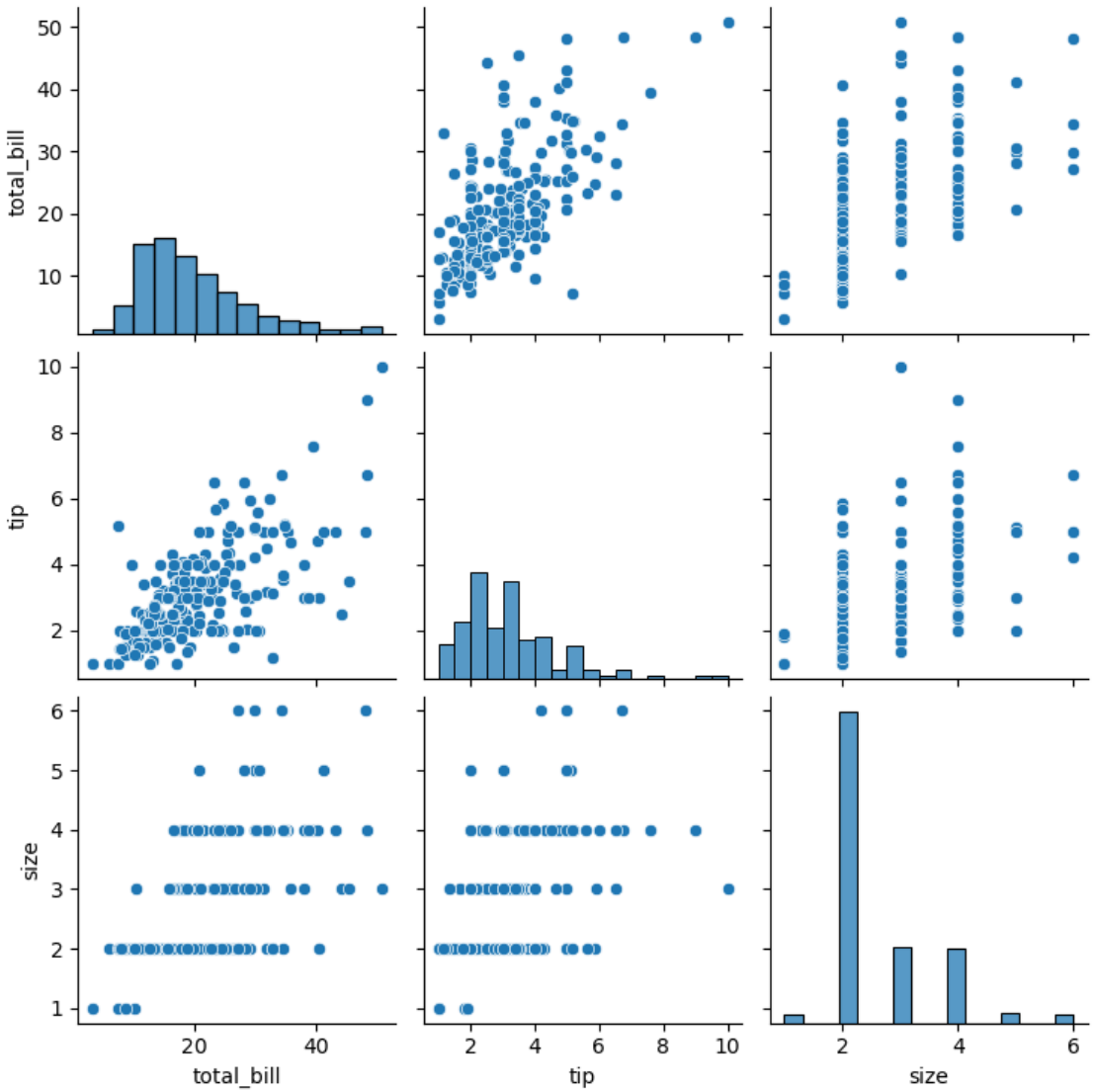
[25]:
```
sn.jointplot(x=df.tip,y=df.total_bill,kind="hex")
```

[25]: <seaborn.axisgrid.JointGrid at 0x19286a5c050>



[26]:
```
sn.pairplot(df)
```

[26]: <seaborn.axisgrid.PairGrid at 0x192fe45b4d0>

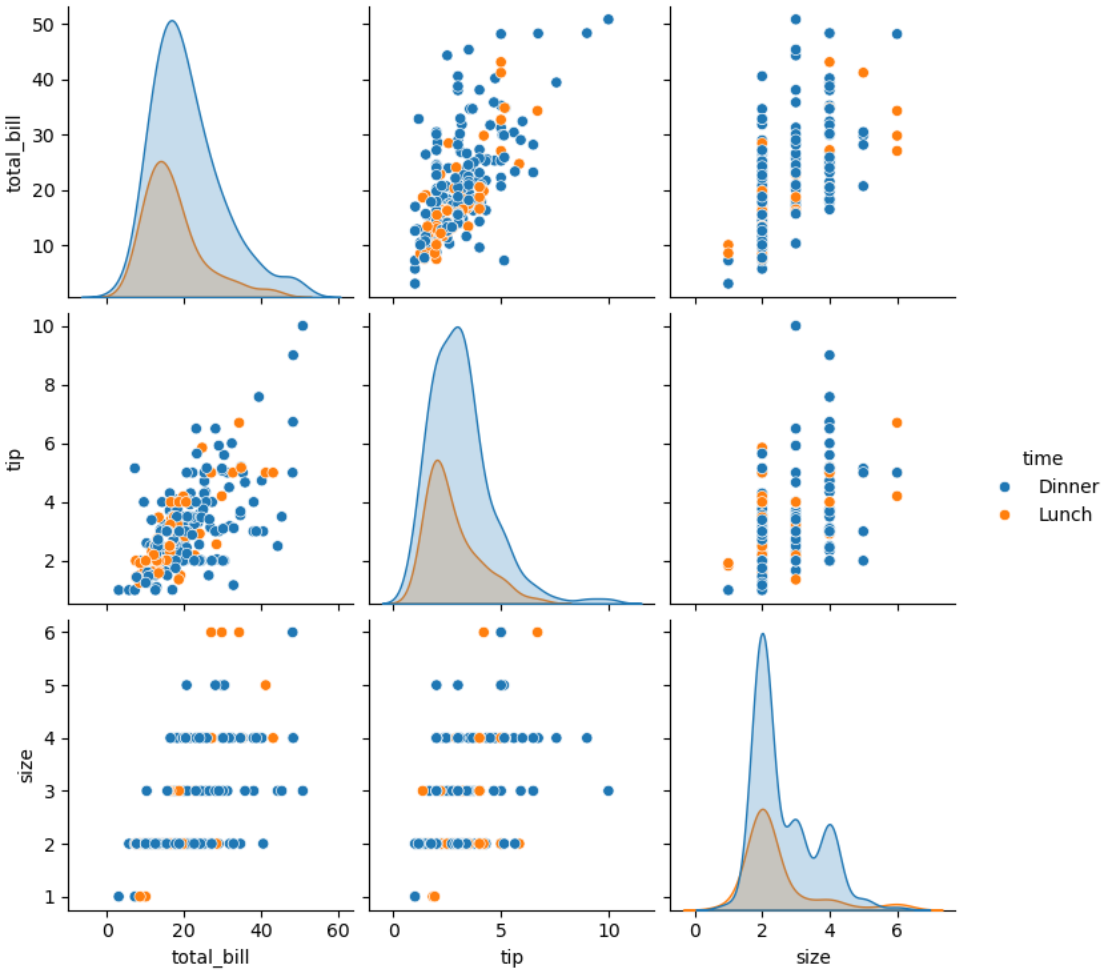


[29]:
```
#df.info()
df.time.value_counts()
```

[29]:
```
time
Dinner    176
Lunch      68
Name: count, dtype: int64
```

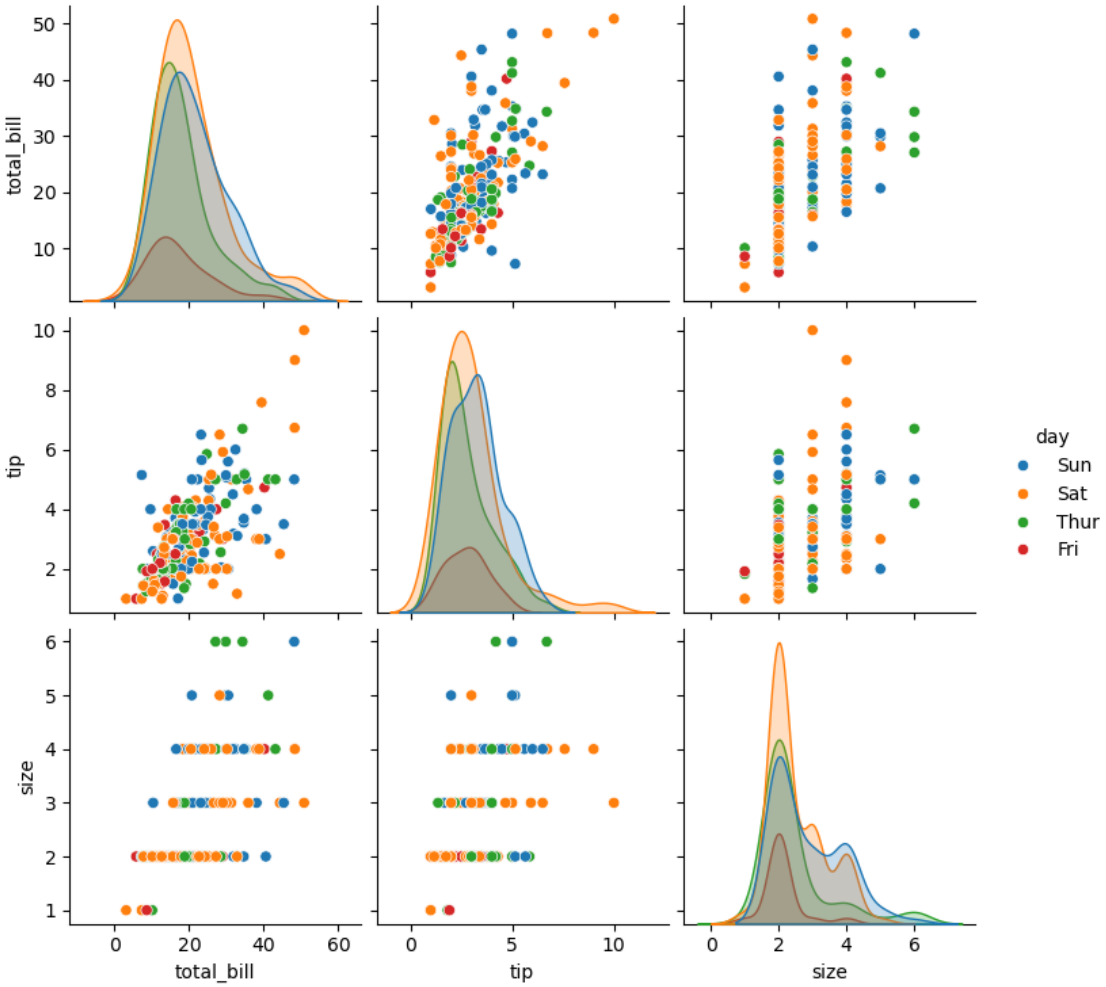
[30]:
```
sn.pairplot(df,hue='time')
```

[30]:
```
<seaborn.axisgrid.PairGrid at 0x192885e7390>
```



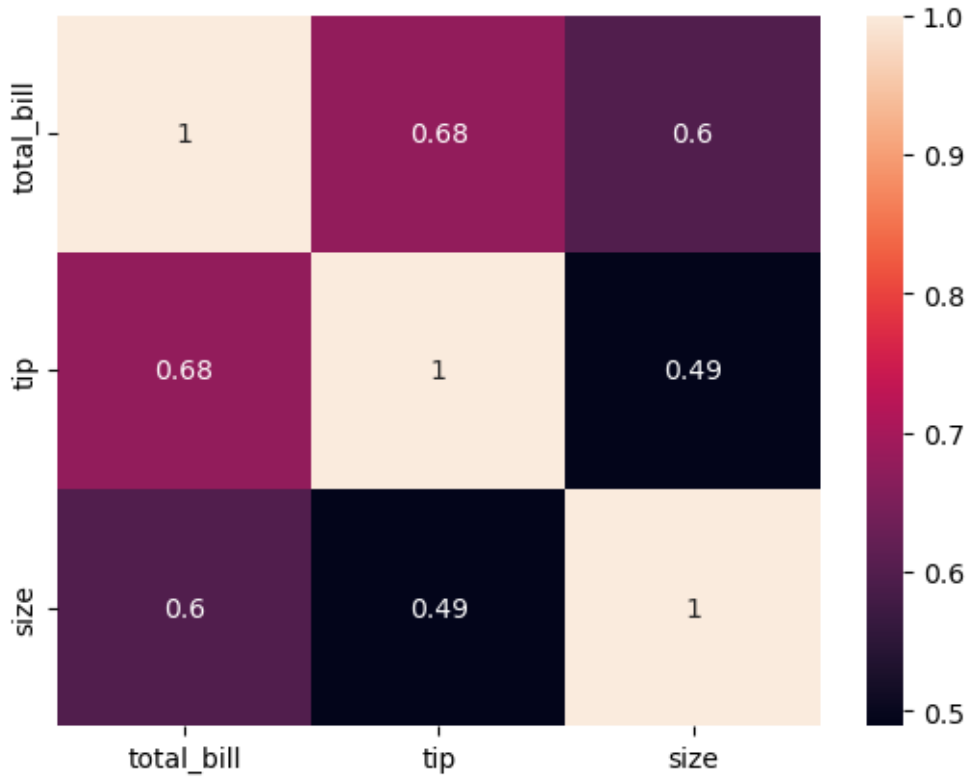
[31]:
```
sn.pairplot(df,hue='day')
```

[31]: <seaborn.axisgrid.PairGrid at 0x1928939cf50>



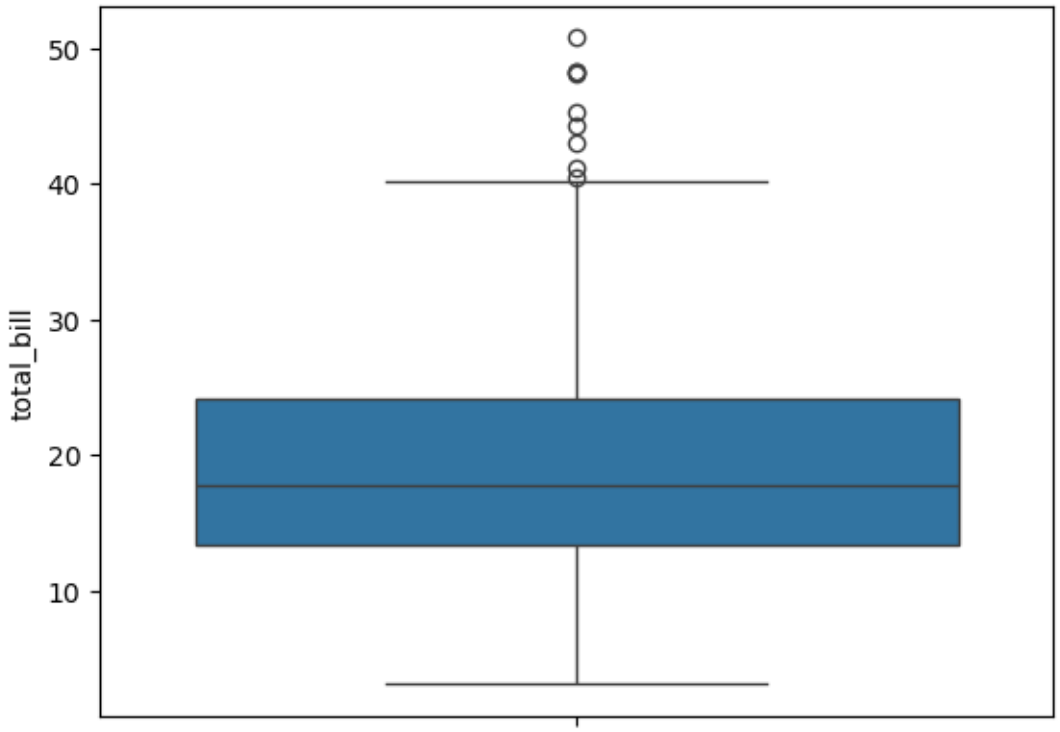
[32]:
```
sn.heatmap(df.corr(numeric_only=True),annot=True)
```

[32]: <Axes: >



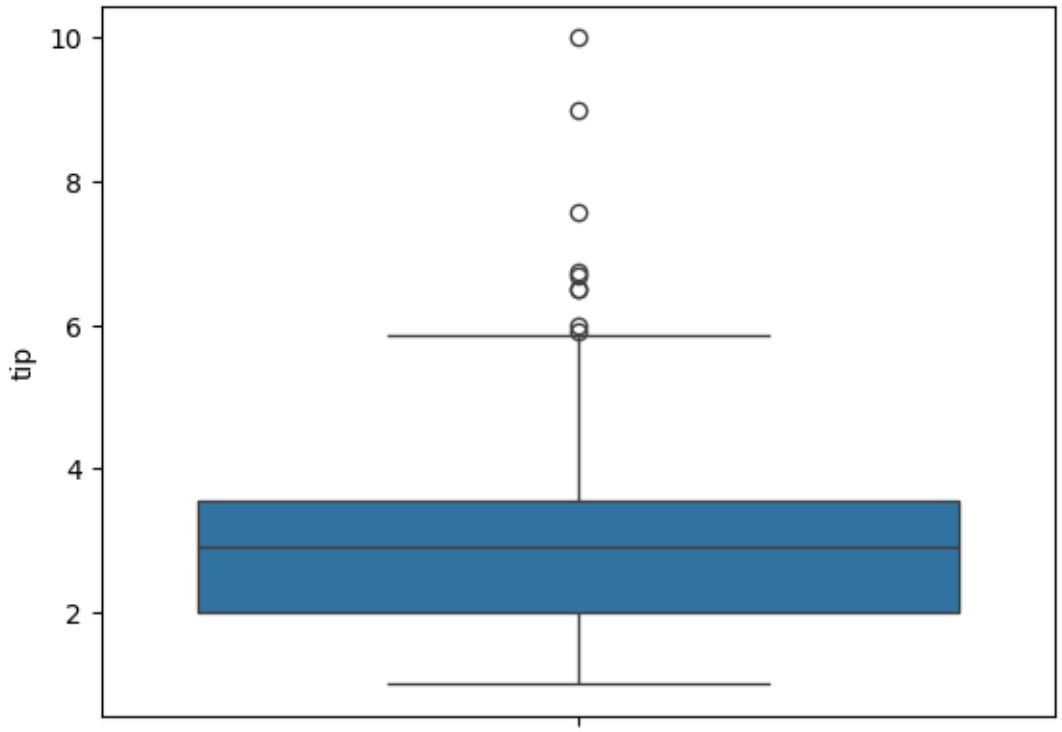
[34]:
```
sn.boxplot(df.total_bill)
```

[34]:
```
<Axes: ylabel='total_bill'>
```



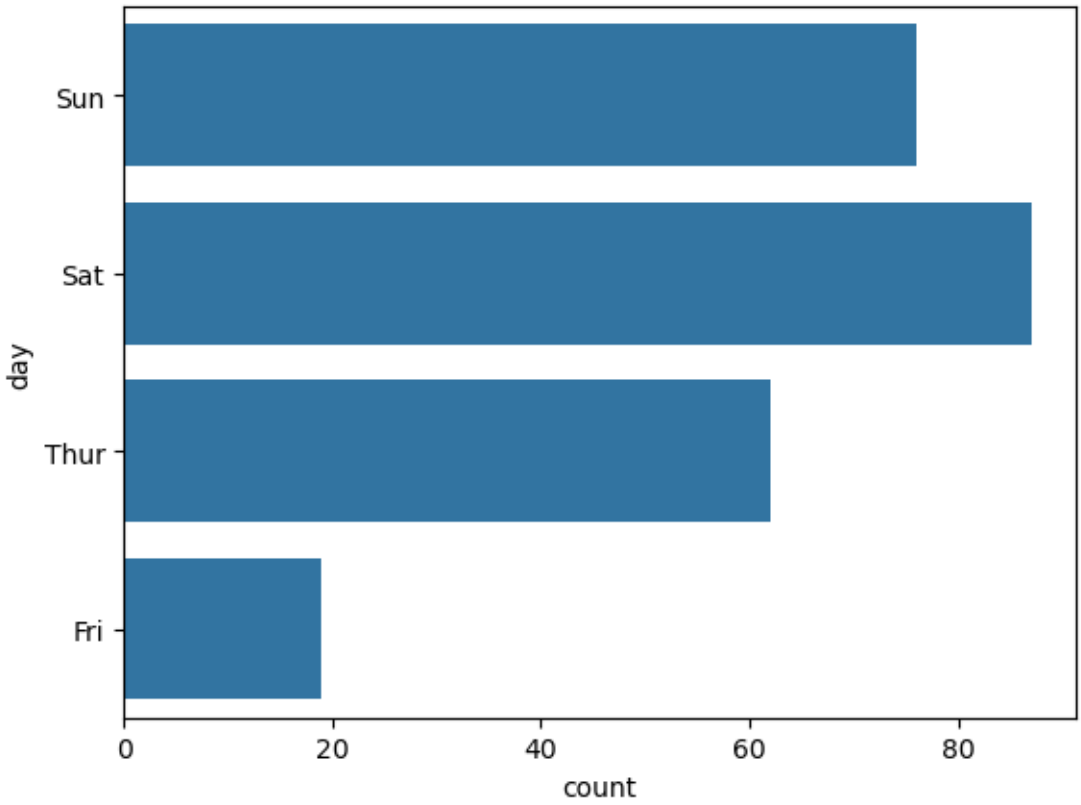
[36]:
```
sn.boxplot(df.tip)
```

[36]: <Axes: ylabel='tip'>



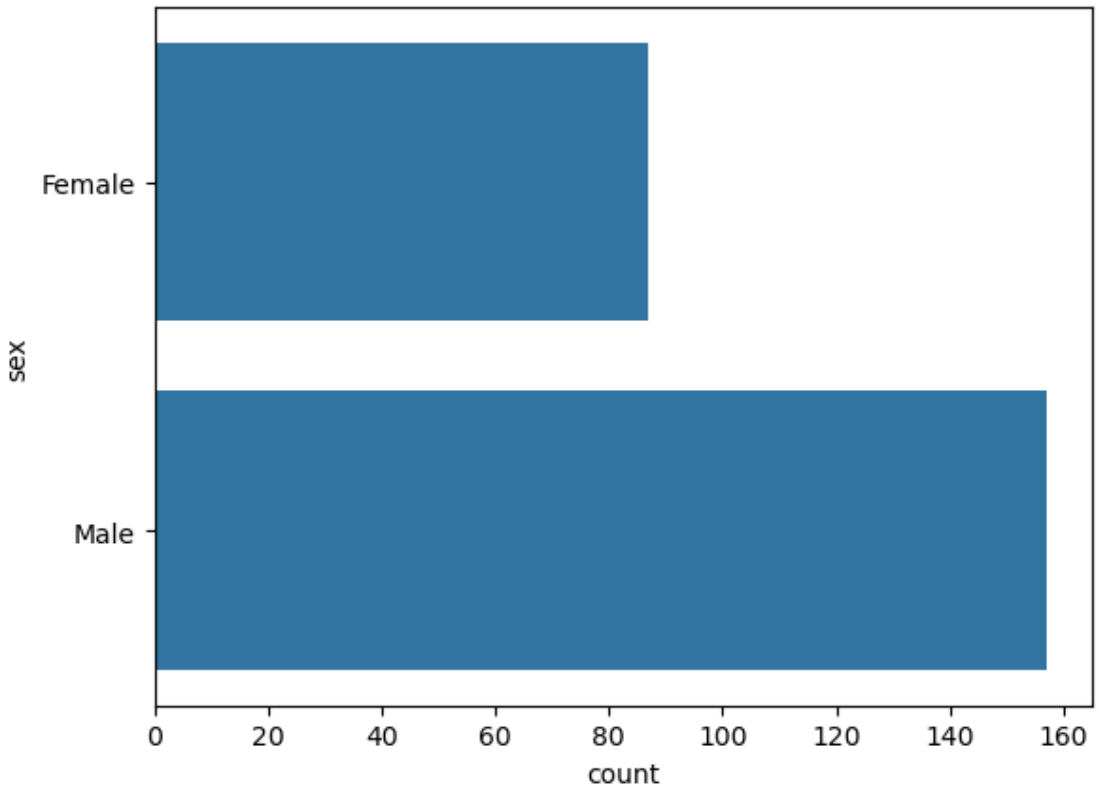
[37]:
```
sn.countplot(df.day)
```

[37]: <Axes: xlabel='count', ylabel='day'>



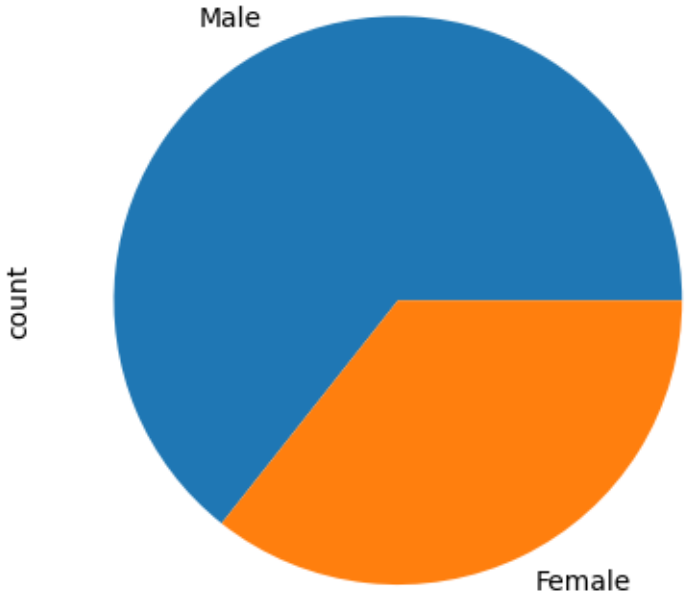
[38]:
```
sn.countplot(df.sex)
```

[38]:
```
<Axes: xlabel='count', ylabel='sex'>
```



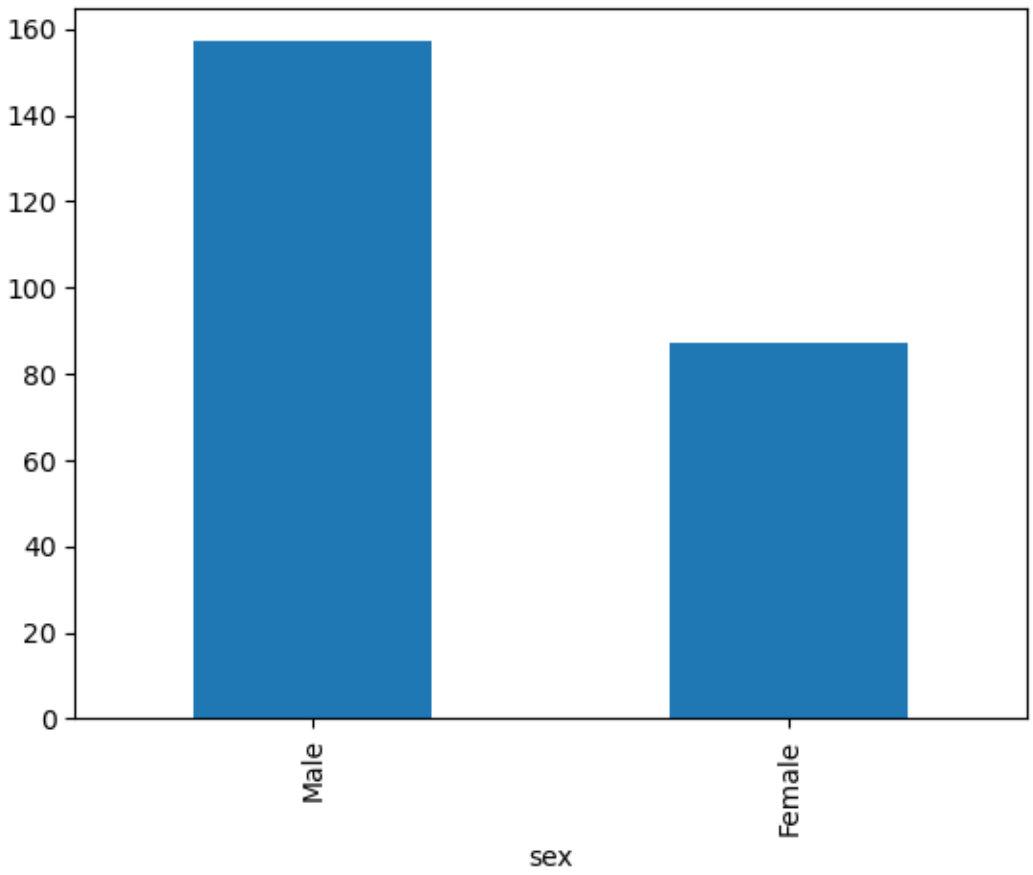
[39]:
```
df.sex.value_counts().plot(kind='pie')
```

[39]: <Axes: ylabel='count'>



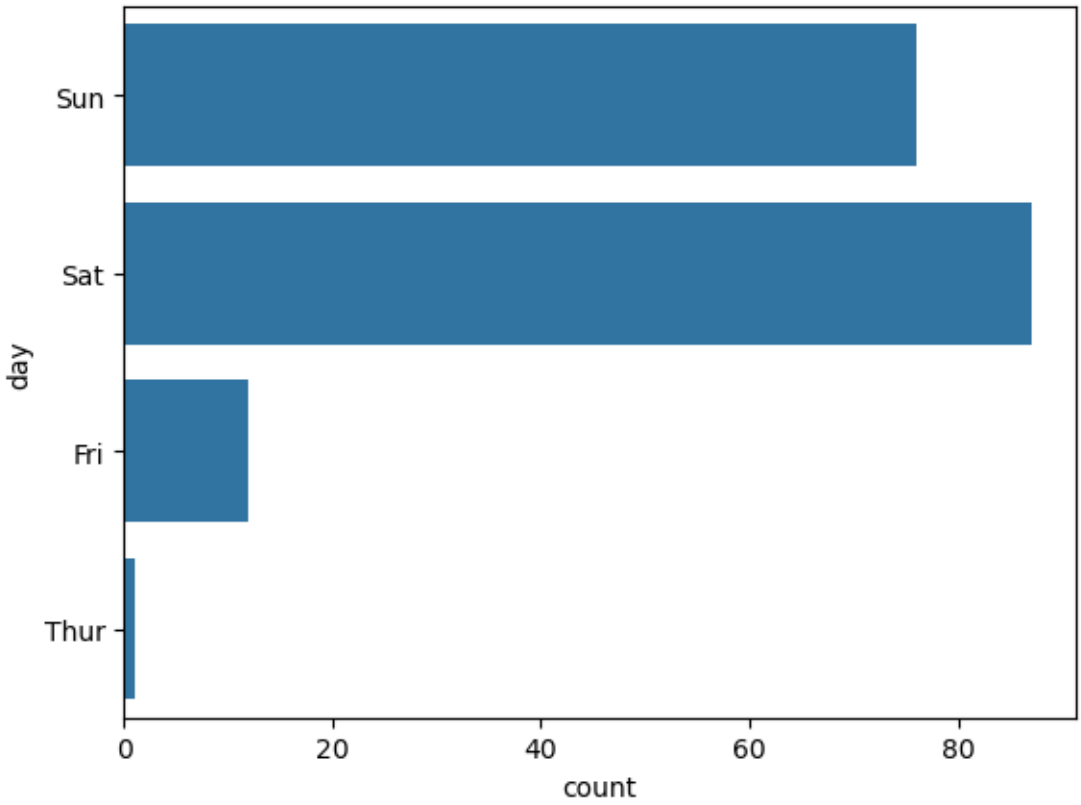
[40]:
```
df.sex.value_counts().plot(kind='bar')
```

[40]: <Axes: xlabel='sex'>



[41]:
```
sn.countplot(df[df.time=='Dinner']['day'])
```

[41]:
```
<Axes: xlabel='count', ylabel='day'>
```


Sun
Sat
Fri
Thur
day
0
20
40
60
80
count

[ ]: