```
In [1]:   # VIVEK-CHAUHAN-ADVANCED-DATA-ANALYTICS-SEABORN-VIOLINPLOT-STRIPPLOT
```

```
In [7]:   import numpy as np
          import pandas as pd
          import matplotlib.pyplot as plt
          import seaborn as sns
```

```
In [11]:  df = sns.load_dataset("tips")
          df
```

Out[11]:

	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

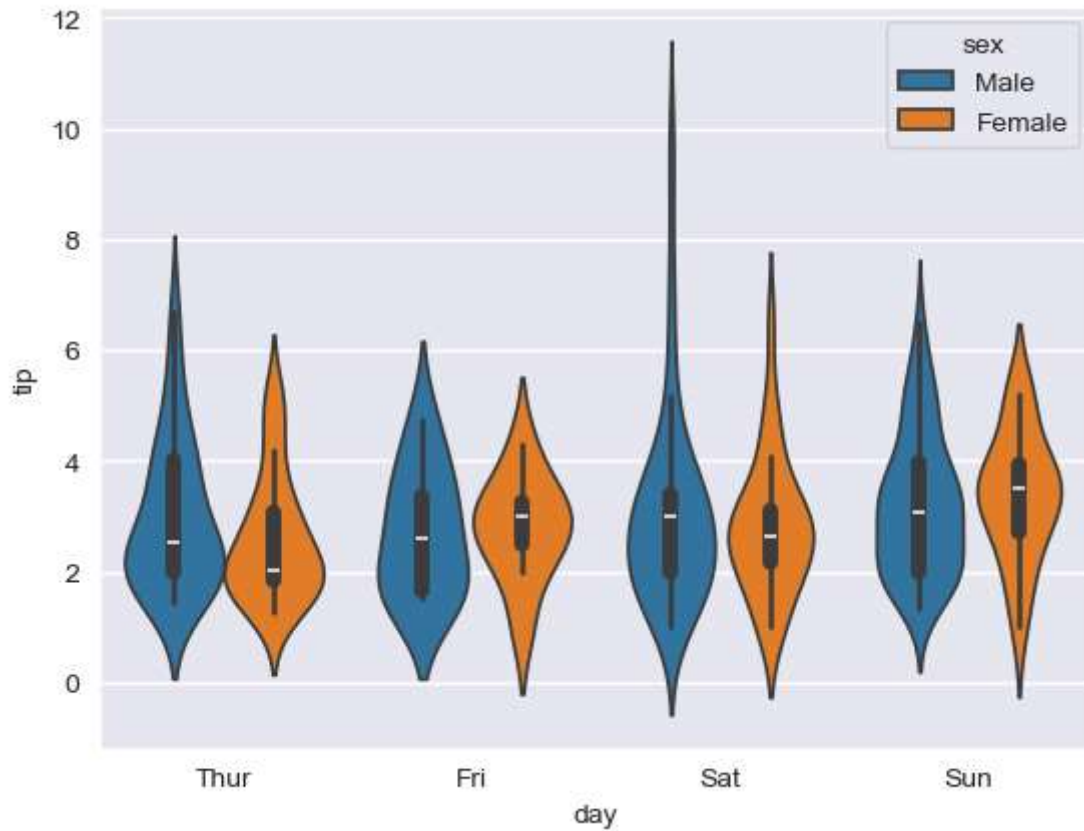244 rows × 7 columns

```
In [15]:  # let's create a violin plot
          sns.violinplot(x="day",y="tip",data=df)
```

Out[15]: <Axes: xlabel='day', ylabel='tip'>
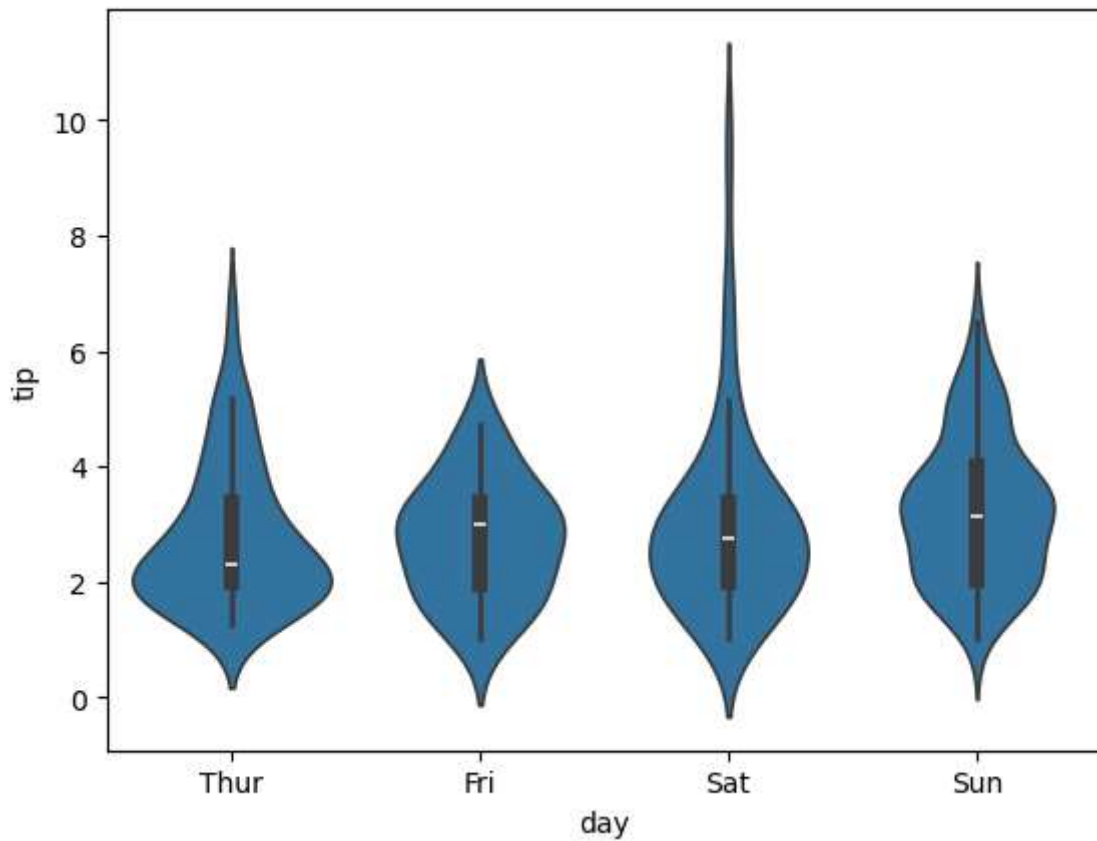
```
In [21]:   # let's diffrentiate via hue with adding some style
           sns.set_style("darkgrid")
           sns.violinplot(x="day",y="tip",data=df,hue="sex")
```
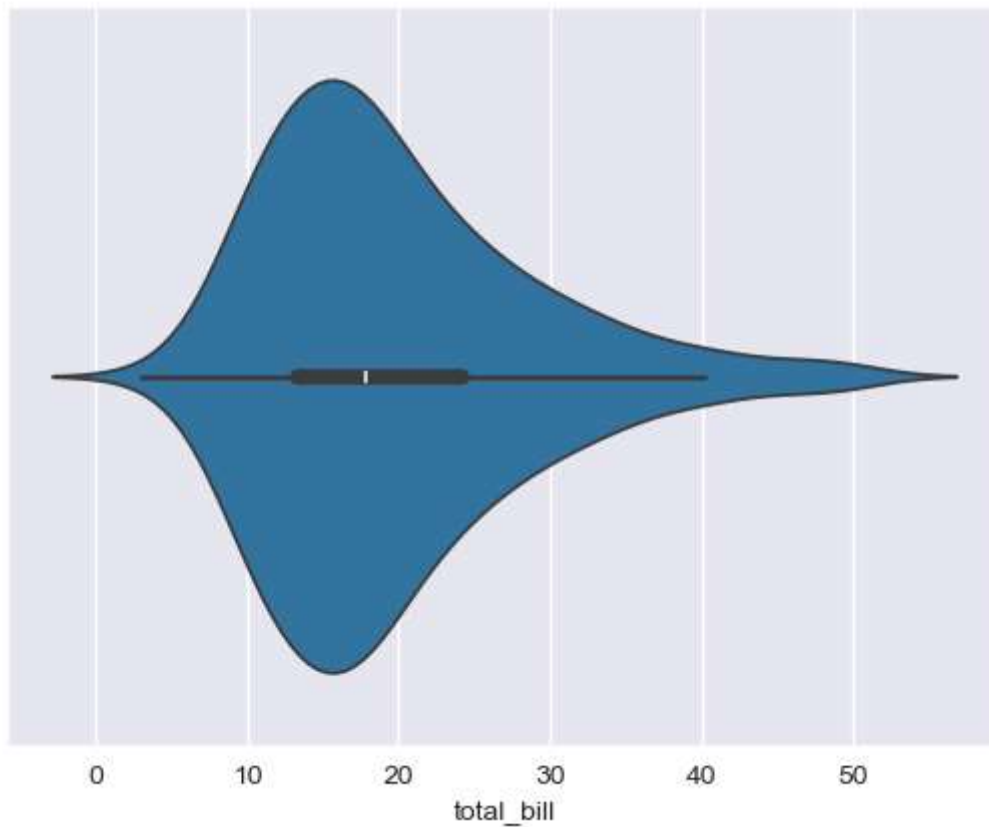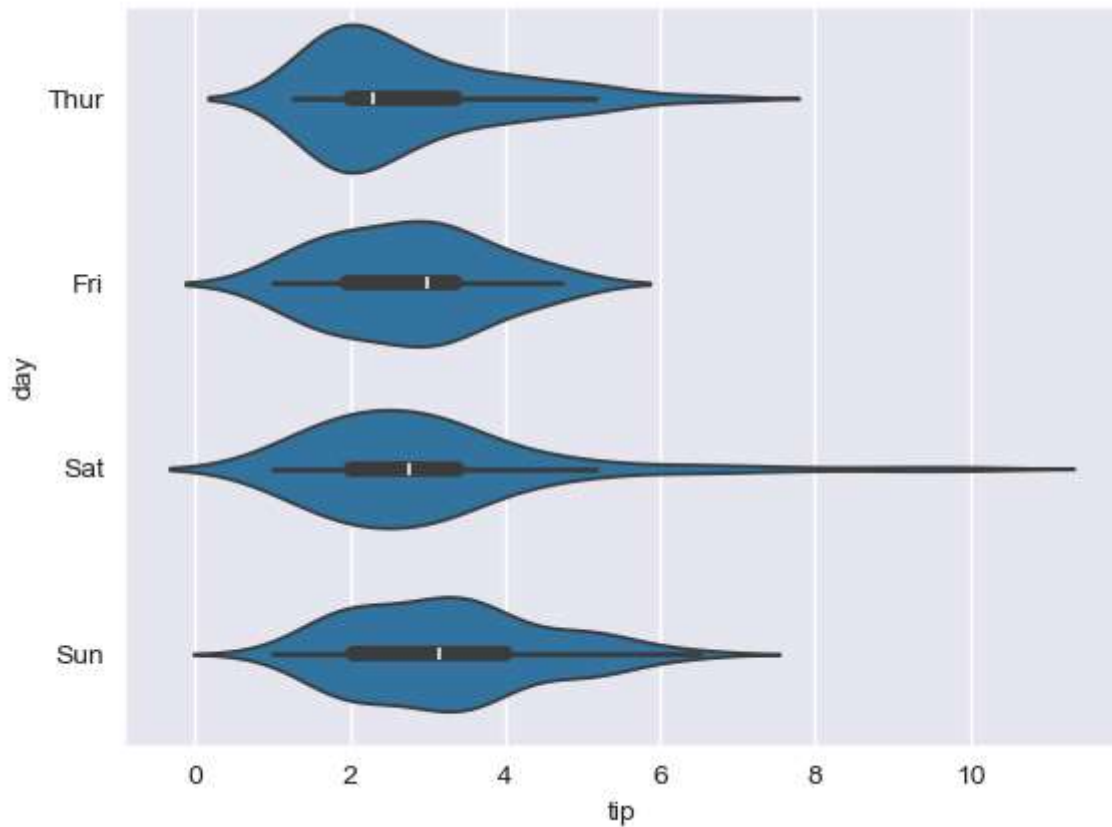
```
Out[21]:   <Axes: xlabel='day', ylabel='tip'>
```

```
In [29]:   # we can create the violineplot on the basis of single parameter
           sns.violinplot(x=df["total_bill"])
```
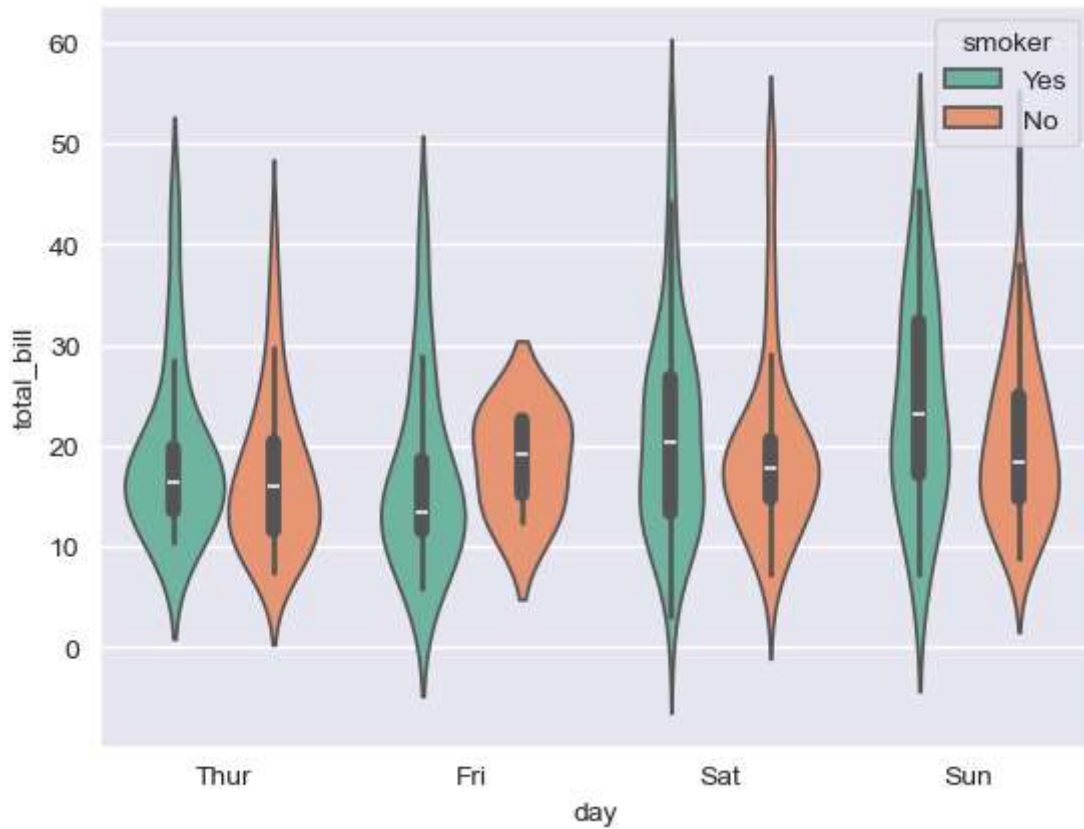
Out[29]:   <Axes: xlabel='total_bill'>

In [31]:
```python
# we can draw a horizontal violinplot
sns.violinplot(x="tip",y="day",data=df)
```
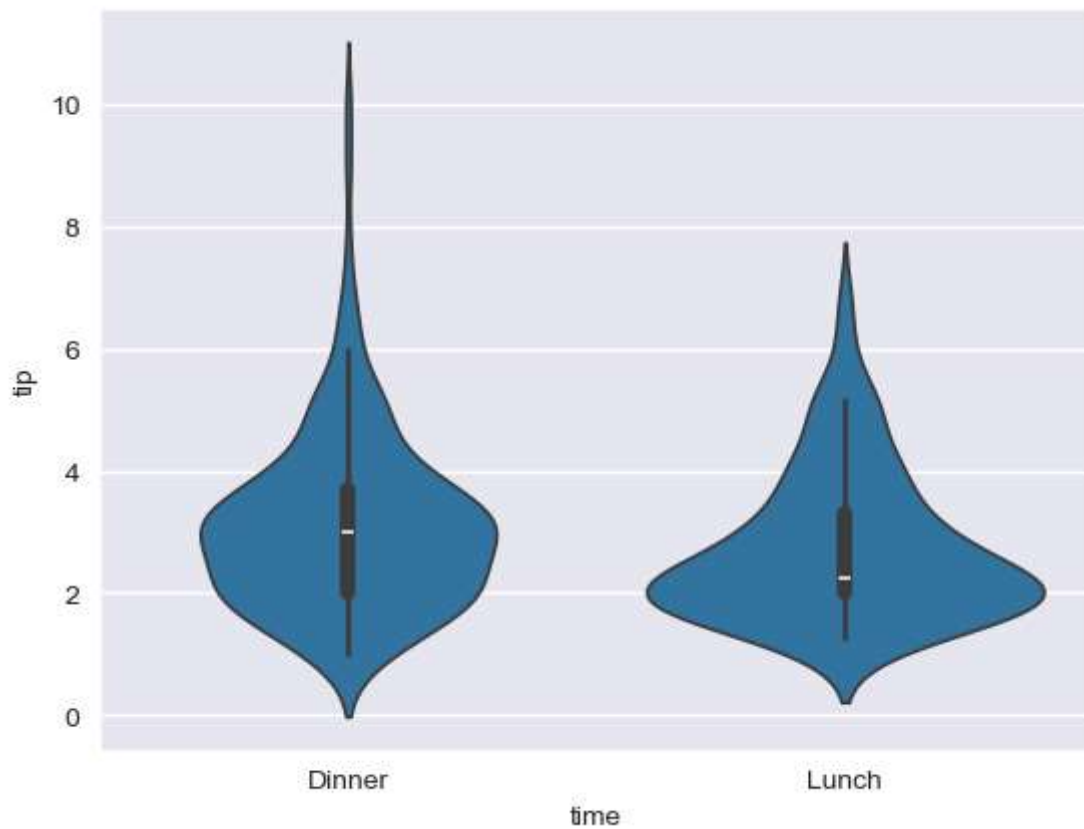
Out[31]: <Axes: xlabel='tip', ylabel='day'>

In [33]:
```python
# we can give palette for attractive violinplot
sns.violinplot(x="day",y="total_bill",hue="smoker",data=df,palette="Set2")
```
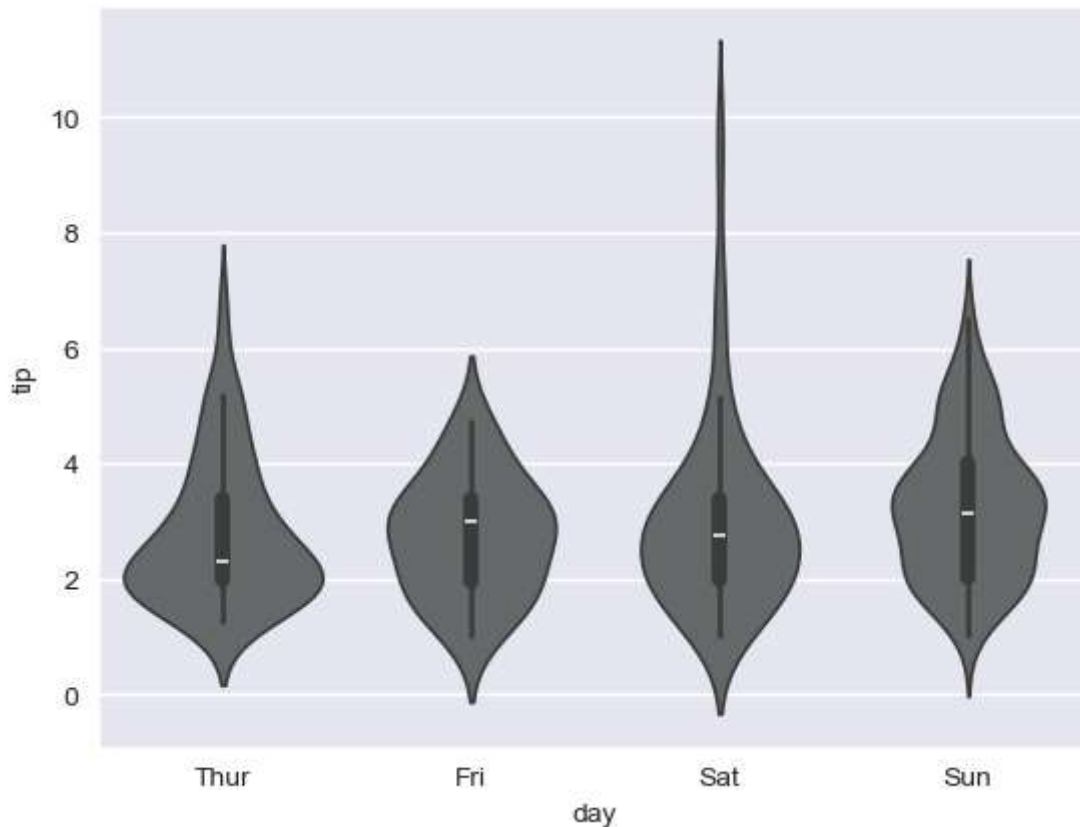
Out[33]: <Axes: xlabel='day', ylabel='total_bill'>

```
In [35]:  # we can give violin order by passing an explicit order
          sns.violinplot(x="time",y="tip",data=df,order=["Dinner","Lunch"])
```

Out[35]: <Axes: xlabel='time', ylabel='tip'>

In [39]:
```python
# adding the saturation parameter
sns.violinplot(x="day",y="tip",data=df,saturation=0.05)
```

Out[39]: <Axes: xlabel='day', ylabel='tip'>

In [45]:
```python
# adding a color parameter in violin plot
sns.violinplot(x="day",y="tip",data=df,color="red",hue="sex")
```
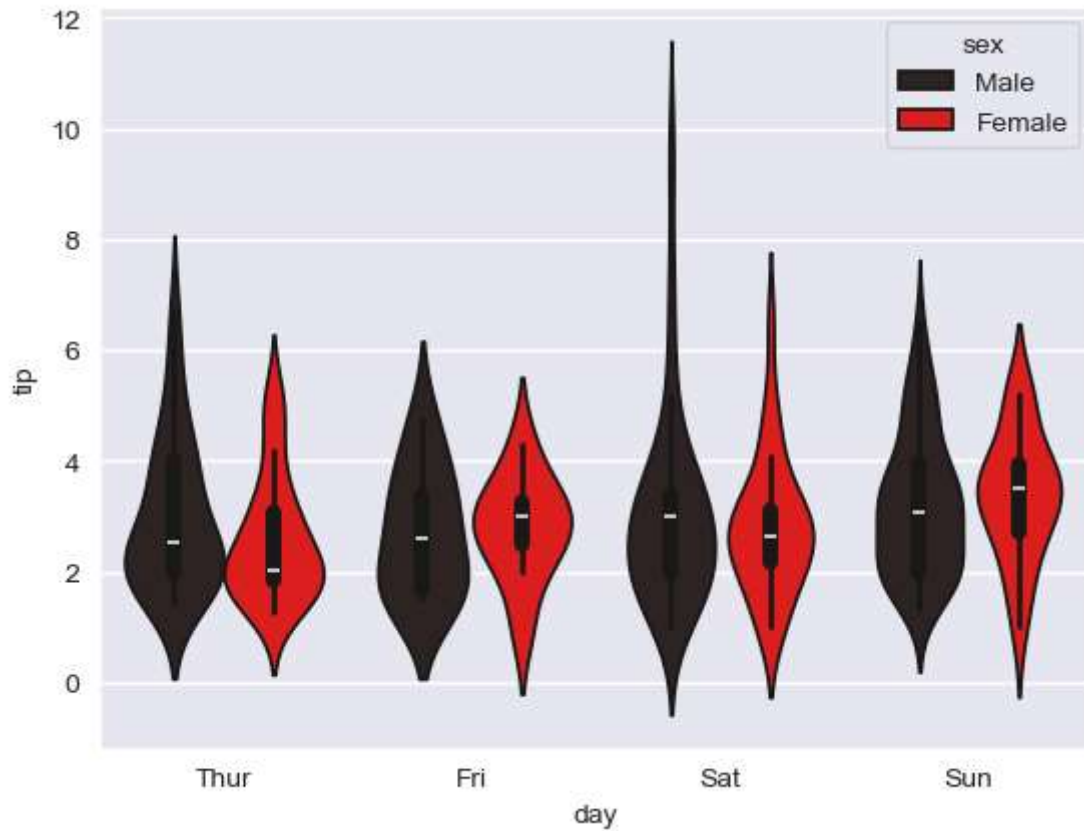
C:\Users\fv8.DESKTOP-N5HA3AQ\AppData\Local\Temp\ipykernel_25876\1528456226.py:2: FutureWarning:

Setting a gradient palette using color= is deprecated and will be removed in v0.14.0. Set `palette='dark:red'` for the same effect.
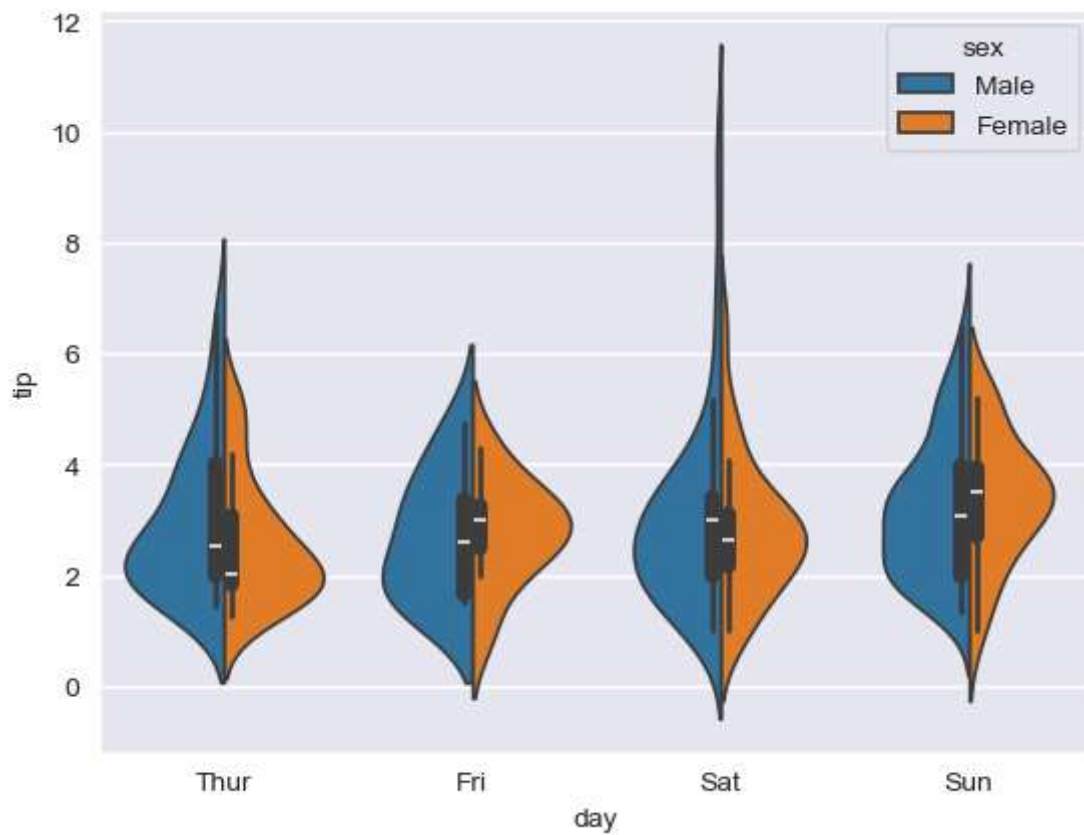
  sns.violinplot(x="day",y="tip",data=df,color="red",hue="sex")
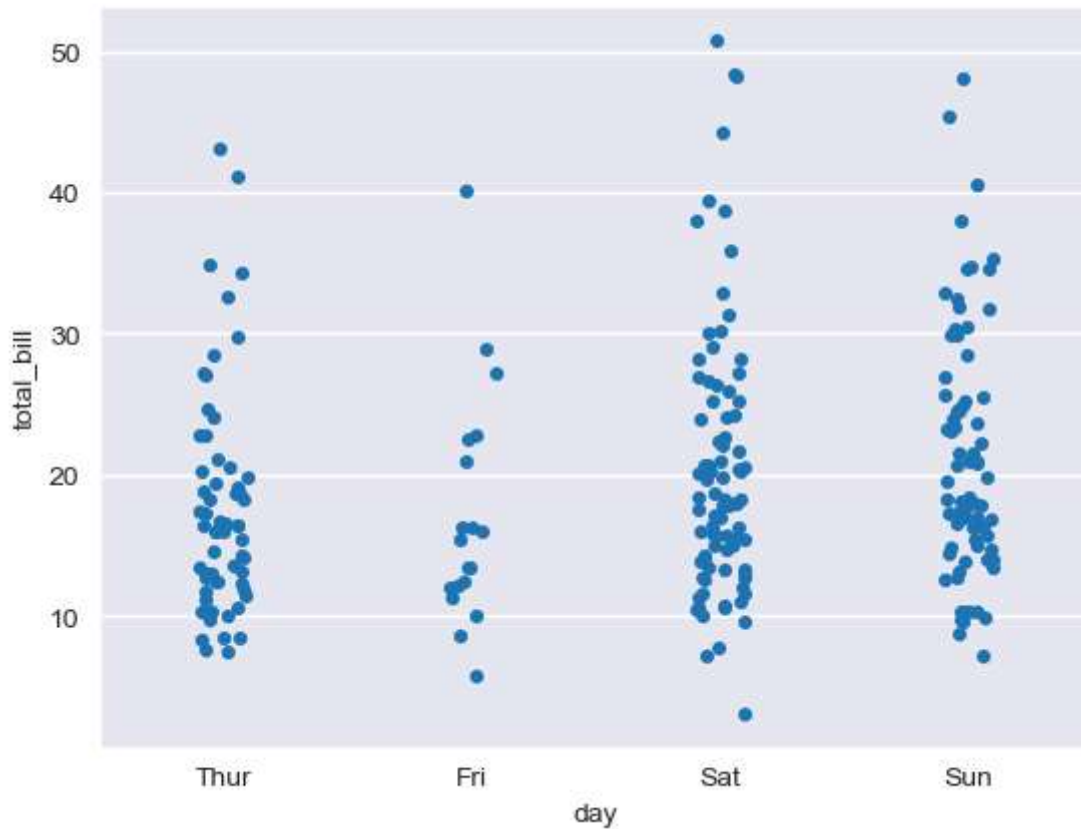
Out[45]: <Axes: xlabel='day', ylabel='tip'>

In [47]: # we can combine the both category in the single violin by using split=True
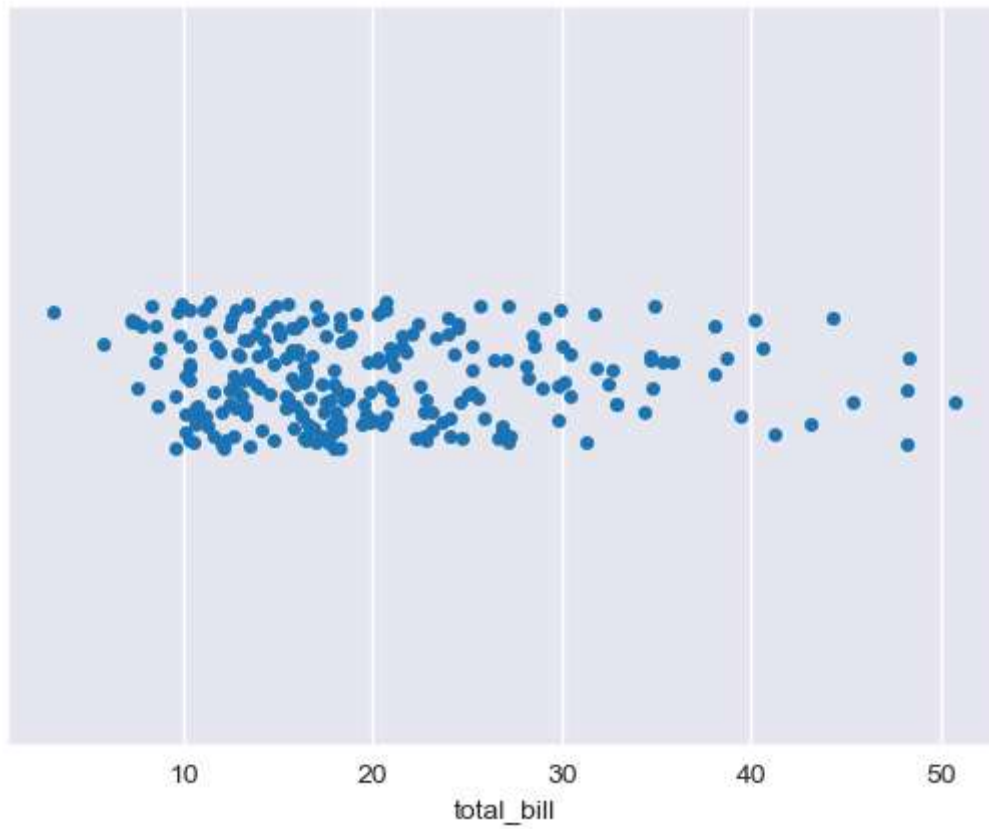   sns.violinplot(x="day",y="tip",data=df,hue="sex",split=True)

Out[47]: <Axes: xlabel='day', ylabel='tip'>

In [49]:
```python
# let's create stripplot
sns.stripplot(x="day",y="total_bill",data=df)
```

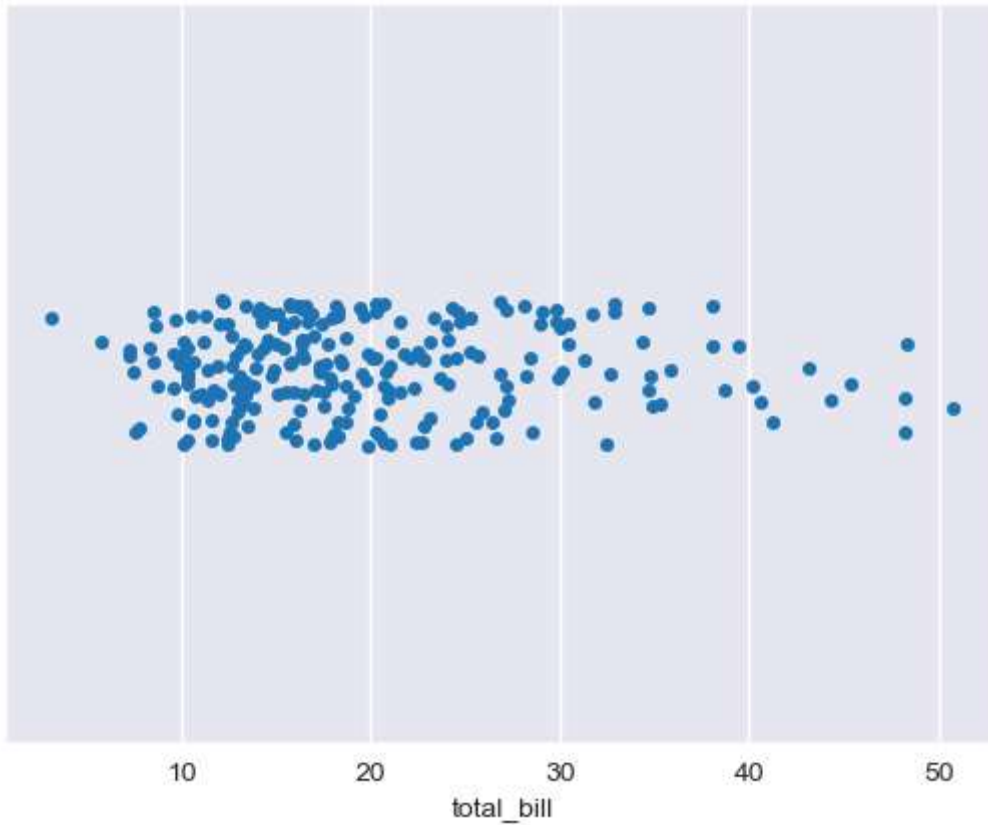Out[49]: <Axes: xlabel='day', ylabel='total_bill'>

In [53]:
```python
# if we use only single variable then horizontal stripplot is created
sns.stripplot(x="total_bill",data=df)
```

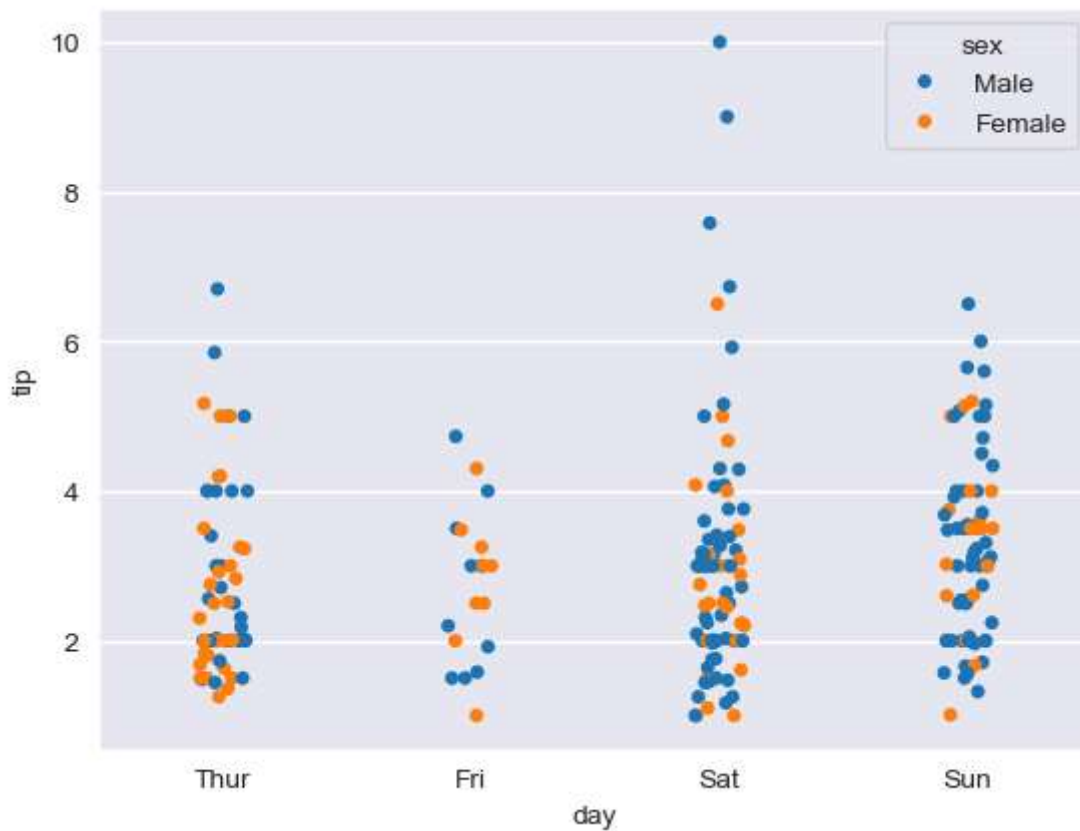Out[53]: <Axes: xlabel='total_bill'>

```
In [61]:  # we can give space between scatters by using jitter parameter
          sns.stripplot(x="total_bill",data=df,jitter=0.1)

Out[61]:  <Axes: xlabel='total_bill'>
```
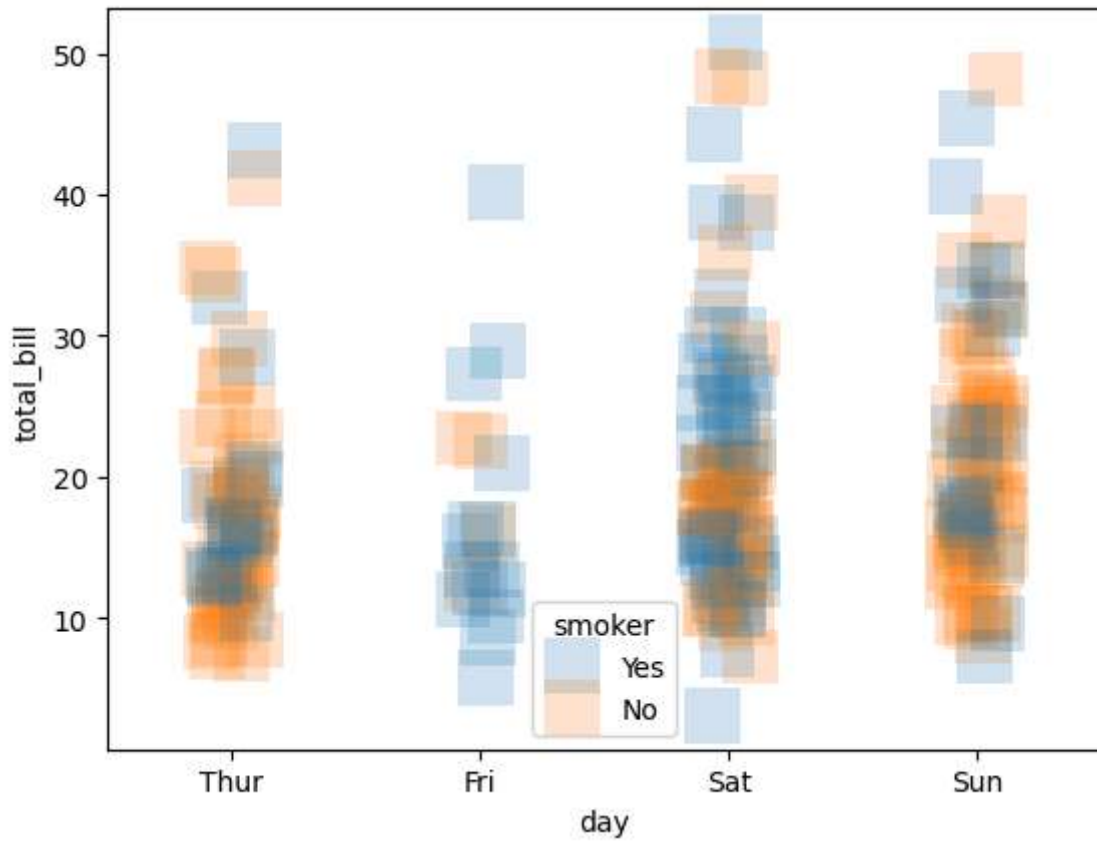
In [63]: # we can give hue parameter in the sripplot
         sns.stripplot(x="day",y="tip",data=df,hue="sex")

Out[63]: <Axes: xlabel='day', ylabel='tip'>

In [15]: `# different aesthetic with marker and alpha parameter`
`sns.stripplot(x="day",y="total_bill",data=df,hue="smoker",size=20,marker="s",alpha=`

Out[15]: `<Axes: xlabel='day', ylabel='total_bill'>`