Plotting with Categorical Data

catplot [Figure Level Function]

1. Categorical Scatterplots

a. stripplot

b. Swarmplot

2. Categorical distribution plots

a. Boxplot

b. Violinplot

3. Categorical estimate plots

a. Pointplot

b. Barplot

c. Countplot

4. Categorical Categorical plots

a. Heatmaps

b. Clustermaps

5. Plotting side by side graphs using FacetGrids

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1. Categorical Scatterplots

In [1]:
```python
# a-axis --> Categorical data
# y-axis --> Numerical data
```

In [3]:
```python
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

In [4]:
```python
plt.style.use('fivethirtyeight')
```
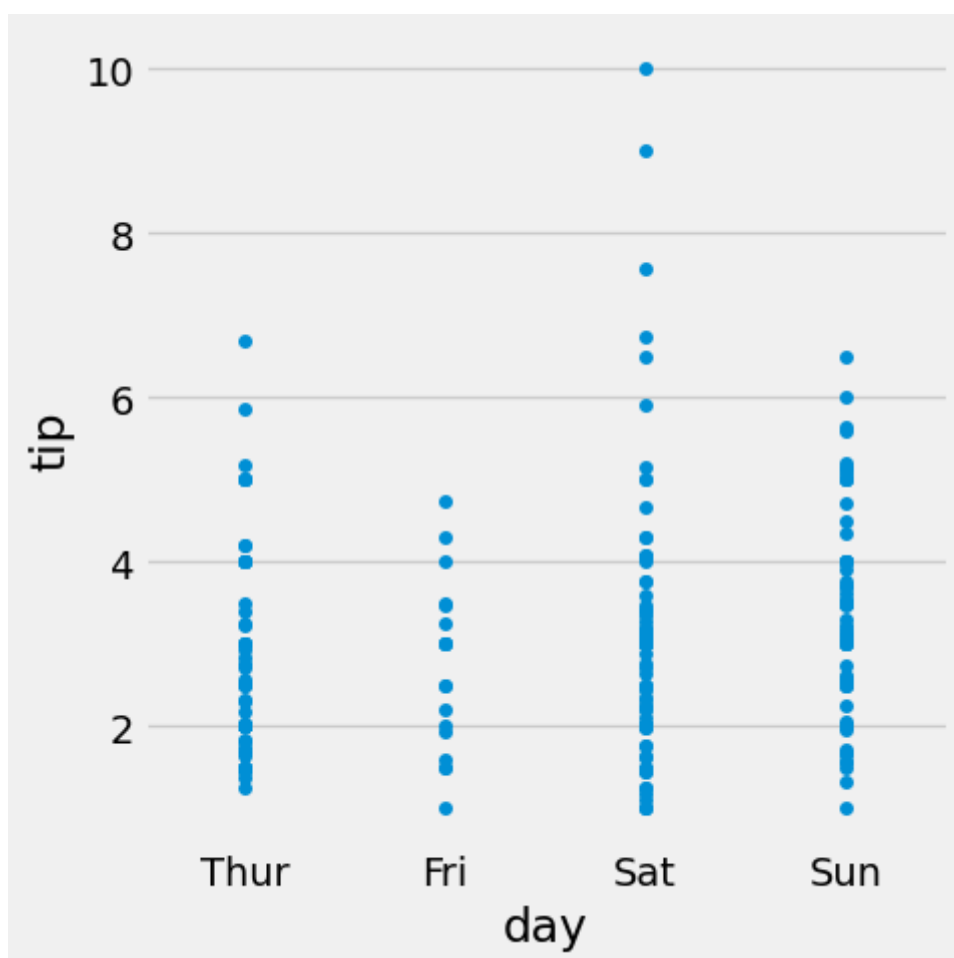
In [5]:
```python
tips=sns.load_dataset('tips')
```

In [6]:
```python
tips.head()
```

Out[6]:

	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

In [11]:
```python
sns.catplot(x='day', y='tip', kind='strip',jitter=0, data=tips)
```
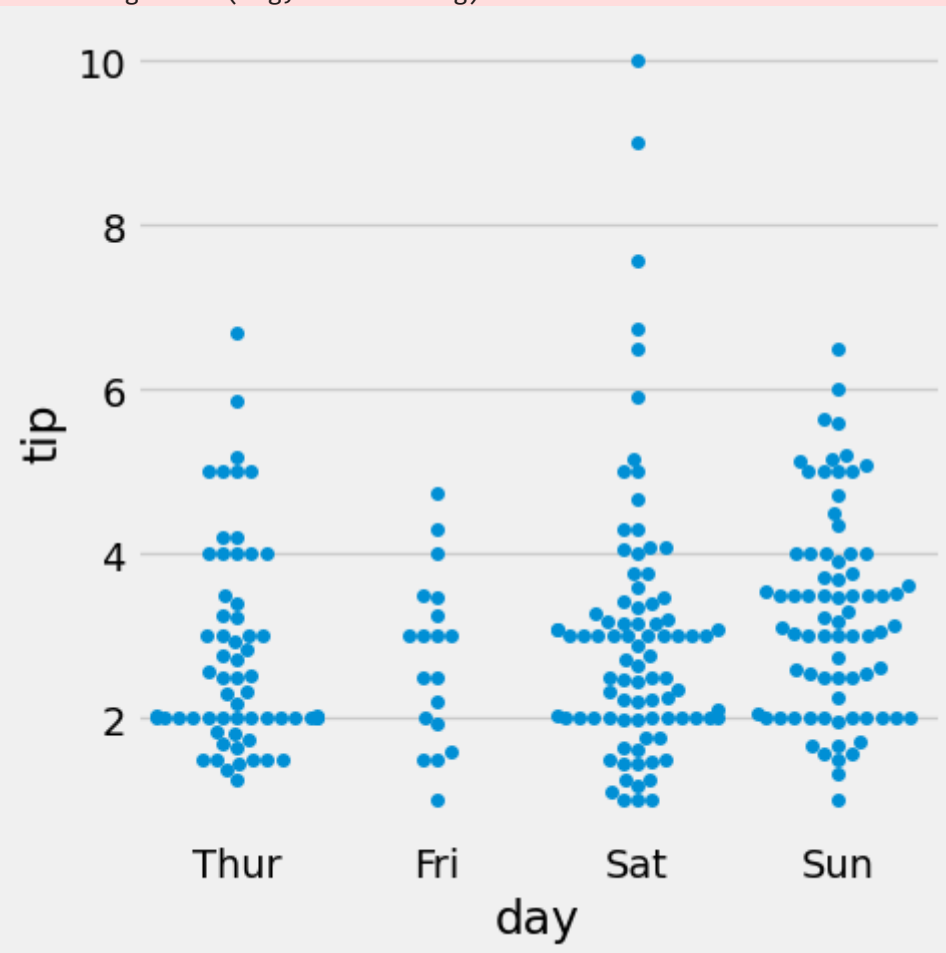
Out[11]:
```
<seaborn.axisgrid.FacetGrid at 0x22d31557010>
```


In [12]:
```python
sns.catplot(x='day', y='tip', kind='swarm', data=tips)
```

Out[12]: `<seaborn.axisgrid.FacetGrid at 0x22d315ef040>`

```
C:\Users\SHANTANU GARAIN\.conda\envs\CampusX\lib\site-packages\seaborn\categorica
l.py:3544: UserWarning: 8.1% of the points cannot be placed; you may want to decre
ase the size of the markers or use stripplot.
  warnings.warn(msg, UserWarning)
C:\Users\SHANTANU GARAIN\.conda\envs\CampusX\lib\site-packages\seaborn\categorica
l.py:3544: UserWarning: 6.9% of the points cannot be placed; you may want to decre
ase the size of the markers or use stripplot.
  warnings.warn(msg, UserWarning)
```


In [13]:
```python
sns.catplot(x='day', y='tip', kind='swarm', hue='sex', data=tips)
```
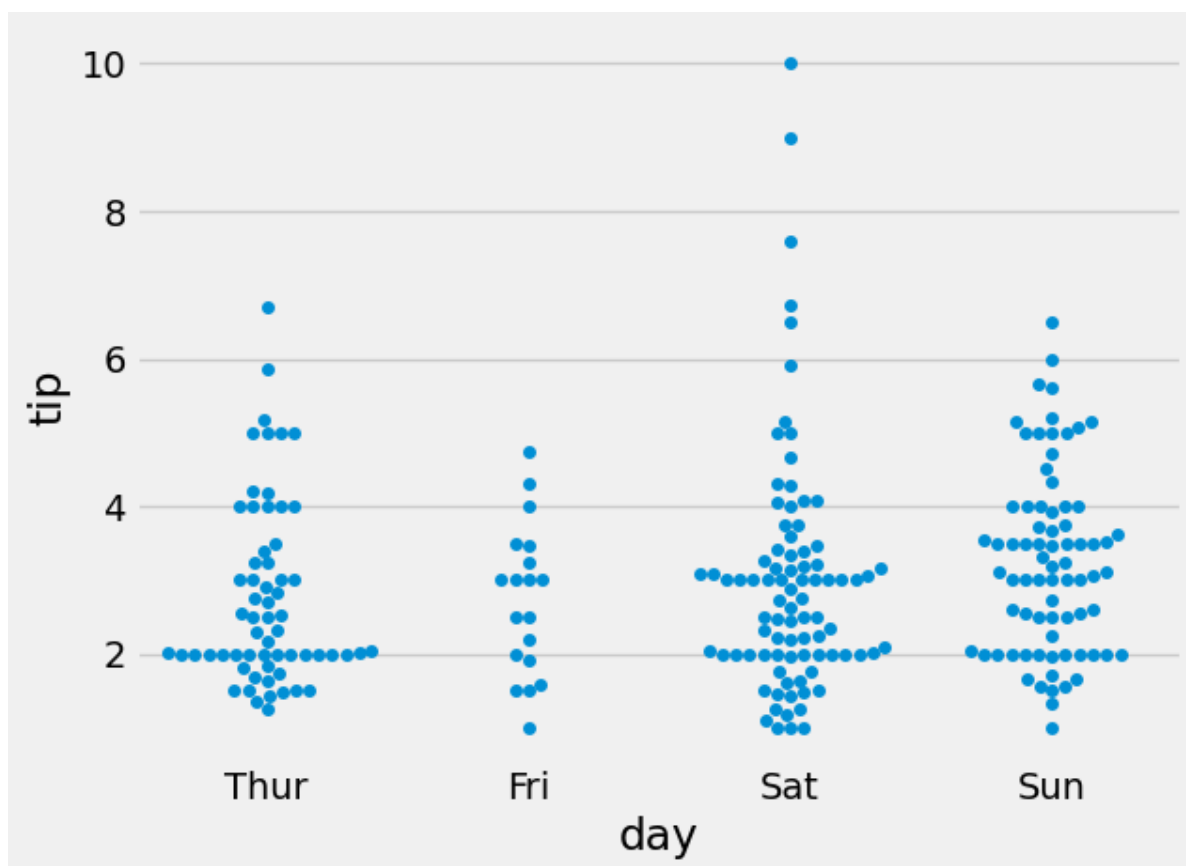
```
C:\Users\SHANTANU GARAIN\.conda\envs\CampusX\lib\site-packages\seaborn\categorica
l.py:3544: UserWarning: 8.1% of the points cannot be placed; you may want to decre
ase the size of the markers or use stripplot.
  warnings.warn(msg, UserWarning)
C:\Users\SHANTANU GARAIN\.conda\envs\CampusX\lib\site-packages\seaborn\categorica
l.py:3544: UserWarning: 6.9% of the points cannot be placed; you may want to decre
ase the size of the markers or use stripplot.
  warnings.warn(msg, UserWarning)
```

Out[13]: `<seaborn.axisgrid.FacetGrid at 0x22d31633940>`
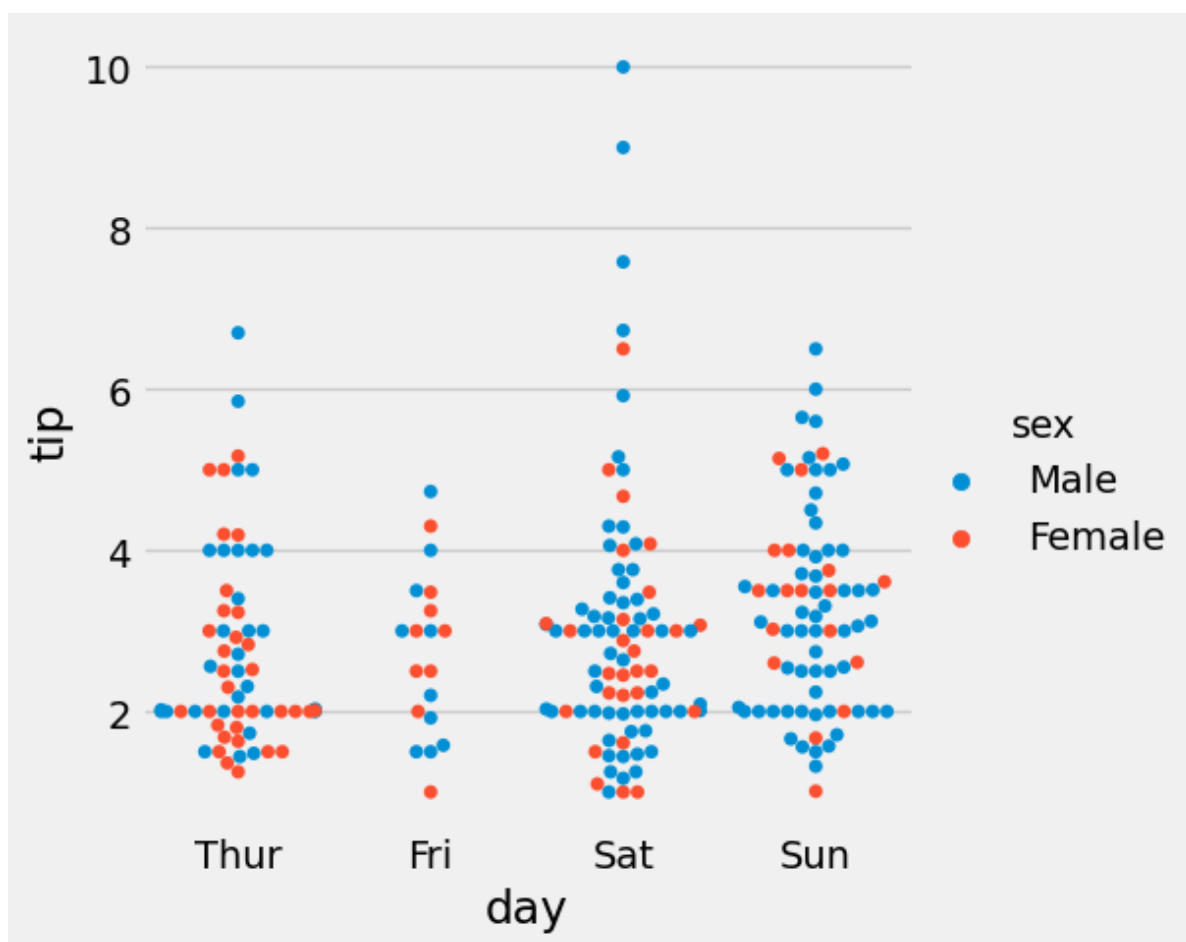
```
In [14]: sns.swarmplot(x='day', y='tip', data=tips)
```

```
Out[14]: <Axes: xlabel='day', ylabel='tip'>
```



```
In [ ]:
```