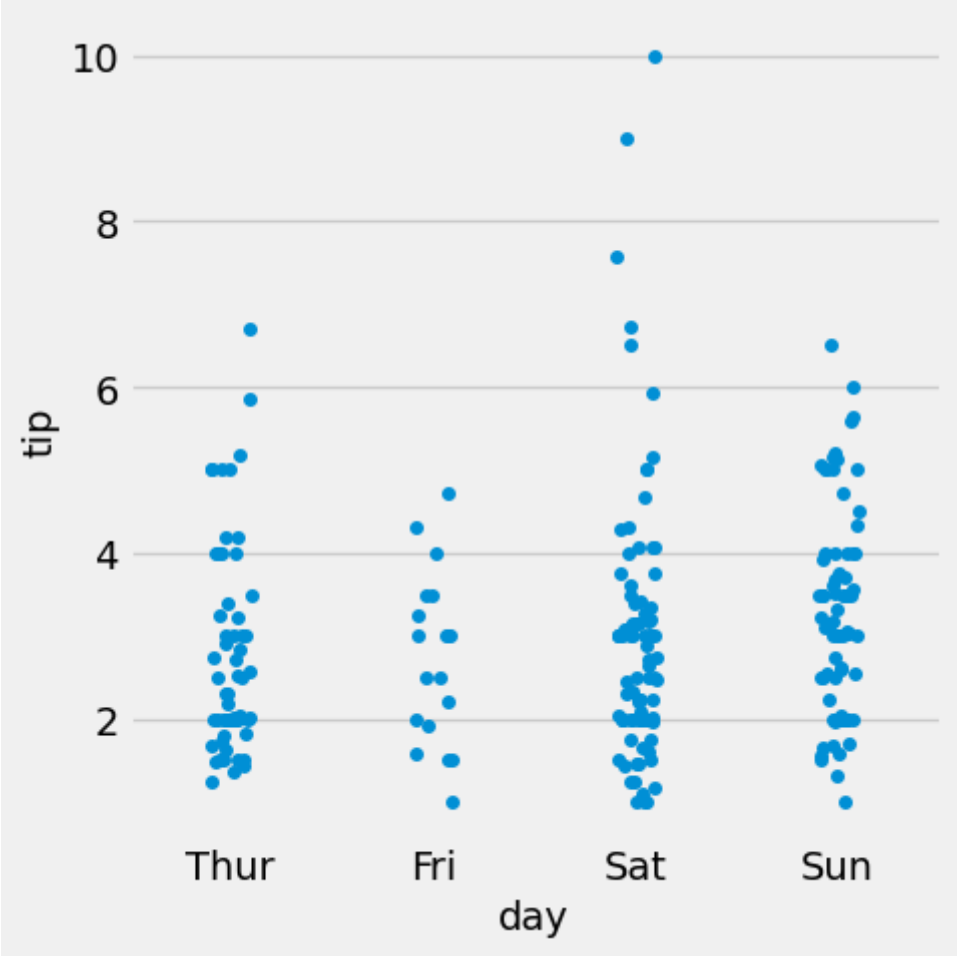
*categorigal scatterplots x --> categorical data y --> numerical data

In [10]:
```
sns.catplot(x='day',y='tip',kind='strip',data=data)
```

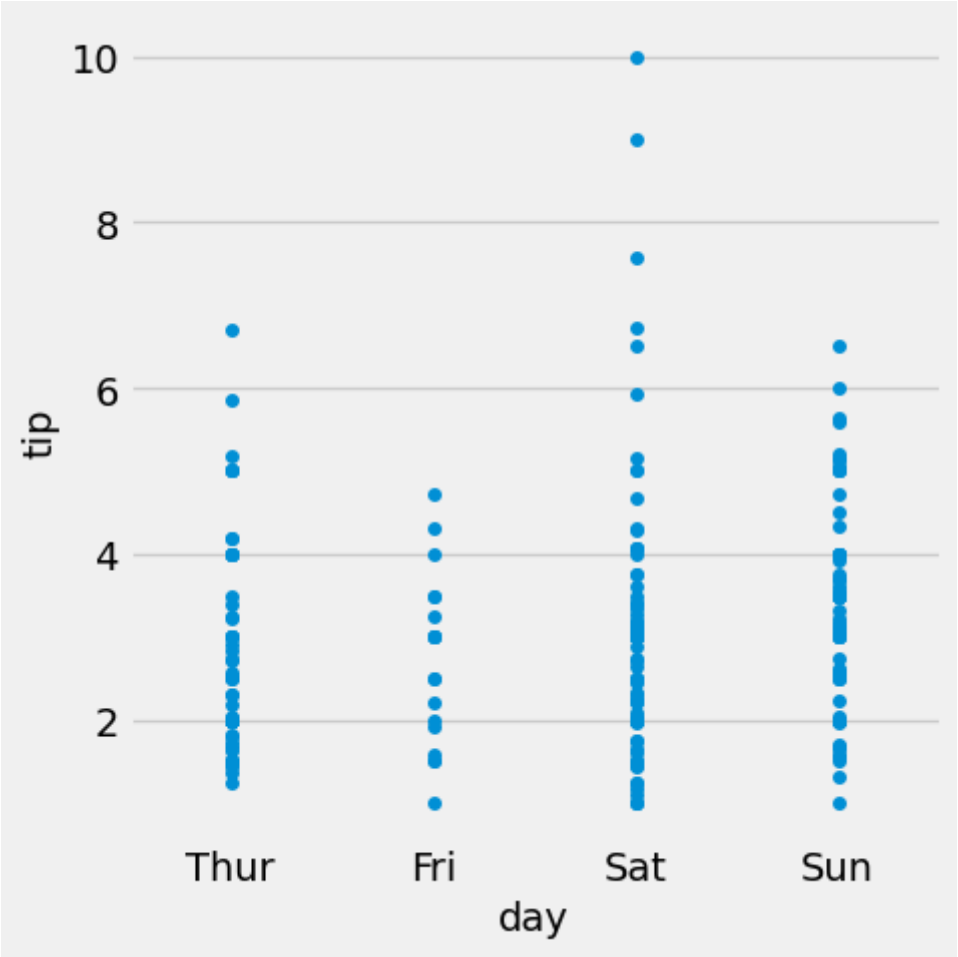
Out[10]:
```
<seaborn.axisgrid.FacetGrid at 0x2744fff4b20>
```



we can also use jitter in striplot

In [11]:
```
sns.catplot(x='day',y='tip',kind='strip',jitter=0,data=data)
```

Out[11]:
```
<seaborn.axisgrid.FacetGrid at 0x2745037f940>
```



seaborn.stripplot(data=None, *, x=None, y=None, hue=None, order=None, hue_order=None, jitter=True, dodge=False, orient=None, color=None, palette=None, size=5, edgecolor='gray', linewidth=0, hue_norm=None, native_scale=False, formatter=None, legend='auto', ax=None, **kwargs)

Draw a categorical scatterplot using jitter to reduce overplotting.

A strip plot can be drawn on its own, but it is also a good complement to a box or violin plot in cases where you want to show all observations along with some representation of the underlying distribution.

Parameters: x, y, huenames of variables in data or vector data, optional Inputs for plotting long-form data. See examples for interpretation.

dataDataFrame, array, or list of arrays, optional Dataset for plotting. If x and y are absent, this is interpreted as wide-form. Otherwise it is expected to be long-form.

order, hue_orderlists of strings, optional Order to plot the categorical levels in; otherwise the levels are inferred from the data objects.

jitterfloat, True/1 is special-cased, optional Amount of jitter (only along the categorical axis) to apply. This can be useful when you have many points and they overlap, so that it is easier to see the distribution. You can specify the amount of jitter (half the width of the uniform random variable support), or just use True for a good default.

dodgebool, optional When using hue nesting, setting this to True will separate the strips for different hue levels along the categorical axis. Otherwise, the points for each level will be plotted on top of each other.

orient“v” | “h”, optional Orientation of the plot (vertical or horizontal). This is usually inferred based on the type of the input variables, but it can be used to resolve ambiguity when both x and y are numeric or when plotting wide-form data.

colormatplotlib color, optional Single color for the elements in the plot.

palettepalette name, list, or dict Colors to use for the different levels of the hue variable. Should be something that can be interpreted by color_palette(), or a dictionary mapping hue levels to matplotlib colors.

sizefloat, optional Radius of the markers, in points.

edgecolormatplotlib color, “gray” is special-cased, optional Color of the lines around each point. If you pass "gray", the brightness is determined by the color palette used for the body of the points. Note that stripplot has linewidth=0 by default, so edge colors are only visible with nonzero line width.

linewidthfloat, optional Width of the gray lines that frame the plot elements.

native_scalebool, optional When True, numeric or datetime values on the categorical axis will maintain their original scaling rather than being converted to fixed indices.

formattercallable, optional Function for converting categorical data into strings. Affects both grouping and tick labels.

legend“auto”, “brief”, “full”, or False How to draw the legend. If “brief”, numeric hue and size variables will be represented with a sample of evenly spaced values. If “full”, every group will get an entry in the legend. If “auto”, choose between brief or full representation based on number of levels. If False, no legend data is added and no legend is drawn.

axmatplotlib Axes, optional Axes object to draw the plot onto, otherwise uses the current Axes.

kwargskey, value mappings Other keyword arguments are passed through to matplotlib.axes.Axes.scatter().

Returns: axmatplotlib Axes Returns the Axes object with the plot drawn onto

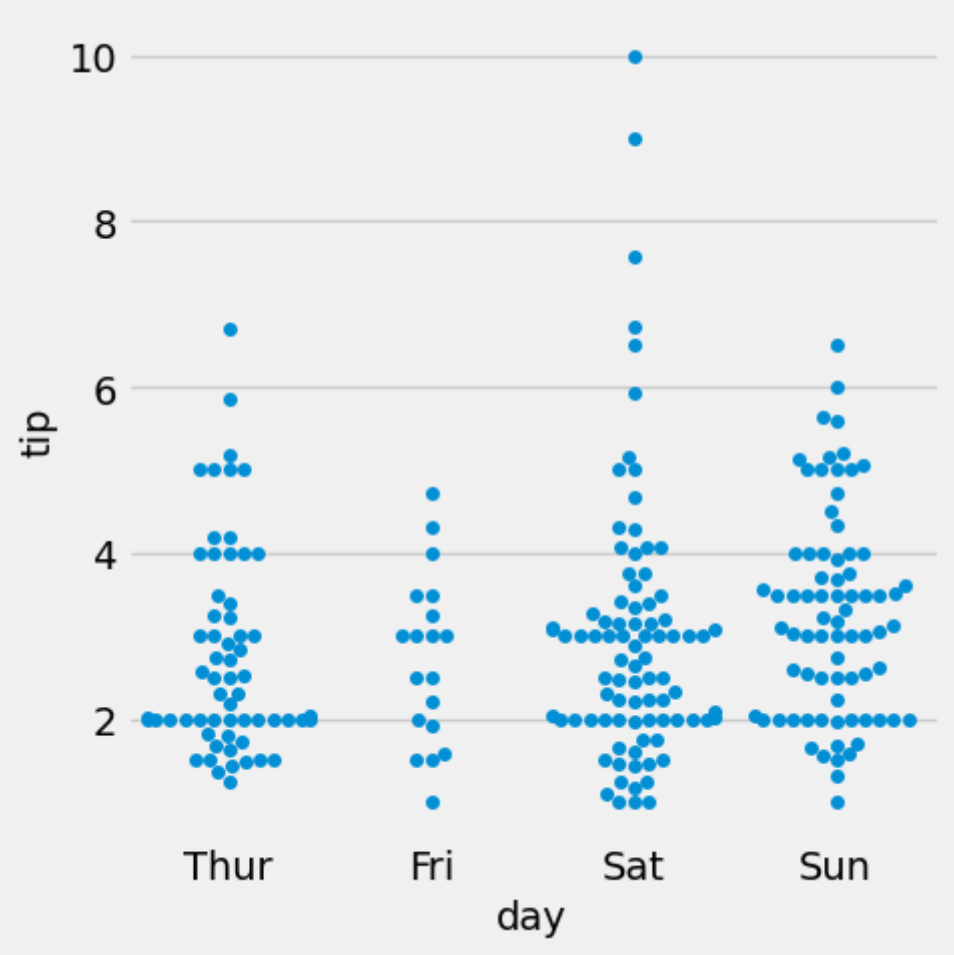
we can also use hue in it

swarmplot

In [13]:
```
sns.catplot(x='day',y='tip',kind='swarm',data=data)
```

Out[13]:
```
<seaborn.axisgrid.FacetGrid at 0x2745016f070>
```

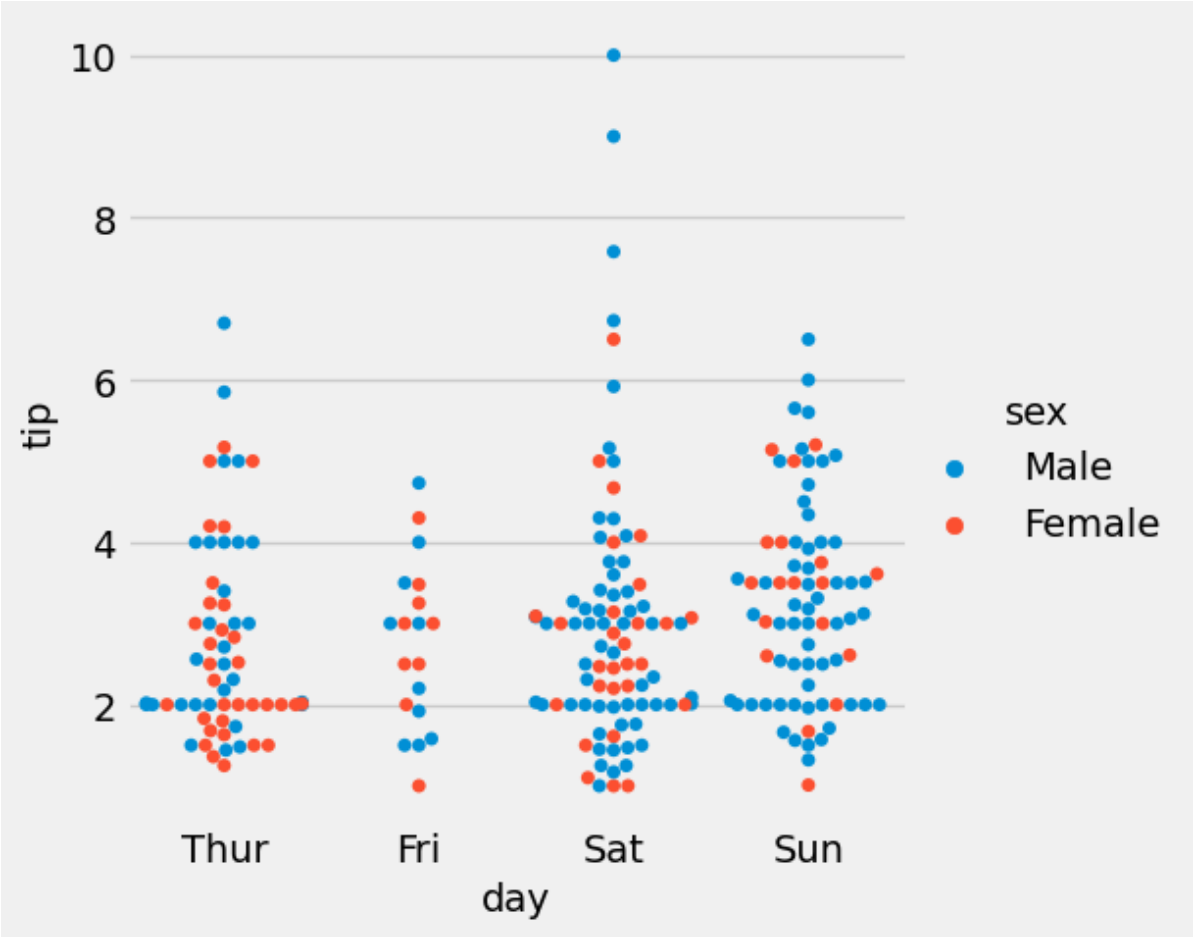
```
C:\ProgramData\anaconda3\lib\site-packages\seaborn\categorical.py:3544: UserWarnin
g: 8.1% of the points cannot be placed; you may want to decrease the size of the m
arkers or use stripplot.
  warnings.warn(msg, UserWarning)
C:\ProgramData\anaconda3\lib\site-packages\seaborn\categorical.py:3544: UserWarnin
g: 6.9% of the points cannot be placed; you may want to decrease the size of the m
arkers or use stripplot.
  warnings.warn(msg, UserWarning)
```



In [16]:
```
sns.catplot(x='day',y='tip',kind='swarm',hue='sex',data=data,)
```

```
C:\ProgramData\anaconda3\lib\site-packages\seaborn\categorical.py:3544: UserWarnin
g: 8.1% of the points cannot be placed; you may want to decrease the size of the m
arkers or use stripplot.
  warnings.warn(msg, UserWarning)
C:\ProgramData\anaconda3\lib\site-packages\seaborn\categorical.py:3544: UserWarnin
g: 6.9% of the points cannot be placed; you may want to decrease the size of the m
arkers or use stripplot.
  warnings.warn(msg, UserWarning)
```

Out[16]:
```
<seaborn.axisgrid.FacetGrid at 0x27451806b90>
```



In [ ]: