pandas.DataFrame.hist

DataFrame.hist(*column=None, by=None, grid=True, xlabelsize=None, xrot=None, ylabelsize=None, yrot=None, ax=None, sharex=False, sharey=False, figsize=None, layout=None, bins=10, backend=None, legend=False, **kwargs*) [source]

Make a histogram of the DataFrame's columns.

A histogram is a representation of the distribution of data. This function calls `matplotlib.pyplot.hist()`, on each series in the DataFrame, resulting in one histogram per column.

Parameters:

data : *DataFrame*

The pandas object holding the data.

column : *str or sequence, optional*

If passed, will be used to limit data to a subset of columns.

by : *object, optional*

If passed, then used to form histograms for separate groups.

grid : *bool, default True*

Whether to show axis grid lines.

xlabelsize : *int, default None*

If specified changes the x-axis label size.

xrot : *float, default None*

Rotation of x axis labels. For example, a value of 90 displays the x labels rotated 90 degrees clockwise.

ylabelsize : *int, default None*

If specified changes the y-axis label size.

yrot : *float, default None*

Rotation of y axis labels. For example, a value of 90 displays the y labels rotated 90 degrees clockwise.

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ax : *Matplotlib axes object, default None*

The axes to plot the histogram on.

sharex : *bool, default True if ax is None else False*

In case subplots=True, share x axis and set some x axis labels to invisible; defaults to True if ax is None otherwise False if an ax is passed in. Note that passing in both an ax and sharex=True will alter all x axis labels for all subplots in a figure.

sharey : *bool, default False*

In case subplots=True, share y axis and set some y axis labels to invisible.

figsize : *tuple, optional*

The size in inches of the figure to create. Uses the value in *matplotlib.rcParams* by default.

layout : *tuple, optional*

Tuple of (rows, columns) for the layout of the histograms.

bins : *int or sequence, default 10*

Number of histogram bins to be used. If an integer is given, bins + 1 bin edges are calculated and returned. If bins is a sequence, gives bin edges, including left edge of first bin and right edge of last bin. In this case, bins is returned unmodified.

backend : *str, default None*

Backend to use instead of the backend specified in the option `plotting.backend`. For instance, 'matplotlib'. Alternatively, to specify the `plotting.backend` for the whole session, set `pd.options.plotting.backend`.

legend : *bool, default False*

Whether to show the legend.

****kwargs**

All other plotting keyword arguments to be passed to `matplotlib.pyplot.hist()`.

See also

`matplotlib.pyplot.hist`

Plot a histogram using matplotlib.

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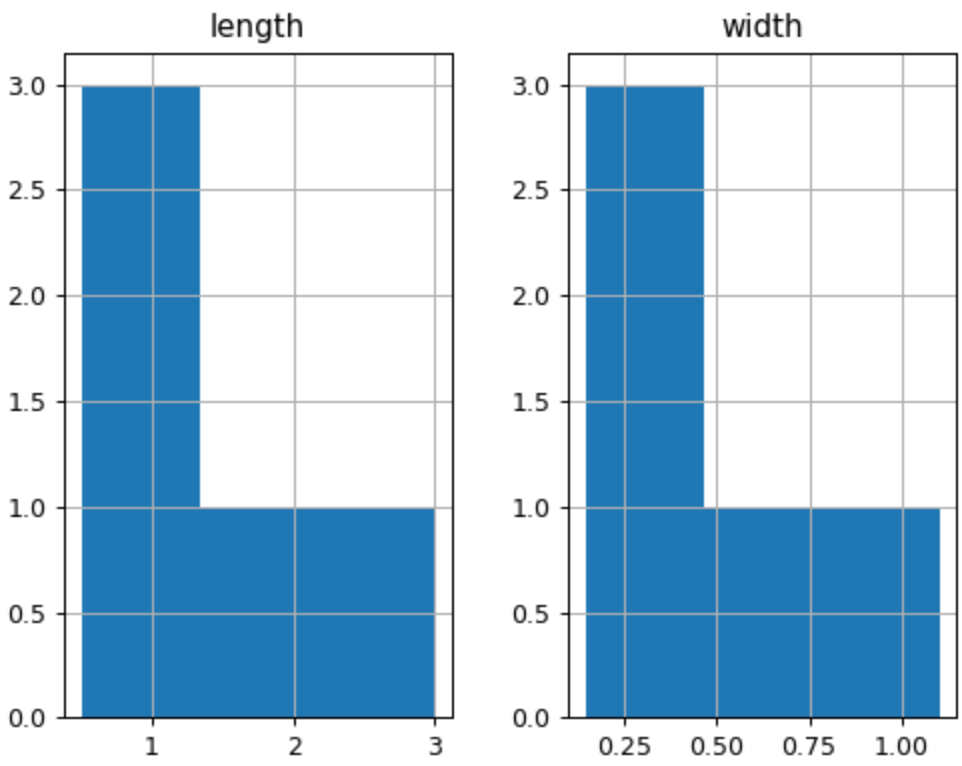
This example draws a histogram based on the length and width of some animals, displayed in three bins

```
>>> df = pd.DataFrame({
...     'length': [1.5, 0.5, 1.2, 0.9, 3],
...     'width': [0.7, 0.2, 0.15, 0.2, 1.1]
...     }, index=['pig', 'rabbit', 'duck', 'chicken', 'horse'])
>>> hist = df.hist(bins=3)
```



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