pandas.DataFrame.plot.bar

`DataFrame.plot.bar(x=None, y=None, **kwargs)` [source]

Vertical bar plot.

A bar plot is a plot that presents categorical data with rectangular bars with lengths proportional to the values that they represent. A bar plot shows comparisons among discrete categories. One axis of the plot shows the specific categories being compared, and the other axis represents a measured value.

Parameters:

x : *label or position, optional*

Allows plotting of one column versus another. If not specified, the index of the DataFrame is used.

y : *label or position, optional*

Allows plotting of one column versus another. If not specified, all numerical columns are used.

color : *str, array-like, or dict, optional*

The color for each of the DataFrame's columns. Possible values are:

- **A single color string referred to by name, RGB or RGBA code,**

  for instance 'red' or '#a98d19'.

- **A sequence of color strings referred to by name, RGB or RGBA**

  code, which will be used for each column recursively. For instance ['green','yellow'] each column's bar will be filled in green or yellow, alternatively. If there is only a single column to be plotted, then only the first color from the color list will be used.

- **A dict of the form {column name : *color}, so that each column will be***

  colored accordingly. For example, if your columns are called *a* and *b*, then passing {'a': 'green', 'b': 'red'} will color bars for column *a* in green and bars for column *b* in red.

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Additional keyword arguments are documented in `DataFrame.plot()`.

Returns:

matplotlib.axes.Axes or np.ndarray of them

An ndarray is returned with one `matplotlib.axes.Axes` per column when `subplots=True`.

See also

`DataFrame.plot.barh`
Horizontal bar plot.

`DataFrame.plot`
Make plots of a DataFrame.

`matplotlib.pyplot.bar`
Make a bar plot with matplotlib.

Examples

Basic plot.

```
>>> df = pd.DataFrame({'lab':['A', 'B', 'C'], 'val':[10, 30, 20]})
>>> ax = df.plot.bar(x='lab', y='val', rot=0)
```

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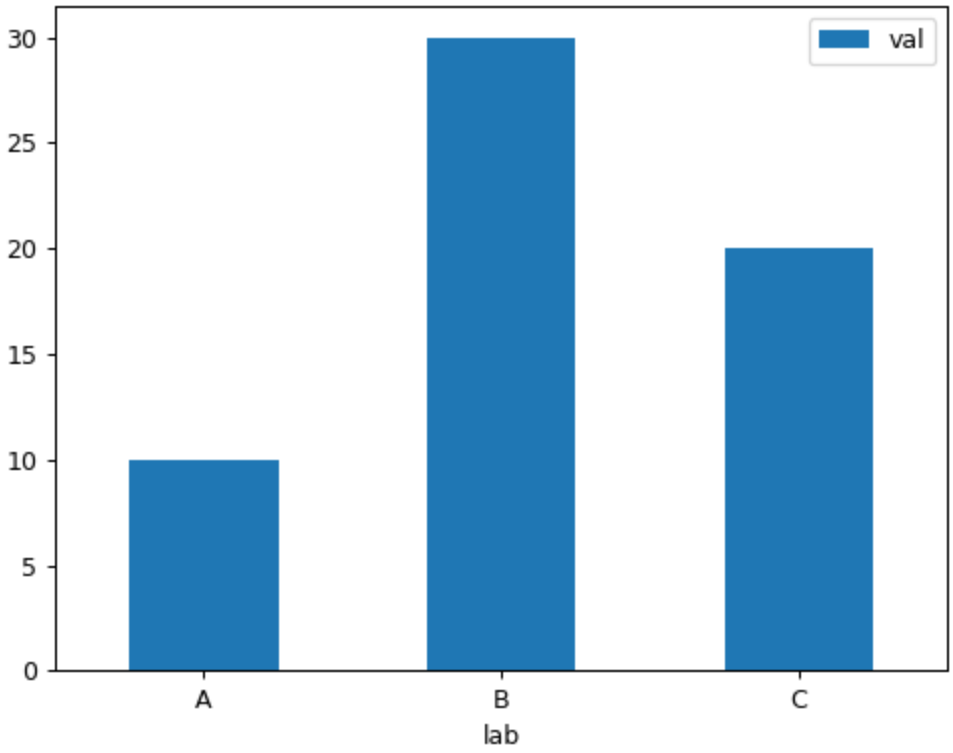

Plot a whole dataframe to a bar plot. Each column is assigned a distinct color, and each row is nested in a group along the horizontal axis.

```
>>> speed = [0.1, 17.5, 40, 48, 52, 69, 88]
>>> lifespan = [2, 8, 70, 1.5, 25, 12, 28]
>>> index = ['snail', 'pig', 'elephant',
...          'rabbit', 'giraffe', 'coyote', 'horse']
>>> df = pd.DataFrame({'speed': speed,
...                    'lifespan': lifespan}, index=index)
>>> ax = df.plot.bar(rot=0)
```

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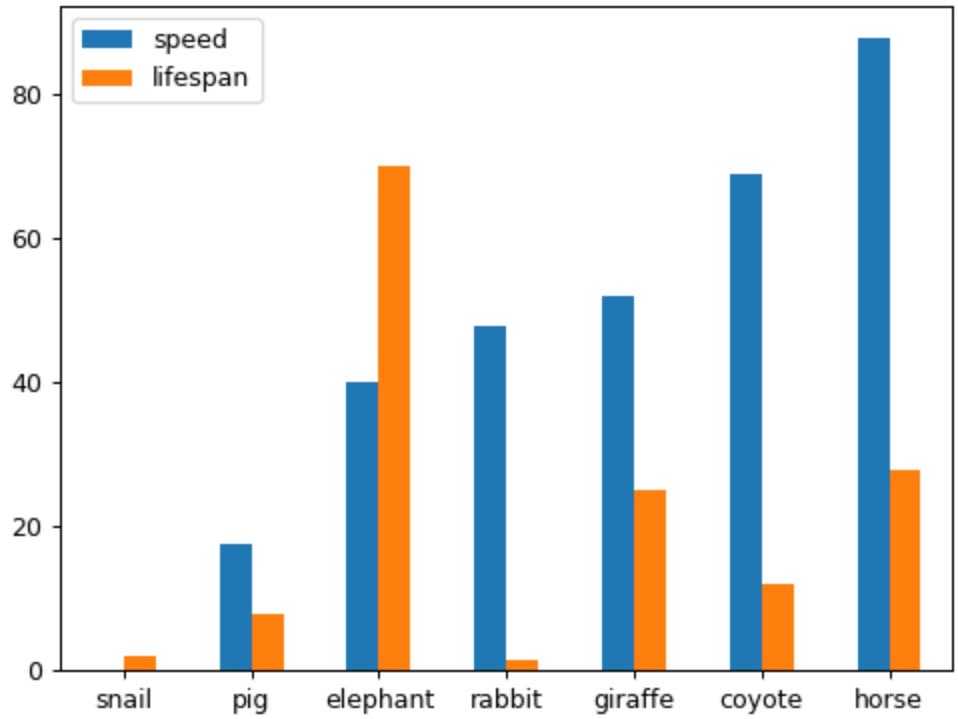
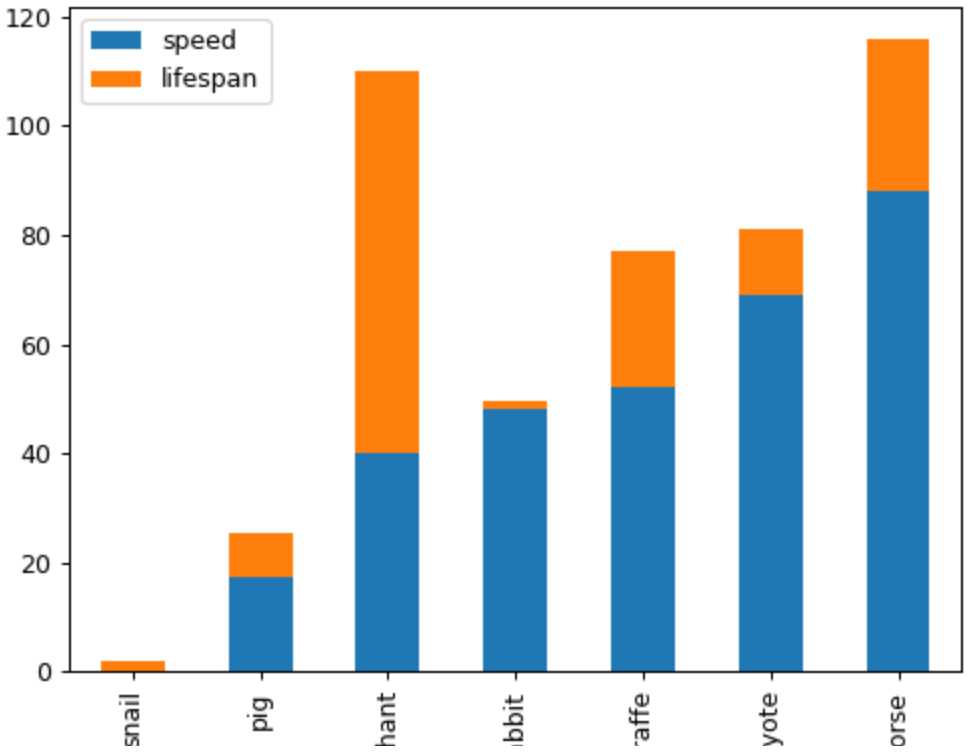


Plot stacked bar charts for the DataFrame

```
>>> ax = df.plot.bar(stacked=True)
```



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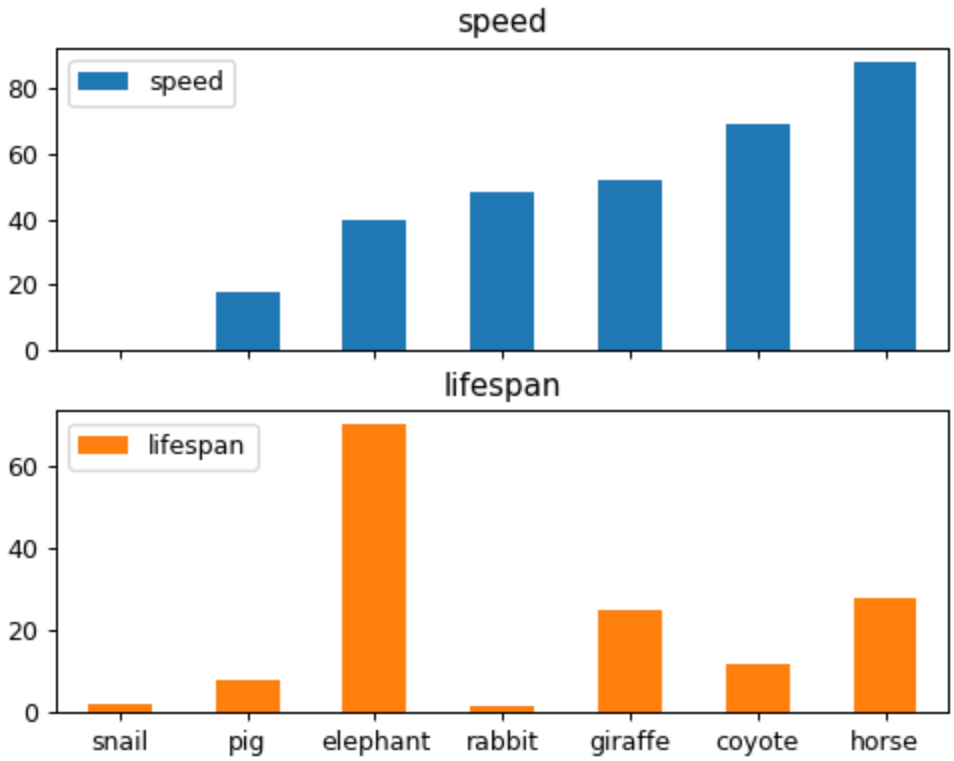
Instead of nesting, the figure can be split by column with `subplots=True`. In this case, a `numpy.ndarray` of `matplotlib.axes.Axes` are returned.

```
>>> axes = df.plot.bar(rot=0, subplots=True)
>>> axes[1].legend(loc=2)
```



If you don't like the default colours, you can specify how you'd like each column to be colored.

```
>>> axes = df.plot.bar(
...     rot=0, subplots=True, color={"speed": "red", "lifespan": "green"}
... )
```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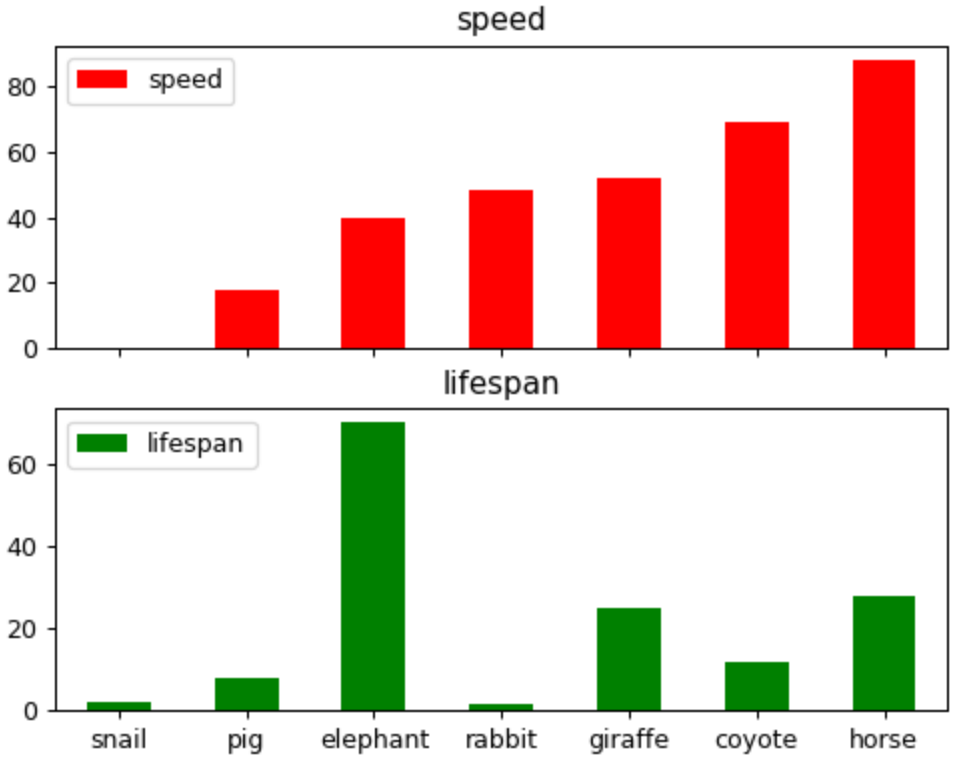

Plot a single column.

```
>>> ax = df.plot.bar(y='speed', rot=0)
```

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pandas.DataFrame.plot.area

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