pandas.DataFrame.plot.scatter

DataFrame.plot.**scatter**(*x*, *y*, *s=None*, *c=None*, ***kwargs*) [source]

Create a scatter plot with varying marker point size and color.

The coordinates of each point are defined by two dataframe columns and filled circles are used to represent each point. This kind of plot is useful to see complex correlations between two variables. Points could be for instance natural 2D coordinates like longitude and latitude in a map or, in general, any pair of metrics that can be plotted against each other.

Parameters: **x** : *int or str*

The column name or column position to be used as horizontal coordinates for each point.

y : *int or str*

The column name or column position to be used as vertical coordinates for each point.

s : *str, scalar or array_like, optional*

The size of each point. Possible values are:

- A string with the name of the column to be used for marker’s size.
- A single scalar so all points have the same size.
- A sequence of scalars, which will be used for each point’s size recursively. For instance, when passing [2,14] all points size will be either 2 or 14, alternatively.
  Changed in version 1.1.0.

c : *str, int or array_like, optional*

The color of each point. 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 point’s color recursively. For instance [‘green’,’yellow’] all points will be filled in green or yellow, alternatively.
- A column name or position whose values will be used to color the marker points according to a colormap.

****kwargs**

Keyword arguments to pass on to `DataFrame.plot()`.

Returns: `matplotlib.axes.Axes` **or numpy.ndarray of them**

> **See also**
>
> `matplotlib.pyplot.scatter`
>
> Scatter plot using multiple input data formats.

Examples

Let’s see how to draw a scatter plot using coordinates from the values in a DataFrame’s columns.

```
>>> df = pd.DataFrame([[5.1, 3.5, 0], [4.9, 3.0, 0], [7.0, 3.2, 1],
...                    [6.4, 3.2, 1], [5.9, 3.0, 2]],
...                   columns=['length', 'width', 'species'])
>>> ax1 = df.plot.scatter(x='length',
...                       y='width',
...                       c='DarkBlue')
```

Search the docs ...

Input/output

General functions

Series

DataFrame

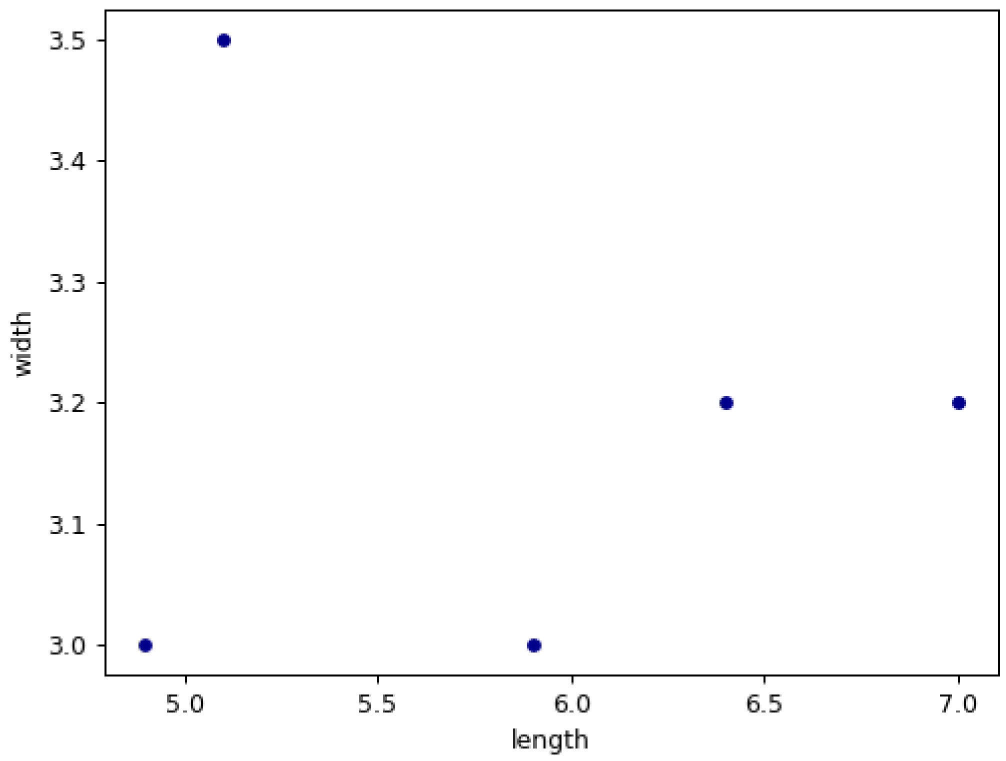
pandas.DataFrame

pandas.DataFrame.index

pandas.DataFrame.columns

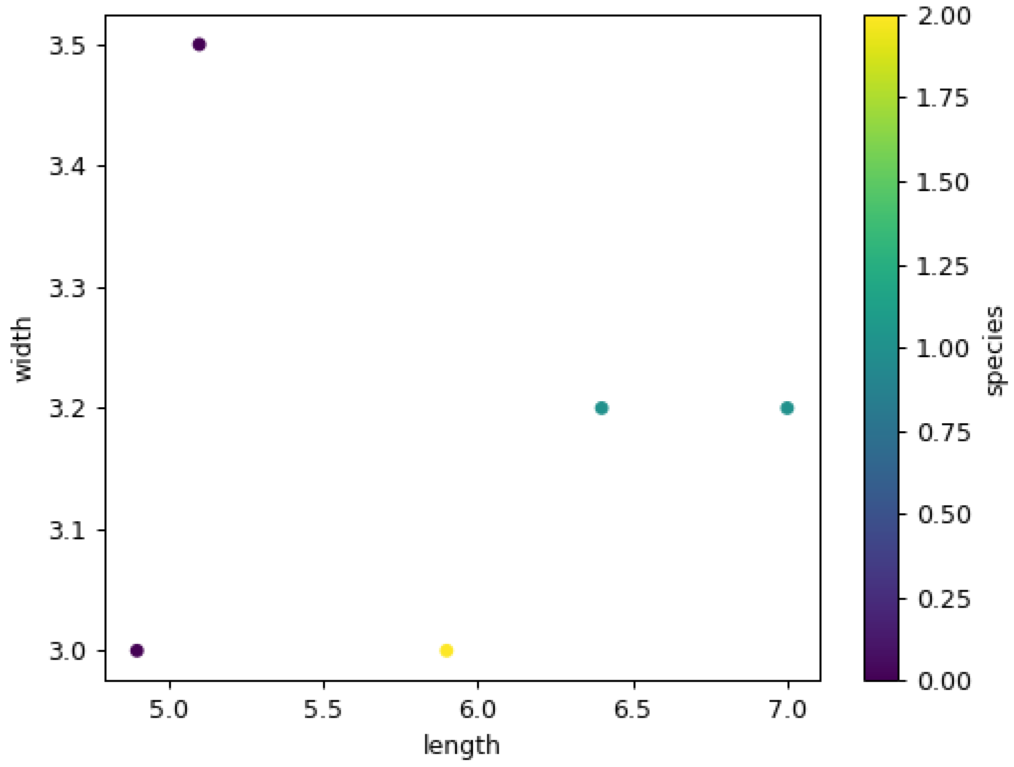
pandas.DataFrame.dtypes

pandas.DataFrame.info



And now with the color determined by a column as well.

```
>>> ax2 = df.plot.scatter(x='length',
...                       y='width',
...                       c='species',
...                       colormap='viridis')
```



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pandas.DataFrame.sparse.density >>

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