

* Chart Visualization :

→ Basic Plotting : Plot

The Plot method on Series and DataFrame is just a simple wrapper around plt.plot()

* On DataFrame, Plot() is a convenience to plot all of the columns with labels.

```
df = pd.DataFrame(np.random.randn(1000,4), index=ts.index,  
columns=list("ABCD"))  
df = df.cumsum()  
plt.figure()  
df.plot()
```

O/P : Shown in the other page of Pdf.

→ Other Plots :

'bar' / 'barh' for bar plots

'hist' for histogram

'box' for boxplot

'kde' or 'density' for density plots

'area' for area plots

'scatter' for scatter plots

'hexbin' for hexagonal bin plots

'pie' for pie plots

Dataframe.plot.<kind>

↳ change this according to the plot needed

df.plot.area

df.plot.barn

df.plot.density

df.plot.kde

df.plot.barn

df.plot.box

df.plot.hist

df.plot.pie

* There are several plotting functions in pandas.plotting that take a "Series" or "Dataframe" as an argument.

- Scatter Matrix
- Andrews Curve
- Parallel coordinates
- Log Plot
- Auto correlation plot
- Bootstrap Plot
- Radviz

* Boxplot: In boxplot, the return type can be controlled by the return_type keyword. The valid choices are {"axes", "dict", "both", None}. Faceting, created by Dataframe.boxplot with the "by" keyword, will affect the output type.

return-type

Faceted

Output type

None

No

axes

None

Yes

2-D ndarray of axes

'axes'

No

axes

'dict'

No

dict of artists

'both'

No

namedtuple

'both'

Yes

Series of namedtuple

* Plotting with missing data :

Plot type

NaN Handling

Line

Leave gaps as Nans

Line (stacked)

Fill 0's

Bar

Fill 0's

Scatter

Drop NaNs

Histogram

Drop NaNs (Column-wise)

Box

Drop NaNs (Column-wise)

Area

Fill 0's

KDE

Drop NaNs (Column-wise)

Hexbin

Drop NaNs

Pie

Fill 0's