Cheatography

PandasPlotting Cheat Sheet

by Zayd via cheatography.com/86469/cs/20107/

Terms

The terms will be used to refer to:

- df = Pandas DataFrame
- series = Pandas Series
- data = Pandas DataFrame or Series

Plot whith Series and DataFrames

```
- series.plot()
- datafr ame.pl ot( x=' Non e', y=' None')
- data.p lot.<k ind >()
```

'bar' or 'barh', 'hist', 'box', 'kde' or 'density' , 'hexbin', 'pie' and 'scatter'

Bar Plot

```
- data.p lot.bar() /.barh()
```

Bar plot/ Horizontal plot

```
- data.p lot.ba r(s tac ked = True)
```

Stacked bar plot

Area Plots

```
- data.p lot.area()
```

Area-plot

```
- data.p lot.ar ea( sta cke d=F alse)
```

Non-Stacked area plot

Pie plot

```
- series.pl ot.p ie()
- DataFr ame.pl ot.p ie (su bpl ots =True)
- series.pl ot.p ie (la bels= ['A',' B', 'C'], colors= ['r',' b', 'g'], autopct= '%.2f')
```

It's valid:
fontsize and figsize

Scatter plot

```
-DataF ram e.p lot.sc att er(x=' ', y=' ')
-ax= df.plo t.s cat ter (x= 'A' ,y='B',c=' ', label= 'Gr oup 1')
-df.pl ot.s ca tte r(x ='C ',y ='D', color= 'Ot her', label= 'Gr oup 2', ax= ax)
```

Histograms

```
- data.p lot.hist()
- data.p lot.hi st( sta cke d=True, bins=10)
- data.p lot.hi st( ori ent ati on= 'ho riz ont al', cumula tiv e=True)
data.d iff ().h is t(c olo r='g', alpha=0.5)
```

Box Plots

```
- data.p lot.box()
- dict={ 'bo xes':' ','whi ske rs':' ', 'medians':' ', 'caps':' '}
- data.p lot.bo x(c olo r=dict)
- data.p lot.bo x(v ert =False)
- df.box plo t(b y=' col umn')
- df.box plo t(c olu mn=[' ',' '], by=[' ', ' '])
- df.gro upb y(' g').bo xplot()
```

The "choice random" is:

```
- np.r and om_ cho ice ([' A', 'B' ],s ize =50])
```

Hexagonal bin plot

```
-DataF ram e.p lot.sc att er(x=' ', y=' ')
-ax= df.plo t.s cat ter (x= 'A' ,y='B',c=' ', label= 'Gr oup 1', colormap='N on= np.max)
-df.pl ot.s ca tte r(x ='C ',y ='D', color= 'Ot her', label= 'Gr oup 2', ax= ax)
```

```
- DataFr ame.pl ot.h ex bin (x= 'N
```

Series

DataFrame

Another method

Kinds

Histogram plot

Density plot

Stacked and bins size

Density plot

```
- data.p lot.de ns ity()
```

Plot for data .CSV

```
> data= pd.rea d_c sv( 'Name.cs v')
```

Horizontal and cumulative

Andrews curves

```
- pdt.an dre ws_ cur ves (data, 'c
```

Subplots histograms

Parallel coordinates

```
- pdt.pa ral lel _co ord ina tes ( names')
```

RadViz

```
- pdt.ra dvi z(data, 'column name
```

Box p

Color

Boxe

Plotting Tools from Pandas Plotting

```
> import pandas.pl otting as pdt
```

Scatter matrix plot

```
- pdt.sc at t e r_ mat ri x( e = ( 6, 6)')
```

Horizo box p

Lag plot

```
- pdt.la g_p lot (se ries)
```

Autocorrelation plot

```
- pdt.au toc orr ela tio n_p lot (
```

Bootstrap plot

```
- pdt.bo ots tra p_p lot (se ries, gr een')
```

Pie plot for Series

Pie plot for DataFrame

Wedge labels

Group for rand choic

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Plot formatting

Plot style

```
- series.pl ot( sty le= 'k--')
```

Controlling the legend

```
- DataFr ame.pl ot( legend= False)
```

Color map

```
- DataFr ame.pl ot( col ormap=' ')
```

Scales (logarithmic)

```
- data.p lot (logy= True) or logx or
g
```

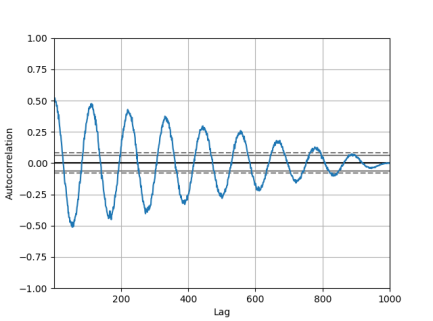
Plotting on a seconday y-axis

```
- DataFr ame.co lum n1.p lot()
- DataFr ame.co lum n2.p lo t(s eco nda ry
_ y=True)
```

Suppressing tick resolution adjustament

```
- data.p lot (x_ compat= True)
```

j



Subplots

`- data.p lot (su bpl ots =True)`	Subplots
`- data.p lot (su bplots= True, layout= (2 ,3)`	Multiple axes

It´s valid:
figsize and sharex

Plotting with errors bars

```
DataFr ame.pl ot.b ar (ye rr= df_err, xerr= df1_err, caps
ize=3)
```

df_err and *df1_err* are DataFrame of the errors of X and Y

Plotting tables

```
- ax.get _xa xis ().s et _vi sib le( False)
- DataFr ame.pl ot( table= True, ax=ax)
```

Adds table to:

```
- fig, ax= plt.su bpl ots (1,1)
- pdt.ta ble(ax, DataFrame, loc='upper right', colWid ths =[0.2, 0.2, 0.
2])
- DataFr ame.pl ot(ax= ax)
```