Statistical | Untitled | Untitled | Untitled | Untitled | Untitled | Untitled | Untitled

Zeppelin

# Statistical

default

FINISHED

```
%python
from pandas import Series, DataFrame
import numpy as np, pandas as pd
df = DataFrame([[1.4,np.nan],[7.1,-4.5],
                [np.nan,np.nan],[0.75,-1.3]],
                index=['a','b','c','d'],
                columns=['one','two'])
```

Took 3 sec. Last updated by anonymous at February 23 2017, 6:45:12 PM.

FINISHED

```
%python
df
df.sum()
df.sum(axis=1)
df.mean(axis=1,skipna=False)
df.idxmax()
df.describe()
obj = Series(['a','a','b','c'] * 4)
obj
```

```
    one  two
a  1.40  NaN
b  7.10 -4.5
c   NaN  NaN
d  0.75 -1.3
one    9.25
two   -5.80
dtype: float64
a    1.40
b    2.60
c    0.00
d   -0.55
dtype: float64
a      NaN
b    1.300
c      NaN
d   -0.275
dtype: float64
```

Took 0 sec. Last updated by anonymous at February 23 2017, 6:45:50 PM.

FINISHED

```
%python
obj.describe()
```

```
count     16
unique     3
top        a
freq       8
dtype: object
```

Took 0 sec. Last updated by anonymous at February 23 2017, 6:46:33 PM.

# Zeppelin

## Statistical

FINISHED

default

```
%python
from pandas.io.data import web
from pylab import *
from pandas.io.data import *
all_data = {}
for ticker in ['AAPL','IBM','MSFT','GOOG']:
  all_data[ticker] = web.get_data_yahoo(ticker)
```

Took 2 sec. Last updated by anonymous at February 23 2017, 6:50:40 PM.

FINISHED

```
%python
price = DataFrame({tic: data['Adj Close']
    for tic, data in all_data.items()})
volume = DataFrame({tic: data['Volume']
    for tic, data in all_data.items()})
returns = price.pct_change()
```

Took 0 sec. Last updated by anonymous at February 23 2017, 6:51:07 PM.

FINISHED

```
%python
returns.tail()
returns.MSFT.corr(returns.IBM)
returns.MSFT.cov(returns.IBM)
returns.corr()
returns.cov()
returns.corrwith(returns.IBM)
returns.corrwith(volume)
```

```
                AAPL      GOOG       IBM      MSFT
Date
2017-02-15  0.003629 -0.001792  0.008605 -0.000619
2017-02-16 -0.001181  0.006325 -0.001376 -0.000155
2017-02-17  0.002734  0.004744 -0.004189  0.001550
2017-02-21  0.007221  0.004335 -0.002269 -0.002012
2017-02-22  0.002999 -0.001082  0.004937 -0.002016
0.49515377802280919
8.5977652563835427e-05
          AAPL      GOOG       IBM      MSFT
AAPL  1.000000  0.409541  0.381549  0.388972
GOOG  0.409541  1.000000  0.402872  0.470820
IBM   0.381549  0.402872  1.000000  0.495154
MSFT  0.388972  0.470820  0.495154  1.000000
          AAPL      GOOG       IBM      MSFT
AAPL  0.000270  0.000105  0.000075  0.000093
GOOG  0.000105  0.000244  0.000075  0.000107
IBM   0.000075  0.000075  0.000144  0.000086
```

Took 0 sec. Last updated by anonymous at February 23 2017, 6:51:35 PM.

READY