Trump_Stock_Portfolio

September 29, 2021

1 Donald Trump Stock Portfolio

During Trump Presidental, he did not support climate change. Stocks relate to climate change it did not go up much or it went down. Pesidental can affect the stock market or particular stocks.

https://en.wikipedia.org/wiki/Political_positions_of_Donald_Trump

[1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import math

import warnings
warnings.filterwarnings("ignore")

# fix_yahoo_finance is used to fetch data
import fix_yahoo_finance as yf
yf.pdr_override()
```

[2]:
```
# input
symbols = ['GE','JCI','ALSMY','VWDRY','OC']
start = '2017-01-01'
end = '2019-01-01'

# Read data
df = yf.download(symbols,start,end)['Adj Close']

# View Columns
df.head()
```

```
[**********************100%**********************]  5 of 5 downloaded
```

[2]:

Date	ALSMY	GE	JCI	OC	VWDRY
2017-01-03	2.326459	28.130621	39.377151	50.005348	20.905153
2017-01-04	2.317937	28.139500	39.432838	49.899479	20.772120
2017-01-05	2.326459	27.979715	38.922409	50.525032	21.085697

```
2017-01-06  2.326459  28.059608  39.711254  50.178577  21.161716
2017-01-09  2.326459  27.926458  39.534920  49.957233  21.209229
```

[3]:
```
df.tail()
```

[3]:
```
                ALSMY        GE        JCI          OC      VWDRY
Date
2018-12-24  3.468085  6.633243  27.953753  40.499290  24.626158
2018-12-26  3.476755  7.083766  29.159754  42.258850  24.902634
2018-12-27  3.442075  6.968739  29.130339  42.946941  24.971754
2018-12-28  3.433404  7.198793  29.032291  42.937115  24.695276
2018-12-31  3.494096  7.256308  29.071510  43.232006  24.863138
```

[4]:
```
from datetime import datetime
from dateutil import relativedelta

d1 = datetime.strptime(start, "%Y-%m-%d")
d2 = datetime.strptime(end, "%Y-%m-%d")
delta = relativedelta.relativedelta(d2,d1)
print('How many years of investing?')
print('%s years' % delta.years)
```

```
How many years of investing?
2 years
```

[5]:
```
from datetime import datetime

def calculate_years(start, end):
    date_format = "%Y-%m-%d"
    a = datetime.strptime(start, date_format).year
    b = datetime.strptime(end, date_format).year
    years = b - a

    return years
```

[6]:
```
print(calculate_years(start, end), 'years')
```

```
2 years
```

[7]:
```
Cash = 100000
print('Percentage of invest:')
percent_invest = [0.20, 0.20, 0.20, 0.20, 0.20]
for i, x in zip(df.columns, percent_invest):
    cost = x * Cash
    print('{}: {}'.format(i, cost))
```

```
Percentage of invest:
ALSMY: 20000.0
```

```
GE: 20000.0
JCI: 20000.0
OC: 20000.0
VWDRY: 20000.0
```

[8]:
```
print('Number of Shares:')
percent_invest = [0.20, 0.20, 0.20, 0.20, 0.20]
for i, x, y in zip(df.columns, percent_invest, df.iloc[0]):
    cost = x * Cash
    shares = int(cost/y)
    print('{}: {}'.format(i, shares))
```

```
Number of Shares:
ALSMY: 8596
GE: 710
JCI: 507
OC: 399
VWDRY: 956
```

[9]:
```
print('Beginning Value:')
percent_invest = [0.20, 0.20, 0.20, 0.20, 0.20]
for i, x, y in zip(df.columns, percent_invest, df.iloc[0]):
    cost = x * Cash
    shares = int(cost/y)
    Begin_Value = round(shares * y, 2)
    print('{}: ${}'.format(i, Begin_Value))
```

```
Beginning Value:
ALSMY: $19998.24
GE: $19972.74
JCI: $19964.22
OC: $19952.13
VWDRY: $19985.33
```

[30]:
```
print('Current Value:')
percent_invest = [0.20, 0.20, 0.20, 0.20, 0.20]
for i, x, y, z in zip(df.columns, percent_invest, df.iloc[0], df.iloc[-1]):
    cost = x * Cash
    shares = int(cost/y)
    Current_Value = round(shares * z, 2)
    print('{}: ${}'.format(i, Current_Value))
```

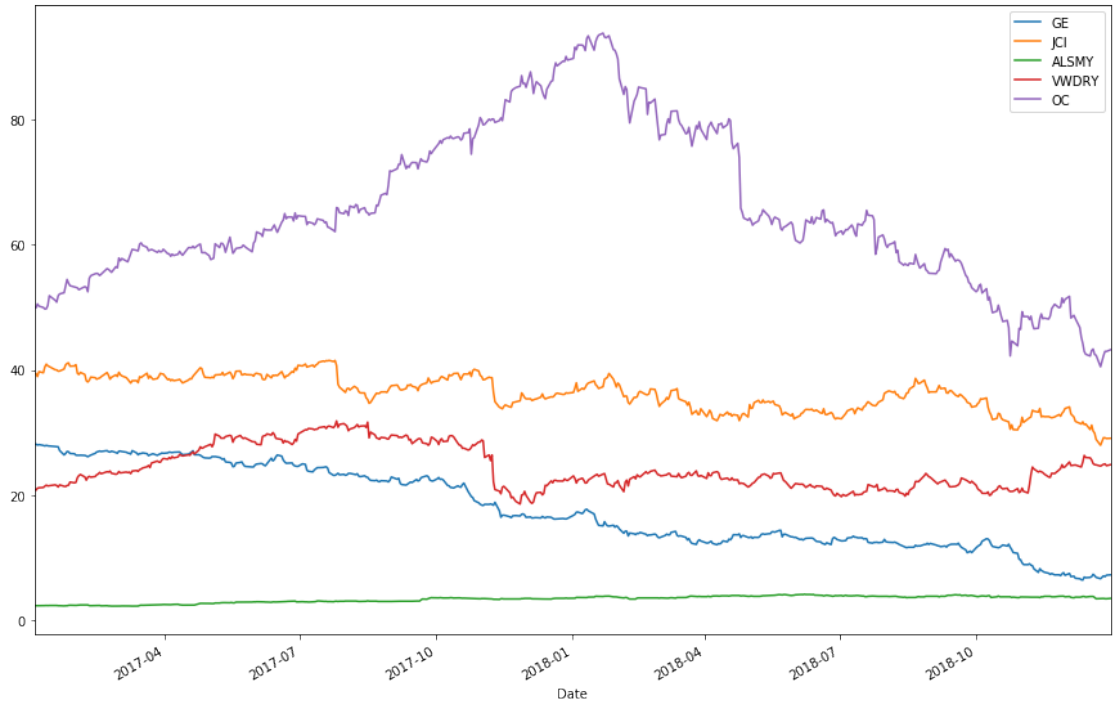
```
Current Value:
ALSMY: $30035.25
GE: $5151.98
JCI: $14739.26
OC: $17249.57
VWDRY: $23769.16
```

[31]:
```
result = []
percent_invest = [0.20, 0.20, 0.20, 0.20, 0.20]
for i, x, y, z in zip(df.columns, percent_invest, df.iloc[0], df.iloc[-1]):
    cost = x * Cash
    shares = int(cost/y)
    Current_Value = round(shares * z, 2)
    result.append(Current_Value)
print('Total Value: $%s' % round(sum(result),2))
```

```
Total Value: $90945.22
```

[12]:
```
for s in symbols:
    df[s].plot(label = s, figsize = (15,10))
plt.legend()
```

[12]: <matplotlib.legend.Legend at 0x19e21192780>



[13]:
```
df.min()
```

[13]:
```
ALSMY     2.258285
GE        6.423105
JCI      27.953753
OC       40.499290
VWDRY    18.562418
```

```
dtype: float64
```

[14]:
```
for s in symbols:
    print(s + ":",  df[s].max())
```

```
GE: 28.1395
JCI: 41.504387
ALSMY: 4.158313
VWDRY: 31.836481
OC: 93.779671
```

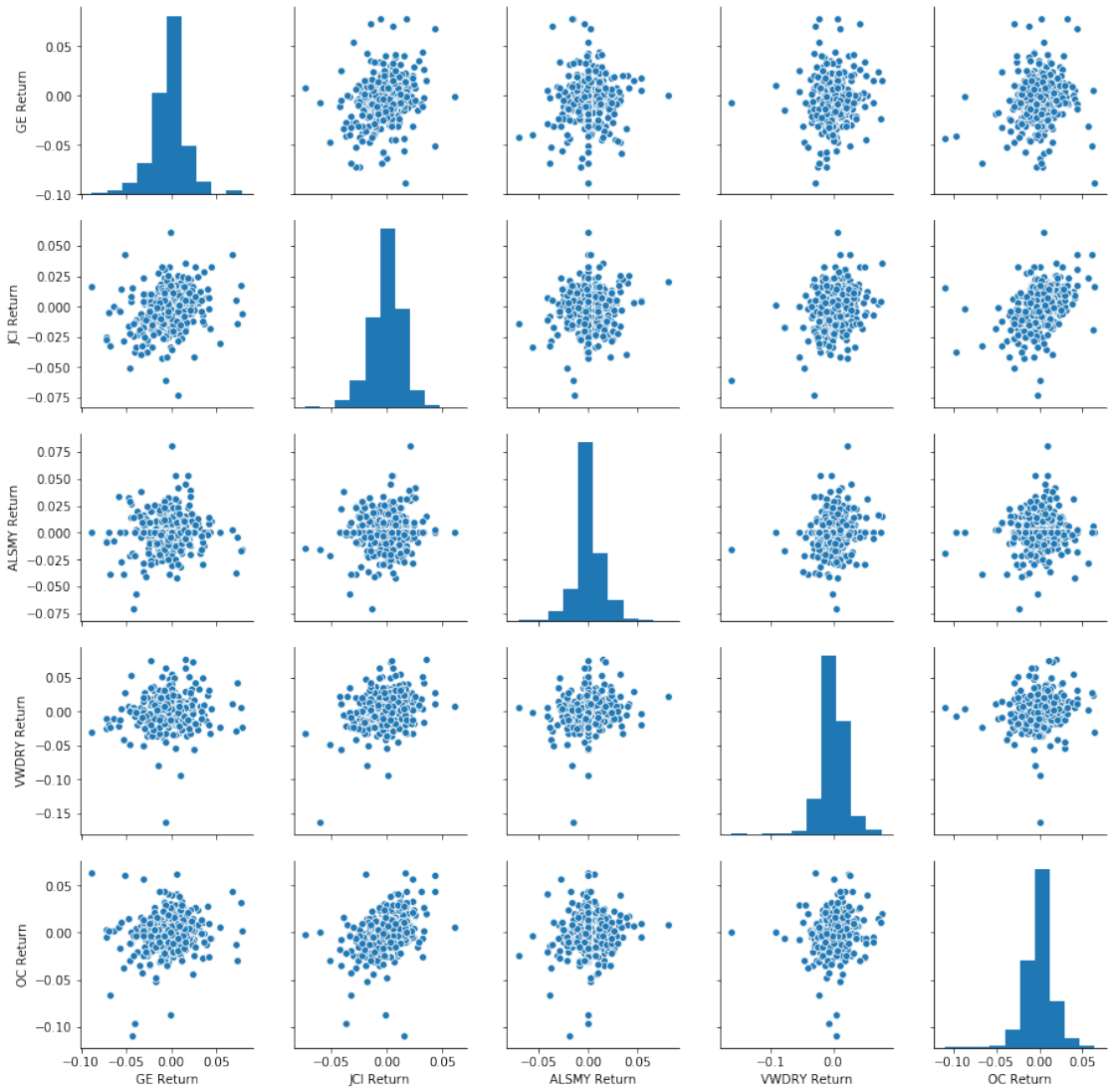
[15]:
```
# Creating a Return Data Frame for all individual banks stocks:
returns = pd.DataFrame()
for s in symbols:
    returns[s + " Return"] = df[s].pct_change().dropna()

returns.head(4)
```

[15]:

Date	GE Return	JCI Return	ALSMY Return	VWDRY Return	OC Return
2017-01-04	0.000316	0.001414	-0.003663	-0.006364	-0.002117
2017-01-05	-0.005678	-0.012944	0.003677	0.015096	0.012536
2017-01-06	0.002855	0.020267	0.000000	0.003605	-0.006857
2017-01-09	-0.004745	-0.004440	0.000000	0.002245	-0.004411

[16]:
```
sns.pairplot(returns[1:] )
```

[16]:
```
<seaborn.axisgrid.PairGrid at 0x19e214fd550>
```



[17]:
```
# dates each bank stock had the best and worst single day returns.
print(returns.idxmax())
```

```
GE Return       2018-06-26
JCI Return      2018-05-01
ALSMY Return    2017-04-24
VWDRY Return    2017-11-28
OC Return       2018-10-30
dtype: datetime64[ns]
```

[18]:
```
# dates each bank stock had the best and worst single day returns.
print(returns.idxmin())
```

```
GE Return       2018-10-30
```

```
JCI Return      2017-07-27
ALSMY Return    2018-10-11
VWDRY Return    2017-11-09
OC Return       2018-04-25
dtype: datetime64[ns]
```

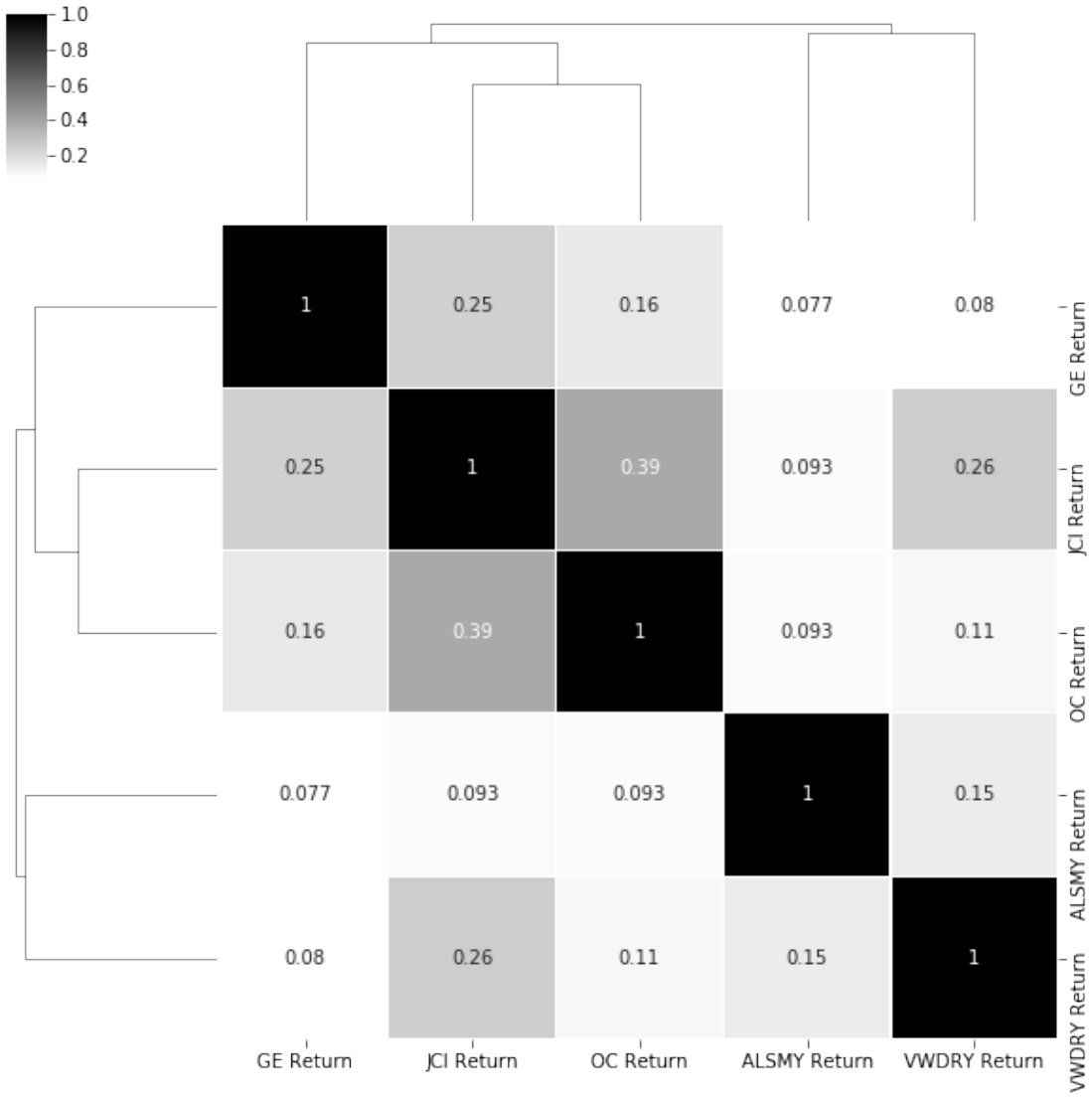
[19]:
```
returns.corr()
```

[19]:

	GE Return	JCI Return	ALSMY Return	VWDRY Return	OC Return
GE Return	1.000000	0.248699	0.076865	0.080060	0.156558
JCI Return	0.248699	1.000000	0.093351	0.260718	0.388753
ALSMY Return	0.076865	0.093351	1.000000	0.148658	0.093428
VWDRY Return	0.080060	0.260718	0.148658	1.000000	0.108735
OC Return	0.156558	0.388753	0.093428	0.108735	1.000000

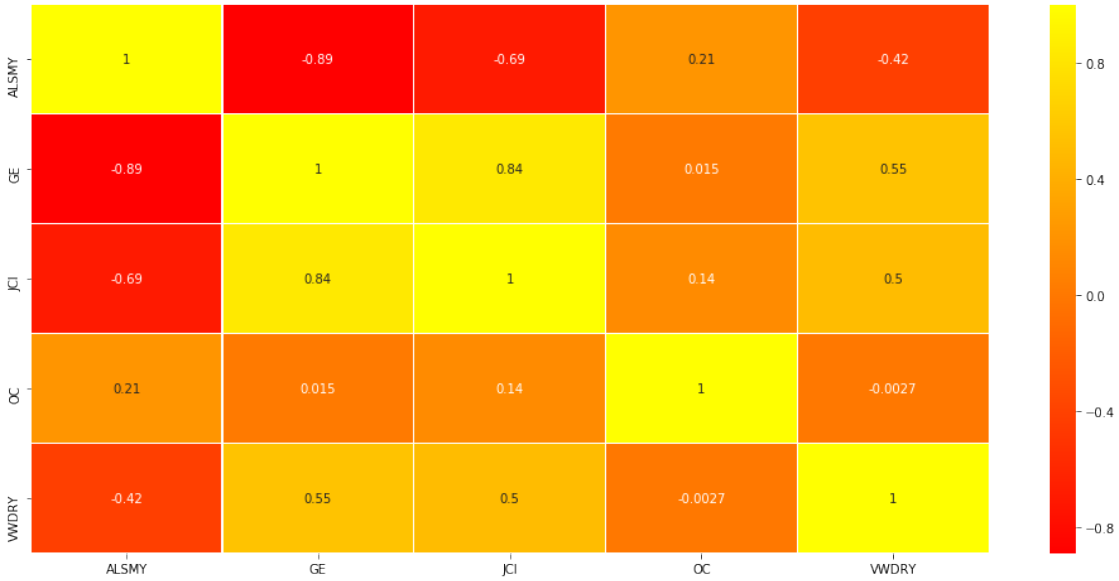
[20]:
```
# Heatmap for return of all the stocks
plt.figure(figsize=(15,10))
sns.heatmap(returns.corr(), cmap="Blues",linewidths=.1, annot= True)


sns.clustermap(returns.corr(), cmap="binary",linewidths=.1, annot= True)
```

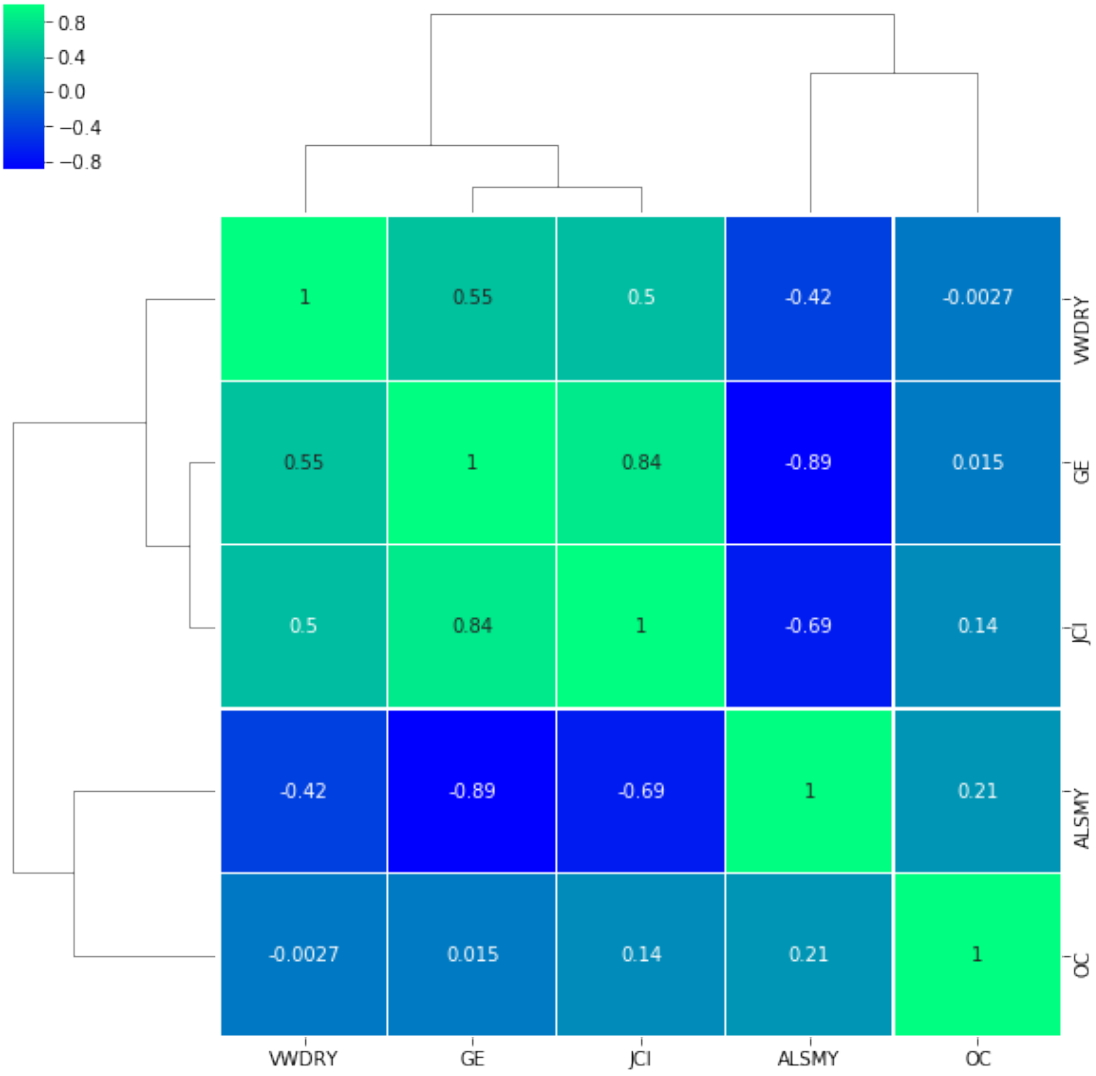
[20]:
```
<seaborn.matrix.ClusterGrid at 0x19e21cd9080>
```



[21]:
```
# heatmap for Adj. Close prices for all the stock
plt.figure(figsize = (17,8))
sns.heatmap(df.corr(), cmap="autumn",linewidths=.1, annot= True)

sns.clustermap(df.corr(), cmap="winter",linewidths=.1, annot= True)
```

[21]: <seaborn.matrix.ClusterGrid at 0x19e214fd3c8>


ALSMY
GE
JCI
OC
VWDRY
1
-0.89
-0.69
0.21
-0.42
-0.89
1
0.84
0.015
0.55
-0.69
0.84
1
0.14
0.5
0.21
0.015
0.14
1
-0.0027
-0.42
0.55
0.5
-0.0027
1
ALSMY
GE
JCI
OC
VWDRY
0.8
0.4
0.0
−0.4
−0.8


0.8
0.4
0.0
−0.4
−0.8
1
0.55
0.5
-0.42
-0.0027
0.55
1
0.84
-0.89
0.015
0.5
0.84
1
-0.69
0.14
-0.42
-0.89
-0.69
1
0.21
-0.0027
0.015
0.14
0.21
1
VWDRY
GE
JCI
ALSMY
OC
VWDRY
GE
JCI
ALSMY
OC