In [1]:
```
import numpy as np
import pandas as pd
from pandas import Series, DataFrame
```

In [62]:
```
# Lets create some data to play with:

# Note: It is not necessary to understand how this dataset was made to understand

#import pandas testing utility
import pandas.util.testing as tm; tm.N = 3

#Create a unpivoted function
def unpivot(frame):
    N, K = frame.shape

    data = {'value' : frame.values.ravel('F'),
            'variable' : np.asarray(frame.columns).repeat(N),
            'date' : np.tile(np.asarray(frame.index), K)}

    # Return the DataFrame
    return DataFrame(data, columns=['date', 'variable', 'value'])

#Set the DataFrame we'll be using
dframe = unpivot(tm.makeTimeDataFrame())
```

In [63]:
```
#Show the "stacked" data, note how there are multiple variables and values for th
dframe
```

Out[63]:

	date	variable	value
0	2000-01-03	A	-0.157500
1	2000-01-04	A	-0.200030
2	2000-01-05	A	1.395275
3	2000-01-03	B	0.553046
4	2000-01-04	B	0.393459
5	2000-01-05	B	0.176259
6	2000-01-03	C	1.652481
7	2000-01-04	C	1.645395
8	2000-01-05	C	0.311638
9	2000-01-03	D	-1.394883
10	2000-01-04	D	0.067484
11	2000-01-05	D	-0.819208

In [68]:
```
# Now let's pivot the data

# First two value spassed are teh row and column indexes, then finally an optiona
dframe_piv = dframe.pivot('date','variable','value')

#Show
dframe_piv
```

Out[68]:

variable	A	B	C	D
date				
2000-01-03	-0.157500	0.553046	1.652481	-1.394883
2000-01-04	-0.200030	0.393459	1.645395	0.067484
2000-01-05	1.395275	0.176259	0.311638	-0.819208

In [70]:
```
#Next we'll learn about duplicates in DataFrames!
```

In [ ]:
```

```