In [1]:
```
import pandas as pd
```

In [2]:
```
#convert tuple -> series
h=('AA','2012-02-1',100,10.2)
s=pd.Series(h)
```

In [3]:
```
type(s)
```

Out[3]:
```
pandas.core.series.Series
```

In [4]:
```
print(h)
```

```
('AA', '2012-02-1', 100, 10.2)
```

In [5]:
```
print(s)
```

```
0           AA
1    2012-02-1
2          100
3         10.2
dtype: object
```

In [6]:
```
#convert dict to series
d={'name':'IBM','date':'2010-09-08','shares':100,'price':10.2}
ds=pd.Series(d)
```

In [7]:
```
print(ds)
```

```
name             IBM
date      2010-09-08
shares           100
price           10.2
dtype: object
```

In [8]:
```
f=['FB','2001-08-02',90,3.2]
f=pd.Series(f,index=['name','date','shares','price'])
```

In [9]:
```
print(f)
```

```
name              FB
date      2001-08-02
shares            90
price            3.2
dtype: object
```

In [10]:
```
f['shares']
```

Out[10]:
```
90
```

In [11]:
```
f[0]
```

Out[11]:
```
'FB'
```

In [12]:
```
f[['shares','price']]
```

Out[12]:
```
shares     90
price     3.2
dtype: object
```

In [13]:
```
data={'name':['AA','IBM','G00G'],
      'date':['2001-12-01','2012-02-10','2010-04-09'],
     'shares':[100,30,90],
     'prices':[12.3,10.3,32.2]}
```

In [14]:
```
print(data)
```

```
{'name': ['AA', 'IBM', 'G00G'], 'date': ['2001-12-01', '2012-02-10', '20
10-04-09'], 'shares': [100, 30, 90], 'prices': [12.3, 10.3, 32.2]}
```

In [15]:
```
type(data)
```

Out[15]:
```
dict
```

In [16]:
```
df=pd.DataFrame(data)
```

In [17]:
```
type(df)
```

Out[17]:
```
pandas.core.frame.DataFrame
```

In [18]:
```
df
```

Out[18]:

	name	date	shares	prices
0	AA	2001-12-01	100	12.3
1	IBM	2012-02-10	30	10.3
2	G00G	2010-04-09	90	32.2

In [19]:
```
df['owner']='Unknown'
```

In [20]:
```
df
```

Out[20]:

	name	date	shares	prices	owner
0	AA	2001-12-01	100	12.3	Unknown
1	IBM	2012-02-10	30	10.3	Unknown
2	G00G	2010-04-09	90	32.2	Unknown

In [21]:
```
df.index=['one','two','three']
```

In [22]:
```
df
```

Out[22]:

	name	date	shares	prices	owner
one	AA	2001-12-01	100	12.3	Unknown
two	IBM	2012-02-10	30	10.3	Unknown
three	G00G	2010-04-09	90	32.2	Unknown

In [23]:
```
df=df.set_index(['name'])
df
```

Out[23]:

	date	shares	prices	owner
name				
AA	2001-12-01	100	12.3	Unknown
IBM	2012-02-10	30	10.3	Unknown
G00G	2010-04-09	90	32.2	Unknown

In [24]:
```
#akses data dg index kolom
df['shares']
```

Out[24]:
```
name
AA      100
IBM      30
G00G     90
Name: shares, dtype: int64
```

In [25]:
```
print(df.index)
```

```
Index(['AA', 'IBM', 'G00G'], dtype='object', name='name')
```

In [26]:
```
#akses data dg index baris
df.loc['AA']
```

Out[26]:
```
date      2001-12-01
shares           100
prices          12.3
owner        Unknown
Name: AA, dtype: object
```

In [27]:
```
#akses semua baris pada sebuah kolom
df.loc[:,'prices']
```

Out[27]:
```
name
AA      12.3
IBM     10.3
G00G    32.2
Name: prices, dtype: float64
```

In [28]:
```
df.loc['AA','shares']
```

Out[28]:
```
100
```

In [29]:
```
#hapus kolom (del) atau (drop)
del df['owner']
```

In [30]:
```
df
```

Out[30]:

name	date	shares	prices
AA	2001-12-01	100	12.3
IBM	2012-02-10	30	10.3
G00G	2010-04-09	90	32.2

In [31]:
```
df.drop('shares',axis=1)
```

Out[31]:

name	date	prices
AA	2001-12-01	12.3
IBM	2012-02-10	10.3
G00G	2010-04-09	32.2