Class Lab Python

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FINISHED

```
%pyspark
from pandas import Series, DataFrame
import pandas as pd
obj = Series([4, 7, -5, 3])
obj
```

```
0    4
1    7
2   -5
3    3
dtype: int64
```

Took 1 sec. Last updated by anonymous at February 16 2017, 7:04:39 PM.

FINISHED

```
from pandas import Series, DataFrame
import pandas as pd
obj.values
obj.index
obj2 = Series([4, 7, -5, 3], index=['d', 'b', 'a', 'c'])
obj2
```

```
d    4
b    7
a   -5
c    3
dtype: int64
```

Took 0 sec. Last updated by anonymous at February 16 2017, 7:09:31 PM.

FINISHED

```
from pandas import Series, DataFrame
import pandas as pd
obj2.index
obj2['a']
obj2['d'] = 6
obj2[['c', 'a', 'd']]
obj2
obj2[obj2 > 0]
obj2 * 2
```

```
d    12
b    14
a   -10
c     6
dtype: int64
```

Took 0 sec. Last updated by anonymous at February 16 2017, 7:10:23 PM.

FINISHED

```
%pyspark
from pandas import Series, DataFrame
import pandas as pd
import numpy as np
np.exp(obj2)
'b' in obj2
'e' in obj2
sdata = {'Ohio': 35000, 'Texas': 71000, 'Oregon': 16000, 'Utah': 5000}
obj3 = Series(sdata)
```

```
Ohio      35000
Oregon    16000
Texas     71000
Utah       5000
dtype: int64
```

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Zeppelin

Took 0 sec. Last updated by anonymous at February 16 2017, 7:12:14 PM.

Class Lab Python

default

FINISHED

```
%pyspark
from pandas import Series, DataFrame
import numpy as np

states = ['California', 'Ohio', 'Oregon', 'Texas']
obj4 = Series(sdata, index=states)
obj4
pd.isnull(obj4)
pd.notnull(obj4)
obj4.isnull()
obj3
```

```
Ohio      35000
Oregon    16000
Texas     71000
Utah       5000
dtype: int64
```

Took 0 sec. Last updated by anonymous at February 16 2017, 7:17:21 PM. (outdated)

FINISHED

```
%pyspark
from pandas import Series, DataFrame
import numpy as np
obj4
obj3 + obj4
obj4.name = 'population'
obj4.index.name = 'state'
obj4
obj.index = ['Bob', 'Steve', 'Jeff', 'Ryan']
obj
data = {'state': ['Ohio', 'Ohio', 'Ohio', 'Nevada', 'Nevada'],
        'year': [2000, 2001, 2002, 2001, 2002],
        'pop': [1.5, 1.7, 3.6, 2.4, 2.9]}
frame = DataFrame(data)
```

```
frame
DataFrame(data, columns=['year', 'state', 'pop'])
frame2 = DataFrame(data, columns=['year', 'state', 'pop', 'debt'],
                   index=['one', 'two', 'three', 'four', 'five'])
```

```
       year   state  pop debt
one    2000    Ohio  1.5  NaN
two    2001    Ohio  1.7  NaN
three  2002    Ohio  3.6  NaN
four   2001  Nevada  2.4  NaN
five   2002  Nevada  2.9  NaN
```

Took 0 sec. Last updated by anonymous at February 16 2017, 7:18:55 PM.

Zeppelin

FINISHED

Class Lab Python

default

```
%pyspark
from pandas import Series, DataFrame
import numpy as np
frame2.columns
frame2['state']
frame2.year
frame2.ix['three']
frame2['debt'] = 16.5
frame2
frame2['debt'] = np.arange(5.)
frame2
val = Series([-1.2, -1.5, -1.7], index=['two', 'four', 'five'])
frame2['debt'] = val
frame2
frame2['eastern'] = frame2.state == 'Ohio'
frame2
```

```
       year   state  pop  debt eastern
one    2000    Ohio  1.5   NaN    True
two    2001    Ohio  1.7  -1.2    True
three  2002    Ohio  3.6   NaN    True
four   2001  Nevada  2.4  -1.5   False
five   2002  Nevada  2.9  -1.7   False
```

Took 0 sec. Last updated by anonymous at February 16 2017, 7:19:30 PM.

FINISHED

```
%pyspark
from pandas import Series, DataFrame
import numpy as np
del frame2['eastern']
frame2.columns
pop = {'Nevada': {2001: 2.4, 2002: 2.9},
       'Ohio': {2000: 1.5, 2001: 1.7, 2002: 3.6}}
frame3 = DataFrame(pop)
frame3
frame3.T
pdata = {'Ohio': frame3['Ohio'][:-1],
        'Nevada': frame3['Nevada'][:2]}
DataFrame(pdata)
frame3.index.name = 'year'; frame3.columns.name = 'state'
```

```
frame3
frame3.values
frame2.values
```

```
array([[2000, 'Ohio', 1.5, nan],
       [2001, 'Ohio', 1.7, -1.2],
       [2002, 'Ohio', 3.6, nan],
       [2001, 'Nevada', 2.4, -1.5],
       [2002, 'Nevada', 2.9, -1.7]], dtype=object)
```

Took 0 sec. Last updated by anonymous at February 16 2017, 7:20:01 PM.

READY