

C3

2020 年 9 月 29 日

```
[1]: import pandas as pd
import numpy as np
```

创建一个空的系列

```
[2]: s = pd.Series()
print(s)
```

Series([], dtype: float64)

从 **ndarray** 创建一个系列

```
[3]: data = np.array(['a', 'b', 'c', 'd'])
s = pd.Series(data)
print(s)

data = np.array(['a', 'b', 'c', 'd'])
s = pd.Series(data, index=[100, 101, 102, 103])
print(s)
```

```
0    a
1    b
2    c
3    d
dtype: object
100   a
101   b
102   c
103   d
dtype: object
```

从字典创建一个系列

```
[4]: data = {'a' : 0., 'b' : 1., 'c' : 2.}
s = pd.Series(data)
print(s)

data = {'a' : 0., 'b' : 1., 'c' : 2.}
s = pd.Series(data, index=['b','c','d','a'])
print(s)
```

```
a    0.0
b    1.0
c    2.0
dtype: float64
b    1.0
c    2.0
d    NaN
a    0.0
dtype: float64
```

从标量创建一个系列

```
[5]: s = pd.Series(5, index=[0, 1, 2, 3])
print(s)

s = pd.Series([1, 2, 3, 4, 5], index=['a', 'b', 'c', 'd', 'e'])
print(s[0])

s = pd.Series([1, 2, 3, 4, 5], index=['a', 'b', 'c', 'd', 'e'])
print(s[:3])

s = pd.Series([1, 2, 3, 4, 5], index=['a', 'b', 'c', 'd', 'e'])
print(s[-3:])

s = pd.Series([1, 2, 3, 4, 5], index=['a', 'b', 'c', 'd', 'e'])
print(s['a'])

s = pd.Series([1, 2, 3, 4, 5], index=['a', 'b', 'c', 'd', 'e'])
print(s[['a', 'c', 'd']])
```

```
s = pd.Series([1, 2, 3, 4, 5], index=['a', 'b', 'c', 'd', 'e'])
print(s['f'])
```

```
0    5
1    5
2    5
3    5
dtype: int64
1
a    1
b    2
c    3
dtype: int64
c    3
d    4
e    5
dtype: int64
1
a    1
c    3
d    4
dtype: int64
```

```
-----
KeyError                                Traceback (most recent call last)
D:\ENV\Python\Python3.8.5\lib\site-packages\pandas\core\indexes\base.py in
↳ get_loc(self, key, method, tolerance)
    2890         try:
-> 2891             return self._engine.get_loc(casted_key)
    2892         except KeyError as err:

pandas\_libs\index.pyx in pandas._libs.index.IndexEngine.get_loc()

pandas\_libs\index.pyx in pandas._libs.index.IndexEngine.get_loc()
```

```
pandas\_libs\hashtable_class_helper.pxi in pandas._libs.hashtable.  
↳PyObjectHashTable.get_item()
```

```
pandas\_libs\hashtable_class_helper.pxi in pandas._libs.hashtable.  
↳PyObjectHashTable.get_item()
```

KeyError: 'f'

The above exception was the direct cause of the following exception:

KeyError Traceback (most recent call last)

```
<ipython-input-5-4bb0f5b2a485> in <module>
```

```
18  
19 s = pd.Series([1, 2, 3, 4, 5], index=['a', 'b', 'c', 'd', 'e'])  
--> 20 print(s['f'])
```

```
D:\ENV\Python\Python3.8.5\lib\site-packages\pandas\core\series.py in
```

```
↳__getitem__(self, key)  
880  
881     elif key_is_scalar:  
--> 882         return self._get_value(key)  
883  
884     if (
```

```
D:\ENV\Python\Python3.8.5\lib\site-packages\pandas\core\series.py in
```

```
↳_get_value(self, label, takeable)  
989  
990     # Similar to Index.get_value, but we do not fall back to  
↳positional  
--> 991     loc = self.index.get_loc(label)  
992     return self.index._get_values_for_loc(self, loc, label)  
993
```

```
D:\ENV\Python\Python3.8.5\lib\site-packages\pandas\core\indexes\base.py in
```

```
↳get_loc(self, key, method, tolerance)  
2891         return self._engine.get_loc(casted_key)  
2892     except KeyError as err:
```

```
-> 2893             raise KeyError(key) from err
    2894
    2895         if tolerance is not None:
```

```
KeyError: 'f'
```