How to convert tuple of tuples to pandas.DataFrame in Python?

Ask Question

14

No offence, if the questions is too basic. Let me know if you need more information.

I am looking for an idea to convert square-form tuple of tuples to pandas.DataFrame in a clean/efficient/pythonic way, i.e. from

```
s =((1,0,0,0,),(2,3,0,0,),(4,5,6,0,),(7,8,9,10,))
```

to `pandas.DataFrame` like

```
   1  2  3   4
1  1  0  0   0
2  2  3  0   0
3  4  5  6   0
4  7  8  9  10
```

Naturally, this list can grow with more zeros appended in the upper-triangular (if we think of s as a tuple of rows).

`DataFrame(t)` seems to fail.

python python-3.x pandas data-structures tuples

edited Nov 13 '15 at 19:57

asked Nov 13 '15 at 19:43

Oleg Melnikov
1,235 1 10 30

2 Answers

```
import pandas as pd
```

```
#    0  1  2   3
# 0  1  0  0   0
# 1  2  3  0   0
# 2  4  5  6   0
# 3  7  8  9  10

print pd.DataFrame(list(s), columı

#    1  2  3   4
# 1  1  0  0   0
# 2  2  3  0   0
# 3  4  5  6   0
# 4  7  8  9  10
```

answered Nov 13 '15 at 19:54

furas
45.1k 5 37 60

5

Pass a *list* of tuples instead of a tuple of tuples:

```
In [13]: pd.DataFrame(list(s))
Out[13]:
   0  1  2   3
0  1  0  0   0
1  2  3  0   0
2  4  5  6   0
3  7  8  9  10
```

`pd.DataFrame(data)` follows different code paths when `data` is a tuple as opposed to a list.

Pandas developer Jeff Reback explains:

> list-of-tuples is the specified type, tuple-of-tuple is not allowed as I think it can signify nested types that would require more parsing.

edited Nov 13 '15 at 20:13

answered Nov 13 '15 at 19:52

unutbu
564k 106 1219 1271

I had this: `pd.DataFrame(json.loads(json.dumps(s)))` but yours is cleaner – skulz00 Nov 13 '15 at 19:54