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How to rank within a group in Python?

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▲ I have the following data frame

1 A >

▼

★

Bucket	C	Count
PL14	XY23081063	706
PL14	XY23326234	15
PL14	XY23081062	1
PL14	XY23143628	1
FZ595	XY23157633	353
FZ595	XY23683174	107
XM274	XY23681818	139
XM274	XY23681819	108

Now I want to insert a new column "Bucket_Rank" which ranks "C" under each "Bucket" based on descending value of "Count"

required output : B >

Bucket	C	Count	Bucket_Rank
PL14	XY23081063	706	1
PL14	XY23326234	15	2
PL14	XY23081062	1	3
PL14	XY23143628	1	4
FZ595	XY23157633	353	1
FZ595	XY23683174	107	2
XM274	XY23681818	139	1
XM274	XY23681819	108	2

I tried the solution given in the following link

[Ranking order per group in Pandas](#)

```
command : B["Bucket_Rank"] =
A.groupby("Bucket ")
["Count"].rank("dense",
ascending=False)
```

but its giving me the following error ..

TypeError: rank() got multiple values for argument 'axis'

During handling of the above exception, another exception occurred:

ValueError

edited Oct 29 '17 at 17:39



cs95

142k 25 161 247

asked Oct 29 '17 at 8:36



smokinjoe

41 6

Yup, you need to pass `method='dense'` . Explicitly specify each keyword argument. See my answer. – cs95 Oct 29 '17 at 8:54

@COLDSPPEED thanks! – smokinjoe Oct 29 '17 at 10:13

1 Answer



Use `groupby` + `argsort` :

1



```
v = df.groupby('Bucket').Count\
      .transform(Lambda x: np.i
```

```
v
```

```
0    1
1    2
2    3
3    4
4    1
5    2
6    1
7    2
```

```
Name: Count, dtype: int64
```

```
df['Bucket_Rank'] = v
```

If you want to use `rank` , specify `method='dense'` . It is better to explicitly specify each keyword argument so as to prevent confusion.

```
df.groupby("Bucket")["Count"]\
    .rank(method="dense", ascen
```

```
0    1.0
1    2.0
2    3.0
3    3.0
4    1.0
5    2.0
6    1.0
7    2.0
```

```
Name: Count, dtype: float64
```

Note that the result you get isn't exactly what you're expecting since equal counts are assigned the same rank. If you can live with that, `rank` should work just as well.

edited Oct 29 '17 at 8:54

answered Oct 29 '17 at 8:43



cs95

142k 25 161 247