How to Add a Count Column to a Pandas DataFrame

Authored by

stats writer

November 28, 2025

Adding a count column to a pandas DataFrame can be done by using the DataFrame.insert() method and passing the column name and the desired count value to the method. The count value can be created using the DataFrame.shape attribute which returns a tuple containing the number of rows and columns of the DataFrame. Then the desired count value can be derived from the number of rows and assigned to the count column. The count column can then be inserted into the DataFrame using the DataFrame.insert() method.

You can use the following basic syntax to add a 'count' column to a pandas DataFrame:

df = df.groupby('var1').transform('count')

This particular syntax adds a column called **var1_count** to the DataFrame that contains the count of values in the column called **var1**.

The following example shows how to use this syntax in practice.

Example: Add Count Column in Pandas

Suppose we have the following pandas DataFrame that contains information about various basketball players:

import pandas as pd

#create DataFrame
df = pd.DataFrame({'team': ,
'pos': ,
'points': })

#view DataFrame
print(df)

team pos points
0 A Gu 18
1 A Fo 22
2 A Fo 19
3 B Fo 14
4 B Gu 14
5 B Gu 11
6 B Fo 20
7 B Fo 28

We can use the following code to add a column called **team_count** that contains the count of each team:

#add column that shows total count of each team
df = df.groupby('team').transform('count')

#view updated DataFrame
print(df)

team pos points team_count
0 A Gu 18 3
1 A Fo 22 3
2 A Fo 19 3
3 B Fo 14 5
4 B Gu 14 5
5 B Gu 11 5
6 B Fo 20 5
7 B Fo 28 5

There are **3** rows with a team value of A and **5** rows with a team value of B.

Thus:

For each row where the team is equal to A, the value in the **team_count** column is **3**.
For each row where the team is equal to B, the value in the **team_count** column is **5**.

You can also add a 'count' column that groups by multiple variables.

For example, the following code shows how to add a 'count' column that groups by the **team** and **pos** variables:

#add column that shows total count of each team and position
df = df.groupby(.transform('count')

#view updated DataFrame
print(df)

team pos points team_pos_count
0 A Gu 18 1
1 A Fo 22 2
2 A Fo 19 2
3 B Fo 14 3

4 B Gu 14 2
5 B Gu 11 2
6 B Fo 20 3
7 B Fo 28 3

From the output we can see:

There is **1** row that contains A in the **team** column and Gu in the **pos** column.
There are **2** rows that contain A in the **team** column and Fo in the **pos** column.
There are **3** rows that contain B in the **team** column and Fo in the **pos** column.
There are **2** rows that contain B in the **team** column and Gu in the **pos** column.