How can I find the sum of rows in a Pandas DataFrame?

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Finding the sum of rows in a Pandas DataFrame involves utilizing the built-in functions and methods provided by the Pandas library. This can be achieved by using the "sum" function along with the "axis" parameter to specify the direction of the sum, which in this case would be the rows. Additionally, the "sum" method can also be applied directly on the DataFrame object, which will return the sum of each column in the DataFrame. By following these steps, the sum of rows in a Pandas DataFrame can be easily calculated and utilized for further analysis and data manipulation.

Find the Sum of Rows in a Pandas DataFrame

Often you may be interested in calculating the sum of one or more rows in a pandas DataFrame. Fortunately you can do this easily in pandas using the function.

This tutorial shows several examples of how to use this function on the following DataFrame:

```
import pandas as pd
import numpy as np

#create DataFrame
df = pd.DataFrame({'rating': ,
'points': ,
'assists': ,
'rebounds': })

#view DataFrame
df
```

rating points assists rebounds
0 90 25 5 8.0
1 85 20 7 NaN
2 82 14 7 10.0
3 88 16 8 6.0
4 94 27 5 6.0
5 90 20 7 9.0
6 76 12 6 6.0
7 75 15 9 10.0
8 87 14 9 10.0
9 86 19 5 7.07

Example 1: Find the Sum of Each Row

We can find the sum of each row in the DataFrame by using the following syntax:

```
df.sum(axis=1)
```

0 128.0
1 112.0
2 113.0
3 118.0
4 132.0
5 126.0

6 100.0
7 109.0
8 120.0
9 117.0
dtype: float64

The output tells us:

The sum of values in the first row is 128.The sum of values in the second row is 112.The sum of values in the third row is 113.

And so on.

Example 2: Place the Row Sums in a New Column

We can use the following code to add a column to our DataFrame to hold the row sums:

```
#define new DataFrame column 'row_sum' as the sum of each row
df = df.sum(axis=1)

#view DataFrame
df
```

rating points assists rebounds row_sum

0 90 25 5 8.0 128.0

1 85 20 7 NaN 112.0

2 82 14 7 10.0 113.0

3 88 16 8 6.0 118.0

4 94 27 5 6.0 132.0

5 90 20 7 9.0 126.0

6 76 12 6 6.0 100.0

7 75 15 9 10.0 109.0

8 87 14 9 10.0 120.0

9 86 19 5 7.0 117.0

Example 3: Find the Row Sums for a Short List of Specific Columns

We can use the following code to find the row sum for a short list of specific columns:

```
#define new DataFrame column as sum of points and assists columns
df = df + df

#view DataFrame
df
```

rating points assists rebounds sum_pa

0 90 25 5 8.0 30

1 85 20 7 NaN 27

2 82 14 7 10.0 21

3 88 16 8 6.0 24

4 94 27 5 6.0 32

5 90 20 7 9.0 27

6 76 12 6 6.0 18

7 75 15 9 10.0 24

8 87 14 9 10.0 23

9 86 19 5 7.0 24

Example 4: Find the Row Sums for a Long List of Specific Columns

We can use the following code to find the row sum for a longer list of specific columns:

```
#define col_list as a list of all DataFrame column names
col_list= list(df)

#remove the column 'rating' from the list
col_list.remove('rating')

#define new DataFrame column as sum of rows in col_list
df = df.sum(axis=1)
```

#view DataFrame

df

rating points assists rebounds new_sum

0 90 25 5 8.0 38.0

1 85 20 7 NaN 27.0

2 82 14 7 10.0 31.0

3 88 16 8 6.0 30.0

4 94 27 5 6.0 38.0

5 90 20 7 9.0 36.0

6 76 12 6 6.0 24.0

7 75 15 9 10.0 34.0

8 87 14 9 10.0 33.0

9 86 19 5 7.0 31.0

You can find the complete documentation for the pandas sum() function .