How can I sort rows in a Pandas dataframe by their absolute value?

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Sorting rows in a Pandas dataframe by their absolute value involves organizing the data in a specific order based on the magnitude of the values, rather than the actual values themselves. This can be achieved by using the built-in function "sort_values()" and specifying the parameter "key" as the absolute value of the column to be sorted. This allows for a more organized and structured representation of the data, making it easier to identify and analyze patterns and trends within the dataframe.

Pandas: Sort Rows by Absolute Value

You can use the following methods to sort the rows of a pandas DataFrame based on the absolute value of a column:

Method 1: Sort by Absolute Value (smallest abs. value shown first)

df.reindex(df.abs().sort_values().index)

Method 2: Sort by Absolute Value (largest abs. value shown first)

df.reindex(df.abs().sort_values(ascending=False).index)

The following examples show how to use each method in practice with the following pandas DataFrame that contains information about various basketball players:

import pandas as pd

#create DataFrame
df = pd.DataFrame({'player': ,
'over_under': })

#view DataFrame
print(df)

player over_under
0 A 4
1 B -9
2 C 2
3 D 0
4 E 1
5 F 12
6 G -4
7 H -5

Example 1: Sort by Absolute Value (smallest abs. value shown first)

We can use the following syntax to sort the rows of the DataFrame based on the absolute value of the over_under column:

#sort DataFrame based on absolute value of over_under

```
column
df_sorted = df.reindex(df.abs().sort_values().index)

#view sorted DataFrame
print(df_sorted)

player over_under
3 D 0
4 E 1
2 C 2
0 A 4
6 G -4
7 H -5
1 B -9
5 F 12
```

Notice that the rows are sorted from smallest absolute value in the over_under column to largest absolute value.

Example 2: Sort by Absolute Value (largest abs. value shown first)

We can use the following syntax to sort the rows of the DataFrame based on the absolute value of the over_under column:

```
#sort DataFrame based on absolute value of over_under column
df_sorted = df.reindex(df.abs().sort_values(ascending=False).index)

#view sorted DataFrame
print(df_sorted)

player over_under
5 F 12
1 B -9
7 H -5
0 A 4
6 G -4
2 C 2
4 E 1
3 D 0
```

Notice that the rows are sorted from largest absolute value in the over_under column to smallest absolute value.

Note: You can find the complete documentation for the pandas sort_values() function .