

How can I drop rows from a Pandas DataFrame based on multiple conditions?

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The process of dropping rows from a Pandas DataFrame based on multiple conditions involves using the "drop" function along with logical operators to specify the desired conditions. This allows for the removal of rows that do not meet the specified criteria, resulting in a more refined and tailored dataset. By using this method, the user can effectively filter out unwanted data and obtain a more precise representation of the data within the DataFrame.

Pandas: Drop Rows Based on Multiple Conditions

You can use the following methods to drop rows based on multiple conditions in a pandas DataFrame:

Method 1: Drop Rows that Meet One of Several Conditions

```
df = df.loc [(df['col1'] == 'A') | (df['col2'] > 6)]
```

This particular example will drop any rows where the value in col1 is equal to A or the value in col2 is greater than 6.

Method 2: Drop Rows that Meet Several Conditions

```
df = df.loc [(df['col1'] == 'A') & (df['col2'] > 6)]
```

This particular example will drop any rows where the value in col1 is equal to A and the value in col2 is greater than 6.

The following examples show how to use each method in practice with the following pandas DataFrame:

```
import pandas as pd
```

```
#create DataFrame
```

```
df = pd.DataFrame({'team': ,  
'pos': ,  
'assists': ,  
'rebounds': })
```

```
#view DataFrame
```

```
df
```

```
team pos assists rebounds
```

```
0 A G 5 11
```

```
1 A G 7 8
```

```
2 A F 7 10
```

```
3 A F 9 6
```

```
4 B G 12 6
```

```
5 B G 9 5
```

```
6 B F 3 9
```

```
7 B F 4 12
```

Example 1: Drop Rows that Meet One of Several Conditions

The following code shows how to drop rows in the DataFrame where the value in the team column is equal to A or the value in the assists column is greater than 6:

```
#drop rows where value in team column == 'A' or value  
in assists column > 6  
df = df.loc[~((df['team'] == 'A') | (df['assists'] > 6))]
```

```
#view updated DataFrame  
print(df)
```

```
team pos assists rebounds  
6 B F 3 9  
7 B F 4 12
```

Notice that any rows where the team column was equal to A or the assists column was greater than 6 have been dropped.

For this particular DataFrame, six of the rows were dropped.

Note: The | symbol represents "OR" logic in pandas.

Example 2: Drop Rows that Meet Several Conditions

The following code shows how to drop rows in the DataFrame where the value in the team column is equal to A and the value in the assists column is greater than 6:

```
#drop rows where value in team column == 'A' and  
value in assists column > 6  
df = df.loc[~((df['team'] == 'A') & (df['assists'] > 6))]
```

```
#view updated DataFrame  
print(df)
```

```
team pos assists rebounds  
0 A G 5 11  
4 B G 12 6  
5 B G 9 5  
6 B F 3 9  
7 B F 4 12
```

Notice that any rows where the team column was equal to A and the assists column was greater than 6 have been dropped.

For this particular DataFrame, three of the rows were dropped.

Note: The & symbol represents "AND" logic in pandas.

The following tutorials explain how to perform other common operations in pandas:

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