

How can I filter a Pandas Series by value?

Authored by
stats writer

June 27, 2024

RECOMMENDED CITATION

stats writer (2024). *How can I filter a Pandas Series by value?*. PSYCHOLOGICAL SCALES.
Retrieved from <https://scales.arabpsychology.com/?p=155580>

Filtering a Pandas Series by value refers to the process of selecting specific elements from a Series based on a certain condition or criteria. This can be achieved by using the "boolean indexing" method, where a boolean expression is applied to the Series to determine which elements should be selected. The result is a new Series containing only the elements that meet the specified condition. This method is useful for organizing and manipulating data in a Pandas Series according to specific values or characteristics.

Pandas: Filter Series by Value

You can use the following methods to filter the values in a pandas Series:

Method 1: Filter Values Based on One Condition

#filter for values equal to 7
my_series.loc

Method 2: Filter Values Using "OR" Condition

#filter for values less than 10 or greater than 20
my_series.loc

Method 3: Filter Values Using "AND" Condition

#filter for values greater than 10 and less than 20
my_series.loc

Method 4: Filter Values Contained in List

```
#filter for values that are equal to 4, 7, or 23  
my_series)]
```

This tutorial explains how to use each method in practice with the following pandas Series:

```
import pandas as pd  
  
#create pandas Series  
data = pd.Series()  
  
#view pandas Series  
print(data)  
  
0 4  
1 7  
2 7  
3 12  
4 19  
5 23  
6 25  
7 30  
  
dtype: int64
```

Example 1: Filter Values Based on One Condition

The following code shows how to filter the pandas Series for values equal to 7:

```
#filter for values equal to 7
```

```
data.loc
```

```
1 7
```

```
2 7
```

```
dtype: int64
```

We can also filter for values not equal to 7:

```
#filter for values not equal to 7
```

```
data.loc
```

```
0 4
```

```
3 12
```

```
4 19
```

```
5 23
```

```
6 25
```

```
7 30
```

```
dtype: int64
```

Example 2: Filter Values Using "OR" Condition

#filter for values less than 10 or greater than 20

data.loc

0 4

1 7

2 7

5 23

6 25

7 30

dtype: int64

Example 3: Filter Values Using "AND" Condition

The following code shows how to filter the pandas Series for values greater than 10 and less than 20:

#filter for values greater than 10 and less than 20

data.loc

3 12

4 19

dtype: int64

Example 4: Filter Values Contained in List

The following code shows how to filter the pandas Series for values that are contained in a list:

```
#filter for values that are equal to 4, 7, or 23  
data)]
```

```
0 4
```

```
1 7
```

```
2 7
```

```
5 23
```

```
dtype: int64
```

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