

How can I perform a COUNTIF function in Python?

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The COUNTIF function in Python allows users to count the number of cells that meet a certain criteria in a given range of data. This function is useful for analyzing and organizing data in a variety of applications. To perform a COUNTIF function in Python, users must first import the necessary libraries and then use the appropriate syntax to specify the range and criteria for the function. This function is commonly used in data analysis and can help users efficiently process large amounts of data.

Perform a COUNTIF Function in Python

Often you may be interested in only counting the number of rows in a pandas DataFrame that meet some criteria.

Fortunately this is easy to do using the following basic syntax:

```
sum(df.column_name == some_value)
```

The following examples show how to use this syntax in practice on the following data frame:

```
import pandas as pd
```

```
#create DataFrame
```

```
df = pd.DataFrame({'x': ,  
'y': })
```

```
#view head of DataFrame
```

df.head()

```
x y  
0 3 3  
1 4 4  
2 5 5  
3 6 7  
4 7 9
```

Example 1: Count Rows Equal to Some Value

The following code shows how to count the number of rows where the x variable is equal to 10:

```
sum(df.x == 10)
```

```
2
```

The following code shows how to count the number of rows where the x variable is equal to 10 *or* the y variable is equal to 5:

```
sum((df.x == 10) | (df.y == 5))
```

```
3
```

The following code shows how to count the number of rows where the x variable is *not* equal to 10:

```
sum(df.x != 10)
```

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Example 2: Count Rows Greater or Equal to Some Value

The following code shows how to count the number of rows where x is greater than 10:

```
sum(df.x > 10)
```

2

The following code shows how to count the number of rows where x is less than or equal to 7:

```
sum(df.x <= 7)
```

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Example 3: Count Rows Between Two Values

The following code shows how to count the number of rows where x is between 10 and 20:

```
sum((df.x >= 5) & (df.x <= 10))
```

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