

# How can I select rows from a Pandas DataFrame based on multiple conditions using the loc method?

Authored by  
**stats writer**

July 2, 2024

## RECOMMENDED CITATION

stats writer (2024). *How can I select rows from a Pandas DataFrame based on multiple conditions using the loc method?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=165806>

The loc method in Pandas allows for the selection of specific rows in a DataFrame based on multiple conditions. This can be achieved by using logical operators such as "and" and "or" to create complex conditional statements. The loc method provides a flexible way to filter data in a DataFrame, making it a powerful tool for data analysis and manipulation. By specifying the desired conditions within the loc method, users can easily extract the desired rows from a DataFrame, allowing for more targeted and precise data selection.

## Select Rows by Multiple Conditions Using Pandas loc

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

### Method 1: Select Rows that Meet Multiple Conditions

```
df.loc [(df == 'A') & (df == 'G')]
```

### Method 2: Select Rows that Meet One of Multiple Conditions

```
df.loc [(df > 10) | (df < 8)]
```

The following examples show how to use each of these methods in practice with the following pandas DataFrame:

```
import pandas as pd
```

```
#create DataFrame
```

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

```
#view DataFrame
```

```
df
```

```
team position 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 9 9
```

```
7 B F 4 12
```

**Method 1: Select Rows that Meet Multiple Conditions**

The following code shows how to only select rows in the DataFrame where the team is equal to 'A' and the position is equal to 'G':

```
#select rows where team is equal to 'A' and position is
```

equal to 'G'

```
df.loc == 'A') & (df == 'G'))]
```

team position assists rebounds

```
0 A G 5 11
```

```
1 A G 7 8
```

There were only two rows in the DataFrame that met both of these conditions.

Method 2: Select Rows that Meet One of Multiple Conditions

The following code shows how to only select rows in the DataFrame where the assists is greater than 10 or where the rebounds is less than 8:

```
#select rows where assists is greater than 10 or  
rebounds is less than 8
```

```
df.loc > 10) | (df < 8))]
```

team position assists rebounds

```
3 A F 9 6
```

```
4 B G 12 6
```

```
5 B G 9 5
```

There were only three rows in the DataFrame that met

**both of these conditions.**

**Note: In these two examples we filtered rows based on two conditions but using the & and | operators, we can filter on as many conditions as we'd like.**

**Additional Resources**

ARABPSYCHOLOGY.COM