

How can I use the which() function to specify multiple conditions in R?

Authored by
stats writer

June 24, 2024

RECOMMENDED CITATION

stats writer (2024). *How can I use the which() function to specify multiple conditions in R?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=151398>

The which() function in R allows for the identification of elements in a vector that meet a specific condition. It can be used to specify multiple conditions by using logical operators such as "AND" and "OR". By combining multiple conditions with the which() function, users can efficiently filter through large datasets and extract only the desired elements that meet their specific criteria. This function is particularly useful in data analysis and manipulation tasks, as it allows for the selection of data points that meet multiple conditions simultaneously, leading to more accurate and precise results. Overall, the which() function is a powerful tool in R that enables users to efficiently and effectively identify elements that meet multiple conditions within a dataset.

R: Use which() Function with Multiple Conditions

You can use the following methods to use the which() function with multiple conditions in R:

Method 1: which() with Multiple Conditions Using AND

```
new_df <- df
```

Method 2: which() with Multiple Conditions Using OR

```
new_df <- df
```

The following examples show how to use each method in practice with the following data frame:

```
#create data frame
```

```
df <- data.frame(player=c('A', 'B', 'C', 'D', 'E', 'F', 'G', 'H',  
'I', 'J'),
```

```
points=c(10, 13, 13, 15, 19, 22, 24, 25, 29, 35))
```

```
#view data frame
```

```
df
```

```
player points
```

```
1 A 10
```

```
2 B 13
```

```
3 C 13
```

```
4 D 15
```

```
5 E 19
```

```
6 F 22
```

```
7 G 24
```

```
8 H 25
```

```
9 I 29
```

```
10 J 35
```

Example 1: which() with Multiple Conditions Using AND

The following code shows how to use the which() function to filter the data frame to only contain rows where the value in the points column is greater than or equal to 14 *and* less than or equal to 25:

```
#filter for players who score between 14 and 25 points
```

```
new_df <- df
```

```
#view results
```

```
new_df
```

```
player points
```

```
4 D 15
```

```
5 E 19
```

```
6 F 22
```

```
7 G 24
```

```
8 H 25
```

Notice that the data frame is filtered to only contain rows where the value in the points column is greater than or equal to 14 *and* less than or equal to 25.

Note that the & operator is used as an "and" statement in R.

Example 2: which() with Multiple Conditions Using OR

The following code shows how to use the which() function to filter the data frame to only contain rows where the value in the points column is less than 14 *or* greater than 25:

Otherwise it assigns a value of "bad":

#filter for players who score less than 14 or greater than 25 points

```
new_df <- df
```

#view results

```
new_df
```

player points

1 A 10

2 B 13

3 C 13

9 I 29

10 J 35

Notice that the data frame is filtered to only contain rows where the value in the points column is less than 14 or greater than 25.