

How can I find the maximum value across multiple columns in R?

Authored by
stats writer

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To find the maximum value across multiple columns in R, you can use the "max" function which takes in multiple columns as input and returns the highest value among them. This function can be applied to a specific row or across the entire dataset, depending on the desired result. Additionally, you can use the "apply" function to iterate through each column and find the maximum value. Another option is to use the "dplyr" package, which offers the "rowwise" function to find the maximum value across multiple columns for each row in a dataset. With these methods, you can easily identify the highest value among multiple columns in your data analysis process.

Find the Max Value Across Multiple Columns in R

We can use the `pmax()` function to find the max value across multiple columns in R. This function uses the following syntax:

```
pmax(..., na.rm = FALSE)
```

where:

... : A list of vectors
na.rm: A logical indicating whether missing values should be removed. Default is **FALSE**.

This tutorial provides several examples of how to use this function in practice using the following data frame:

```
#create data frame
```

```
df <- data.frame(player=c('A', 'B', 'C', 'D', 'E', 'F', 'G'),  
points=c(28, 17, 19, 14, 23, 26, 5),  
rebounds=c(5, 6, 4, 7, 14, 12, 9),
```

```
assists=c(10, 13, 7, 8, 4, 5, 8))
```

```
#view DataFrame
```

```
df
```

```
player points rebounds assists
```

```
1 A 28 5 10
```

```
2 B 17 6 13
```

```
3 C 19 4 7
```

```
4 D 14 7 8
```

```
5 E 23 14 4
```

```
6 F 26 12 5
```

```
7 G 5 9 8
```

Example 1: Find the Max Across Specific Columns

The following code shows how to find the max value across the points and rebounds columns in a data frame:

```
#find max values in each row across points and  
rebounds columns  
pmax(df$points, df$rebounds)
```

```
28 17 19 14 23 26 9
```

Example 2: Add A New Column Containing the Max Value

The following code shows how to add a new column to the data frame that contains the max value across the points and rebounds columns:

```
#add new column that contains max values across  
points and rebounds columns  
df$max_points_rebs <-  
pmax(df$points, df$rebounds)
```

```
#view data frame
```

```
df
```

```
player points rebounds assists max_points_rebs
```

```
1 A 28 5 10 28
```

```
2 B 17 6 13 17
```

```
3 C 19 4 7 19
```

```
4 D 14 7 8 14
```

```
5 E 23 14 4 23
```

```
6 F 26 12 5 26
```

```
7 G 5 9 8 9
```

Example 3: Add Several New Columns Containing Max Values

The following code shows how to add several new columns to the data frame that contain the max values

across different groups of columns:

```
#add new column that contains max values across  
points and rebounds columns  
df$max_p_r <-  
pmax(df$points, df$rebounds)
```

```
#add new column that contains max values across  
rebounds and assists columns  
df$max_r_a <- pmax(df$rebounds, df$assists)
```

```
#view data frame
```

```
df
```

```
player points rebounds assists max_p_r max_r_a  
1 A 28 5 10 28 10  
2 B 17 6 13 17 13  
3 C 19 4 7 19 7  
4 D 14 7 8 14 8  
5 E 23 14 4 23 14  
6 F 26 12 5 26 12  
7 G 5 9 8 9 9
```