

How can the bars in a ggplot2 bar chart be ordered?

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The bars in a ggplot2 bar chart can be ordered by specifying the desired order in the "fill" or "color" aesthetic using the "factor" function. This allows for custom ordering of the bars based on a specific variable or factor. Alternatively, the bars can be ordered in ascending or descending order based on their values by using the "reorder" function in the "aes" argument of the ggplot2 code. This allows for a more organized and meaningful presentation of the data in the bar chart.

Order the Bars in a ggplot2 Bar Chart

By default, **ggplot2** orders the bars in a bar chart using the following orders:

Factor variables are ordered by factor levels. Character variables are order in alphabetical order.

However, often you may be interested in ordering the bars in some other specific order.

This tutorial explains how to do so using the following data frame:

```
#create data frame
```

```
df <- data.frame(team = c('B', 'B', 'B', 'A', 'A', 'C'),
```

```
points = c(12, 28, 19, 22, 32, 45),
```

```
rebounds = c(5, 7, 7, 12, 11, 4))
```

```
#view structure of data frame
```

```
str(df)
```

'data.frame': 6 obs. of 3 variables:

\$ team : Factor w/ 3 levels "A","B","C": 2 2 2 1 1 3

\$ points : num 12 28 19 22 32 45

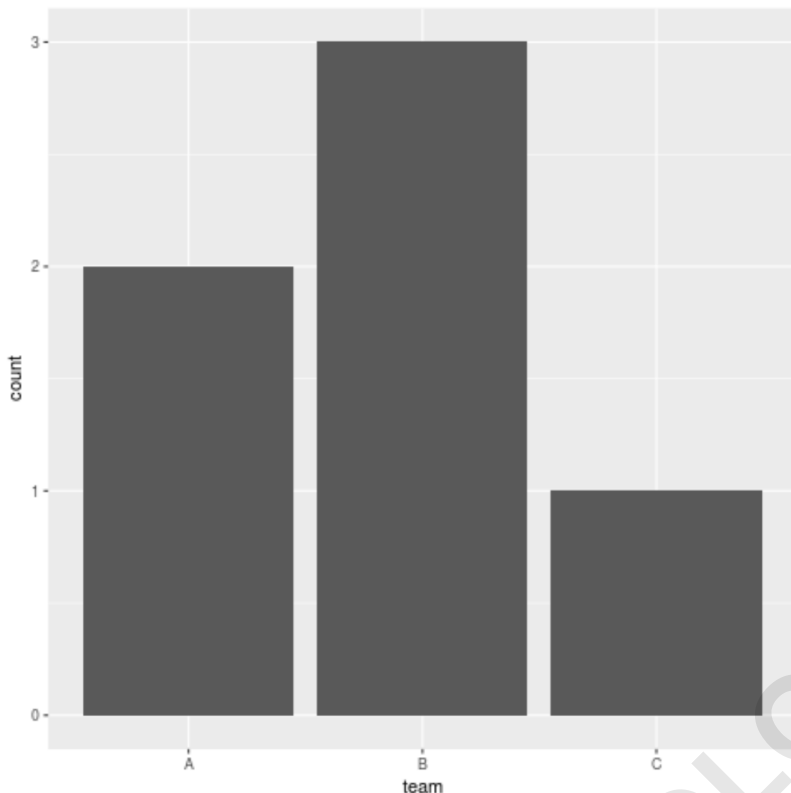
\$ rebounds: num 5 7 7 12 11 4

Example 1: Order the Bars Based on a Specific Factor Order

If we attempt to create a bar chart to display the frequency by team, the bars will automatically appear in alphabetical order:

```
library(ggplot2)
```

```
ggplot(df, aes(x=team)) +  
geom_bar()
```



The following code shows how to order the bars by a specific order:

```
#specify factor level orderdf$team = factor(df$team,
levels = c('C', 'A', 'B'))
#create bar chart again
ggplot(df, aes(x=team)) +
geom_bar()
```

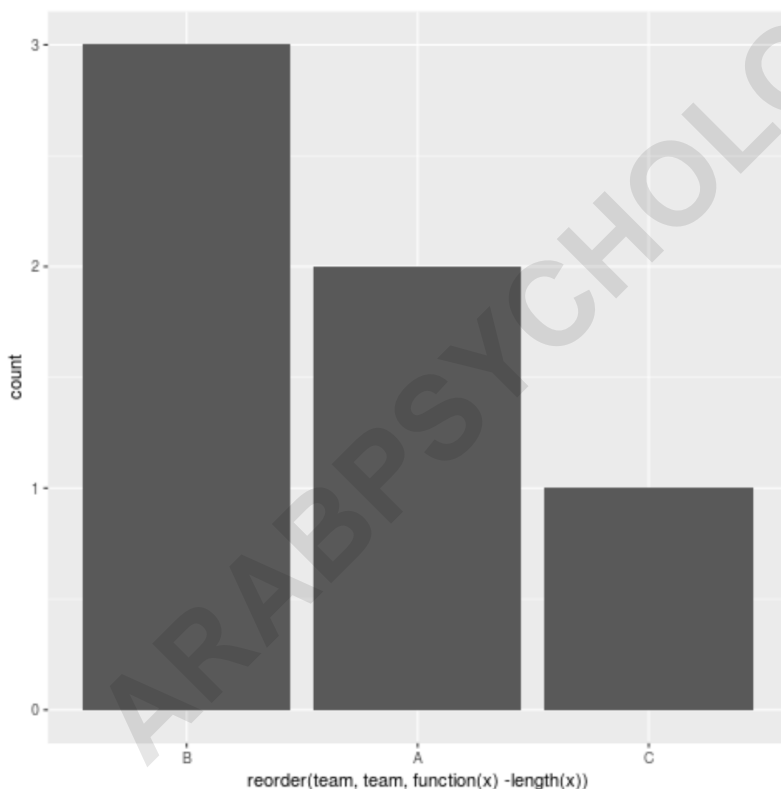
Example 2: Order the Bars Based on Numerical Value

We can also order the bars based on numerical values. For example, the following code shows how to order the

bars from largest to smallest frequency using the `reorder()` function:

```
library(ggplot2)
```

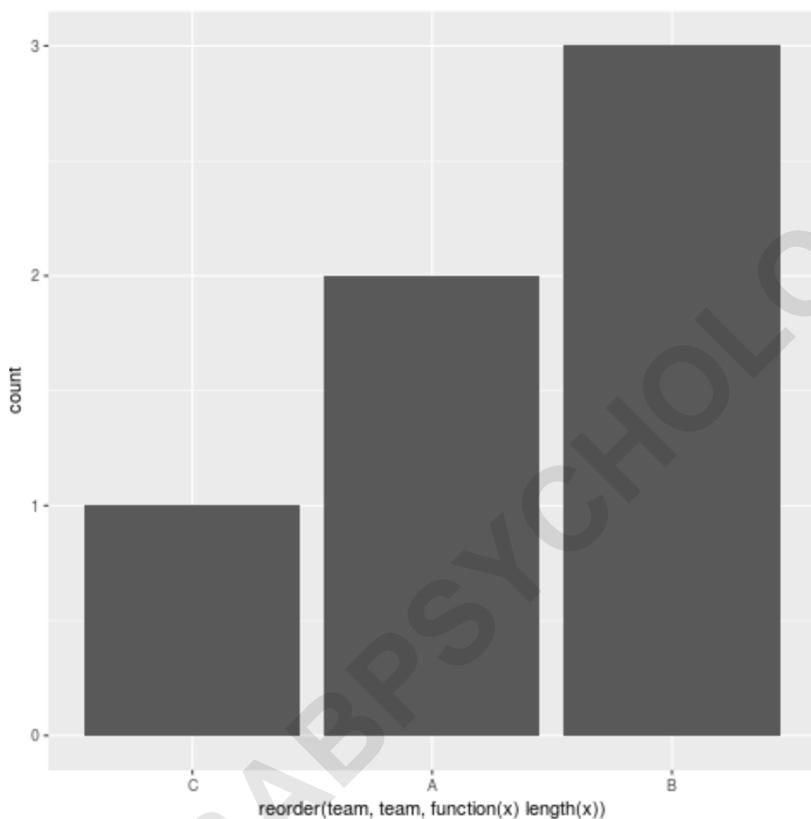
```
ggplot(df, aes(x=reorder(team, team, function(x)-length(x)))) +  
geom_bar()
```



We can also order the bars from smallest to largest frequency by taking out the minus sign in the `function()` call within `reorder()` function:

```
library(ggplot2)
```

```
ggplot(df, aes(x=reorder(team, team, function(x)  
length(x)))) +  
geom_bar()
```



[Documentation](#) for the `geom_bar()` function.

[Documentation](#) for the `reorder()` function.

[A complete list](#) of R tutorials on Statology.