

How can I remove a legend title in ggplot2?

Authored by
stats writer

June 25, 2024

RECOMMENDED CITATION

stats writer (2024). *How can I remove a legend title in ggplot2?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=152798>

To remove a legend title in ggplot2, the user can simply add the argument "legend.title = NULL" within the "guides" function. This will remove the title from the legend without affecting any other elements in the plot. Additionally, the user can also use the "theme" function to modify the legend title and make it invisible by setting "legend.title = element_blank()". Both of these methods will effectively remove the legend title in ggplot2.

Remove a Legend Title in ggplot2

You can use the following syntax to remove a legend title from a plot in ggplot2:

```
ggplot(df, aes(x=x_var, y=y_var, color=group_var)) +  
geom_point() +  
labs(color=NULL)
```

The argument `color=NULL` in the `labs()` function tells ggplot2 not to display any legend title.

The following example shows how to use this syntax in practice.

Example: Remove Legend Title from Plot in ggplot2

Suppose we have the following data frame in R that contains information about various basketball players:

```
df <- data.frame(assists=c(3, 4, 4, 3, 1, 5, 6, 7, 9),  
points=c(14, 8, 8, 16, 3, 7, 17, 22, 26),
```

```
position=rep(c('Guard', 'Forward', 'Center'), times=3))
```

```
#view data frame
```

```
df
```

```
assists points position
```

```
1 3 14 Guard
```

```
2 4 8 Forward
```

```
3 4 8 Center
```

```
4 3 16 Guard
```

```
5 1 3 Forward
```

```
6 5 7 Center
```

```
7 6 17 Guard
```

```
8 7 22 Forward
```

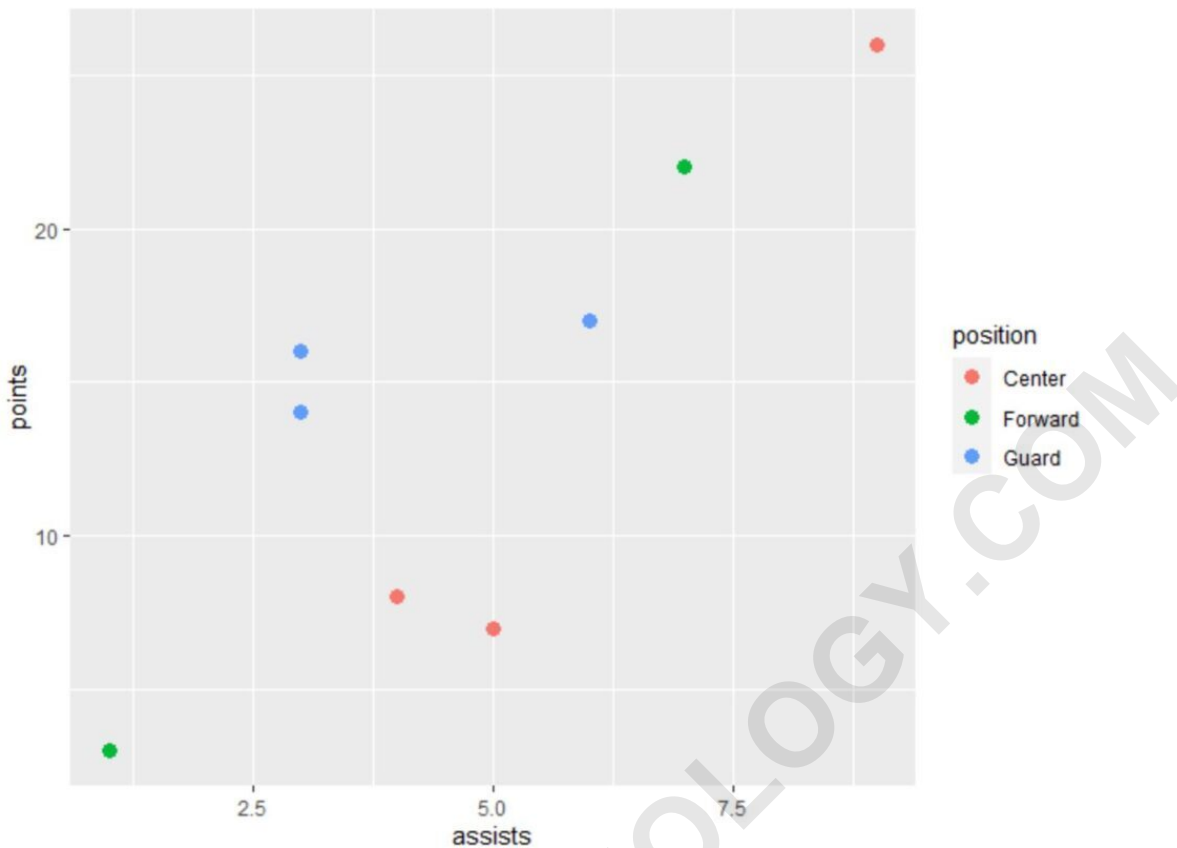
```
9 9 26 Center
```

If we use `geom_point()` to create a scatterplot in `ggplot2`, a legend will be shown with a title by default:

```
library(ggplot2)
```

```
#create scatter plot of assists vs. points, grouped by  
position
```

```
ggplot(df, aes(x=assists, y=points, color=position)) +  
geom_point(size=3)
```



Notice that the legend currently has the text "position" shown as the legend title.

To remove this title from the legend, we can use the `labs(color=NULL)` argument:

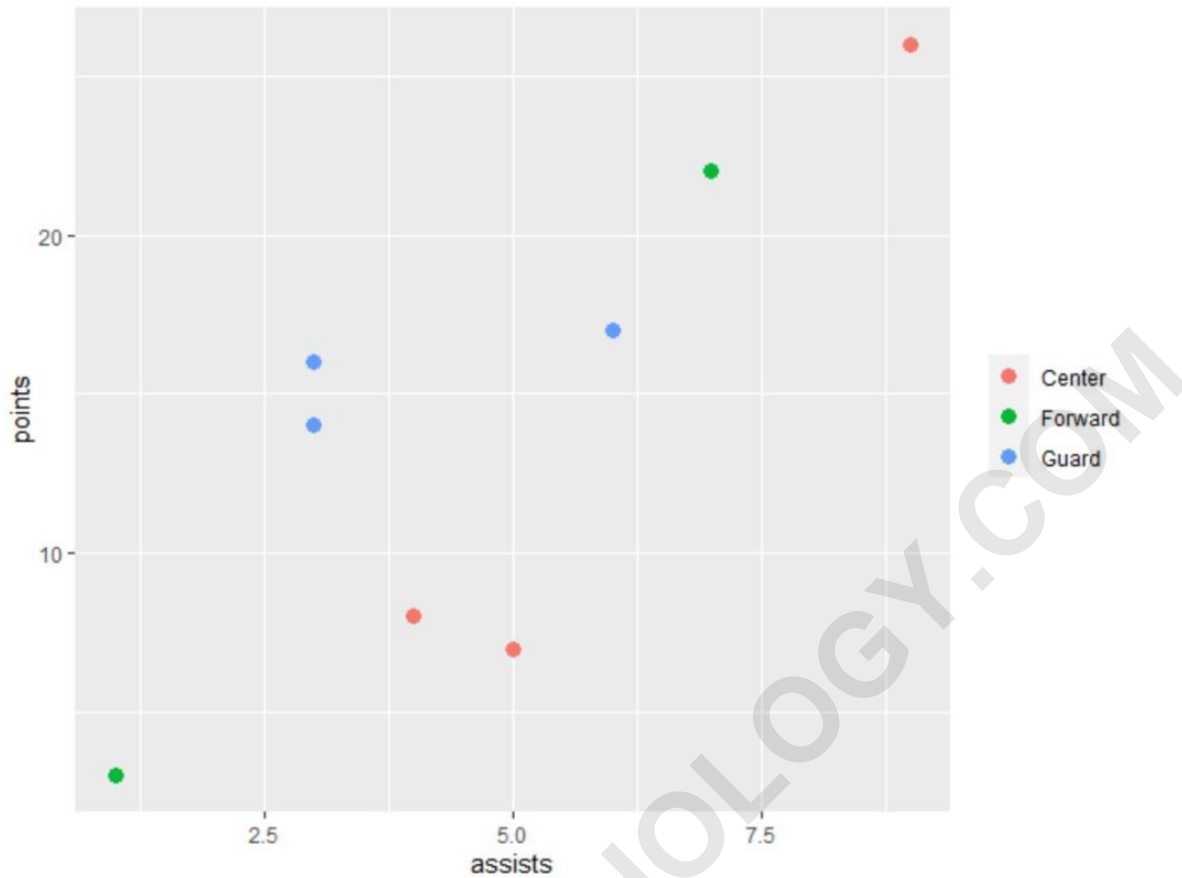
```
library(ggplot2)
```

```
#create scatter plot and remove legend title
```

```
ggplot(df, aes(x=assists, y=points, color=position)) +
```

```
geom_point(size=3) +
```

```
labs(color=NULL)
```



Notice that the legend title has been removed.

The following tutorials explain how to perform other common tasks in ggplot2: