

How do you add tables to plots in ggplot2?

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RECOMMENDED CITATION

stats writer (2024). *How do you add tables to plots in ggplot2?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=156584>

"Adding tables to plots in ggplot2 involves utilizing the 'ggplot2' package in R to create visualizations that combine both graphical elements and tabular data. This can be achieved by using the 'geom_text()' function to add a table directly onto the plot, or by using the 'gridExtra' package to arrange the plot and table in a grid layout. The table can also be customized with various formatting options, such as adjusting the font size and style, and adding column headers. This feature in ggplot2 allows for a comprehensive and dynamic representation of data in a single visual display."

Add Tables to Plots in ggplot2 (2 Examples)

Often you may want to add tables to plots made in ggplot2 in R so that readers can view the raw data along with the plot.

Fortunately it's easy to add tables to plots using the ggpmisc package:

```
install.packages('ggpmisc')  
library(ggpmisc)
```

The following examples show how to use this package to add a table to a barplot and a scatterplot using the following data frame:

```
#create data frame
```

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

```
points=c(13, 23, 24, 20, 19, 14, 29, 31))
```

```
#view data frame
```

```
df
```

```
team position points
```

```
1 A G 13
```

```
2 A G 23
```

```
3 A F 24
```

```
4 A F 20
```

```
5 B G 19
```

```
6 B G 14
```

```
7 B F 29
```

```
8 B F 31
```

Example 1: Add Table to Barplot in ggplot2

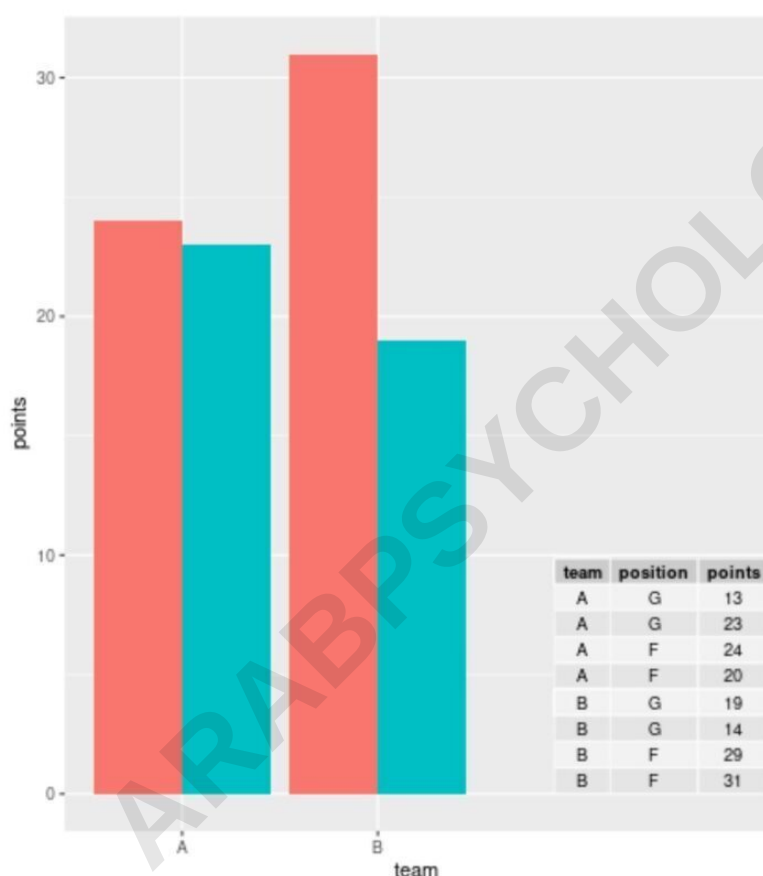
We can use the following code to create a grouped barplot in ggplot2 and add a table to the bottom right corner of the plot to show the actual values from the data frame:

```
library(ggplot2)
```

```
library(ggpmisc)
```

```
#create barplot with table
```

```
ggplot(df, aes(x=team, y=points, fill=position)) +  
geom_bar(position='dodge', stat='identity') +  
annotate(geom = 'table',  
x=4,  
y=0,  
label=list(df))
```



If you're working with a large dataset and you don't want to display each individual row, you can use the `table()` function to summarize the data before creating the table in ggplot2:

```
library(ggplot2)library(ggpmisc)
```

```
#summarize frequencies of team and points in table
```

```
my_table <- as.data.frame(table(df))
```

```
#create barplot with table
```

```
ggplot(df, aes(x=team, y=points, fill=position)) +
```

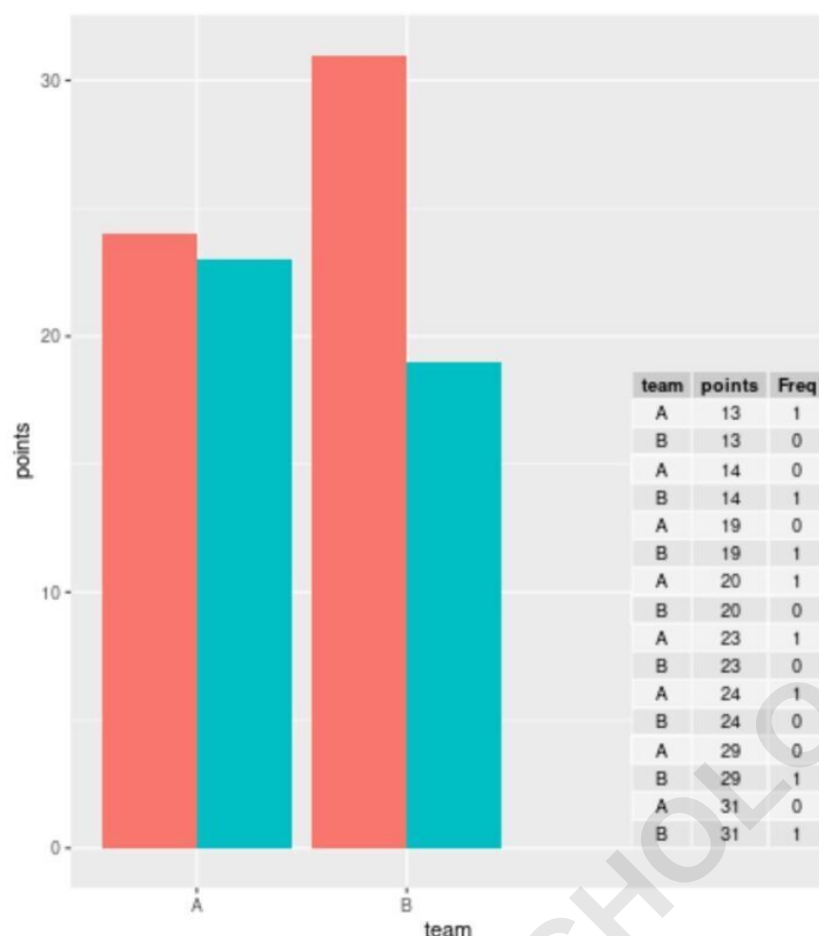
```
geom_bar(position='dodge', stat='identity') +
```

```
annotate(geom = 'table',
```

```
x=4,
```

```
y=0,
```

```
label=list(my_table))
```



Example 2: Add Table to Scatterplot in ggplot2

We can use the following code to create a scatterplot in ggplot2 and add a table to the bottom right corner of the plot to show the actual values from the data frame:

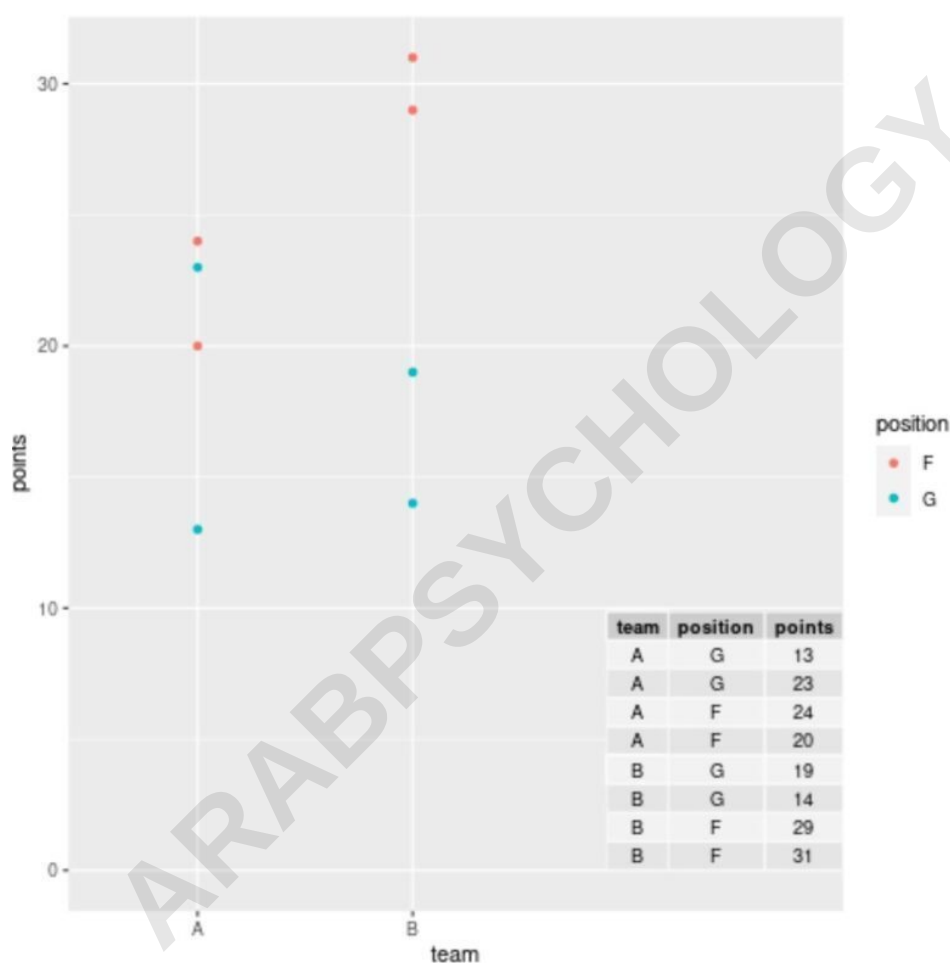
```
library(ggplot2)
```

```
library(ggpmisc)
```

```
#create scatterplot with table
```

```
ggplot(df, aes(x=team, y=points)) +
```

```
geom_point(aes(color=position)) +  
annotate(geom='table',  
x=4,  
y=0,  
label=list(df))
```



Note: Feel free to play around with the x and y values within the `annotate()` function to place the table in the exact location that you'd like.

Additional Resources

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

ARABPSYCHOLOGY.COM