

# How can I create a grouped barplot in R with examples?

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## RECOMMENDED CITATION

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A grouped barplot in R is a graphical representation of data using rectangular bars that are grouped together. It is useful for comparing data between different groups or categories. To create a grouped barplot in R, you can use the "barplot" function and specify the data, groupings, and other parameters. For example, if we have data on the average monthly sales of three different products in three different regions, we can use a grouped barplot to compare the sales between products and regions. This can help us identify any patterns or differences in sales. Overall, creating a grouped barplot in R is a simple and effective way to visually analyze and present data.

## Create a Grouped Barplot in R (With Examples)

A grouped barplot is a type of chart that displays quantities for different variables, grouped by another variable.

This tutorial explains how to create grouped barplots in R using the data visualization library ggplot2.

### Grouped Barplot in ggplot2

Suppose we have the following data frame that displays the average points scored per game for nine basketball players:

```
#create data frame
```

```
df <- data.frame(team=rep(c('A', 'B', 'C'), each=3),  
position=rep(c('Guard', 'Forward', 'Center'), times=3),  
points=c(14, 8, 8, 16, 3, 7, 17, 22, 26))
```

```
#view data frame
```

**df**

**team position points**

**1 A Guard 14**

**2 A Forward 8**

**3 A Center 8**

**4 B Guard 16**

**5 B Forward 3**

**6 B Center 7**

**7 C Guard 17**

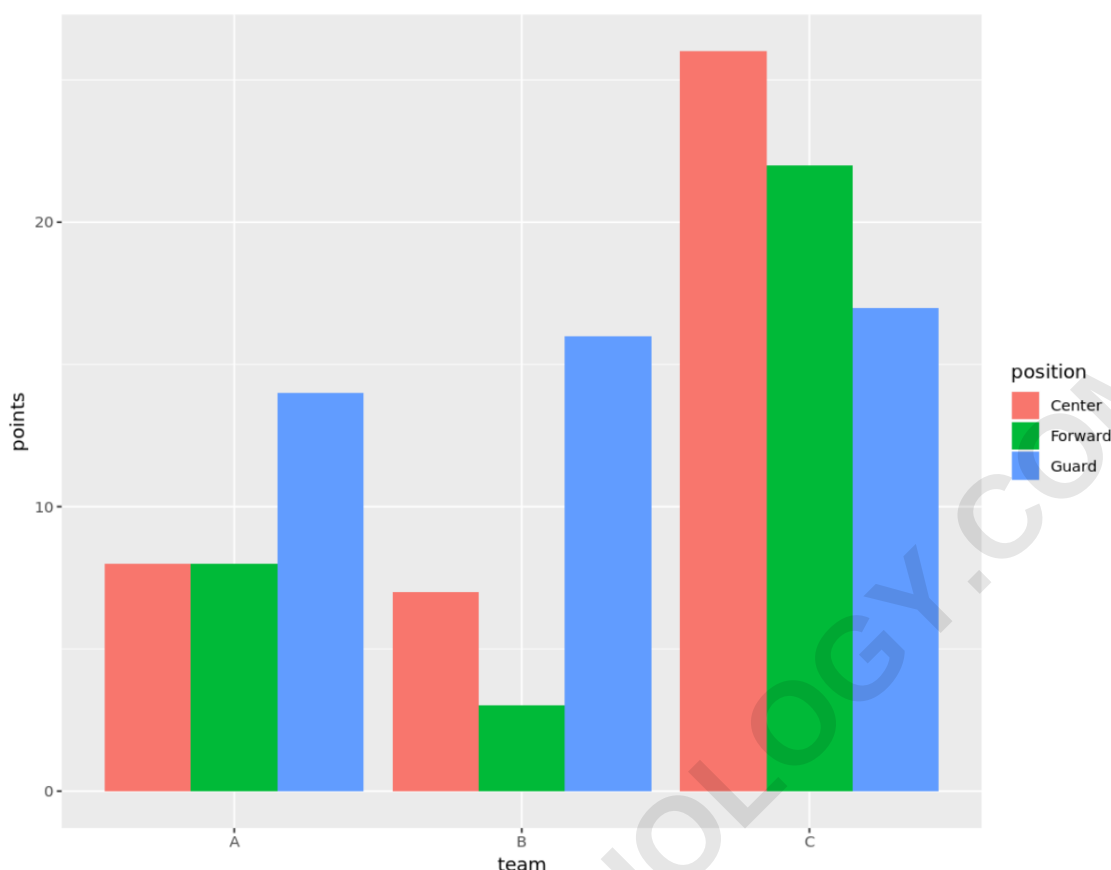
**8 C Forward 22**

**9 C Center 26**

We can use the following code to create a grouped barplot that displays the points scored by each player, grouped by team and position:

```
library(ggplot2)
```

```
ggplot(df, aes(fill=position, y=points, x=team)) +  
geom_bar(position='dodge', stat='identity')
```



### Customizing a Grouped Barplot

We can also customize the title, axes labels, theme, and colors of the grouped barplot to make it look however we'd like:

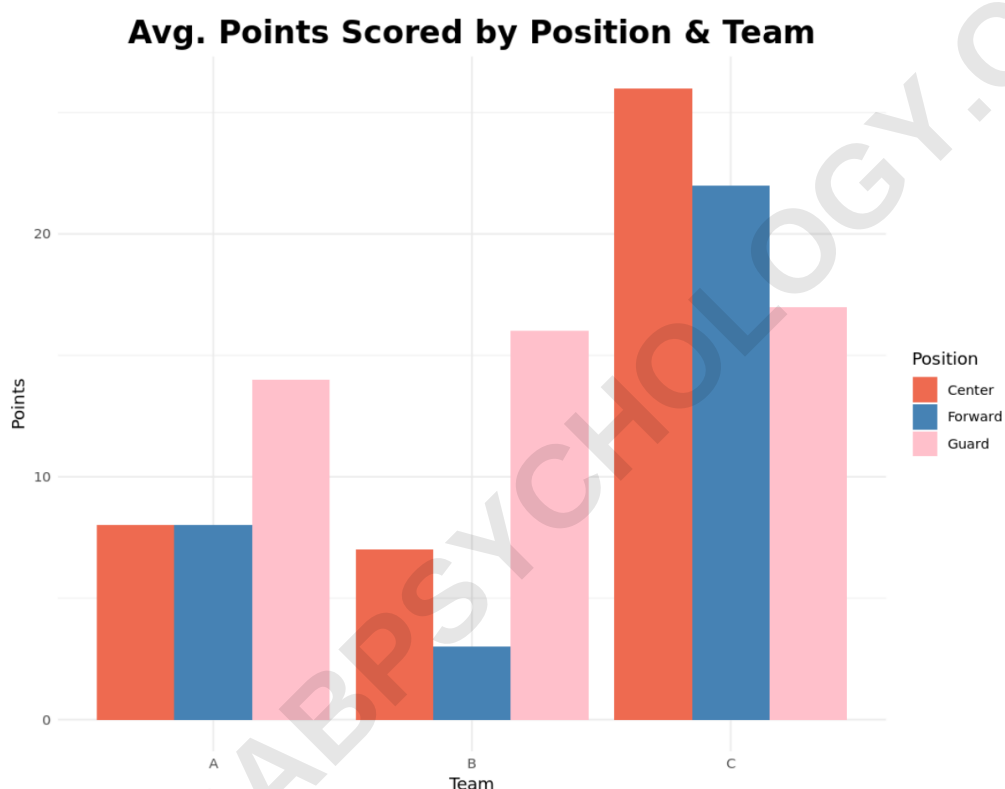
```
library(ggplot2)
```

```
ggplot(df, aes(fill=position, y=points, x=team)) +  
geom_bar(position='dodge', stat='identity') +  
theme_minimal() +  
labs(x='Team', y='Points', title='Avg. Points Scored by
```

```

Position & Team') +
theme(plot.title = element_text(hjust=0.5, size=20,
face='bold')) +
scale_fill_manual('Position', values=c('coral2',
'steelblue', 'pink'))

```



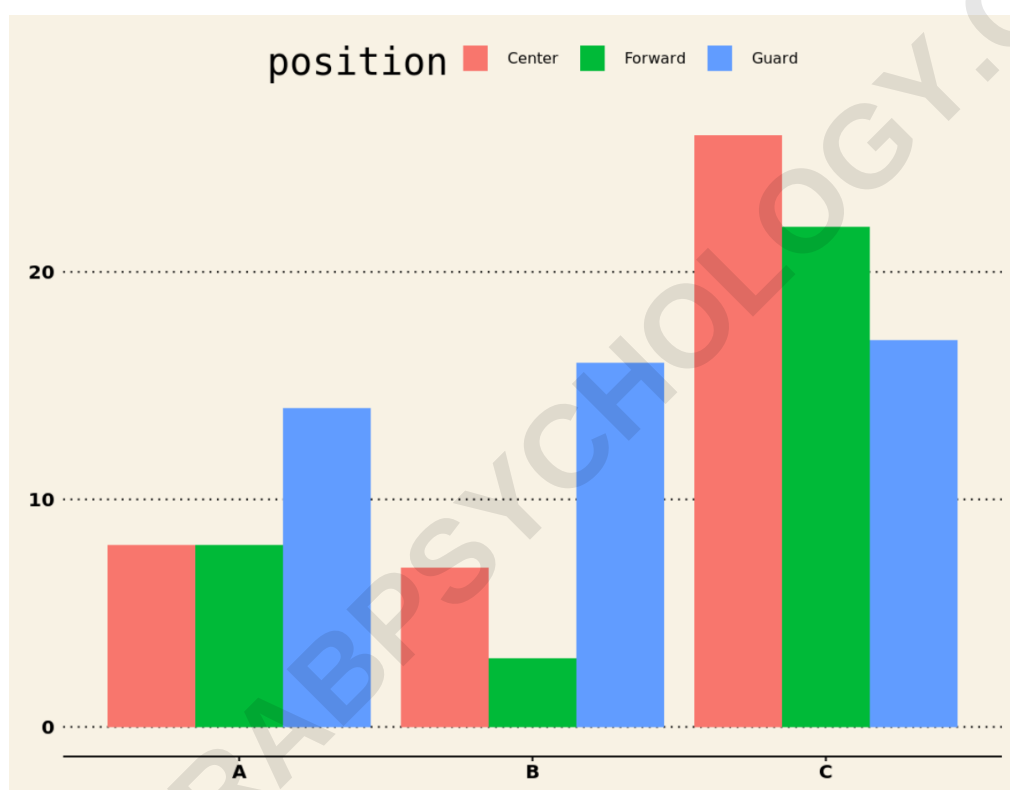
We can customize the appearance even more by using one of the themes in the ggthemes library. For example, we could use the Wall Street Journal Theme from this library:

```
install.packages('ggthemes')
```

```
library(ggplot2)
```

```
library(ggthemes)
```

```
ggplot(df, aes(fill=position, y=points, x=team)) +  
geom_bar(position='dodge', stat='identity') +  
theme_wsj()
```



***Refer to our [Complete Guide to the Best ggplot2 Themes](#) for even more themes.***

**How to Create a Stacked Barplot in R**

**How to Create a Grouped Boxplot in R Using ggplot2**

## **How to Create Side-by-Side Plots in ggplot2**

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