

# How can I create a stacked barplot in R, and what are some examples of implementing this type of graph?

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## RECOMMENDED CITATION

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Creating a stacked barplot in R involves using the built-in function "barplot()" and specifying the data to be plotted along with the desired color scheme. This type of graph allows for the comparison of multiple categories within a single variable, showing the total and relative contribution of each category to the overall value. Examples of implementing a stacked barplot include visualizing sales data for different products in a company, comparing the percentage breakdown of expenses in a budget, and displaying the distribution of different demographic groups within a population. Stacked barplots are useful for highlighting patterns and trends in data and are commonly used in various fields such as business, marketing, and social sciences.

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

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

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

### Stacked 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
```

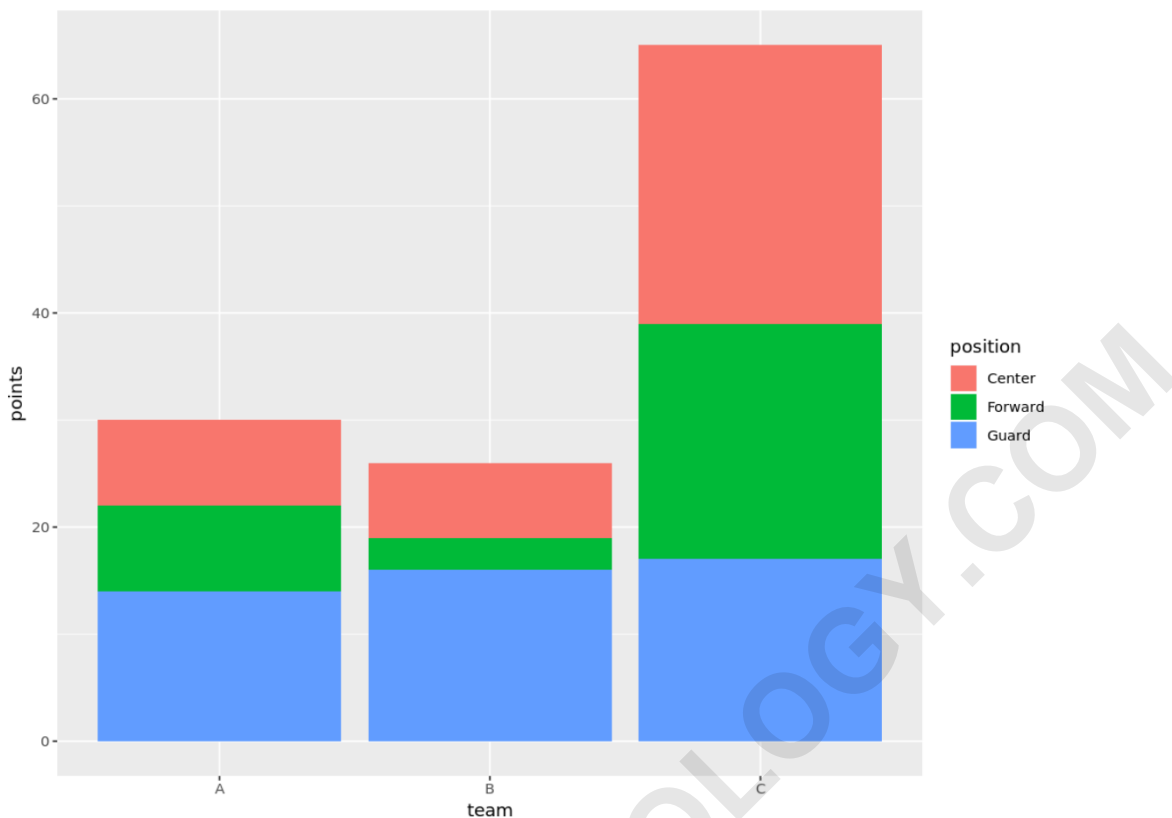
```
8 C Forward 22
```

```
9 C Center 26
```

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

```
library(ggplot2)
```

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



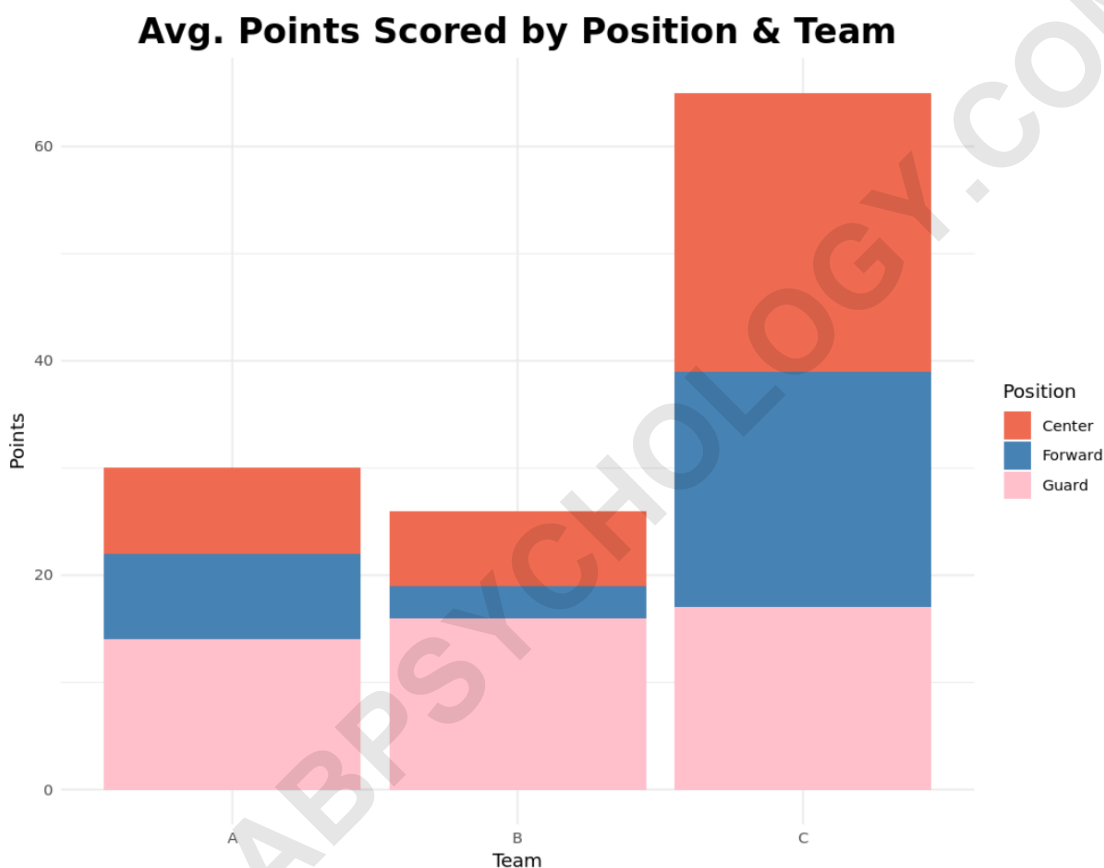
### Customizing a Stacked Barplot

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

```
library(ggplot2)
```

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



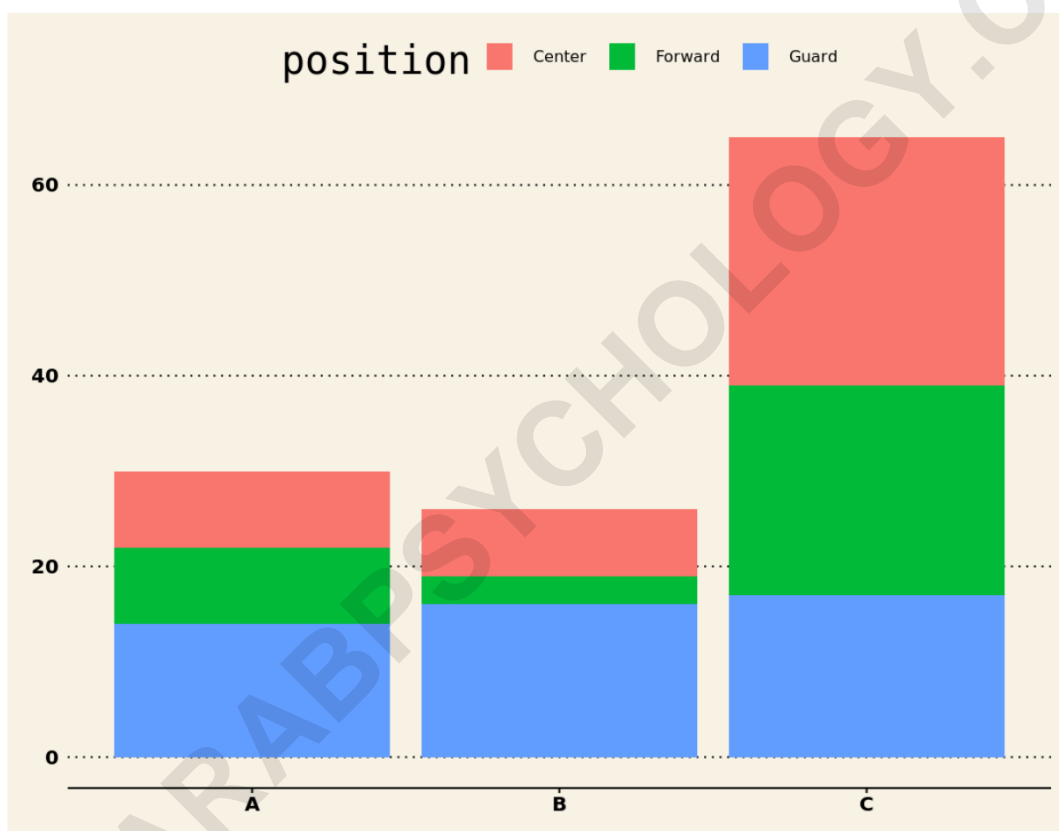
We can also customize the appearance further by using one of the pre-defined themes in the ggthemes library. For example, we could use the Wall Street Journal Theme from this library:

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

```
library(ggplot2)
```

```
library(ggthemes)
```

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



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

**The Complete Guide to ggplot2 Titles**

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

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

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