

# How can I change the colors of the bars in a stacked bar chart using ggplot2?

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## RECOMMENDED CITATION

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The process of changing the colors of the bars in a stacked bar chart using ggplot2 involves utilizing the "fill" aesthetic in the ggplot2 package. This allows for the customization of individual bar colors or the entire color scheme of the chart. By specifying the desired colors or using pre-defined color palettes, users can effectively convey their data in a visually appealing and informative manner. This feature in ggplot2 provides flexibility and control in creating aesthetically pleasing stacked bar charts.

## Change Colors of Bars in Stacked Bar Chart in ggplot2

You can use the following basic syntax to change the color of bars in a stacked bar chart in ggplot2:

**#create stacked bar chart**

```
ggplot(df, aes(x=x_var, y=y_var, fill=fill_var)) +  
geom_bar(position='stack', stat='identity') +  
scale_fill_manual(values=c('red', 'purple', 'pink', ...))
```

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

**Example: Change Color of Bars in Stacked Bar Chart in ggplot2**

Suppose we have the following data frame in R that shows the points scored by various basketball players:

**#create data frame**

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

```
position=c('G', 'F', 'C', 'G', 'F', 'C', 'G', 'F', 'C'),  
points=c(22, 12, 10, 30, 12, 17, 28, 23, 20))
```

```
#view data frame
```

```
df
```

```
team position points
```

```
1 A G 22
```

```
2 A F 12
```

```
3 A C 10
```

```
4 B G 30
```

```
5 B F 12
```

```
6 B C 17
```

```
7 C G 28
```

```
8 C F 23
```

```
9 C C 20
```

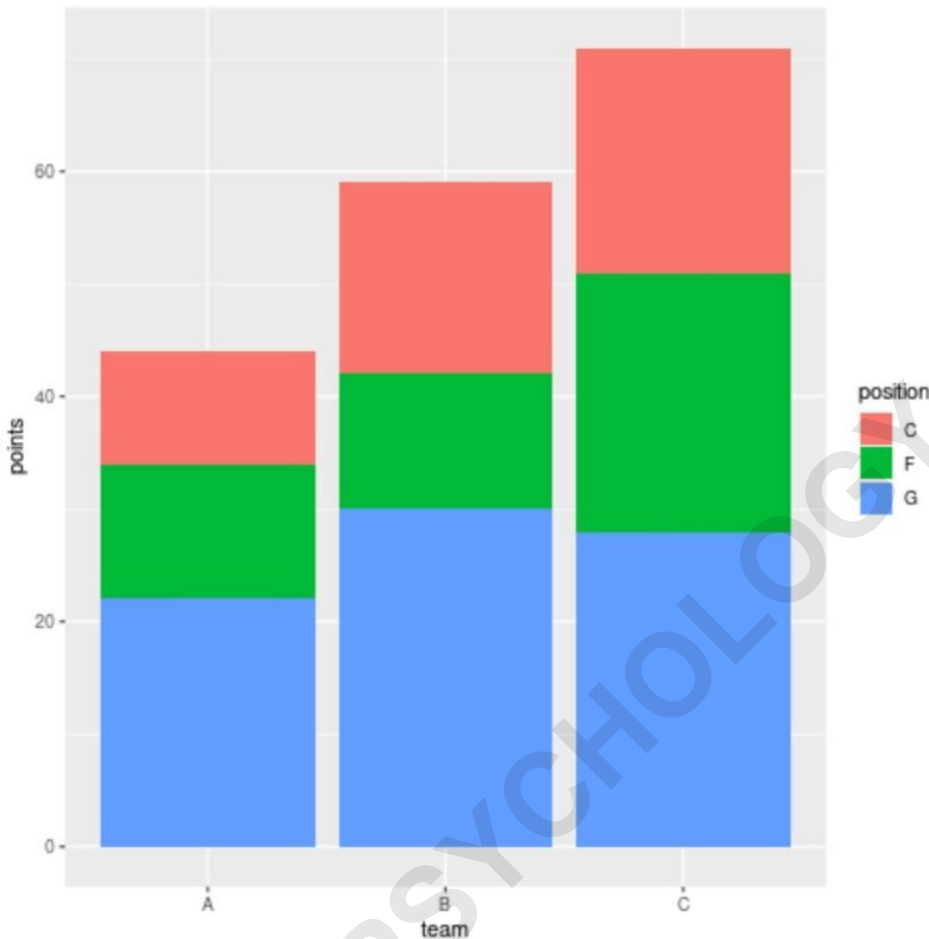
If we create a stacked bar chart to visualize the points scored by players on each team, ggplot2 will use a set of to fill in the bars:

```
library(ggplot2)
```

```
#create stacked bar chart
```

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

## `geom_bar(position='stack', stat='identity')`



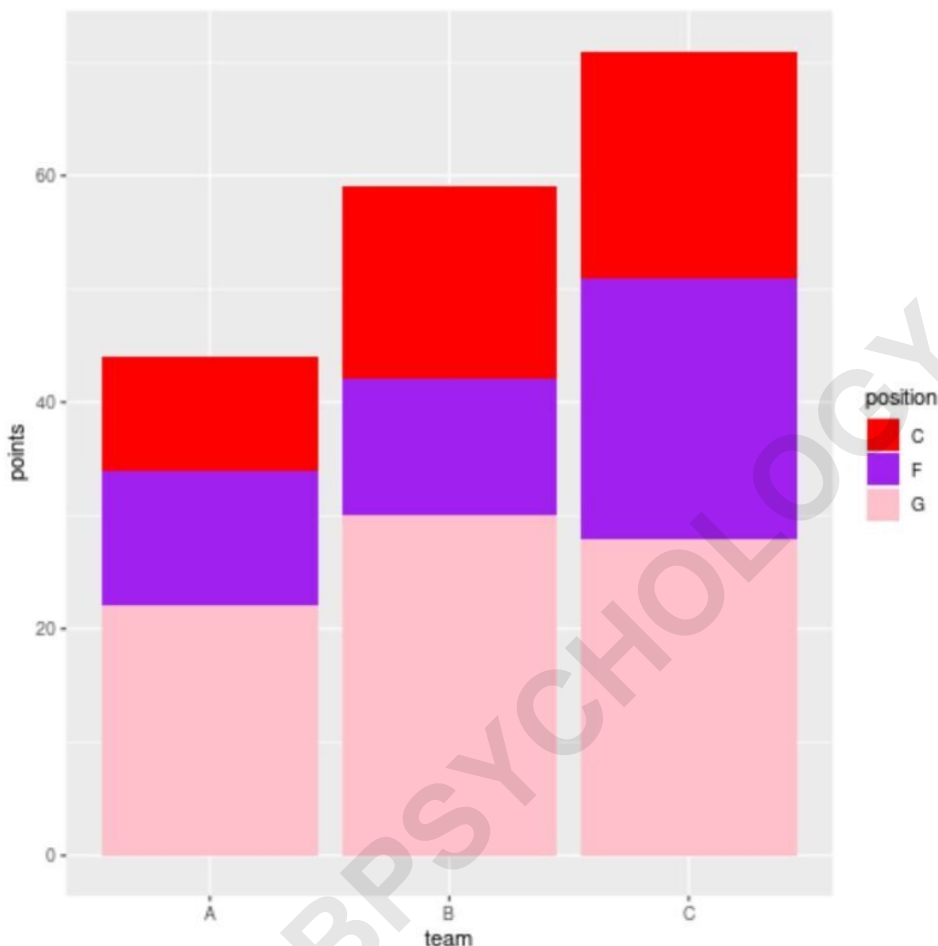
However, we can use the `scale_fill_manual()` argument to specify the exact colors that ggplot2 should use for the bars:

```
library(ggplot2)
```

```
#create stacked bar chart with custom colors
```

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

```
geom_bar(position='stack', stat='identity') +  
scale_fill_manual(values=c('red', 'purple', 'pink'))
```



The bars now have the exact colors (in order from top to bottom) that we specified within the `scale_fill_manual()` function.

Also note that we can use hex color codes within the `scale_fill_manual()` function:

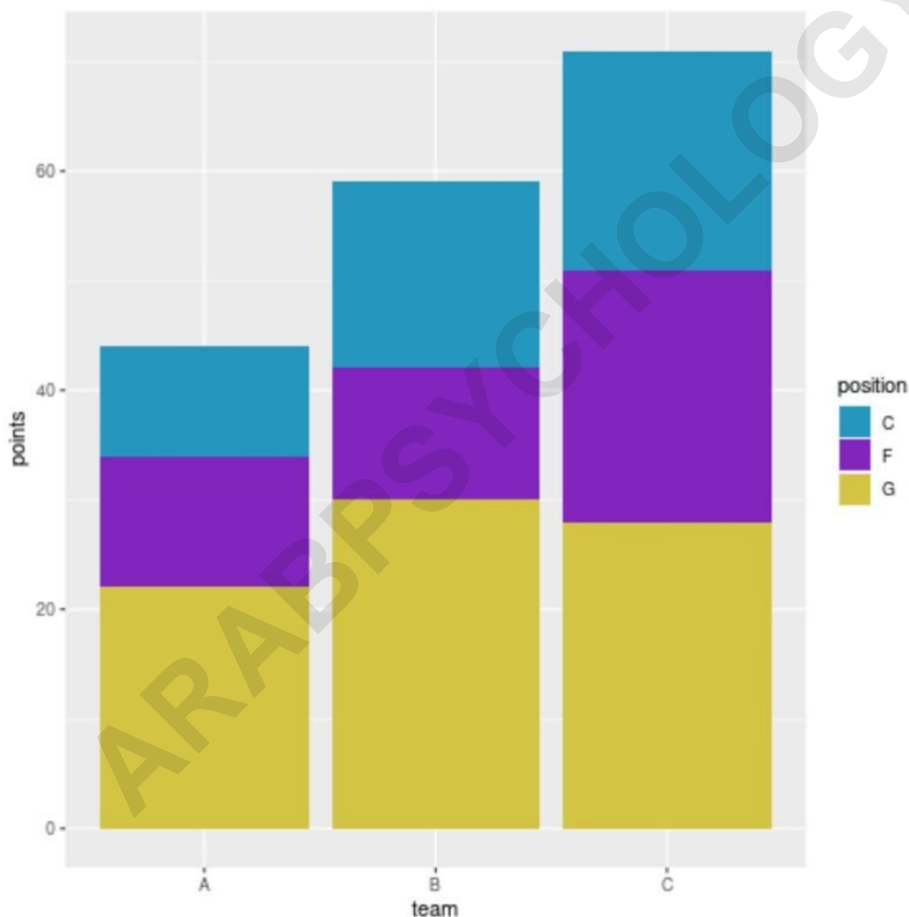
```
library(ggplot2)
```

```
#create stacked bar chart with custom hex color codes
```

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

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

```
scale_fill_manual(values=c('#2596BE', '#8225BE', '#D4C443'))
```



The bars now have the hex color codes that we specified.

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

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