

How can I change the fill and border color of points in ggplot2?

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In ggplot2, a popular data visualization package in R, users can customize the appearance of data points by changing their fill and border colors. This can be achieved by specifying the desired colors in the "aes" command, which controls the aesthetics of a plot. Additionally, the "scale_fill_manual" and "scale_color_manual" functions can be used to further customize the colors of the points. By manipulating these parameters, users can create visually appealing and informative plots in ggplot2.

Change Fill and Border Color of Points in ggplot2

You can use the color and fill arguments to change the border and fill color of points in a ggplot2 scatter plot, respectively:

#create scatter plot with points that have black border and pink fill

```
ggplot(df, aes(x=x, y=y)) +  
geom_point(color='black', fill='pink', shape=21)
```

It's important to note that the color and fill arguments only work when the shape value is between 21 and 25.

Refer to for a complete list of shapes available in ggplot2.

The following examples show how to use the color and fill arguments in practice.

Example 1: Specify One Fill and Border Color for All Points

The following code shows how to create a scatter plot in ggplot2 in which the border color of all points is black and the fill color is pink:

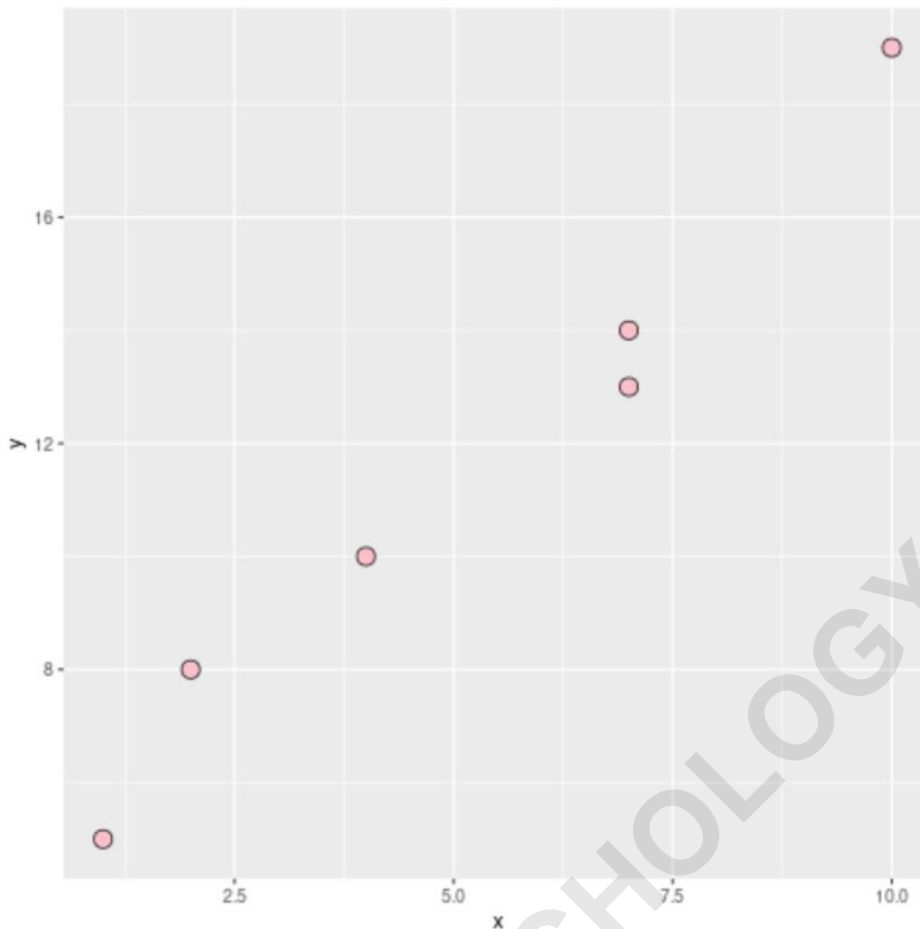
```
library(ggplot2)
```

```
#create data frame
```

```
df <- data.frame(x=c(1, 2, 4, 7, 7, 10),  
y=c(5, 8, 10, 14, 13, 19))
```

```
#create scatter plot
```

```
ggplot(df, aes(x=x, y=y)) +  
geom_point(color='black', fill='pink', shape=21, size=4)
```



Example 2: Specify Multiple Fill and Border Colors for Points

The following code shows how to create a scatter plot in ggplot2 in which the border and fill color of points is dependent on the value of a grouping variable:

```
library(ggplot2)
```

```
#create data frame
```

```
df <- data.frame(x=c(1, 2, 4, 7, 7, 10),
```

```
y=c(5, 8, 10, 14, 13, 19),
```

```
group=c('A', 'A', 'A', 'B', 'B', 'B'))
```

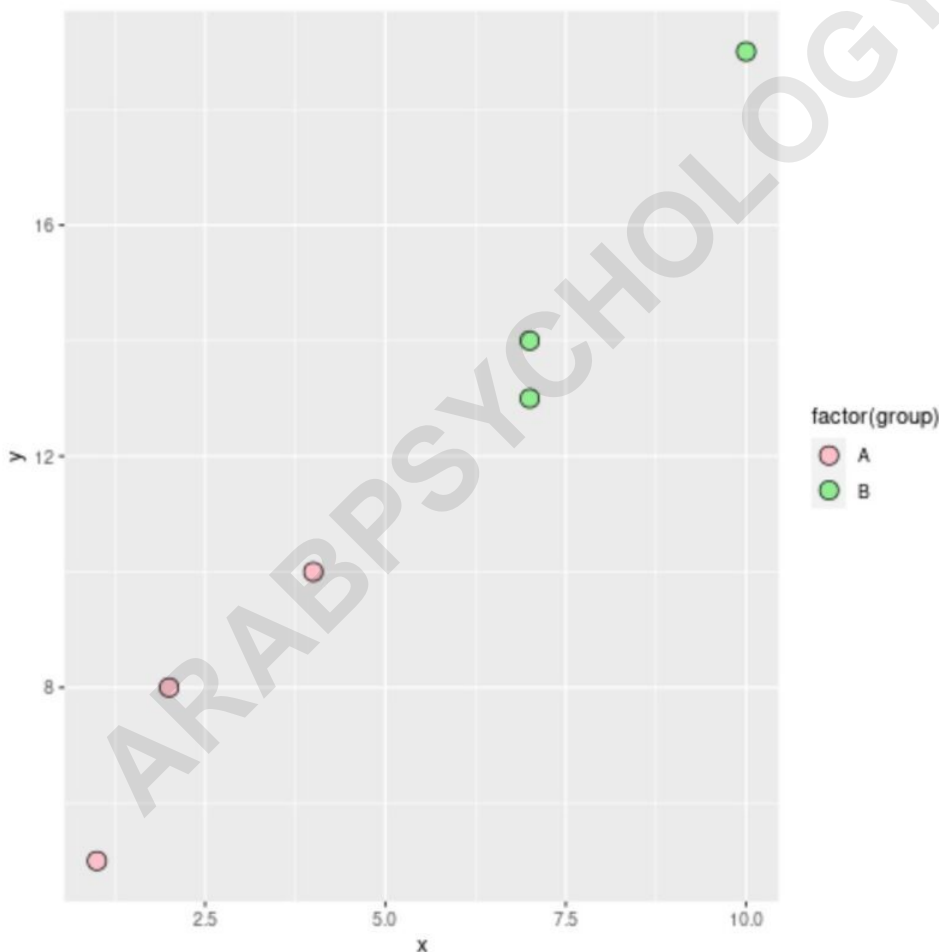
```
#create scatter plot with multiple fill and border colors
```

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

```
geom_point(color='black', shape=21, size=4,
```

```
aes(fill=factor(group))) +
```

```
scale_fill_manual(values=c('pink', 'lightgreen'))
```



In this example, we use a border color of 'black' for all points, but the fill color was dependent on the value for

the group variable in the data frame.

Note: You can find the complete documentation for the `geom_point()` function .

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

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