

How can I change the line type in ggplot2?

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GGplot2 is a popular data visualization package in R that allows users to create visually appealing plots. One of the customizable features in ggplot2 is the ability to change the line type or style used in the plot. This can be achieved by specifying the desired line type in the "geom_line" function, where users can choose from a variety of options such as solid, dashed, or dotted lines. This feature allows users to easily modify the appearance of their plots to suit their specific needs and preferences.

Change Line Type in ggplot2

You can use the `linetype` argument to change the line type in a ggplot2 plot:

```
ggplot(df, aes(x=x, y=y)) +  
geom_line(linetype=1)
```

The default value for `linetype` is 1 (a solid line), but you can specify any value between 0 to 6 where:

0 = blank
1 = solid
2 = dashed
3 = dotted
4 = dotdash
5 = longdash
6 = twodash

The following examples show how to modify the `linetype` argument in different ggplot2 plots.

Example 1: Create Plot with Default Line Type

The following code shows how to create a line plot in ggplot2 using the default line type (solid line):

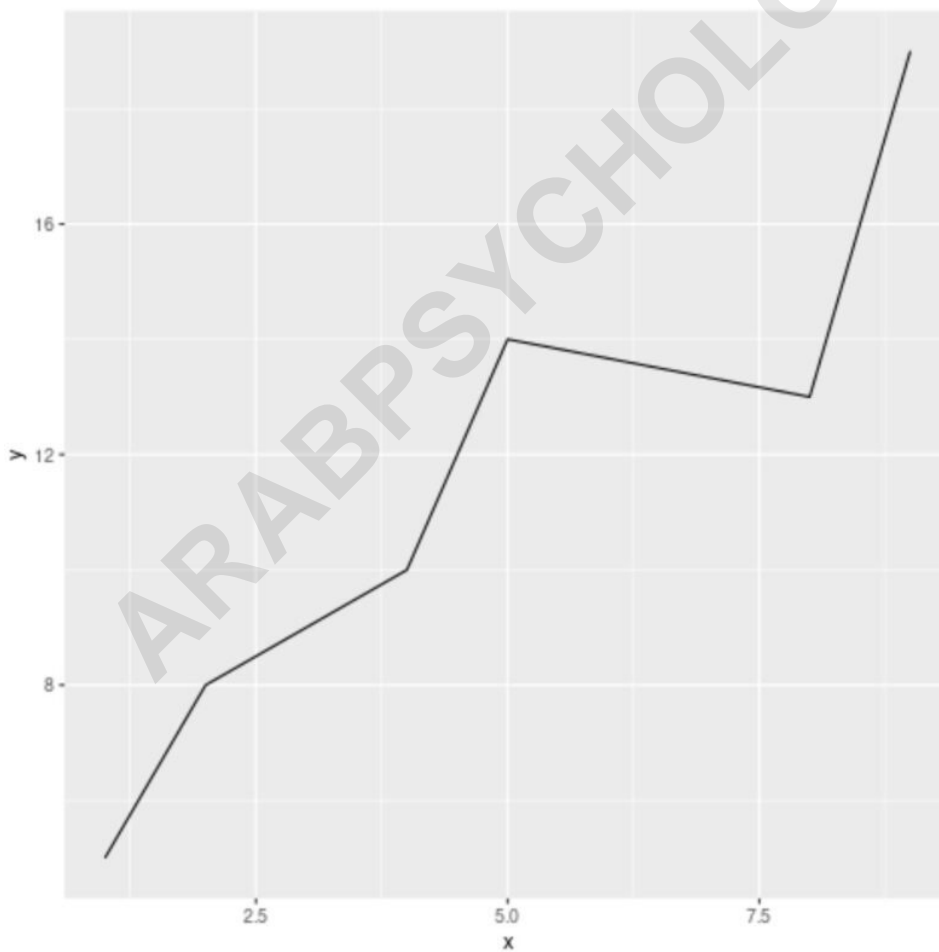
```
library(ggplot2)
```

```
#create data frame
```

```
df <- data.frame(x=c(1, 2, 4, 5, 8, 9),  
y=c(5, 8, 10, 14, 13, 19))
```

```
#create line plot
```

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



Since we didn't use the `linetype` argument at all, `ggplot2` used the default line type of solid.

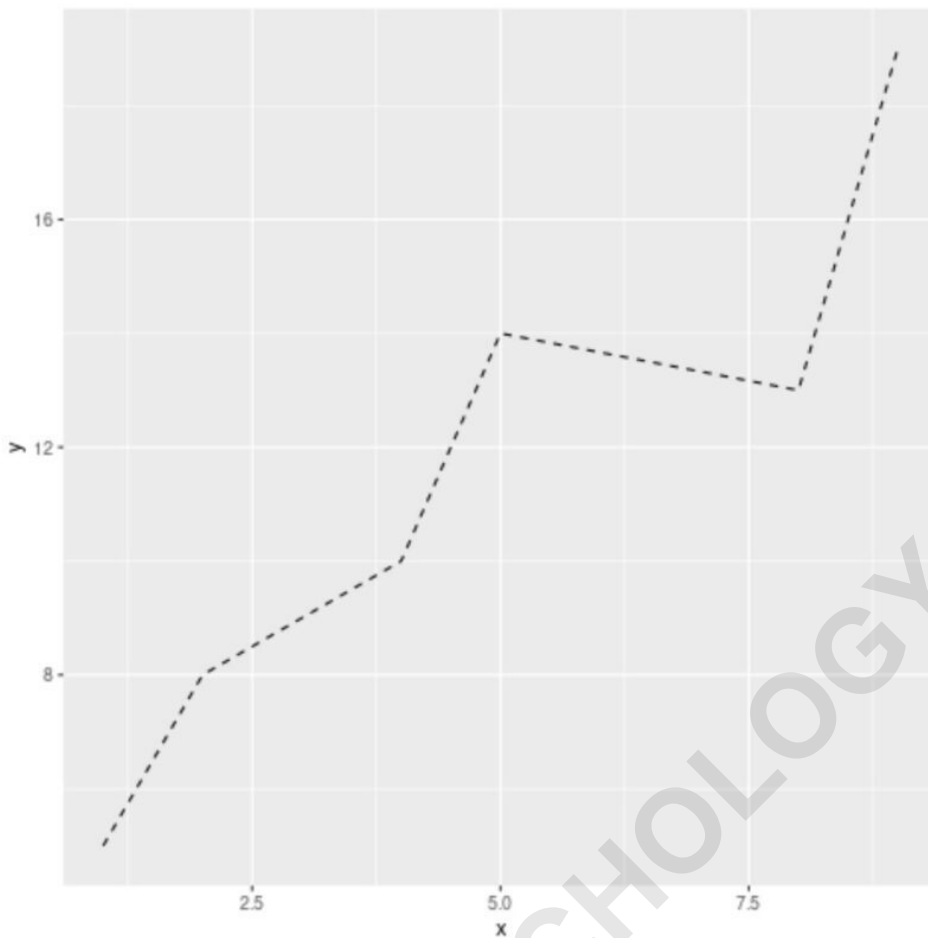
Example 2: Create Plot with Custom Line Type

The following code shows how to create a line plot in `ggplot2` using dashed (`linetype=2`) for the line type:

```
library(ggplot2)

#create data frame
df <- data.frame(x=c(1, 2, 4, 5, 8, 9),
y=c(5, 8, 10, 14, 13, 19))

#create line plot with custom line type
ggplot(df, aes(x=x, y=y)) +
geom_line(linetype=2)
```



Example 3: Create Plot with Line Type Based on Variable

The following code shows how to create a line plot in ggplot2 where the line type is based on the value of a particular variable in the data frame:

```
library(ggplot2)
```

```
#create data frame
```

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

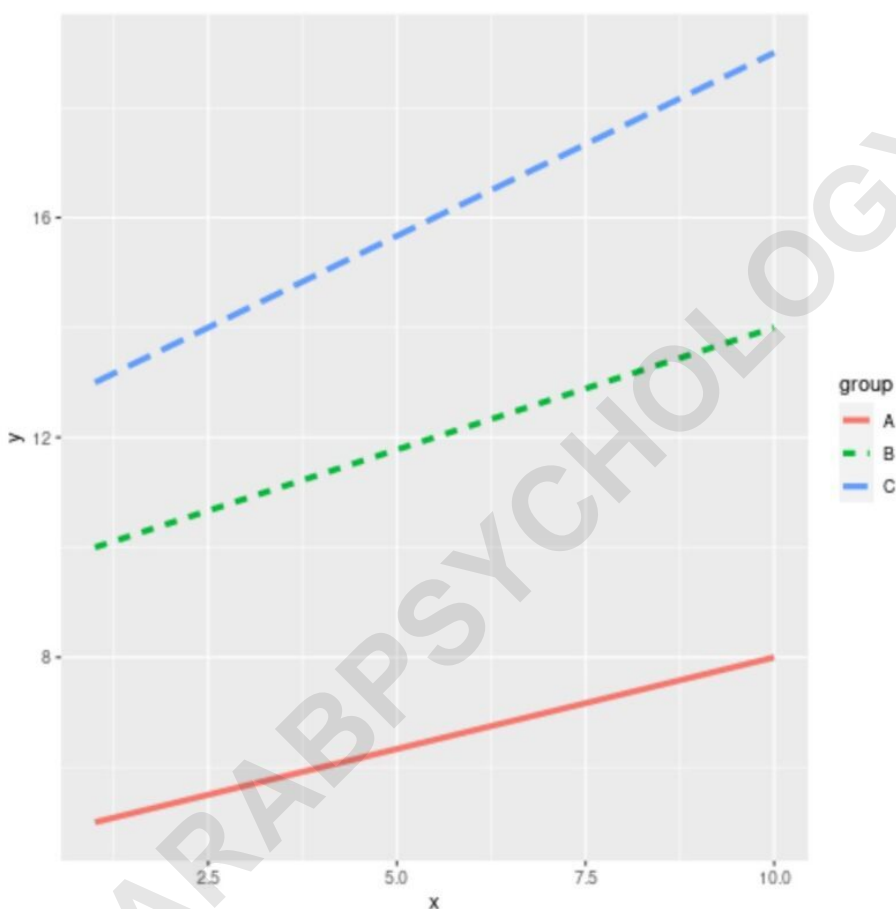
```
y=c(5, 8, 10, 14, 13, 19),
```

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

```
#create line plot
```

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

```
geom_line(aes(linetype=group, color=group), size=1.5)
```



Notice that the line type and color for each line is based on the value for the group variable.

Notice that ggplot2 also automatically produces a legend on the right side of the plot to show which line

corresponds to which team.

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

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