How can I create side-by-side plots in ggplot2?

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In order to create side-by-side plots in ggplot2, one can use the "facet_grid()" function which allows for multiple plots to be displayed simultaneously. This function divides the data into different groups and plots them in a grid format to easily compare and contrast the different groups. This can be done by specifying the variables or factors to be used for grouping within the function. Additionally, the "facet_wrap()" function can also be used to create a similar layout but with the plots arranged in a wrap format instead of a grid. These functions are useful for visualizing and analyzing multiple variables or factors within a dataset in a single graph.

Create Side-by-Side Plots in ggplot2

Often you may want to create two plots side-by-side using the ggplot2 package in R. Fortunately this is easy to do with the help of the patchwork package.

#install ggplot2 and patchwork packages
install.packages('ggplot2')
install.packages('patchwork')

#load the packages
library(ggplot2)
library(patchwork)

This tutorial shows several examples of how to use these packages to create side-by-side plots.

Example 1: Two Side-by-Side Plots

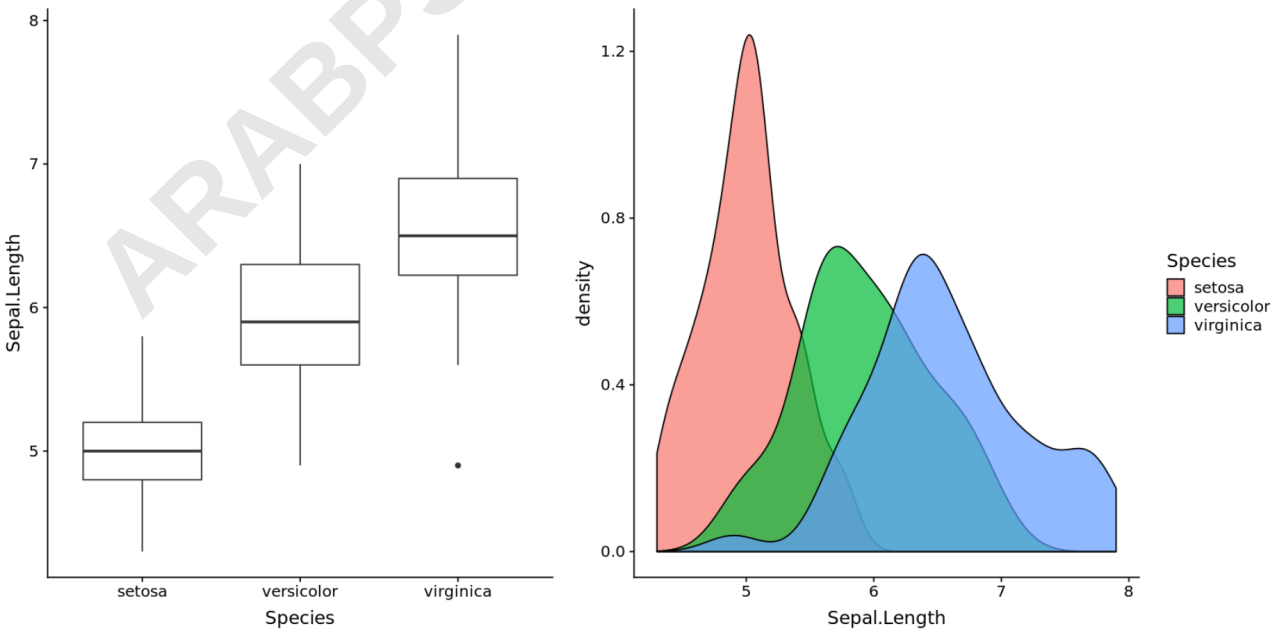
The following code shows how to create two side-by-

side plots using the R built-in iris dataset:

```
#create box plot
plot1 <- ggplot(iris, aes(x = Species, y = Sepal.Length))
+
geom_boxplot()

#create density plot
plot2 <- ggplot(iris, aes(x = Sepal.Length, fill = Species))
+
geom_density(alpha = 0.8)

#display plots side by side
plot1 + plot2
```



Example 2: Three Side-by-Side Plots

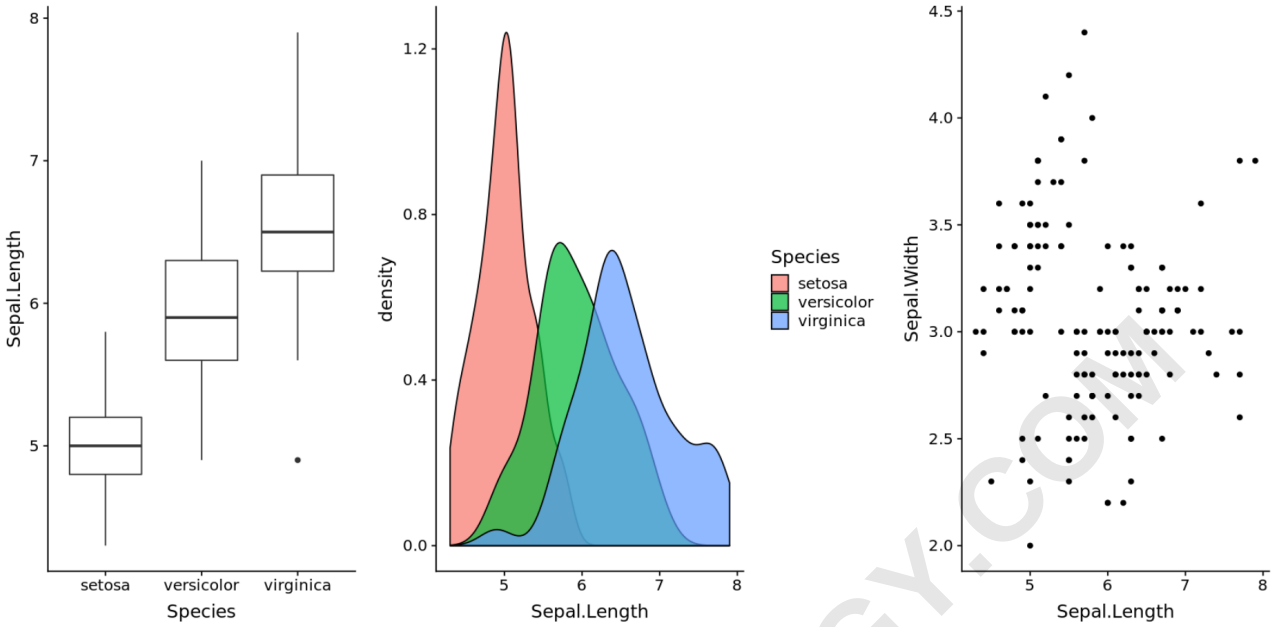
The following code shows how to create three side-by-side plots using the R built-in iris dataset:

```
#create box plot
plot1 <- ggplot(iris, aes(x = Species, y = Sepal.Length)) +
geom_boxplot()

#create density plot
plot2 <- ggplot(iris, aes(x = Sepal.Length, fill = Species)) +
geom_density(alpha = 0.7)

#create scatterplot
plot3 <- ggplot(iris, aes(x = Sepal.Length, y = Sepal.Width)) +
geom_point()

#display three plots side by side
plot1 + plot2 + plot3
```



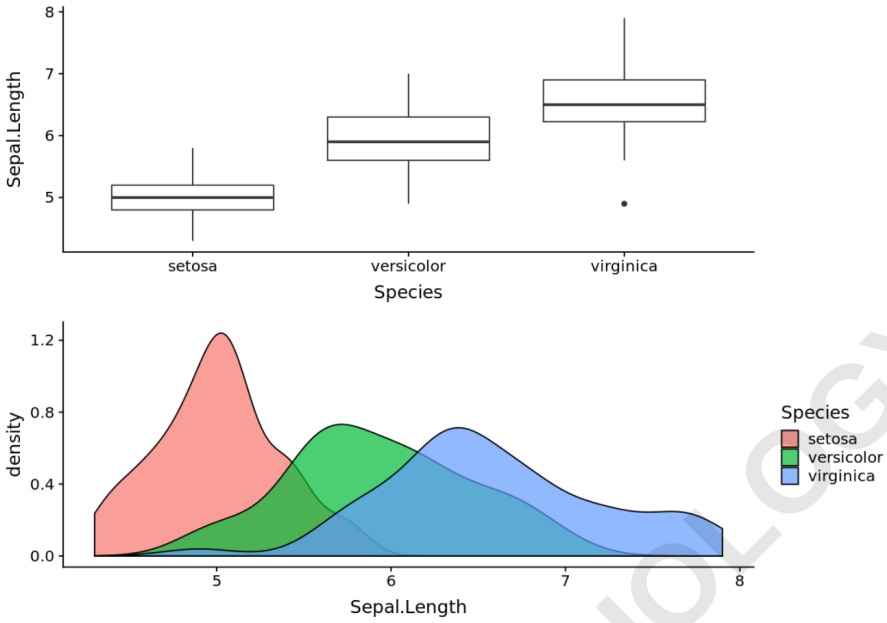
Example 3: Two Stacked Plots

The following code shows how to create two stacked plots, one on top of the other:

```
#create box plot
plot1 <- ggplot(iris, aes(x = Species, y = Sepal.Length)) +
geom_boxplot()

#create density plot
plot2 <- ggplot(iris, aes(x = Sepal.Length, fill = Species)) +
geom_density(alpha = 0.7)
```

```
#display plots stacked on top of each other
plot1 / plot2
```



Example 4: Add Titles, Subtitles, and Captions

The following code shows how to add titles, subtitles, and captions to the plots:

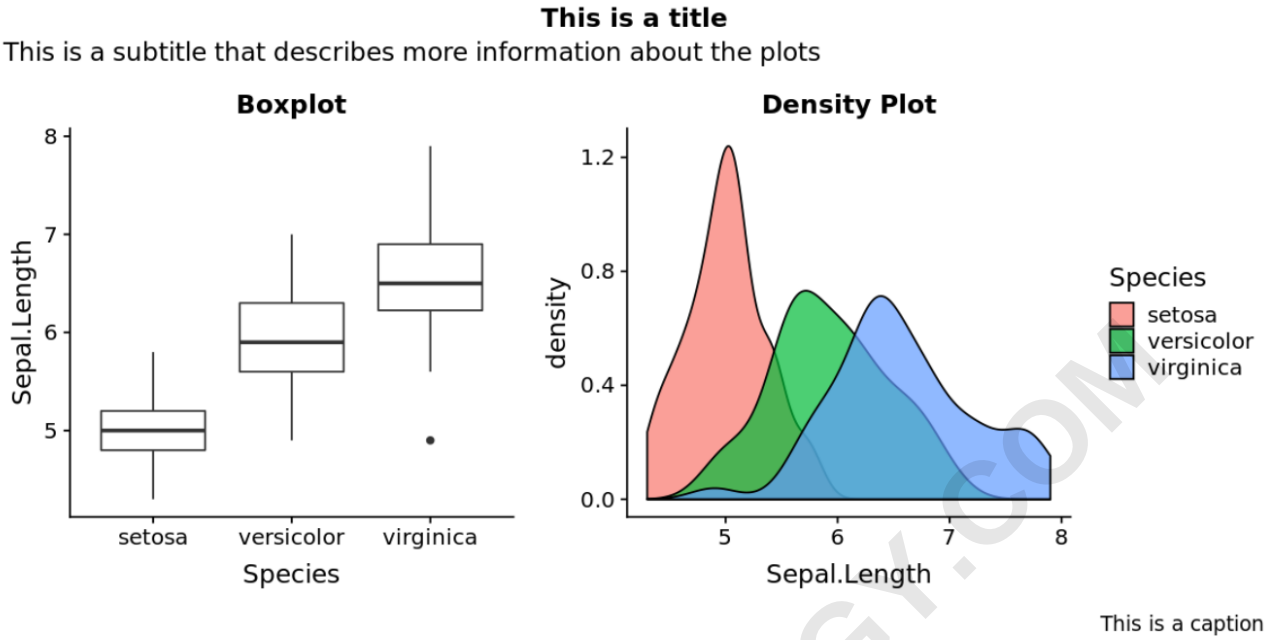
```
#create box plot
plot1 <- ggplot(iris, aes(x = Species, y = Sepal.Length)) +
geom_boxplot() +
ggtitle('Boxplot')

#create density plot
```

```
plot2 <- ggplot(iris, aes(x = Sepal.Length, fill = Species))
+
geom_density(alpha = 0.7) +
ggtitle('Density Plot')

#display plots side by side with title, subtitle, and
captions
patchwork <- plot1 + plot2

patchwork + plot_annotation(
title = 'This is a title',
subtitle = 'This is a subtitle that describes more
information about the plots',
caption = 'This is a caption'
)
```



You can find more R tutorials here.