

Visualizing Data with ggplot2: Takeaways



by Dataquest Labs, Inc. - All rights reserved © 2021

Syntax

Creating a plot using a DataFrame:

```
```  
data %>%
 ggplot()
```
```

Defining the variables you want to map to your graph:

```
```  
data %>%
 ggplot(aes(x = variable_1, y = variable_2))
```
```

Adding a line to your graph:

```
```  
data %>%
 ggplot(aes(x = variable_1, y = variable_2))+
 geom_line()
```
```

Adding graph titles and axis labels:

```
```  
data %>%
 ggplot(aes(x = variable_1, y = variable_2)) +
 geom_line() +
 labs(
 title = "Title of Graph",
 x = "new x label",
)
```
```

```
y = "new y label"  
)  
```
```

Changing the background of a graph:

```
```  
data %>%  
  ggplot(aes(x = variable_1, y = variable_2)) +  
  geom_line() +  
  labs(  
    title = "Title of Graph",  
    x = "new x label",  
    y = "new y label"  
  ) +  
  theme(  
    panel.background = element_rect(fill = "background_color")  
  )  
```
```

## Concepts

- The `ggplot2` package is a systematic, consistent, and efficient tool you can use to create high-quality visualizations.
- Plots are visual representations that use graphics like dots, lines, and bars to help you recognize patterns in data.
- A line chart is a type of plot that is especially useful for visualizing changes over time. A line chart displays information as a series of data points connected by a line. Line charts are useful for depicting data that is continuous.
- The `gg` in `ggplot2` stands for Grammar of Graphics, which refers to a system for data visualization first described by Leland Wilkinson.
- The variable that changes depending on another variable is called the dependent variable. The dependent variable is usually placed on the y-axis.
- The variable that changes independent of another variable is called the independent variable. The independent variable is usually placed on the x-axis.
- We can add layers to the graph using the `+` character followed by another layer.

## Resources

- [Grammar of Graphics](#)
- [ggplot2 Documentation](#)

