











Create data visualizations in R

Explore aesthetics in analysis

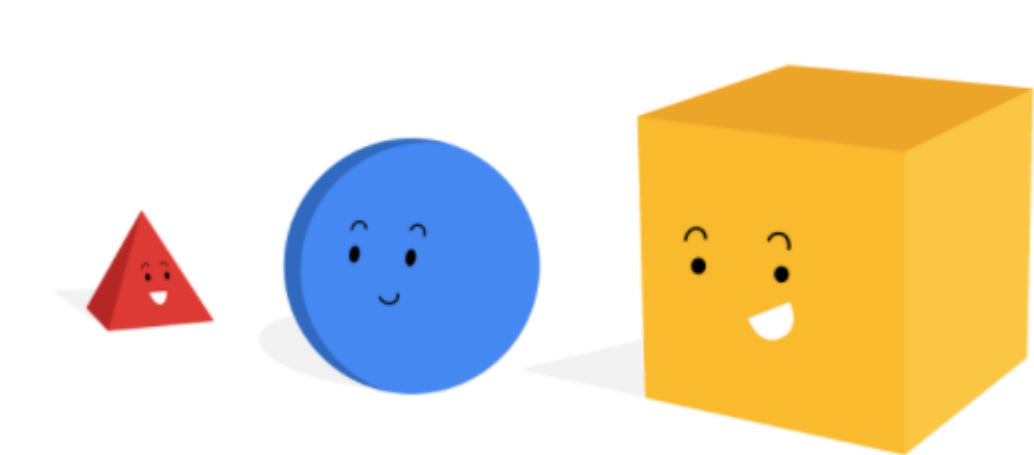
-  **Video:** Enhancing visualizations in R  
8 min
-  **Reading:** Aesthetic attributes  
10 min
-  **Video:** Doing more with ggplot  
8 min
-  **Reading:** Smoothing  
10 min
-  **Video:** Aesthetics and facets  
5 min
-  **Practice Quiz:** Hands-On Activity: Aesthetics and visualizations  
1 question
-  **Reading:** Filtering and plots  
10 min
-  **Practice Quiz:** Hands-On Activity: Filters and plots  
1 question
-  **Ungraded Plugin:** Elements of ggplot  
10 min
-  **Practice Quiz:** Test your knowledge on aesthetics in analysis  
4 questions

Annotate and save visualizations

Weekly challenge 4

# Aesthetic attributes

In this reading, you will learn about the three basic aesthetic attributes to consider when creating ggplot2 visualizations in R: **color**, **size**, and **shape**. These attributes are essential tools for creating data visualizations with ggplot2 and are built directly into its code.



## Aesthetics in ggplot2

**Ggplot2** is an R package that allows you to create different types of data visualizations right in your R workspace. In ggplot2, an **aesthetic** is defined as a visual property of an object in your plot.

There are three aesthetic attributes in ggplot2:

- **Color:** this allows you to change the color of all of the points on your plot, or the color of each data group
- **Size:** this allows you to change the size of the points on your plot by data group
- **Shape:** this allows you to change the shape of the points on your plot by data group




Here’s an example of how aesthetic attributes are displayed in R:

```
ggplot(data, aes(x=distance, y= dep_delay, color=carrier, size=air_time, shape = carrier)) +  
  
  geom_point()
```

By applying these aesthetic attributes to your work with ggplot2, you can create data visualizations in R that clearly communicate trends in your data.

## Additional resources

For more information about aesthetic attributes, check out these resources:

- **Data visualization with ggplot2 cheat sheet** : RStudio’s cheat sheet is a great reference to use while working with ggplot2. It has tons of helpful information, including explanations of how to use geoms and examples of the different visualizations that you can create.
- **Stats Education’s Introduction to R** : This resource is a great way to learn the basics of ggplot2 and how to apply aesthetic attributes to your plots. You can return to this tutorial as you work more with ggplot2 and your own data.
- **RDocumentation aes function** : This guide describes the syntax of the aes function and explains what each argument does.

Mark as completed