Welcome to Week 4!

or here

1. Sign in here: https://forms.gle/exqnxGbkBMJur1FM8

2. Make sure you have the session 4 practice materials downloaded from the course site:

   https://ucb-psychology-quack.github.io/site/Bootcamp_2023/bootcamp2023

3. Open up `s4_starter-code_2023.R` in R Studio

Berkeley
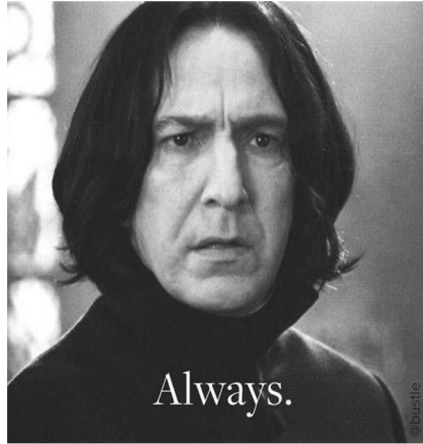UNIVERSITY OF CALIFORNIA

Week 4: Data Visualization

Emily & Sierra
7/12/2023

Today's agenda

- Warm-up

- Introduction to `ggplot`

- Demo: Plotting and data reshaping

- Individual Practice - Data visualization

- Discussion - Present plots

When do you visualize your data?

Introducing ggplot

Last week we learned about Tidyverse. We used a part of tidyverse called "`dplyr`" that helped us clean data.

Today we are learning about another package in tidyverse called `ggplot` that is created for data visualization.

Why ggplot?
- Easy to use
- Works well with the rest of tidyverse and R
- Flexible, easily customizable plots
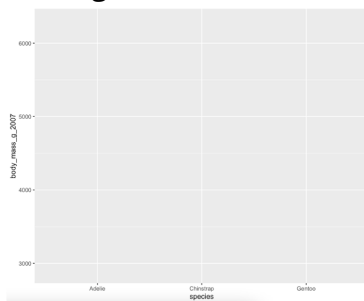

Blast off into the…

Build any plot with ggplot

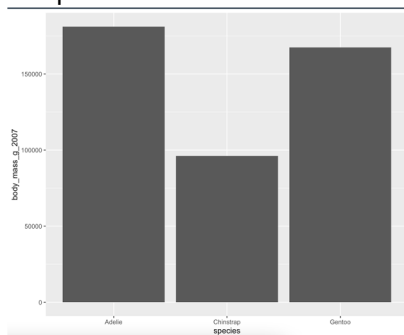We can combine steps together in ggplot to create a plot.

You can think of each element of your plot as a layer that you can build up. This is what makes ggplot so flexible!
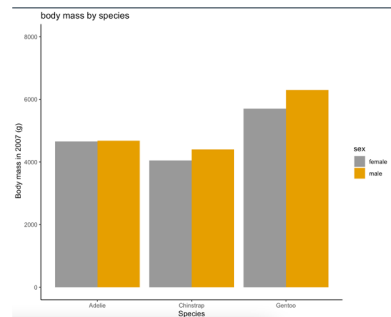
Step 1: create a plot and designate variables

Step 2: Decide how to represent the data

Step 3: Customize

+

+

ggplot terminology

1. Create a ggplot object

```
ggplot(data = myDataFrame, aes(x = xaxis_values, y = yaxis_values))
```

1. Add geometric objects to your plot. These tell ggplot how to represent your data.

```
ggplot(data = myDataFrame, aes(x = xaxis_values, y = yaxis_values)) +
geom_col()
```
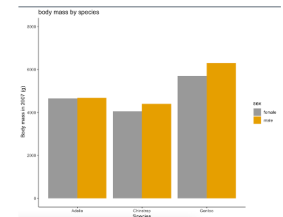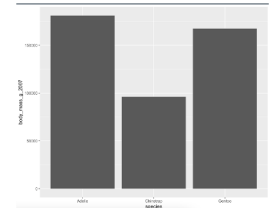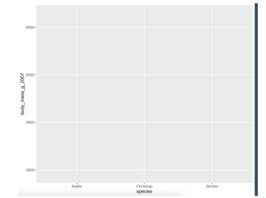
```
geom_point(color = "dark gray")
```

1. Add other layout and design features

```
theme_classic()
```

Notice "+" not "%>%" connects ggplot objects together

geoms can also contain additional data and/or their own aesthetic mappings

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Group Activity

Activity instructions (also in s4 materials):
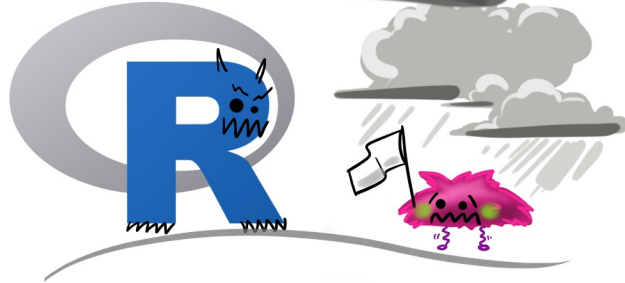https://docs.google.com/document/d/1f6EnTGYpjyU_S6apQcxh3BiRA5-4W0YywfQdVrdCZGQ/edit?usp=sharing

Jamboard to share your plot:
https://jamboard.google.com/d/1HCPlpJPMTnFvS6BYTvZ3r7NPY-bvGJ0gV50eY5B_uUs/edit?usp=sharing

Allison Horst

at first I was like...

...but now it's like...

Allison Horst