

Data Boot Camp  
Lesson 12.1



# The Big Picture





## **Quick Tip for Success:**

You're at the midpoint of the program! Take a minute to celebrate how far you've come since the first day of class.

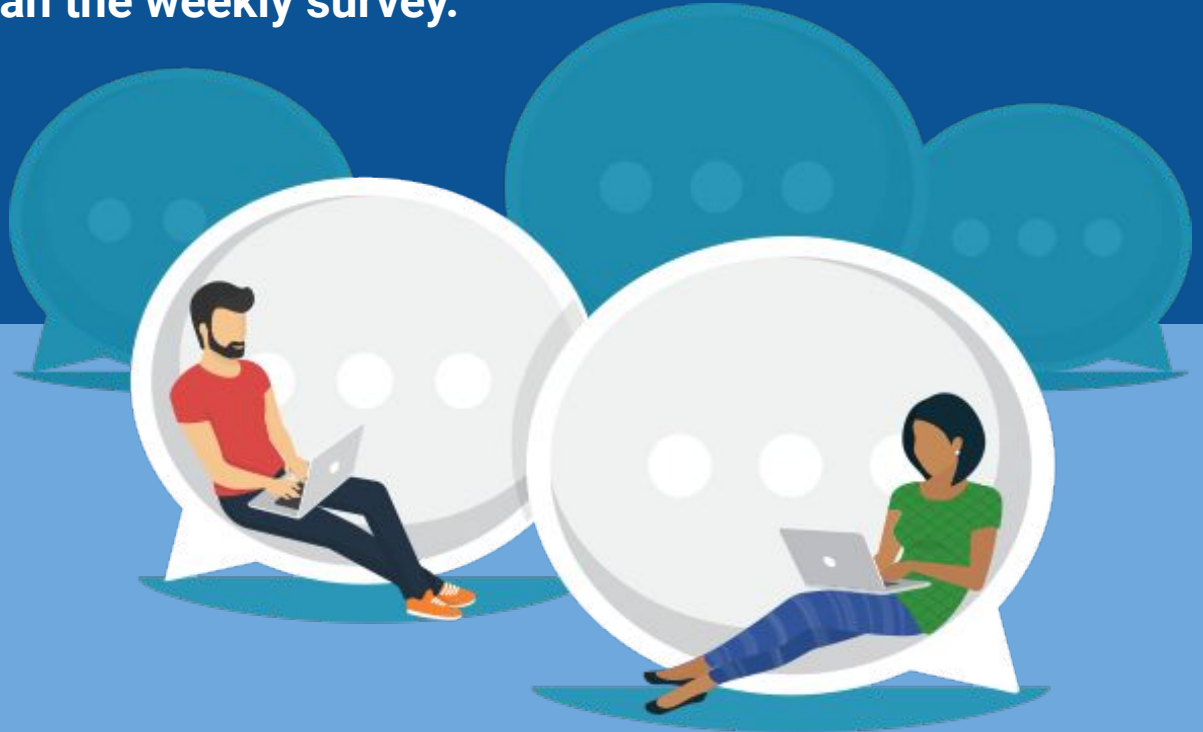
# Congratulations on reaching the midpoint of the program!

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**You'll be asked to take a mid-course survey soon.  
It'll be a little different than the weekly survey.**

**Make sure to take  
your time with  
your answers.**

**We want to hear  
what you have to say!**



Module 12

# This Week: Plotly.js

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By the end of this week, you'll know how to:



Create basic plots with Plotly, including bar charts, line charts, and pie charts



Use `D3.json()` to fetch external data, such as CSV files and web APIs



Parse data in JSON format



Use functional programming in JavaScript to manipulate data



Use JavaScript's Math library to manipulate numbers



Use event handlers in JavaScript to add interactivity to a data visualization



Deploy an interactive chart to GitHub Pages



## **This Week's Challenge**

Using the skills learned throughout the week, create a customized dashboard on a webpage using a horizontal bar chart, a bubble chart, and a gauge chart



## **Career Connection**

How will you use this module's content in your career?



## Module 12

# How to Succeed This Week



## **Quick Tip for Success:**

Having a diverse toolkit at your disposal is important! With Plotly, you'll be able to efficiently create interactive plots with a continuously evolving product.

Module 12

# Today's Agenda

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By completing today's activities, you'll learn the following skills:

01

Creating basic plots

02

Using `map()`, `filter()`, `slice()`, and `sort()` to transform plots

03

Using anonymous arrow functions to shorten syntax

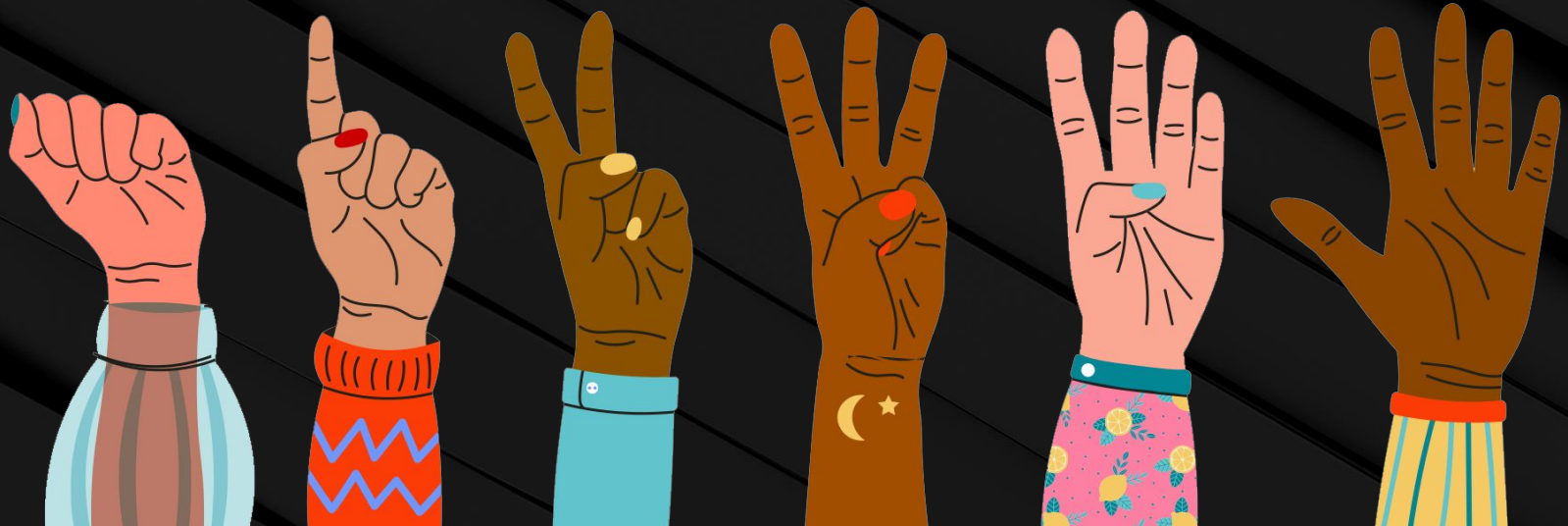


Make sure you've downloaded  
any relevant class files!

## FIST TO FIVE:

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How comfortable do you feel with this topic?

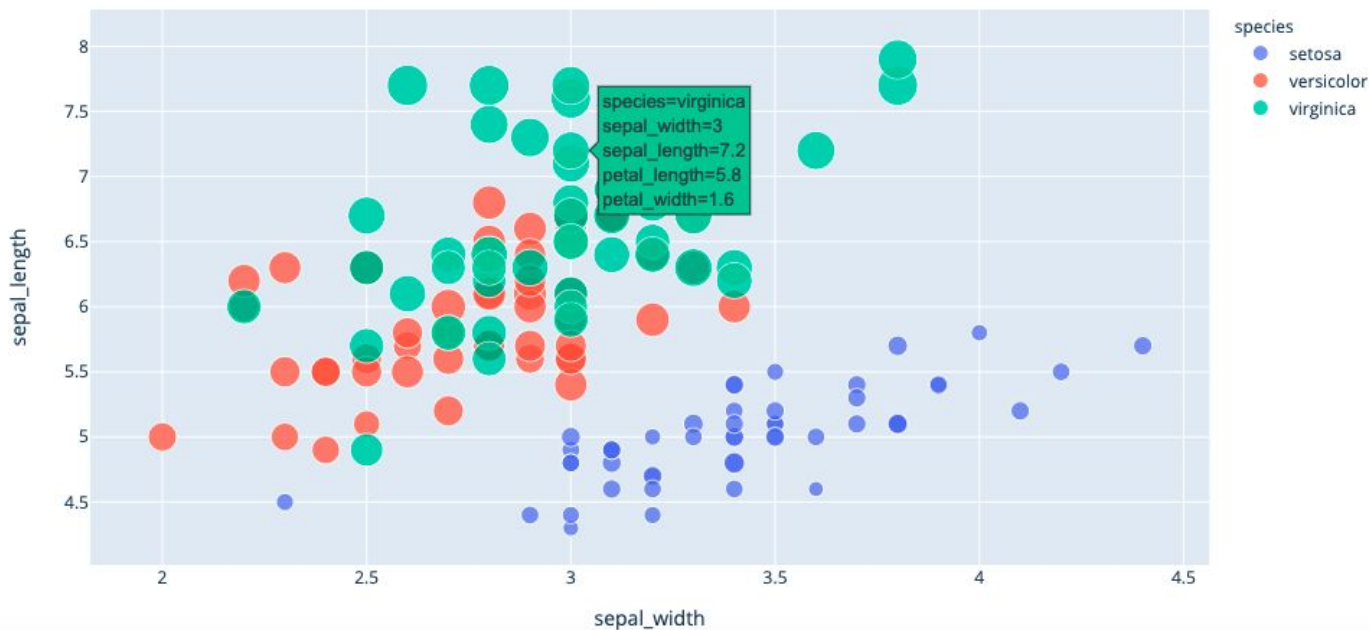




Plotly

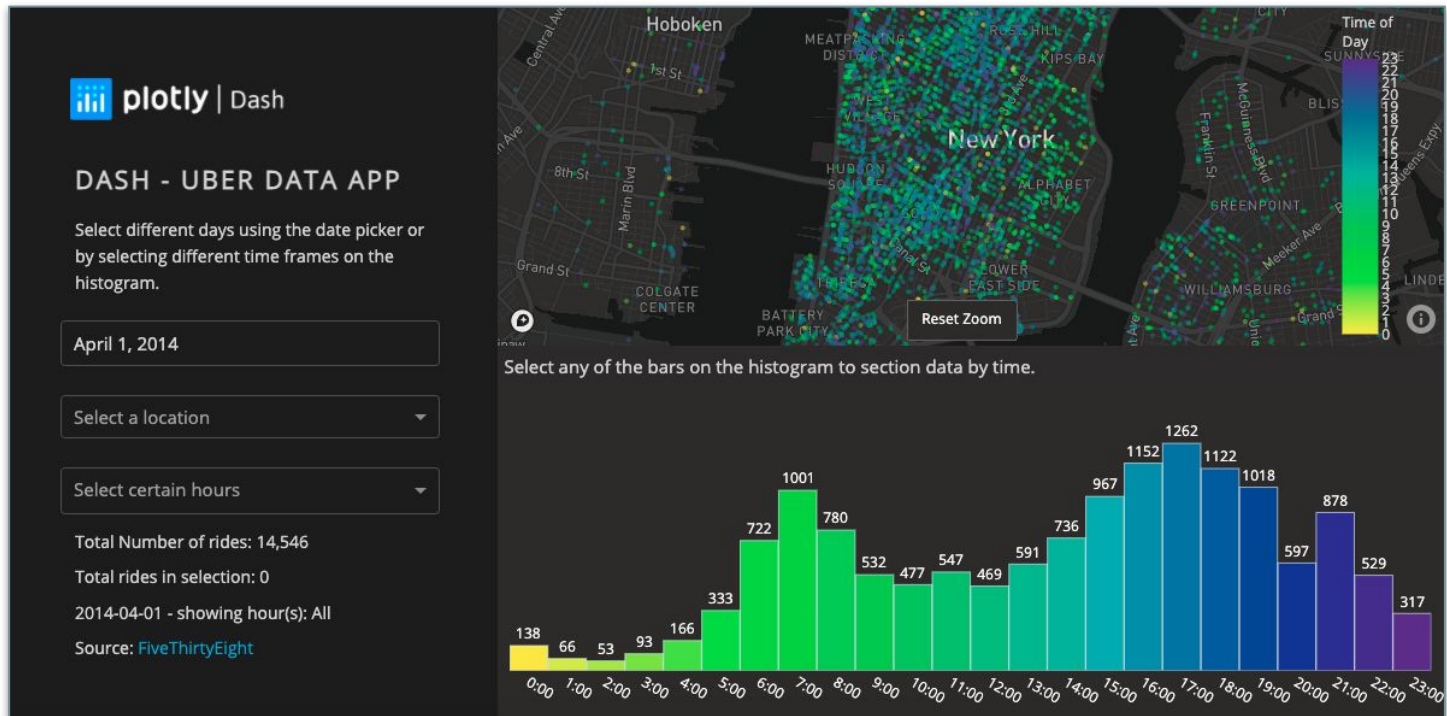
# Plotly

Data professionals not only need to analyze and draw conclusions based on data, but they also need to visualize the data to allow their audience to draw the same conclusions. Interactivity helps with this.



# Plotly

A JavaScript visual library like Plotly offers engaging data visualizations that can be disseminated to a wide audience.







Visualization is a big trend in  
reproducible data science and  
data journalism.

Learn more about [this trend](#).



## Instructor Demonstration

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# Basic Plots with Plotly



## Activity: A Flicker of the Eye

In this activity, you will create a Plotly bar chart that shows the relationship between eye color and the frequency of eye flickers.

**Suggested Time:**  
15 minutes





**Let's Review**

# Filtering



# Time to Code

## Filter/Map/Arrow Warm-Up

Suggested Time:

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15 minutes



## Activity: Fastest-Growing Cities

In this activity, you will use functional programming techniques to plot the cities with the fastest-growing populations.

**Suggested Time:**  
15 minutes





**Let's Review**





# Instructor Demonstration

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## Sorting and Slicing



## **Activity: Slice, Dice, and Sort**

In this activity, you will practice sorting and slicing, and then use those skills to create a bar chart of the top 10 most popular Greek gods.

**Suggested Time:**  
15 minutes





**Let's Review**

# Questions?

