

Data Boot Camp
Lesson 14.1



The Big Picture





Quick Tip for Success:

Falling behind? Find some extra time to work on past-due assignments or sign up for tutoring services.

Module 14

This Week: Tableau

This Week: Tableau

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

01

Import data into Tableau

02

Create and style worksheets, dashboards, and stories in Tableau

03

Use Tableau worksheets to display data in a professional manner

04

Portray data accurately using Tableau dashboards



This Week's Challenge

Using the skills learned throughout the week, the students will create visualizations to show the differences in bike checkout times throughout the day.



Career Connection

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

Module 14

How to Succeed This Week



Quick Tip for Success:

Tableau can be really intuitive. Get creative with the way you use it, and don't be afraid to experiment!

Module 14

Today's Agenda

Today's Agenda

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

01

Import data into Tableau

02

Create and customize basic visualizations

03

Create custom calculations



**Make sure you've downloaded
any relevant class files!**

FIST TO FIVE:

How comfortable do you feel with this topic?



Introduction to +tableau⁺₊public

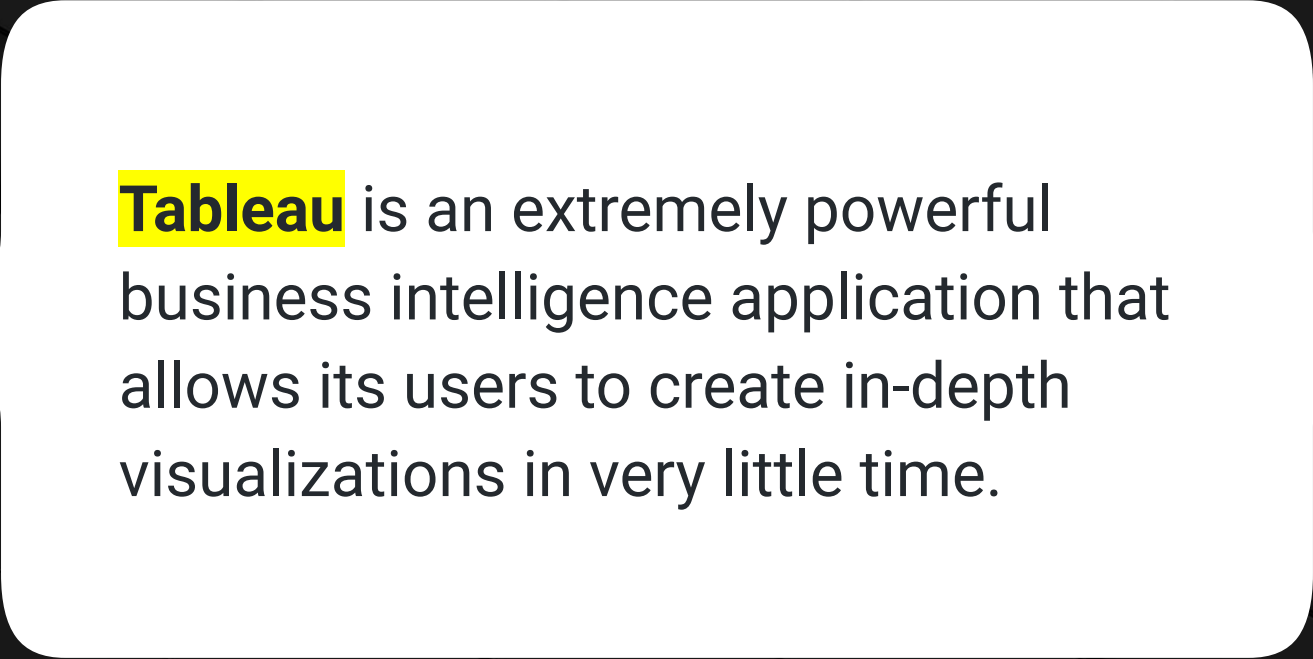


Tableau is an extremely powerful business intelligence application that allows its users to create in-depth visualizations in very little time.

Tableau

Like Excel, Tableau focuses extensively on allowing users to manipulate tables of data and create visualizations without any additional programming.

The image is a screenshot of the Tableau Public website. The background is a dark grid of various data visualizations, including line charts, bar charts, maps, and scatter plots. At the top left, the logo '+tableau+public' is visible. To the right of the logo are navigation links: GALLERY, AUTHORS, BLOG, RESOURCES, ACTIVITY, and ABOUT. Further right are two buttons: 'SIGN UP' (orange) and 'SIGN IN' (white with a black border). A search icon is located at the far right of the top navigation bar. In the center of the page, the main headline reads 'Your data has a story. Share it with the world.' in large white font. Below this headline is a sub-headline in smaller white font: 'Visualize and publish data on topics you care about. Explore and be inspired by creations from like-minded data enthusiasts.' Below the sub-headline is a white input field with the placeholder text 'Enter your email address' and an orange button labeled 'DOWNLOAD THE APP'. At the bottom of the input field area, it says 'Available for Windows and Mac | Privacy Policy'.

+tableau+public

GALLERY AUTHORS BLOG RESOURCES ACTIVITY ABOUT SIGN UP SIGN IN

Your data has a story. Share it with the world.

Visualize and publish data on topics you care about. Explore and be inspired by creations from like-minded data enthusiasts.

Enter your email address DOWNLOAD THE APP

Available for Windows and Mac | Privacy Policy

Tableau

Tableau also utilizes a drag-and-drop-style interface so that users can easily create tables and charts, and perform analysis without much difficulty.

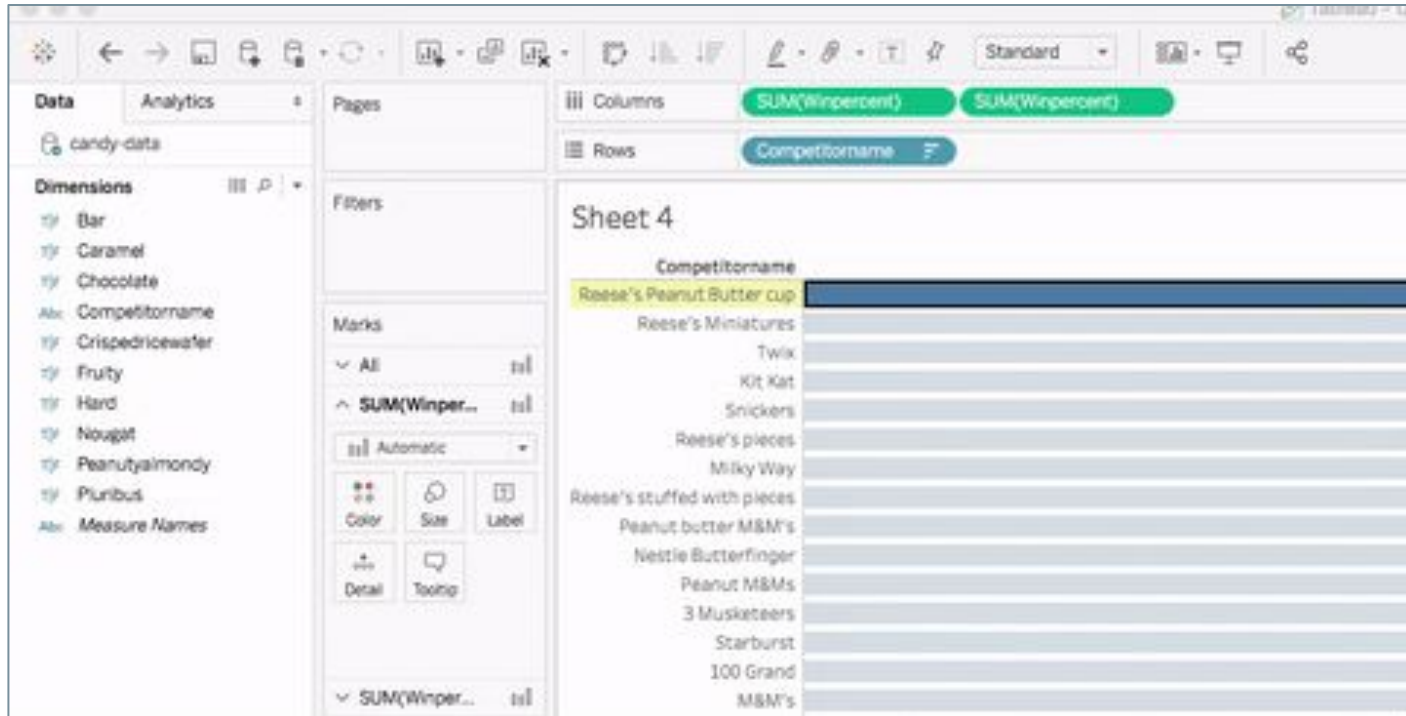




Tableau Public is a **completely free** version of the Tableau software that includes the majority of features included within Tableau Desktop.

Tableau Public Examples

One Tableau feature is the ability to share projects and visualizations with your community.

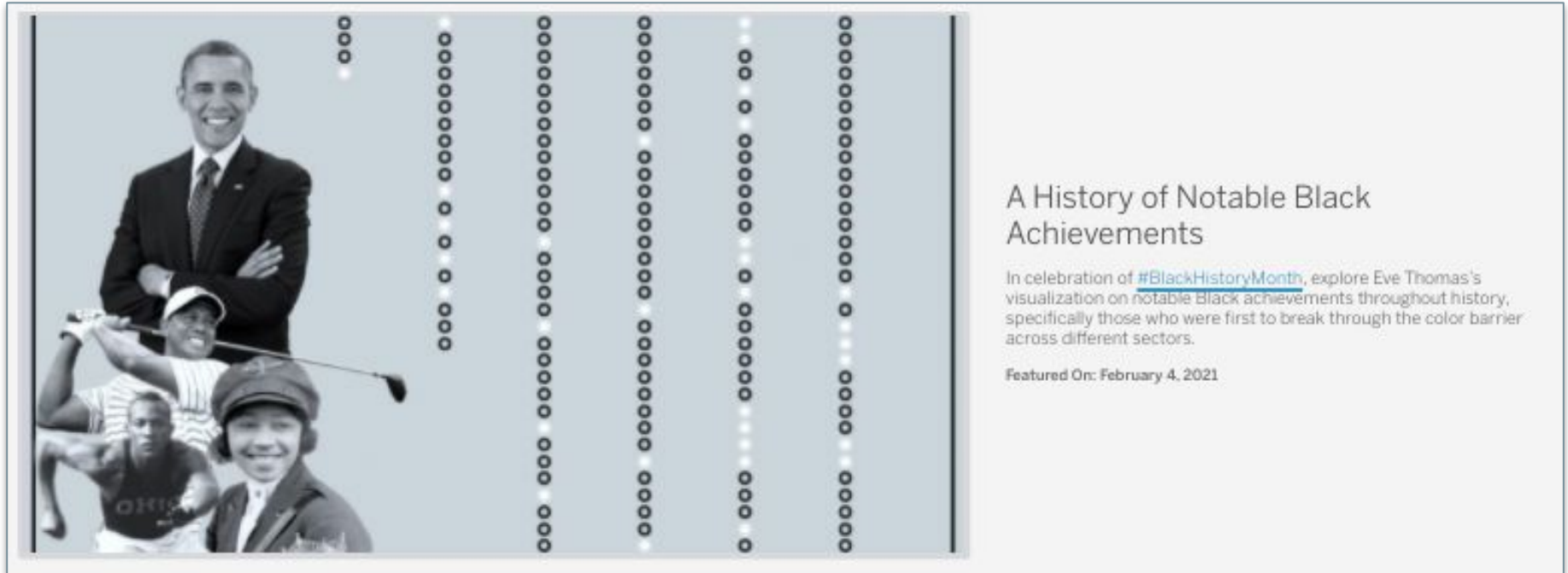
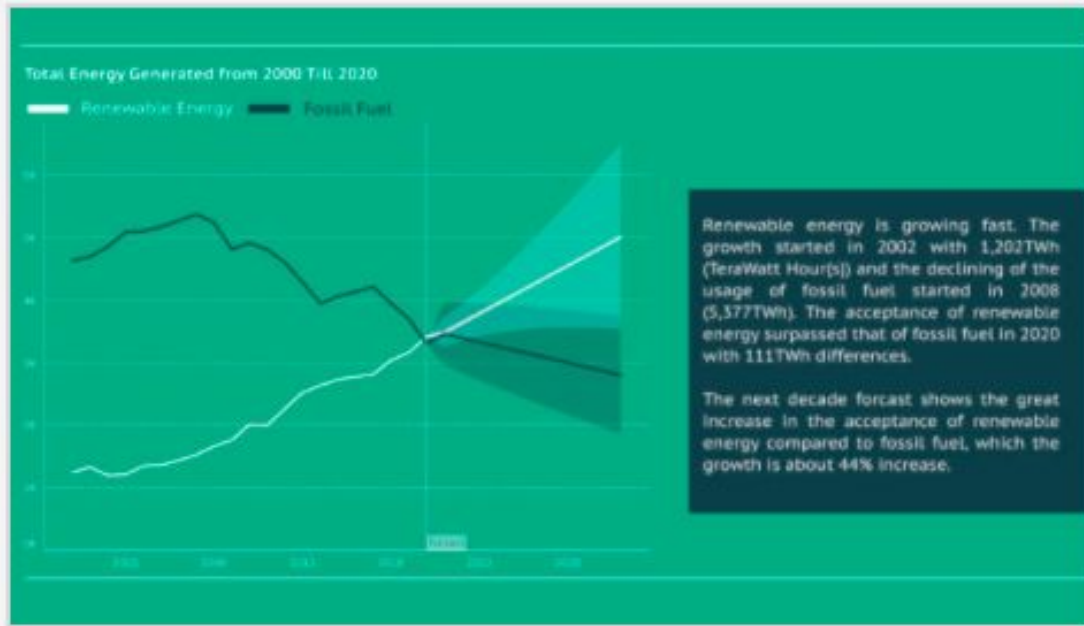


Tableau Public Examples

Not only can visualizations be shared on the Tableau site, they can also be embedded on webpages.



Renewable Energy and Fossil Fuel Usage in Europe

The acceptance of renewable energy in Europe is expected to increase by about 44% in the next decade. Explore this [#MakeoverMonday](#) visualization by Idris Akilapa to see how these countries are handling the transition from fossil-based systems of energy production to renewable energy sources.

Featured On: February 4, 2021

Tableau Public Examples

Notice how varied and interesting many of these projects are.

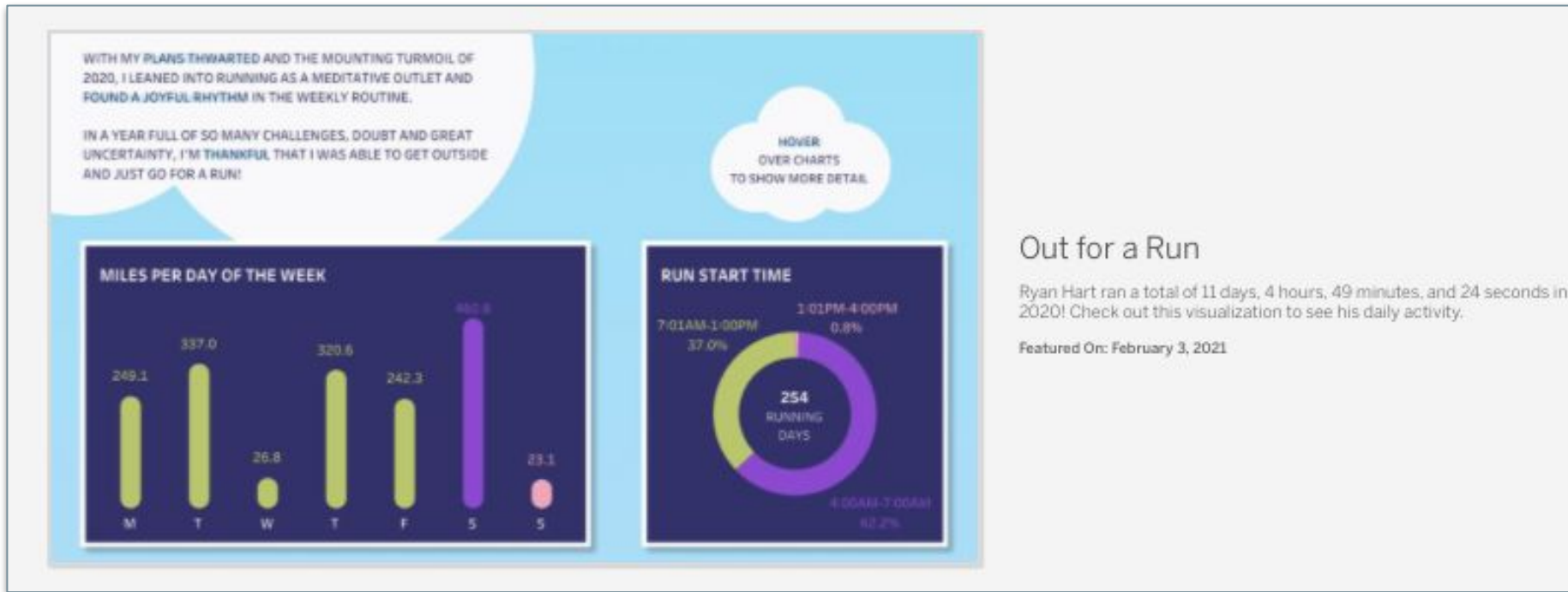


Tableau Public vs. Desktop

The main difference between the two versions:

Public

Allows you to work with multiple file types, such as .xlsx, .csv, .txt, PDFs, JSON, and others.

Desktop

Allows you to work with the same files as Tableau Public, but you can also connect to a multitude of servers, like MySQL, Oracle, Amazon Redshift, Google Sheets, and more.



All assignments in this unit can be
completed with the free version of

+tableau⁺₊public



Instructor Demonstration

Loading and Exploring Data

Questions?





Instructor Demonstration

Building Basic Visuals



Time to Code

Explore Data

Suggested Time:

15 minutes



Activity: No-Show Tableau Visualization

In this activity, you will spend some time creating a series of visualizations about what kinds of people are more/less likely to show up to doctor appointments.

Suggested Time:
15 minutes





Let's Review

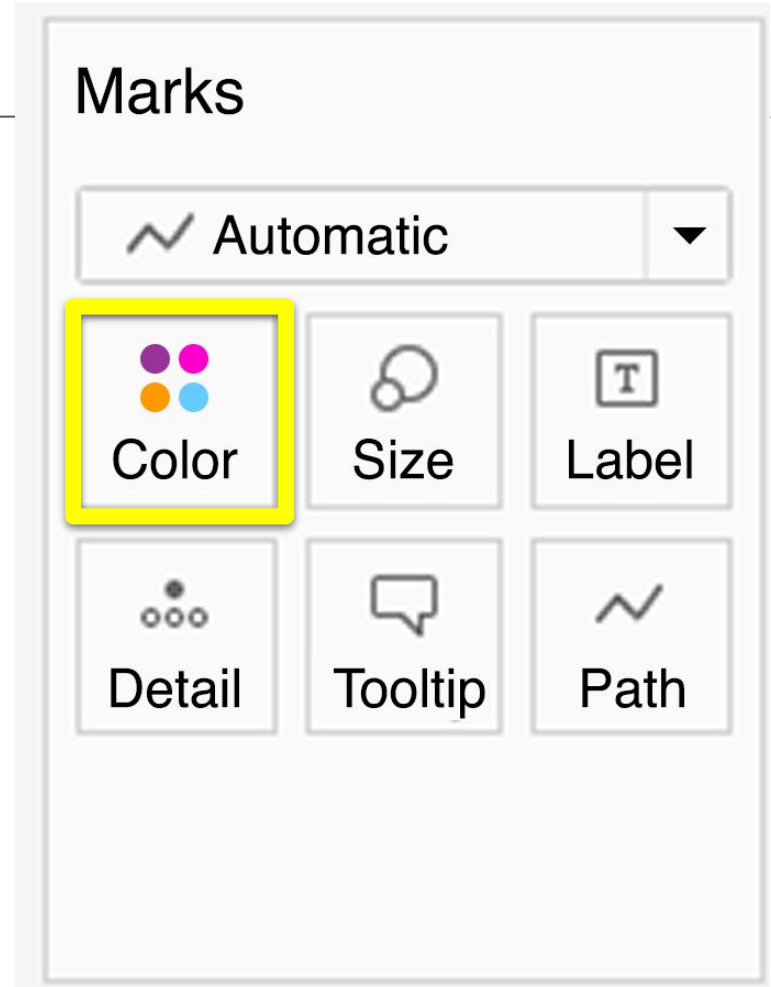
Questions?



Sizing, Coloring, and Labels

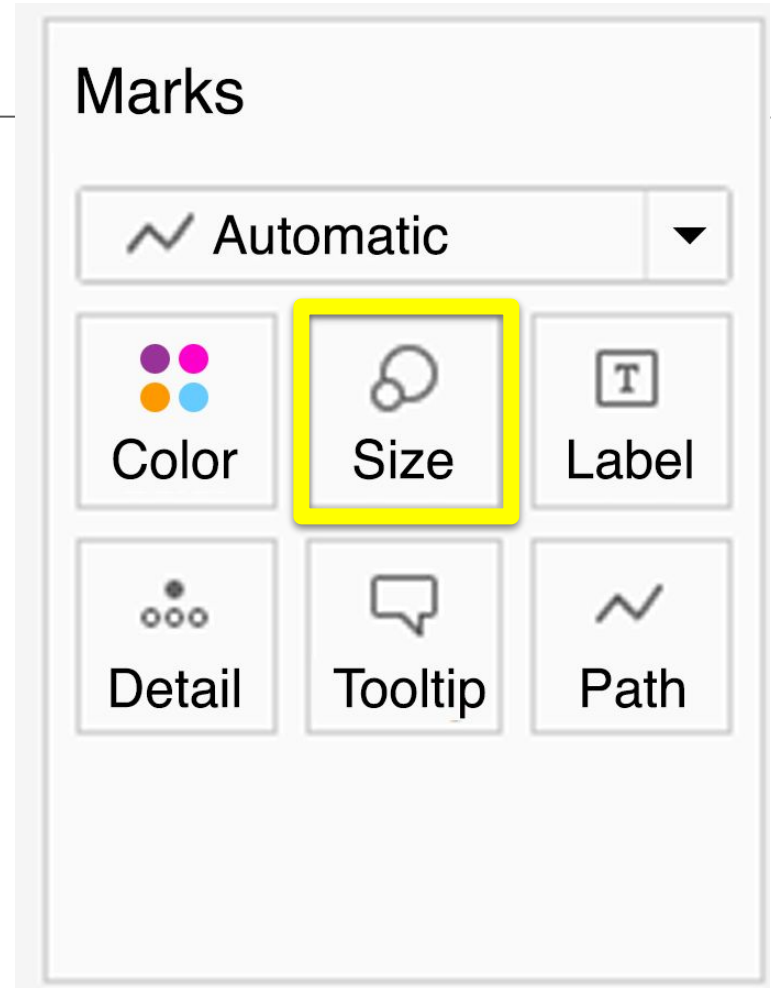
"Marks" section in Tableau

The **Color** modifies the colors of a chart so that elements are colored according to the values passed.



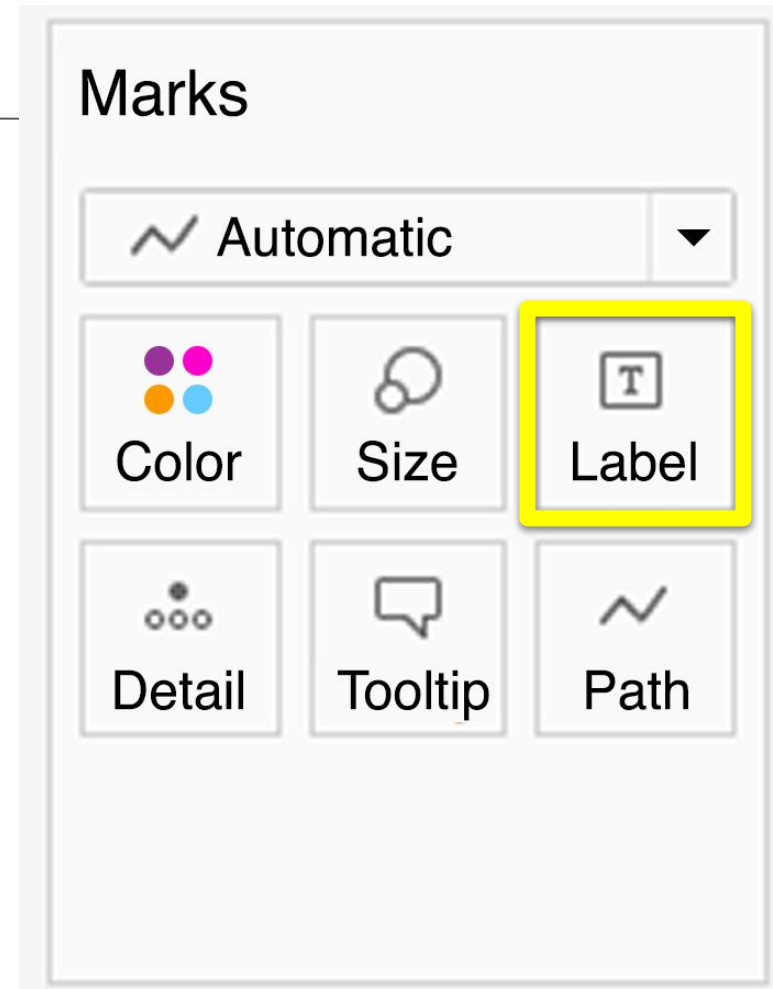
"Marks" section in Tableau

The **Size** modifies the sizing of elements to that they are bigger or smaller depending on the values passed.



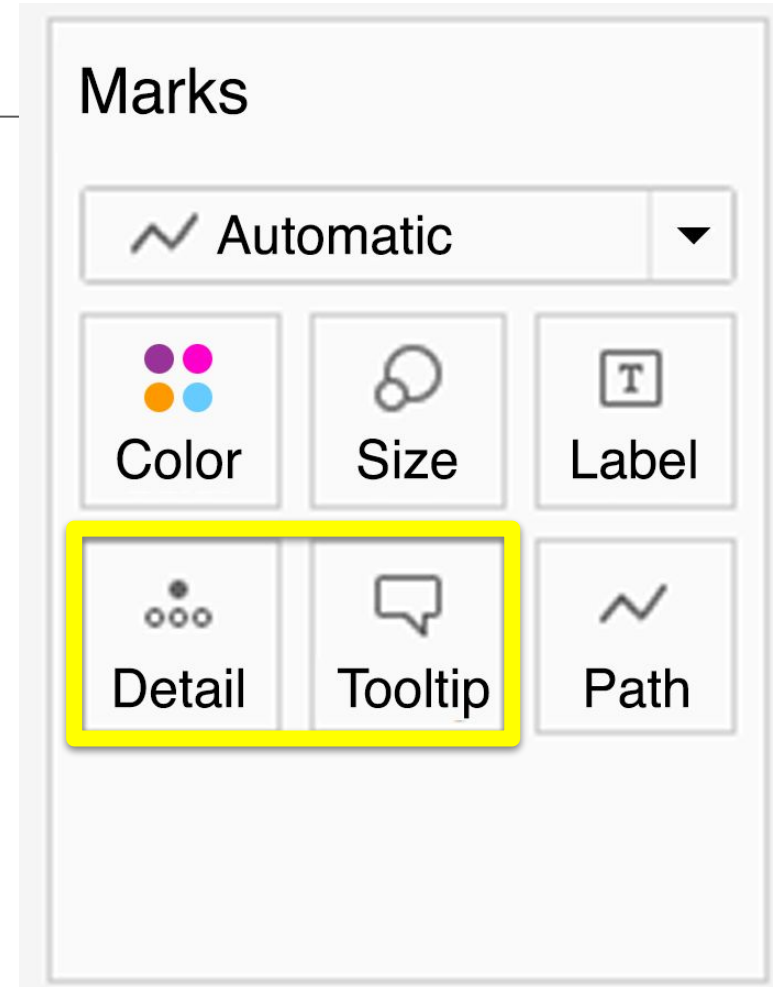
"Marks" section in Tableau

The **Label** places text next to points on a chart that correspond with the values passed.



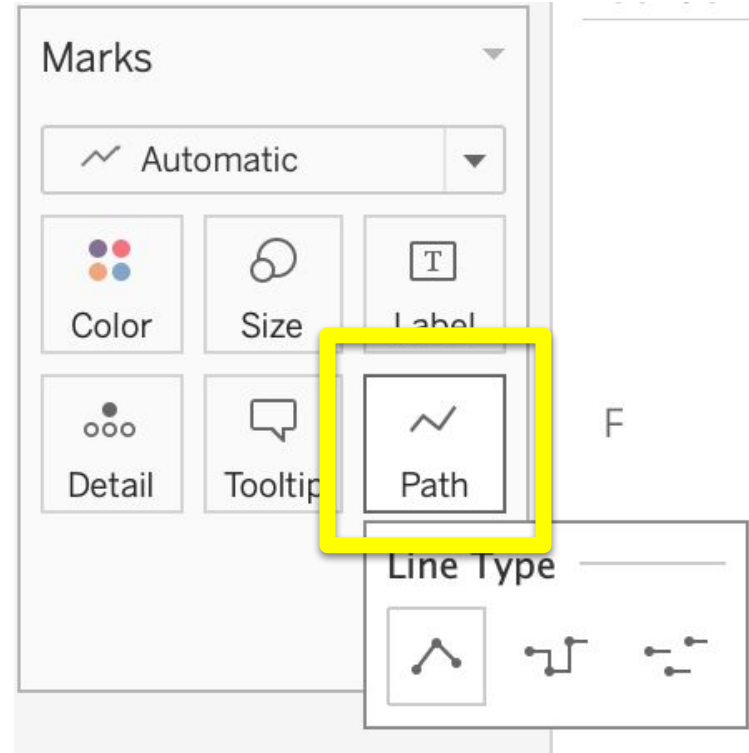
"Marks" section in Tableau

The **Detail** and **Tooltip** act like labels but only appear when the cursor hovers over the associated point/element on a chart.



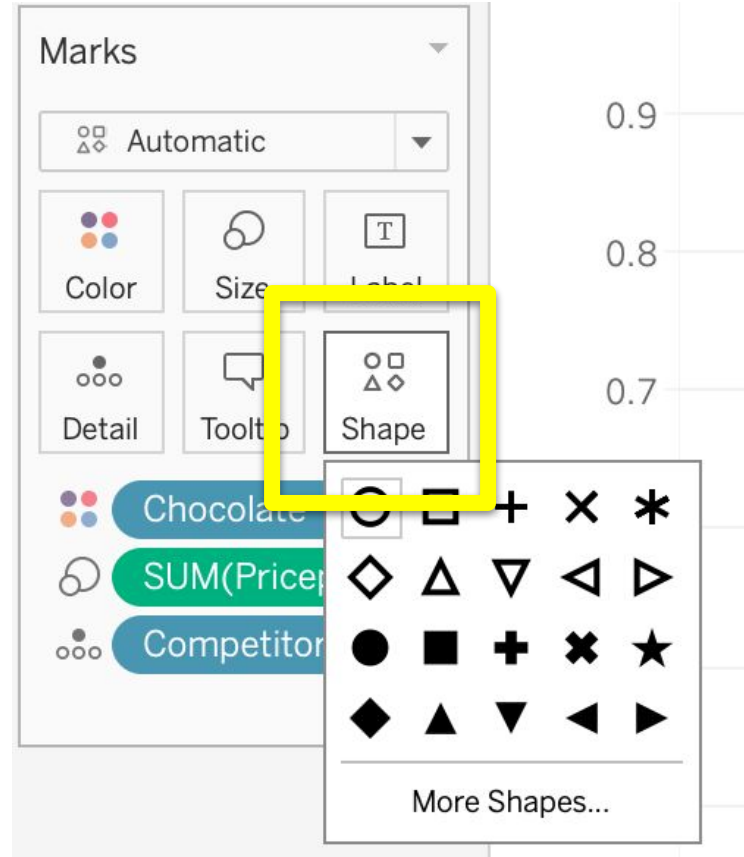
"Marks" section in Tableau

The **Path** changes the type of line mark, linear, step, or jump of an element/point depending on the values passed. Changing the value of the dropdown will change whether path or shape is displayed.



"Marks" section in Tableau

The **Shape** changes the shape of the figure based on the values passed. Changing the value of the dropdown will change whether path or shape is displayed.





Activity: The Ultimate Candy

In this activity, you will create charts that compare candies. The charts themselves are quite basic but will be made more complex using marks.

Suggested Time:
15 minutes





Let's Review



Time to Code



Calculations

Suggested Time:

20 minutes

Questions?

